



public interest
ADVOCACY CENTRE

Network Infrastructure Projects

16 November 2021

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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The Public Interest Advocacy Centre office is located on the land of the Gadigal of the Eora Nation.

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Introduction

PIAC welcomes the opportunity to respond to the NSW Department of Planning, Industry and Environment consultation on Network Infrastructure Projects (Part 5 of the Electricity Infrastructure Investment Act 2020) policy paper (the Paper). We respond to select consultation questions below.

Consultation questions

- 1. Do you agree with the proposed guiding principles? Are there additional principles that should be considered?**

PIAC recommends stipulating under 'Facilitate appropriate cost and risk sharing' that cost should be recovered from beneficiaries of investment. The detail could be changed as follows:

Allow for sharing of costs and risks between generators, consumers, Network Operators, contractors and other stakeholders such that risks are allocated to parties best able to manage them and costs are recovered from beneficiaries.

- 2. What are your views on the proposed approach to defining classes of network infrastructure?**

PIAC supports the proposed approach to defining classes of network infrastructure.

- 3. Are there any risks to the effective delivery of a REZ if the necessary system strength services are not included as a class of network asset under the EII Act?**

No response.

- 4. Does the proposed method appropriately balance the transparency of costs recovered through the Scheme Financial Vehicle against the certainty needed to conduct preparatory activities and development works to deliver timely REZs?**

Allowing costs to be recovered directly through the Scheme Financial Vehicle instead of through the Network Operator after the Regulator has approved the project places risk on NSW consumers. Therefore, the circumstances under which this may occur, particularly conditions that will limit risk to consumers, should be determined and made clear. For example, the paper states 'in some cases' costs for early preparatory works may be recovered directly from the Scheme Financial Vehicle. Further detail on what those cases might be is required to ensure transparency and provide some accountability for the level of risk consumers will take on.

- 5. What information relating to network options do LTES Agreement and access rights tender participants require to provide sufficient certainty and confidence to participate in the bid processes?**

No response.

- 6. What eligibility criteria should apply for Network Operators that may be authorised to carry out a REZ network infrastructure project?**

No response.

- 7. What factors should be considered by the Consumer Trustee in recommending that the Minister direct, and by the Minister in directing, a Network Operator to carry out a REZ network infrastructure project under the EII Act?**

PIAC supports the factors proposed in the Paper.

- 8. How can consumer and stakeholder input be considered in the TET and revenue determination processes?**

The Regulator should consult with consumer advocates and representatives in forming its revenue determination. This should involve allowing consumers and their representatives to examine and respond to the information provided by the Network Operator and the Regulator's calculation of capital costs and other elements of the revenue determination. The Department should consider establishing a panel of independent consumer representatives or advocates with the capability to critically assess the determination and inputs. This panel could author a report on whether and how the determination is in the consumer interest.

- 9. Is clarification required with regard to the principles to be taken into account by the Regulator and the objects of the Act, and are there any additional principles that should be considered by the Regulator?**

No response.

- 10. What views do you have on these elements and is there any other guidance that should be included in the TET guidelines to be developed by the Regulator?**

PIAC supports the elements proposed.

- 11. Should financeability concerns be addressed in the NSW framework?**

Financeability concerns should only be addressed in the NSW framework with the introduction of contestable transmission investment, such as PIAC's REZ transmission investment approach (see Appendix 1 for details). It is not in the interest of consumers to pay a premium to match the risk and return appetite of an incumbent TNSP shareholders. Investors will not be provided the opportunity, yet they are better matched to the needs of a given transmission project.

12. What views do you have on these elements and is there any other guidance that should be included in guidelines regarding the revenue determination to be developed by the Regulator?

PIAC recommends including guidance on how the Regulator will incorporate consumer and other stakeholder feedback in its determination process.

13. Are there any elements of the AER's approach to assessing and setting regulated revenue requirements that should be modified or added to when considering the framework that will be applied under the EII Act in New South Wales?

Refer to PIAC REZ investment approach in Appendix 1.

14. What do you think about an incentive scheme to ensure the availability of projects and the timely connection of generators to a REZ by Network Operators? How could that be designed?

Refer to PIAC REZ investment approach in Appendix 1.

Appendix 1: PIAC approach to risk- and cost-sharing for REZ investments

Below describes the PIAC approach to risk- and cost-sharing for REZ investments.

Overview of concept

PIAC has developed a framework to address the issues facing REZ delivery. The model provides a transparent, principled, and predictable framework for how the cost and risk of REZ transmission investments could be shared between consumers, generators, transmission network service providers, and other investors, potentially including government underwriting. It has been developed and refined over three years of engagement with a wide range of key stakeholders including market institutions, consumer advocates, incumbent and prospective generators, network service providers, investors, and governments.

PIAC's framework is based on the following cost recovery principles:

- Costs are recovered on a beneficiary-pays basis, such that the primary beneficiaries of a given investment or mechanism should pay for that investment.
- Where there are multiple beneficiaries, the costs should be recovered proportionally to their share of the benefits.
- Where it is not practical and transparent to identify the beneficiaries, a causer-pays principle should be used.
- Cost recovery should also include the risk, to the extent it exists, of the underutilisation of assets and hence asset stranding. For example, it is appropriate that costs associated with other parties taking on more transmission investment are ultimately passed through to consumers as slightly higher wholesale costs.
- Cross-subsidies should only be permitted where they are immaterially small or widely accepted by the payers of the cross subsidy.







Risk is most efficiently borne by those parties best placed to manage it. Therefore, it is not appropriate for consumers to bear the risk of REZ underutilisation. Other parties should carry this risk through measures such as funding additional transmission investment to alleviate physical constraints or by underwriting financial instruments to cover the financial impacts of curtailment.

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 through regulated revenue; the other is a contestable portion, funded by a contestable investor or government, and is recovered through generator access charges. The connection charge would be pre-determined at fixed rate (such as \$/MVA) that increases over time, commensurate with the underutilisation risk the speculative investor bears. This is both transparent to all parties and incentivises early connection.

Both the portions have elements that are approved by the regulator or some other administrative body and based on a range of factors.

The process for planning, delivering, and connecting a REZ is summarised in Figure 1 below as well as in the AEMC's REZ discussion paper.¹

Figure 1 Summary of the PIAC risk sharing mode for Renewable Energy Zones

 Identify REZ	<ul style="list-style-type: none"> • Initiated by AEMO, government or industry • Indicative capacity and location/s determined • Network options for design determined
 Design transmission	<ul style="list-style-type: none"> • Market testing of prospective generators • Planning and approval processes commence • Specify prescribed capacity • Apportion capex to generators and consumers
 Choose investor	<ul style="list-style-type: none"> • Contestable tender or reverse auction process • One or more transmission options • Lowest bid rate of return selected • Develop revenue and access proposal
 Determine revenues	<ul style="list-style-type: none"> • Capex for TNSP and speculative investor • Opex for TNSP • Connection charge cap for generation
 Build and operate	<ul style="list-style-type: none"> • TNSP builds and operates network • Generators build and operate generation
 Connect generation	<ul style="list-style-type: none"> • Generators pay connection charge • Charge per MW paid to speculative investor • Earlier payment reduces charge

¹ AEMC, *Renewable Energy Zones Discussion Paper*, Oct 2019, 46-51.

Value proposition of the PIAC approach for different parties

For connecting generators

Under the PIAC approach, generators are protected from the risk of REZ underutilisation and timing misalignment between different generation projects. In lieu of bearing these risks, generators pay a time-based premium to the contestable investor, who bears the timing risk. Generators are incentivised to reduce this risk by connecting, or at least committing to connect, earlier. At the same time, they are not forced to connect earlier than they are prepared to. Hence it provides a framework for generators to connect over time as they are ready while fairly and transparently recovering costs from them.

The approach provides a mechanism for sharing investment in transmission infrastructure between different projects and enabling multiple generators to access wholesale market revenue. This will often be at lower overall cost than current arrangements where either no transmission investment is built, or the network is only built in a piecemeal fashion and economies of scale and scope are missed.

For contestable investors

Contestable transmission investors voluntarily take on underutilisation risk for their portion of investment costs and receive a commensurate uplift in their rate of return for doing so.

The PIAC approach also offers an opportunity for investors seeking to help meet climate change and decarbonisation portfolio targets to invest. A survey of Australian investors by the Investor Group on Climate Change found that two of the most significant perceived barriers to green investment in Australia are the lack of opportunities to invest with an appropriate rate of return and policy/regulatory uncertainty.²

Implementing the PIAC approach allows contestable investors to accelerate the uptake of renewable generation and decarbonise the Australian economy while earning a return commensurate to their risk. The PIAC approach also provides certainty for both contestable investors and generators through its transparent process to understand the levels and types of risks they would incur and greater certainty of their return for it.

For the incumbent TNSP

Under the PIAC approach, the incumbent TNSP is protected from the risk of asset stranding as their costs are recovered from consumers under normal arrangements. Operational, maintenance and future asset replacement costs are recovered by the TNSP in the manner they do today. They are therefore not forced to take on any new or additional risks beyond what they already accept delivering regulated transmission investments.

The incumbent TNSP (or their shareholders) are still free to bid for the contestable investment if they choose to.

For consumers

Central to the PIAC model is that consumers have little or no ability to manage the risk of underutilisation or asset stranding in REZs and are not direct beneficiaries of generator

² Investor Group on Climate Change, *Scaling Up: Investing for low carbon solutions*, August 2018, 14.

connection assets. The contestable investment represents value for consumers because it prevents inefficient transmission investment and less prudent generation costs being socialised to consumers.

Consumer exposure to the risk of underutilisation is capped at a fixed, limited portion of the investment value. This reduces their liability (relative to current arrangements) under the 'worst case' where REZ utilisation is low.

If the generation and transmission investments enabled though the contestable investment prove to be efficient and prudent, then consumers will benefit and accordingly these costs will be passed through to them through the wholesale market.

Identifying and planning a REZ

Under PIAC's approach, feasible prospective renewable energy zones, including transmission network options, are identified through the existing ISP process by AEMO, industry or government.

A detailed design stage, incorporating a RIT-T or equivalent process, determines the optimal attributes for a given REZ, and selects one or more network design options that is best suited to support efficient investment and market outcomes. This stage would include market testing with prospective generators, investigating planning approvals, and estimating capex for different network options. A variety of sources of information should be considered to minimise the risk associated with the contestable investment.

A key attribute determined in the detailed design stage is a prescribed 'efficient' capacity level, expressed as the firm or maximum physical capacity of new generation supported by the REZ. It will reflect a number of factors, including:

- The level and certainty of current generation market interest in and near the proposed REZ, as well as the current state of the generation investment market more broadly.
- The potential future investor interest in and around the REZ, considering the nature of the energy resource, planning opportunities and constraints, government energy and planning policy, and anticipated energy market conditions.

Investment and return

A contestable process, such as a tender or reverse auction, would be conducted to choose an investor to fund the contestable portion of the capital spend associated with the REZ. The successful bidder will be chosen based on the lowest rate of return offered. This portion is ultimately recovered from connecting generators via connection charges. The remaining capex, and all opex is rolled into the RAB of the incumbent TNSP and recovered from consumers as with normal regulated revenue such as TOUS charges.

The AER would approve all revenue up to the 'efficient' capacity, including the cap on generator connection charges, before the REZ is built.

The TNSP builds and operates the new and augmented transmission network assets required for the REZ. Assets may be built in stages to limit costs and finance.

New generators that connect to the REZ pay a connection charge to the contestable investor which includes a time-based premium. This can be paid at any time between when the REZ revenue is determined, and the generator is connected. Committing to connect earlier reduces the timing risk borne by the contestable investor and hence reduces the connection charge the generator must pay.

For feasibility and ease of implementation, the model should use current arrangements as far as practicable. These include:

- the generator connection process and charge structure;
- mechanisms to allocate some TUOS charges to consumers; and
- some extant regulatory processes and governance measures.

If a contestable transmission investor considers that interest in a REZ may be more than the prescribed 'efficient' capacity level determined, then the investor may fund this additional capacity and negotiate with generators to connect using this capacity as unregulated revenue. They could apply higher returns for this portion to compensate for the additional risk of investing in capacity without guaranteed cost-recovery.

Apportioning costs between generators and consumers

Under the PIAC approach, the amount to be recovered from generators is funded by a contestable investor. This apportioning could be determined by the regulator or by government, and be based on some combination of:

- the value of access to the REZ for connecting generators, compared to the costs and risks incurred with the same investments under the access arrangements for connecting outside the REZ at the time;
- the difference between the capital cost of the REZ transmission and the predicted market benefits to consumers of the REZ being built;
- the portion attributable to direct generator benefits (rather than direct consumer benefits), where the REZ is part of an interconnector or other transmission investment. If there is a clear primary purpose for the investment, any portion of the investment with dual benefit could be attributed to that purpose; and
- other policy objectives.