16 April 2018

Mr. Peter Adams General Manager- Wholesale Markets Branch Australian Energy Regulator GPO Box 520 Melbourne VIC 3001



Dear Mr Adams,

PIAC submission to RIT application guideline review Issues Paper

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in New South Wales. Established in 1982, PIAC tackles systemic issues that have a significant impact upon disadvantaged and marginalised people. We ensure basic rights are enjoyed across the community through litigation, public policy development, communication and training. The Energy + Water Consumers' Advocacy Program represents the interests of low-income and other residential consumers, developing policy and advocating in energy and water markets.

PIAC welcomes the opportunity to respond to the AER's Issues Paper.

The role of the Regulatory Investment Tests (RITs) should be to promote the long-term interests of consumers by ensuring the efficiency of investment and, where relevant, services. While competitive neutrality can be an important means of achieving efficient investment, it in itself is not the ultimate goal. Competitive neutrality must be considered alongside other factors such as robustness and optionality in helping to ascertain whether a proposed option is efficient.

The AER's guidelines should ensure that:

- the identified need is well understood, and defined in terms of the impact on consumers;
- the base case is a credible reflection of the consumer impacts from 'business as usual' rather than 'do nothing at all':
- there is meaningful and effective engagement of non-network solution providers and stakeholders;
- all viable potential solutions are fully considered; and
- alternative options are treated fairly with respect to process, and accurately such as with respect to risk, the value of optionality and the timing of expenditure.

The uncertainty in demand growth, the cost trajectories of new technologies and the potential for new 'game-changing' technologies will place a greater importance on the robustness of modelled outcomes and the optionality offered by certain solutions. PIAC strongly supports the use of modelling, forecasts and assumptions which are consistent, open and transparent to help promote effective exploration of non-network alternatives. This, along with more effective stakeholder engagement, will reduce the burden on prospective non-network solution providers and other stakeholders in understanding the costs and benefits analysis of various alternatives. There is a role for AEMO to play in developing a suitable set of modelling forecasts, scenarios and assumptions given its role as a national planner with oversight across the entire NEM.

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Continued engagement

PIAC is undertaking further research and analysis of Regulatory Investment Tests and broader related matters, and would welcome the opportunity to meet with the AER to discuss these issues in more depth in the course of this review.

Yours sincerely,

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Attachment: Responses to consultation questions

Question 1: Do you agree that the RITs promote the long-term interests of consumers by promoting competitive neutrality and investment efficiency? Are there any other factors we should consider?

The role of the RITs should be to promote the long-term interests of consumers by ensuring the efficiency of investment in delivering energy services. They do this in tandem with other obligations and mechanisms within the Rules such as network businesses' Annual Planning Reports, AEMO's role in overseeing network planning and the AER's ex post review in a revenue determination.

Competitive neutrality can be an important means of achieving efficient investment but it is one of a number of sometimes conflicting goals. Given the current uncertainty in demand growth, the cost trajectories of existing technologies (including Stand Alone Power Supplies) and the potential for 'game-changing' development and uptake of technologies such as batteries and electric vehicles, the robustness of modelled outcomes and the optionality offered by certain solutions will have greater importance.

In this environment, competitive neutrality must be considered alongside other factors such as technological neutrality, robustness and optionality in helping to ascertain whether a proposed option is efficient.

Question 2: Do you agree that a RIT assessment is not required where the external financial contribution results in the project falling below the cost threshold?

Agree. The cost thresholds for RITs should be for the costs which are to be recovered from electricity consumers through regulated services (i.e.: prescribed and negotiated transmission services or direct control and negotiated distribution services).

Question 3: How do you think we should amend the RIT application guidelines to better facilitate consumer engagement throughout the RIT application process?

PIAC generally supports increased direct consumer engagement by network businesses such as through well-informed, deliberative processes. However, it is unclear how reasonable it is to expect direct engagement of general consumers in a RIT. Instead, consumer engagement in a RIT is better targeted at consumer representatives. There is an important distinction between directly engaging with end-use consumers and with consumer representatives in terms of the level of information and mode of engagement required.

Consumer representatives can provide insight on various consumer matters such as willingness to pay and, especially in the context of contingent projects raised by the CCP¹, provide continuity between the revenue determination process and the RIT process.

This is not to say that networks should not engage with local communities affected by a proposed solution, nor prevent or discourage networks to engage directly with end-use consumers in a balanced way where there is benefit in doing so.

Question 4: What specific guidance would help distribution businesses better use their non-network options reports and non-network screening requirements to engage with non-network service providers? Are there specific ways we should complement this

Consumer Challenge Panel, Contingent Projects and Consumer Interest, 17 October 2017.

guidance with greater oversight over distribution business' non-network engagement activities?

PIAC strongly supports the use of non-network options, noting that in many instances they can be more efficient than network solutions particularly in cases with significant levels of uncertainty around the time or scale of events.

PIAC agrees with the AER's observation that there has been "inconsistent levels of non-network engagement and information in reports", and supports providing greater guidance to network businesses to address this.² In addition to the use of demand response programs, there are opportunities to use Stand-Alone Power Systems (SAPS) especially in remote and fringe of grid areas. In many cases, SAPS are already a cost-effective alternative for providing network services compared with additional investment at the fringe of the grid. As costs reduce, SAPS will become an efficient alternative to network investment in more cases. PIAC acknowledges that there are currently various barriers to the use of SAPS for this purpose,³ however there are a number of current reform processes that seek to address this. Therefore, PIAC recommends the AER include explicit guidance on the consideration of SAPS as a non-network alternative.

PIAC also notes anecdotal evidence that the technical nature of the information and the high degree of financial certainty expected by some network businesses may prevent non-network providers being able to scrutinise and offer alternative options.

Further, PIAC contends that more guidance should be given regarding screening for non-network options for a RIT-T. Due to the typically larger size of transmission compared to distribution investments, there could be significant consumer benefit in finding, promoting and implementing non-network solutions to defer or meet augmentation of the transmission network. PIAC recommends providing greater direction for TNSPs in screening for non-network options in a RIT-T.

With the recent rule change extending RIT-D and RIT-Ts to also cover replacement expenditure, PIAC considers there is opportunity to include specific guidance relating to the screening for non-network solutions for replacement expenditure. This should reflect the fact that the drivers behind replacement expenditure are often different to augmentation expenditure and that the necessary characteristics of a non-network solution may also differ.

Question 5: Do you agree that the RIT-T process accommodates the consultation required for proponents to effectively test the market, but would benefit from guidance to better align information provided in the project specification consultation report with that provided in the non- network options report under the RIT-D? Alternatively, would it be preferable to request a rule change for non-network consultation under the RIT-T to more closely mirror what the NER require for the RIT-D?

As noted above in response for Question 4, PIAC supports greater guidance for network businesses in screening for non-network options and in particular for transmission businesses in conducting a RIT-T.

There may be merit in aligning the requirements for screening for non-network options between the RIT-D and RIT-T. However, this decision must consider:

² AER, Issues Paper - Review of the application guidelines for the regulatory investment tests, February 2018, 26.

Some of the barriers are outlined in AEMC, Final Determination – Alternatives to grid-supplied network services, 2017.

- the effectiveness of the existing arrangements how effective has the processes in the RIT-D been in identifying and selecting options in a timely and efficient manner; and
- whether the current arrangements for distribution businesses are appropriate for transmission businesses – the scope and scale of the non-network solutions required to address a transmission network need are likely different to a distribution network and a modified engagement and screening process may be appropriate.

Question 6: What additional guidance should the RIT application guidelines provide regarding the information network businesses should publish when they cancel RIT assessments?

PIAC has formed no strong views on this, but would be pleased to discuss the matter further with the AER if feedback would be of value.

Question 7: Do you agree with our proposed approach of providing further guidance on how RIT proponents should describe an identified need?

Agree. Correctly and appropriately defining the identified need is very important for a RIT. PIAC agrees with the AER's concern with some proponents citing "network augmentation or replacement to assist a particular generation investment as an identified need to meet in itself, rather than as a means of meeting service standards or increasing the net economic benefit in the NEM."

While we agree with the AER that the guideline should not be overly prescriptive, providing examples alone may be insufficient. Therefore, we recommend the AER also provide a set of principles which RIT proponents should follow in defining an identified need.

PIAC considers that an identified need must be defined in a way that is:

- in terms of the impact to customers tied more closely with the National Energy Objective, particularly considering the importance of accurate measures of Value of Customer Reliability;
- is cognizant of other potential needs in the network which may benefit from having a common or coordinated solution;
- agnostic to the type of potential solutions; and
- agnostic to the provider of potential solutions.

Question 8: Is there any specific guidance you would like us to provide in clarifying how RIT proponents should calculate option value, make forecasts and test different states of the world? Are there particular scenarios where a worked example would be helpful in providing this guidance?

PIAC supports the AER's proposal to provide additional guidance to network businesses on conducting more robust scenario analysis, calculating option value and developing a more consistent approach to the forecasts used in modelling. As noted in our response to Question 1, the current uncertainty in demand growth, the cost trajectories of new technologies and the potential for new 'game-changing' technologies will place a greater importance on the robustness of modelled outcomes and the optionality offered by certain solutions.

The scenarios developed must also be conscious of the transformations and reforms currently underway in the NEM which will shape the cost-benefit analyses such as:

⁴ AER, Issues Paper - Review of the application guidelines for the regulatory investment tests, 31.

- a greater anticipated use of cost-reflective network pricing including the ability to use locational peak demand rebates to address network constraints;
- markets and products which allow demand response to capture the multiple revenue streams available across the entire electricity supply chain from wholesale, ancillary services, network investment deferral and retail price arbitrage; and
- the availability of innovative retail and network products which allow consumers to effectively select their own price-reliability preferences.

In addition, PIAC strongly supports the use of modelling, forecasts and assumptions which are consistent (where possible) open and transparent. This will help promote effective stakeholder engagement on RITs, and screening of non-network solutions, as it will reduce the burden for prospective non-network solution providers and other stakeholders in understanding the cost-benefit analysis of, and potential incentives for, various alternatives. This will be increasingly important with the greater number of RITs expected now that it has been expanded to cover replacement as well as augmentation expenditure.

There will sometimes be justification in using more bespoke modelling or assumptions. PIAC considers that on one hand, it should be incumbent on the network business to justify the need to deviate from commonly used scenarios or assumptions on a case by case basis; on the other, sensitivity analysis should be undertaken in a manner reflecting the magnitude, and potential consequence of, any degrees of uncertainty, and any requirement for consistency should not limit such analysis.

PIAC considers there is a role for AEMO in developing a suitable set of modelling forecasts, scenarios and assumptions given its role as a national planner with oversight across the entire NEM. This is also discussed in the response to Question 16.

Question 9: Would any guidance in addition to the areas listed in section 5.3 of this issues paper assist in the application of the RITs to repex projects? Is there particular guidance stakeholders would like to help understand how the RITs will apply to asset replacement programs?

As noted in Daryl Biggar's analysis of TransGrid's modelling for Powering Sydney's Future, the definition of the base case is important to ensure that it is a credible reflection of the impact on consumers against which alterative options are compared in the RIT. This is important for all RIT projects but especially for replacement projects given that network businesses will soon begin the first RITs for replacement projects.

It is essential that it be defined more in terms of a 'business as usual' outcome rather than 'do nothing at all.' Otherwise, as Biggar notes, "the cost-benefit analysis becomes dominated by extremely large congestion costs later in the modelling period... [which is] not credible since some action would be taken to address them well before they reached astronomic levels." ⁵ Such skewed modelling is unlikely to result in an accurate assessment of the most efficient solution.

Additional guidance would be beneficial regarding the definition of replacement programs (as opposed to separate replacement or refurbishment projects) to help provide consistency between network businesses.

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Darryl Biggar, An assessment of the modelling conducted by TransGrid and Ausgrid for the "Powering Sydney's Future" program, May 2017, 2-3.

Question 10: Do you agree that the RIT is a market-wide cost-benefit analysis? Do you agree that, as a consequence of this, funds that move between parties within the market should not affect the final net-benefit, but funds that comes from outside the market to a party within the market should increase the final net benefit?

PIAC agrees, in the case of funding for the cost of implementing an option. In the example given in the Issues Paper, if a generator has provided funding for a RIT project, this would reduce the cost recovered from consumers by the network business for the project. Despite this, the cost would presumably still be recovered via the wholesale component of electricity bills and hence provide no net benefit for consumers.

The transfer of benefits from a market participant to consumers should be included within the cost-benefit analysis. Benefits shifting from a market participant (such as revenue) to consumers (such as in lower electricity bills) would be in the long-term interests of consumers and, hence, in keeping with the NEO.

Question 11: Do you agree that the scenario analysis currently prescribed in the RIT application guidelines can sufficiently capture the effects of high impact, low probability events and system security requirements? Do the RIT-T application guidelines require expanding to assist proponents in accounting for these events? Is there specific guidance you would like on this topic, or particular scenarios where a worked example would be helpful—and how (if at all) should this differ between the RIT-D and RIT-T application guidelines?

A balanced approach to accounting for high impact, low probably events is important given the transformation currently underway in the NEM, and the consequent level of uncertainty around various factors such as demand growth. PIAC agrees that it can be captured in modelling through the inclusion of an extreme scenario with a suitably low probability weighting.

The potential consequences of high impact, low probably events also highlights the importance of effectively capturing the options value of particular solutions. Rather than necessarily committing large resources to addressing high impact, low probably events, it may be a more efficient result to deploy a lower cost solution which retains the option of addressing the high impact, low probably event if new information arises which increases the probability of the event occurring.

Question 12: What additional guidance would stakeholders find useful in regarding the treatment of environmental policies in the RIT-T application guidelines?

PIAC has formed no strong views on this, but would be pleased to discuss the matter further with the AER if feedback would be of value.

Question 13: Do you support our proposal to expand our RIT application guidelines to specify that, as a default, RIT proponents should use the same discount rate when comparing different credible options?

Agree. While NSPs should retain the discretion to apply a different discount rate if necessary when considering a particular project, they should clearly and transparently justify why this would be appropriate.

Question 14: What kind of additional guidance, if any, would you like the RIT application guidelines to provide on selecting an appropriate VCR?

PIAC agrees with the AER's observation that the Value of Customer Reliability (VCR) is becoming of greater importance in network investment decisions and that the appropriate VCR

could vary by a number of factors. PIAC strongly supports greater guidance on the selection of an appropriate VCR value.

In PIAC's view, the AER should develop a separate guideline for the application of VCR that includes its use in RITs. This is the subject of a rule change proposal that PIAC is currently developing, and we would be pleased to discuss this further with the AER.

Question 15: Should we revise the RIT–D application guidelines to clarify that a 'business-as-usual' base case should be used for repex projects? Is there any other guidance the RIT application guidelines should provide on selecting an appropriate base case?

As noted in our response to Question 9 and by Biggar,⁶ the definition of the base case is also important to ensure that it is a credible reflection of the impact on consumers against which alterative options are compared in the RIT. It is essential that it be defined more in terms of a 'business as usual' outcome rather than 'do nothing at all.' Otherwise, the cost-benefit analysis may be skewed by unrealistic, extremely high costs later in the modelling period.

Question 16: Given AEMO is currently developing the Integrated System Plan (ISP), what additional guidance would stakeholders find useful in the RIT-T application guidelines with respect to the ISP?

As noted in our response to Question 8, the uncertainty in demand growth, the cost trajectories of new technologies and the potential for new 'game-changing' technologies will place a greater importance on the robustness of modelled outcomes and the optionality offered by certain solutions. In addition, PIAC strongly supports the use of modelling, forecasts and assumptions which are open and transparent to help promote effective stakeholder engagement on RITs and screening of non-network alternatives.

There is a role for AEMO to play in developing a suitable set of modelling forecasts, scenarios and assumptions given its unique role as a national planner with oversight across the entire NEM. AEMO's Integrated System Plan (ISP) could be an appropriate vehicle for developing this consistency in modelling for use in RITs.

This is particularly true for any RIT-Ts related to new interconnectors, augmentation to existing interconnectors and other network augmentation to integrate greater renewable generation connection. As such, it is essential that the ISP and RIT-Ts processes and content are aligned to ensure there is consistent and oversight of the transmission planning and investment decisions, while also ensuring there is no unnecessary duplication of effort which can lead to delays, costs and uncertainty.

Therefore, PIAC supports TransGrid's proposal that the AER "provide clarification that the range of scenarios considered in the Integrated System Plan, covers the range of reasonable scenarios that a TNSP should apply in administering the RIT-T, and that AEMO's recommended development pathway represents a suitable 'base case'."⁷

PIAC is yet to form a view on TransGrid's second proposal that the needs and options analysis conducted in the ISP satisfy the requirement of the Project Specification Consultation Report as part of a RIT-T. However, PIAC considers there is merit in examining how to best align the consultation and modelling processes between the ISP and RIT-T to ensure there is more targeted, quality engagement in determining the most efficient solution.

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⁶ Ibid 2-3.

TransGrid, Submission to the Integrated System Plan, February 2018, 17.