public interest
ADVOCACY CENTRE

Submission to the COGATI directions paper

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About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit legal centre based in Sydney.

Established in 1982, PIAC tackles barriers to justice and fairness experienced by people who are vulnerable or facing disadvantage. We ensure basic rights are enjoyed across the community through legal assistance and strategic litigation, public policy development, communication and training.

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;
- St Vincent de Paul NSW;
- Good Shepherd Microfinance;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- Solar Citizens; and
- The Sydney Alliance.

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Public Interest Advocacy Centre

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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

The National Energy Market (NEM) is in the middle of a transformation from an energy system relying primarily on centralised, fossil-fuel generation with passive demand, to one with a low- or zero-emission generation fleet interacting with more sophisticated and active demand-side behaviour.

In order to fully unlock the benefits of this transition, some investment will be required in the transmission and distribution networks. At the same time, the NEM is also facing challenges to affordability for many residential, commercial and industrial consumers. This creates tension between new investment to unlock the benefits of the future energy system and avoiding exacerbating the current affordability issues.

Ultimately what is needed is a system-wide solution that minimises the cost and maximises the benefits of delivering essential electricity services to consumers. One where all stages of the supply chain are considered – centralised generation, decentralised generation, demand response, energy efficiency and both transmission and distribution networks.

However, the current regulatory framework is designed to deliver efficiency of incremental investment to a centralised generation and transmission system which has already been 'built out'. The transformation the NEM is currently going through is not incremental – it is a step change.

What is needed is a planning and investment framework that delivers efficiency for strategic, whole-of-system investments in order to ensure this transformation is delivered in a timely and cost-effective manner. This is the challenge PIAC sees is central to the work the AEMC and ESB are doing through a number of workstreams including Coordination of generation and transmission investment (COGATI).

Without such a framework, we expect to see the cumulative impacts of individual generation and transmission investments diverging from the optimal system-wide outcome with missed opportunities to exploit economies of scale and scope as well as a longer and more expensive transition to a low- or zero-emissions energy sector.

All of these ultimately lead to increasing pressures on consumers through the wholesale and network components of their electricity bills as well the impacts of climate change – and are not in the long-term interests of consumers.

Cost and risk allocation

PIAC agrees with the AEMC that "prospective generators require greater certainty that their assets will remain profitable even if subsequent parties connect to the network and congestion arises."[1] We approach this issue from the perspective of determining the proper risk allocation: who wears the risk of future parties connecting to the network and affecting the business case for existing generators.

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1 AEMC, *COGATI – Access Reform Directions Paper*, June 2019, i.

As with most questions of risk allocation, we consider that risk should be borne by those best placed to manage it. Therefore, it is not appropriate for consumers to bear this risk in its entirety either through funding additional transmission investment to alleviate physical constraints or underwriting financial instruments to cover the financial impacts of curtailment.

Distinct from the allocation of risks, is the recovery of costs – noting that while the costs and risks are generally related, they are not necessarily the same.

In general, PIAC's principles for cost recovery are that costs are recovered according to a beneficiary-pays framework in the first instance, such that those who benefit from a given investment should also 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. Cross-subsidies should only be permitted where they are accepted by informed consumer feedback (such as retaining postage stamp pricing for distribution network tariffs) or immaterially small.

The AEMC's proposed suite of reforms

The AEMC has proposed a set of reforms to efficiently coordinate transmission and generation investment:

- Introducing **dynamic regional pricing** for generators to reflect the marginal cost of supplying electricity at their location, in particular the cost of congestion in the transmission network;

- Introducing **transmission hedging** to improve financial risk management options for market participants who are now exposed to dynamic regional pricing; and

- Reforming the **transmission planning** and operation framework such that the purchase of transmission hedges inform investment in transmission infrastructure.

The seemless linking of each stage is essential to achieve the end goal of more efficient investment in transmission and generation capacity. While introducing dynamic regional pricing may lead to other benefits, such as more efficient dispatch outcomes by reducing the ability to exert market power when behind a network constraint, this must remain a secondary concern. PIAC will not support the suite of proposed reforms if it is unable to be translated into more efficient investment decisions that capture the potential economies of scale, avoid the risk of overinvestment and help facilitate the timely transition to low-emissions generation.

As such, this submission focusses on how access reform translates into transmission planning and investment decisions including Renewable Energy Zones. Further, we look forward to further work examining models for how the dynamic regional pricing and transmission hedging can be incorporated into the planning and investment-making processes for both transmission and generation.

Renewable Energy Zones

QUESTION 11: REDUCING THE RISK
Do stakeholders think that clustering of generators that wish to connect to the network would be valuable in assisting in development of renewable energy zones?

Do stakeholders consider that this model would be relatively simple and straightforward to implement? If so, how could this process be designed and administered?

No – while it could help address risk of underutilisation being borne by consumers and ensuring the most scale-efficient transmission investments, successfully clustering multiple, independent generator connections in a single area is unlikely to be feasible.

New generation projects often face very limited timeframes during which they must meet various requirements to proceed: securing funding, planning approval, lease options, equipment, contractor availability and so on. For successful clustering of generator connections, the timing for different generation projects would need to align despite these projects being financially independent of each other.

Furthermore, generators are commercial rivals in the wholesale market as well as in securing project funding. As such they may often be unwilling or unable to share details with respect to financing, forecasting and other commercially sensitive information.

QUESTION 12: POTENTIAL SHARED COST RECOVERY MODEL
Do stakeholders consider that a model which enables risk sharing between a number of parties should be pursued further?

Do stakeholders consider that a risk-sharing model would be relatively simple and straightforward to implement?

PIAC strongly supports the AEMC considering the model we have put forward for sharing the costs and risks of generation-leading transmission investment of a REZ. The model we have developed helps drive efficient system-wide outcomes in a timely, cost-effective and equitable way. It also allows the option for governments to underwrite a portion of the investment cost to help reduce uncertainty.

A fixed portion of the cost of investment would be recovered from consumers in a manner similar to how TNSPs currently recover costs. That is, a fixed portion of the prescribed capacity would be subject to regulated cost-recovery arrangements and subject to a fixed, binding rate of return similar to how a weighted average cost of capital is currently applied to a TNSP's regulatory asset base (RAB). This rate of return would be guaranteed regardless of the actual utilisation rate. Consumer exposure in the event of underutilisation would be capped at this fixed portion.

A further portion of the cost of prescribed capacity would be recovered from generators, who would pay an access charge to connect to transmission assets covered by the REZ. This charge would be proportional to amount of transmission capacity they have subscribed to and how early they connected. The rate paid by generators would increase with time according to an escalation factor. The connection charge and escalation factor would be pre-determined through a

transparent process at the time the REZ was planned allowing the TNSP a reasonable rate of return, given the cost of capital to fund the investment and associated risk.

The details of this model are described in further detail in PIAC's earlier submission to the COGATI review.[2] PIAC looks forward to continuing to discuss the model and its application with stakeholders including through the COGATI technical working group.

While there is some degree of complexity in implementing the model, it is proportionate to the scale of the problem it helps to address. We also note that the model makes use of existing process and frameworks as much as possible, such as the connection application process, the contestability of connection assets and technical performance standards. Furthermore, it does not change the current allocation of responsibilities for the design or operation of physical assets.

Cost and risk sharing for congestion

PIAC understands that there is a range of potential models for relating the purchase of transmission hedges into network investments but, broadly speaking, these can be characterised as a spectrum between two models:

- The first has transmission network assets being built based on a centralised planning process, such as AEMO's Integrated System Plan (ISP) and costs recovered through TUOS (i.e. from consumers absent any potential changes to the current transmission charging framework). Subsequently, generators would be able to purchase hedges and the sale of these would offset the costs to be recovered through TUOS.

- The second model has transmission network assets only being built if a sufficient quantity of transmission hedges are sold, signalling generator interest in the network upgrade.

Both models have strengths and weaknesses in terms of meeting the interests of consumers. For instance, the first model risks overbuilding the transmission network should the type, quantity or location of new generation predicted through the centralised planning process not eventuate. The second model risks underbuilding the transmission network should the lack of certainty regarding network capacity and access discourage the otherwise timely connection of new generation.

As such, PIAC recommends examining a similar risk- and cost-sharing framework as proposed for REZs to transmission upgrades to alleviate congestion within the existing transmission network. Applying such a framework would, similarly to its use in REZs, balance certainty of network access for generators with certainty of affordability and a cap on cost recovery from consumers.

Continued engagement

PIAC looks forward to continued engagement to develop these ideas and reforms further with the AEMC and other stakeholders through this process, including through continued participation in the technical working group.

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2 PIAC, *Submission to COGATI Access and Charging consultation paper*, March 2019, 19-23.