

Update to the ISP Methodology

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Public Interest Advocacy Centre
ABN 77 002 773 524
www.piac.asn.au

Gadigal Country
Level 5, 175 Liverpool St
Sydney NSW 2000
Phone +61 2 8898 6500
Fax +61 2 8898 6555

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 works for better regulatory and policy outcomes so people's needs are met by clean, resilient and efficient energy and water systems. We ensure consumer protections and assistance limit disadvantage, and people can make meaningful choices in effective markets without experiencing detriment if they cannot participate. PIAC receives input from a community-based reference group whose members include:

- Affiliated Residential Park Residents Association NSW;
- Anglicare;
- Combined Pensioners and Superannuants Association of NSW;
- Energy and Water Ombudsman NSW;
- Ethnic Communities Council NSW;
- Financial Counsellors Association of NSW;
- NSW Council of Social Service;
- Physical Disability Council of NSW;
- St Vincent de Paul Society of NSW;
- Salvation Army;
- Tenants Union NSW; and
- The Sydney Alliance.

Contact

Michael Lynch
Public Interest Advocacy Centre
Level 5, 175 Liverpool St
Sydney NSW 2000

E: mlynch@piac.asn.au

Website: www.piac.asn.au



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

PIAC welcomes the opportunity to respond to the AEMO Update to the ISP Methodology (the update). The ISP plays a crucial role in ensuring the energy system transitions rapidly and efficiently, promoting the long-term interests of consumers. The methodology underpinning the ISP must continue to evolve to ensure it is fit for purpose.

We welcome the focus on accuracy-enhancing measures geared to managing the risks of transmission overbuild, and we support the proposals aimed at increasing accuracy in relation to project lead times, network losses, renewable resource quality, dispatch behaviour of storage devices, and the duration of demand side participation (DSP).

PIAC strongly supports the inclusion of a value of carbon emissions at the cost benefit stage.

There should also be a greater role for orchestration in the ISP, coordinating the development of the supply side of the energy system with the transformations taking place on the demand side. In the absence of a nation- or NEM-wide 'roadmap' coordinating the entire energy transition, AEMO must:

- optimise the energy infrastructure development path with respect to the changes occurring in the consumption of energy, and
- provide other policymakers and agencies a framework with which to make efficient decisions that shape these demand-side changes.

The development of generation, transmission and storage of energy must be co-optimised with the development of energy consumption. AEMO is best placed to take responsibility for this task.

PIAC supports the introduction of the category of 'consumer social licence' by the 2024 ISP Consumer Panel alongside the existing 'community social licence' (referred to as 'social licence' in AEMO documents such as the Draft 2023 IASR). Both types of social licence pose substantial risks for the smooth and efficient transition of the NEM to a renewable energy base. The ISP has an important role to play in the proactive management of community and consumer social licence. It signals the expectations of other actors in relation to things like the efficient use of consumers' money, the prudent management of foreseeable risks, and how and when stakeholder engagement and input is sought and used.

There should be an increase in the modelled time transmission and other projects require for stakeholder engagement and the building of community social licence. The model should assume that engagement processes, when done adequately, take substantial time and money.

AEMO must also recognise that only consumers are able to speak to and set their own preferences. While PIAC commends the move to improve the modelling of consumer preferences in the update, it is not clear from the information provided that this includes employing consumers' revealed or stated preferences as the basis for this modelling. It is crucial that AEMO listens rather than speaks to consumers on the subject of their preferences in order to build and maintain social licence.

The roles of different agencies in providing authoritative information to energy consumers should be more clearly defined. This is needed to manage both misinformation and allow energy consumers to engage with the complex energy regulation system and transition. AEMO has a substantial role, but that that role should be delineated more clearly from the roles of other agencies.

Transmission project lead time uncertainty

PIAC supports the proposal to revise project lead times to reflect recent delays including supply chain issues for materials and equipment, workforce and skills shortages, and time to engage with stakeholders.

However, these issues are not identical. The first two are localised in time, and there is no particular reason to expect them to persist into the long term. In the case of the acquisition of social licence, however, the opposite is true: there is good reason to expect social licence issues to increase over the course of the transition as community and consumer groups organise more effectively and as the costs of transmission projects mount and appear in energy bills. While one of the eventual outcomes of the transition is lower energy costs, this is not necessarily the case at every point in the transition. This is a nuanced point that is persistently difficult to communicate to consumers and is a particular risk to social licence.

PIAC supports the adjustments proposed in the update and prefers the revision of Earliest in-service dates (EISDs) in line with observed project delay factors to the introduction of an actionable window. The former adjustment aims for greater precision and can be reversed more quickly once the short- to medium-term delay factors are alleviated. The latter may lead to an Optimal Development Path (ODP) that is too inclusive of transmission projects at the expense of cheaper non-network options, leading to higher than optimal prices for consumers.

The impact of fossil-fuelled generation on renewable energy zone (REZ) transmission limits

PIAC agrees that the REZ transmission limit formulation should be updated to include fossil fuel generation and that this should come in the form of allowing fossil fuel generators their own category in the model.

Network losses for REZs and sub-regions

PIAC supports the aim of improving the accuracy of marginal loss factors (MLFs) throughout the model. We support the creation of new sub-regions and associated sub-regional loss equations.

Assumed renewable resource quality

PIAC supports the aim of improving the accuracy of assumptions about renewable resource quality.

A second metric is also needed to increase the granular accuracy of these metrics: the classes of wind turbines. Currently AEMO assumes a single class of wind turbine for the modelling of all wind generation. This creates an under- or over-estimation of generation potential in various locations. Instead, the model should assume class A turbines are used in grade 1 locations and class B turbines are used in grade 2 locations.

Potential inclusion of a value of carbon emissions

PIAC supports the inclusion of a value of carbon emissions at the ISP cost benefit analysis stage in Section 5 of the ISP Methodology.

Australia has made a Paris Agreement commitment to pursue efforts to limit emissions-driven temperature increases to 1.5C, and to '[m]aking finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development' (Article 2(c)).

The introduction of a value of carbon emissions at the cost benefit analysis stage is a further opportunity to align the ISP with the commitment to ensure finance flows to low carbon development. Incorporating carbon budgets at the inputs stage sets a GHG emissions ceiling. It does not enable the selection of an optimal development pathway that co-optimises the objective of GHG emissions reduction alongside other objectives. A value at the cost benefit analysis stage, by contrast, will provide the means to do this.

Consumer risk preferences

PIAC supports the ambition of employing evidence-based consumer risk preference metrics in the ISP. However, there is little concrete information provided in the update on how these metrics are being developed.

Crucially, only consumers can speak to their own preferences, on risk or any other matter. Any process assessing consumer preferences must be grounded in robust and meaningful engagement. It is not clear from the update that the proposed 'application of professional judgement to reflect consumers' risk preferences' amounts to 'evidence-based... metrics' as the consultation question for this section implies.

Modelling archetypal consumers' behaviours, developing arrays of consumers with various risk preferences for modelling purposes, or running sensitivities on various consumer risk preference possibilities are not precluded by the principle that only consumers can speak to their preferences. However, it requires these practices to be underpinned by data that robustly reflects revealed or stated preferences derived through engagement.

Strong risk aversion should not be taken as the baseline assumption on consumer preferences for modelling purposes. AEMO must transparently explain why the level of aversion chosen as the baseline for the model is a reasonable reflection of consumers' actual risk appetites. Assumptions concerning consumer preferences that increase the attractiveness of more expensive CDPs, should be treated with extreme caution and backed with robust empirical evidence.

Diversity of consumer preferences should be incorporated into the modelling processes as much as possible. AEMO must be aware of the potential impacts of aggregating methods in assessing consumer preferences – either modelling a simplistic average consumer or taking a lowest common denominator approach to inputs such as risk preference. These run the risk of over-valuing more expensive CDPs and so raising energy costs ultimately experienced by consumers.

Dispatch behaviour of storage devices

PIAC supports removing the assumption of perfect knowledge/foresight on the part of storage devices. While the proposed derating factors are large, the risk of overbuilding batteries is very likely to be a non-regrettable error, and is held almost entirely by investors in storage devices rather consumers.

Duration of demand-side participation rates

PIAC supports the aim of more realistic representation of demand side participation, and specifically the move to limit the reliability response band to a maximum of two hours.

We support the use of modelling of likely demand-side behaviour in conjunction with ongoing efforts to identify relevant demand-side behaviour data from Australia or elsewhere in the remaining time leading up to the 2024 ISP.

Other issues

The lack of orchestration in the ISP

The ISP needs to go beyond the narrow confines of what the ODP for energy generation, transmission, and storage is, and engage with the broader energy transformation.

In order for the ODP in terms of energy generation, transportation and storage to be meaningful, it must be co-optimised with the transformation path of energy consumption. The consumption transformation includes but is not limited to:

- the take-up of electric vehicles (EVs);
- behind the meter, community, and network batteries;
- consumer energy resources;
- smart appliances;
- rates of household and business electrification;
- improvements in thermal efficiency of buildings;
- more energy-efficient town planning; and
- increases in volume and sensitivity of demand-side response.

If assumptions about the speed or depth of changes in these (and other) areas prove to be inaccurate, the optimality of the chosen build path in terms of energy generation, transmission and storage will be jeopardised.

For AEMO to fulfil its remit of defining an ODP for generation, transmission and storage, AEMO must build robust methodologies for its assumptions concerning energy consumption. This includes building models about the optimal paths for these developments.

In the absence of a national or NEM-wide Roadmap for the energy transformation, the ISP must provide clear signals for governments, policymakers and energy agencies that impact the trajectory of energy consumption. The ISP needs to provide a framework for other agencies to make efficient decisions regarding the transformation of demand-side capabilities and behaviour. This could take the form of target outputs for demand transformation metrics (for example, the rate of EV take-up) that are commensurate with the ISP-defined ODP. These could be disaggregated for NEM jurisdictions and/or the Australian economy as a whole, or remain as top-level targets/modelling assumptions.

This would be a major undertaking and addition to the ISP, but it would not extend the remit of AEMO in defining the optimal path for the energy transition.

Proactive management of social licence

AEMO and the ISP should implement changes to improve the management of risks to social licence for the generation, storage and transmission of energy.

The ISP plays a role in setting the expectations of proponents and agencies involved in the acquisition of social licence. The baseline modelling of prospective transmission projects must include adequate time for substantive stakeholder engagement and the expectation of delays caused by issues relating to the acquisition of social licence. There could be sensitivities added to assess candidate development paths (CDPs) against the possibility that these times are reduced, but the baseline model should have a positive and non-negligible assumption of a time requirement for engagement and social licence acquisition.

The treatment of consumer preferences in the ISP may also impact consumer social licence. As noted above, only consumers are able to speak to their own preferences. We urge AEMO to commit to this principle, and to use it as a test which assumptions regarding any consumer preferences in the ISP must pass before being employed.

The transparency of the assumptions about consumer preferences in the ISP should also be improved. Where assumptions are made concerning consumer preferences, these should be explicit and the bases and reasoning underpinning them should be provided.

AEMO's role in communicating important and strategic information ('core messages') to consumers should be clarified. It should be included within a framework outlining consumer communication responsibilities for AEMO and other agencies. An example of a core message might be that anticipated falls in energy prices resulting from the transition to renewable energy sources are not expected to be linear.

The energy system, the regulatory system that manages it, and the energy transition are all complex. This creates the possibility of consumer confusion and the spread of misinformation. A proactive plan for how these systems and processes are explained is needed. Entities providing

authoritative and accessible information should be identified and signalled clearly. Responsibility for devising and delivering core messages should be clearly allocated.

AEMO does not need to take full responsibility for all these tasks. However, the ISP is an important communication tool for consumers and other actors. The ISP's efficacy in providing guidance and information to consumers will not be optimised unless there is a clear framework delineating AEMO's role in communicating core messages to consumers from the roles of other agencies.

Continued engagement

We welcome the opportunity to meet with AEMO and other stakeholders to discuss these issues in more depth. Please contact Michael Lynch at mlynch@piac.asn.au regarding any further follow up.