



public interest
ADVOCACY CENTRE

PIAC submission to Draft 2020 Integrated System Plan

26 February 2020

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

Introduction

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 National Energy Market (NEM) is in a period of rapid and fundamental 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.

If not planned for and managed well, this transition may result in an inefficient electricity system and a slow and non-optimised emissions reduction pathway, adding costs to a system that is already increasingly unaffordable for many residential, commercial and industrial consumers.

The NEM needs a planning and investment framework that delivers efficiency for strategic investments providing benefits across multiple regions in order to ensure this transformation is delivered in a timely and cost-effective manner. This is the central challenge PIAC sees in the work the AEMC and ESB are doing through a number of workstreams in parallel to the development and integration of the ISP, such as the AEMC's Coordination of Generation and Transmission Investment (COGATI).

We appreciate the engagement AEMO is conducting in developing the 2020 ISP. This submission builds on our earlier engagement in submissions, participation in workshops and direct meetings with AEMO.

Least-regrets framework

As noted in our submission to the AER's Issues Paper on Guidelines to make the Integrated System Plan actionable, PIAC supports AEMO not being limited to using probability weighted scenarios in developing the ISP.

However, given that the least-regrets approach used in the draft 2020 ISP is fundamentally different from the earlier approach of using probability weightings, we would welcome further discussion with AEMO to understand the implications of this change on ISP overall.

Questions PIAC wish to understand include:

- Would the optimal development path identified using probability-weighted scenarios be different from that identified using the least-regrets framework? If so, how?
- Where there are material differences between this and the previous ISP, what are the implications for investment and planning decisions that have progressed on the basis of the previous ISP?
- How would the new approach deal with particular sensitivities differently, including High Impact Low Probability (HILP) or Wide Area Long Duration Outage (WALDO) events?

Climate resilience

PIAC considers that, irrespective of whether government policy reflects the need to reduce emissions, the continued rapid deployment of renewable energy in the system is inevitable and necessary.

From a risk management perspective, an ISP that does not economically co-optimize growth in renewable generation with firming sources such as batteries and balancing sources like transmission interconnection and demand response leaves consumers vulnerable to cost increases that could have been avoided.

Therefore, PIAC strongly supports the 2020 ISP and future ISPs including a managed trajectory of accelerated emissions reductions as a factor in its consideration of optimal development paths.

Climate change may lead to a number of changes that should be reflected in macro-level forecasts of energy demand such as:

- shifting populations and loads in response to temperature, sea level rise, sustained heightened bushfire risk or other changes to the liveability or arability of particular areas;
- changing loads (both reductions in existing loads and the entrance of new loads) as the Australian economy shifts in response to the urgent need to act on climate change including global emissions reduction targets;
- changing average temperatures and diurnal heating and cooling patterns affecting energy consumption both on typical and extreme days; and
- increasingly severe and regular extreme weather days.

More specifically, in assessing potential development paths for the ISP, AEMO should consider the impacts of:

- an increased proportion of distributed energy resources (DER) closer to load and less susceptible to extreme weather than centralised energy sources;
- increased risk of interruptions to transmission flow paths due to bushfires, floods or storms damaging network infrastructure, or parts of the network having to be de-rated or de-energised for safety and security concerns;
- decreased availability of large, thermal generation as extreme weather forces generators to de-rate their output to maintain equipment within thermal limits or due to limited availability of cooling water; and
- early retirement of thermal generation due to decreased generation ability or weather-related damage – for instance if high temperatures damage equipment and the high cost of repair means it is more economically rational to instead close the plant early.

Demand response and DER

It is essential that non-network options are included in the ISP to ensure it is truly a whole of system plan and delivers the most efficient development path. Non-network options provide a more agile and modular alternative to large, lumpy network options and can reduce the risk of over-investment by deferring and supplementing more network investment options.

However, consideration of non-network options must reflect the fact that those relevant at the scale of an ISP are likely to be different to those for many other RIT-Ts due to the larger scale and strategic nature of the system needs the ISP addresses.

Further, given the long planning horizon of ISP modelling, it is essential that modelling of non-network options be forward-looking and include the expected growth in size, capacity and sophistication of the market for non-network services in the future and not be unduly limited to responses AEMO may receive as part of consultation on the ISP.

As noted in our submission on the draft ISP Rules:

... it is unclear whether non-network solutions could also be incorporated where it is not best delivered by a TNSP. In addition, it is not clear whether changes to regulatory and market settings such as a change to the wholesale market price settings or the Reliability Standard could also be considered as part of an ISP development path. PIAC considers that without being able to consider options such as these, the ISP may miss out on delivering the full potential benefit to consumers.¹

¹ PIAC, *Submission to ESB on draft ISP rules*, January 2020, 5.