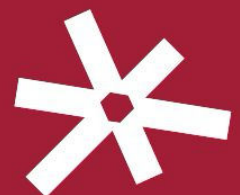


Draft 2025 Electricity Network Options Report

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Justice and Equity Centre
ABN 77 002 773 524
www.jec.org.au

Gadigal Country
Level 5, 175 Liverpool St
Sydney NSW 2000
Phone + 61 2 8898 6500
Email contact@jec.org.au



About the Justice and Equity Centre

The Justice and Equity Centre is a leading, independent law and policy centre. Established in 1982 as the Public Interest Advocacy Centre (PIAC), we work with people and communities who are marginalised and facing disadvantage.

The Centre tackles injustice and inequality through:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change to deliver social justice.

Energy and Water Justice

Our Energy and Water Justice work improves regulation and policy so all people can access the sustainable, dependable and affordable energy and water they need. We ensure consumer protections improve equity and limit disadvantage and support communities to play a meaningful role in decision-making. We help to accelerate a transition away from fossil fuels that also improves outcomes for people. We work collaboratively with community and consumer groups across the country, and our work 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, Phd
The Justice and Equity Centre
Level 5, 175 Liverpool St
Sydney NSW 2000

T: +61 2 8898 6500
E: mlynch@jec.org.au

Website: www.jec.org.au

The Justice and Equity Centre office is located on the land of the Gadigal of the Eora Nation.

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1. Introduction

The Justice and Equity Centre (JEC) welcomes the opportunity to respond to the Australian Energy Market Operator's (AEMO) Draft 2025 Electricity Network Options Report (the draft ENOR).

Appropriately responding to changes in costs

The JEC's welcomes AEMO's detailed and compelling account of the escalation of electricity network infrastructure costs in recent years. This recognition is critical to considering more efficient potential alternatives for enabling the energy system transition.

However, we do not agree that the energy infrastructure sector will adapt to the increased demand and address these costs over the long term. We see little justification to be confident in such an assumption, and significant risks in proceeding on the basis of it. It is much more reasonable to assume that many of the cost increase drivers will persist well into the Integrated System Plan (ISP) time horizon. Such an assessment should necessitate a reconsideration of the approach of ISP to mitigate the potential impact of these cost drivers.

Fully considering demand-side factors

We support the expansion of the report to include social licence costs and distribution network opportunities. However, AEMO has limited its consideration of 'demand-side factors' to distributed energy resources (DER) and consumer energy resources (CER). AEMO should expand the analysis to include all demand-side factors. We further recommend AEMO not limit input to its assessment of the scale of opportunities to facilitate the aggregate operation of forecast DER and CER uptake to distribution network service providers (DNSP).

The JEC supports the delineation and anticipated deployment of tranches of options available to increase CER capacity in section 2.12.8.

We do not support the inclusion of concessional finance arrangements when assessing and contrasting the value of different network options.

2. Forecast for transmission cost components

2.1 The long term

We welcome AEMO's recent work documenting the escalation of electricity network infrastructure costs in recent years, and the presentation of that narrative in the draft ENOR. We are concerned, however, about AEMO's expectations regarding input costs into the longer term.

Our interpretation of figures 14 and 15 on page 51 of the draft ENOR are that AEMO anticipates real appreciation to occur over the entire time horizon out to 2050. However, in the 6 June webinar AEMO presenters opined that current pressures driving up input costs were short term, the implication being that they would be expected to ease as supply factors adjusted. We do not consider this well justified or credible.

The narrative in the draft ENOR is much more compelling, with network infrastructure cost pressures likely to remain high for an extended period.¹ Some of the ‘short run’ pressures identified by AEMO are not likely to ease ever, and there is at least little basis to expect them to. The requirement to obtain social licence, the costs of which were not fully appreciated in the early stages of planning the energy transition, and project complexity could be expected to persist long term. While we have and will gain greater experience of large infrastructure projects, the small number of total projects involved means that each will still be ‘unique’ in effect and produce particular circumstantial challenges involving substantial cost and complexity, for the foreseeable future.

For the other cost drivers, more reasonably described as short-term pressures born of supply side shortfall – “supply chain pressures on materials, equipment and workforce, and ... additional contracting costs”² – there is good reason to assume the supply side will struggle to ‘catch up’ and that shortages and cost pressures will persist.

Australia is at the forefront of an energy transition that is global. To date we have paid certain costs for ‘leading the charge’ in terms of uncertainty and unexpected problems. In coming decades we may be able to identify benefits arising from our experience and leading role, but will be required to respond alongside a growing bulk of the other economies doing the same. The contention that material, equipment, workforce, and contractor supply will develop at an adequate rate to manage this ‘coincident’ demand is unreasonably optimistic.

We support the narrative of the long term in the draft ENOR. We urge AEMO to clarify this narrative both in the final ENOR and in the 2026 ISP. At the very least, AEMO should clarify its expectations concerning these ‘short term’ pressures out for the next 10-15 years.

2.2 Unknown risks/uncertainty

The JEC supports the introduction of unknown risk components of up to 30% on project cost estimates. We urge AEMO to take the implication of the AACE framework seriously. Project cost estimates at all stages of estimation should fall above the final cost about as often as they fall below.

Currently, AEMO adopts AACE’s symmetric accuracy framework, but aims for all projects within its planning ‘portfolio’ to fall within the upper accuracy bands of each of its major cost estimations. This is embedding false expectations of the cost of network options seriously endangering consumers’ expectations of ‘lower energy prices’. This presents an existential risk to social license for the energy transition as a whole.

The experience of the early years of the transition has been exclusively comprised of project cost underestimation, often by a large quantum (even multiples of original estimates). In this context it is reasonable to add the asymmetric unknown risk component before the AACE symmetric accuracy bands. We recommend guidance is released on how AEMO determines the size

¹ In other words: we are not likely to arrive at the ‘long run’ of key supply markets, including resources, skilled labour, and equipment markets, until the back end of the time horizon, if then.

² Draft ENOR, p.8

(between 0 and 30% of total project costs) of each project's asymmetric unknown risk component, and that the default starting position is 30%.

2.3 Differentiating cost forecasts by scenario

We highlight our comments in response to the draft Gas Infrastructure Options Report and note our support for applying a single set of estimates for network options costs across all ISP scenarios. Anticipating the implications of different and often interrelating eventualities in scenarios for network infrastructure input costs is extremely fraught. The likely impact of selecting alternative estimates is to increase the degree of inaccuracy of the ISP forecasting overall.

In some cases, it may be appropriate to use different cost estimates in different scenarios where there is a very specific assumption in the scenario with material implications for a cost element of a given project. However, in general we support an approach that aims to maximise forecasting accuracy as this is ultimately the foundation of the ISP's value.

2.4 Social licence costs

The JEC supports the treatment of social licence costs in the draft ENOR. While the approach is bespoke, it does not fall into the traps of estimating social opposition based on spurious data.

3. Distribution network opportunities

The JEC supports the transparent plan for improving consideration of demand-side factors in the ISP as laid out in section 1.4.

However, the consideration of demand-side factors is overly narrow because:

- The draft ENOR limits its interest in 'demand side factors' to CER and DER and
- Ultimately, the ISP is a network augmentation plan and only considers efficiently building the network in order to fulfil the reliability and other needs of consumers. There is no interest in considering demand side factors as a means of minimising the cost of energy for consumers over the long term.

We offer input on fulfilling the stated aim of the draft ENOR in the remainder of this section – considering the network opportunities for enabling greater CER and DER uptake – and the narrowness of this aim.

3.1 Enabling greater CER and DER

Enabling CER and DER and the appropriate role of networks needs to be more appropriately framed to ensure the full suite of potential benefits to consumers are fully considered. Assuming the aim of enabling greater CER and DER, we highlight the following considerations:

- While we support the establishment of a working group to explore and inform AEMO's questions on the scale and opportunities associated with CER and DER uptake, membership should not be limited to DNSPs. DNSPs are not experts in either CER or DER, or its aggregation.

Aggregation is not anticipated to occur at the distribution level, or at least not exclusively. It will most likely occur at the markets level. While DNSPs may be able to offer insight on the implications in terms of network capacities of new operations, including aggregation, it will take contributors with actual expertise in these areas to provide advice on the anticipated and potential for aggregation in the energy system.

- The framing of the question – how the network should best be developed in order to enable CER and DER development – is problematic and undermines a key value of these resources. Flexibility is a key value of CER and DER, and this is only captured if the investment is considered in a situated way. CER and DER is what you can do to increase capacity *instead* of network augmentation. Augmenting the network in order to build out CER and DER limits a substantial aspect of potential benefit. The narrative in section 1.4 (and elsewhere) that rob CER and DER of much of its attractiveness should be corrected so as not to confuse non-expert readers.
- We support the delineation of distribution options to tranches of options available to increase CER capacity in section 2.12.8. The cost per MW of these different options is an excellent and practical way to manage the issue just described.

3.2 Orchestration

AEMO's engagement with demand side factors is unreasonably narrow and should be expanded on to ensure the ISP is well placed to address the impacts of investment cost increases. We highlight the following considerations:

- Demand side factors are substantially wider than CER and DER. They also include energy efficiency, demand flexibility, electrification, and the introduction of large loads with particular reliability needs (data centres). While it is difficult immediately to imagine how increased energy efficiency or demand flexibility might necessitate consideration of network augmentation, the same is not true for electrification or the advent of data centres populating the grid. Both of these could have substantial impacts on the efficient network development path. We can see no good reason why such a narrow interpretation of the demand side factors has been taken and recommend a more comprehensive approach.
- The larger significance of demand side participation is that investment in these factors reduces energy costs for consumers by relieving the need for network options. In the Draft ENOR it is not at all clear how the work in the ENOR could enable savings to be made by identifying where network investments might be avoided by instead selecting a portfolio of demand side factor options.

Collectively, demand side factors share many beneficial characteristics with storage, even leaving aside the point that they include behind-the-meter storage:

- they can provide bulk, firming and shaping energy
- they provide flexibility, and
- they offer short lead times and speed of deployment.

These aspects of value will not be captured in planning for either storage or demand side factors until the ISP aims to orchestrate resources in the energy system alongside one another, rather than limiting its aims to the augmentation of the network.

4. Concessional finance

The JEC does not support the inclusion of concessional finance arrangements when assessing the merits of different network options.

The traditional order of operations starts with AEMO providing advice on the relative attractiveness of different options from a system perspective based on fair and unbiased expert assessment. This is then the basis of other actors pursuing their own goals. This structure is sound and should be protected.

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@jec.org.au regarding any further follow up.