Justice and Equity Centre

Annual benchmarking reports 2025 – Quantanomics phase 2 report

26 March 2026

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

Website: www.jec.org.au

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

Contents

Recommendations

Recommendation 1

That the AER review and structure its consultation processes to more actively enable meaningful consumer and stakeholder input to consultations with material impact on consumer outcomes.

Recommendation 2

That the AER specifically consider measures to support consumer advocates and stakeholders to contribute to meaningfully to consultation processes involving highly technical matters – such as the benchmarking report process.

Recommendation 3

That the AER adopt complementary network utilisation metrics such as TETU and TPFU as part of its performance benchmarking to better reflect how effectively network infrastructure should be delivering value to consumers.

Recommendation 4

That standardised methodologies for reporting network utilisation be developed to enable fair and effective comparisons and benchmarking across TNSPs and across DNSPs.

Recommendation 5

That a framework for identifying the efficient curtailment rate at each stage of the transition be developed as part of more comprehensive network performance benchmarks.

1. Introduction

The Justice and Equity Centre (JEC) welcomes the opportunity to respond to the Australian Energy Regulator's (AER) annual benchmarking reports 2025 (the benchmarking report).

Robust network benchmarking is a critical enabler of effective network regulation which promotes efficient network investment and operation in the consumer interest. Existing network benchmarking, and processes – such as this – which implement it, present opportunities for significant improvement.

In this submission we provide recommendations to improve the metrics used for benchmarking network efficiency, as well as highlighting the need for improvements to the process of considering the benchmarks.

2. Enhancing the process of developing reports

Given the criticality of benchmarking to the assessment and promotion of the consumer interest, more must be done to ensure consumers and stakeholders can meaningfully engage in the development of benchmarking metrics and reports.

We support benchmarking reports being grounded in evidence-based, expert assessments. However, the JEC has observed through its own engagement that this process does not currently provide sufficient scope for stakeholder and consumer perspectives to be meaningfully incorporated into the development of benchmark reports, despite the material impact they may have on consumers' interests.

Unlike other processes involving similar technical complexity – for example those conducted by the AEMC or AEMO – there has been no apparent effort to provide non-technical experts a pathway to engage with the issues, identifying areas in which consumer perspectives may have relevance, or providing structured analysis of those identified issues (for example, identifying alternative possible positions on key questions or identifying the trade-offs involved in those choices). We note that no submissions were received from non-distribution network service providers (DNSP) in the first round of consultation in November and consider it likely that the inaccessibility of the process contributed to this.

The AER has rightly identified an overarching priority to improve consumer and stakeholder engagement in its processes and ensue outcomes are meaningfully shaped by engagement to the greatest degree possible. While this is a highly technical process, this does not preclude measures to enable more meaningful contributions from stakeholders.

This can be done by structuring the material in such a way that enables non-technical experts to provide input, particularly on focus areas where input could have a meaningful impact on the final outcomes. Alternatively, the AER could invest time and resources into targeting and supporting a small number of appropriate stakeholders or advocates on the issues via one on one or small group tutoring from project leads. This latter option has been used effectively by the Australian Energy Market Commission in relation to its process on transmission loops.

We strongly encourage the AER to review its processes – including this one – and consider ways to better structure and more actively enable the meaningful incorporation of consumer stakeholder input to all processes which materially impact consumers.

Recommendation 1

That the AER review and structure its consultation processes to more actively enable meaningful consumer and stakeholder input to consultations with material impact on consumer outcomes.

Recommendation 2

That the AER specifically consider measures to support consumer advocates and stakeholders to contribute to meaningfully to consultation processes involving highly technical matters – such as the benchmarking report process.

3. Network utilisation metrics

3.1 A comprehensive set of metrics to measure network efficiency

There is a critical need for more comprehensive and meaningful metrics assessing and benchmarking the efficiency of network expenditure and the effective utilisation of network infrastructure.

Current benchmarking measures based narrowly on peak demand provide insufficient insight to support the most effective regulation of networks. Metrics that better reflect and measure the value delivered by network assets across the full range of operating conditions are needed. Such metrics would help assess and guide efficient investment and regulatory decisions, reduce stranded asset risks and inefficient expenditure decisions, and better support the efficient integration of consumer energy resources (CER).

Network utilisation is a key metric for benchmarking and assessing how efficiently energy network infrastructure is used. It helps energy policy makers, regulators, and a growing range of stakeholders understand how to develop, operate, and manage the energy system at least cost and emissions.

The utilisation metric reflects the loading of network assets, their relative productivity and their capacity to meet peaks in demand. In simple terms, it measures how much value is being extracted from network assets. This is critical for to consumers. The more efficiently network assets are used, the lower the average cost of delivering electricity and the less likely additional investments in augmentation will be needed. This makes utilisation a key benchmark for network performance.

In general, higher overall utilisation of transmission and distribution networks should lead to lower ‘unit’ prices. In relation to the existing measure of utilisation, the AER acknowledges that, “this measure is incomplete, as it does not account for two-way network flows and may not show localised constraints from exports from solar photovoltaic (PV) systems.”

The AER currently defines network utilisation as “a network’s ability to respond to increases in maximum or peak demand.” While useful, this definition is narrow and limited in value as a benchmark of performance. It says little about the overall productivity of the networks assets and overlooks two-way energy flows and local constraints, especially those caused by behind-the-meter CER. By focusing only on peak demand and aggregating data across the whole network, the current metric fails to capture how the network performs the rest of the time and how the service experience of customers across the network differs.

We support recommendation that the AER adopt more comprehensive benchmarks, including those proposed in the recent UTS Institute for Sustainable Futures report. Metrics like Total Energy Throughput Utilisation (TETU) and Two-way Power Flow Utilisation (TPFU) offer a fuller picture of how networks are delivering value to consumers are would serve as the basis for more effective performance benchmarks.

These measures can help inform improved network planning and regulation, reduce the risk of stranded assets, and encourage optimisation of non-network solutions like flexible demand. When paired with incentives to flatten peaks in areas nearing capacity, they can increase energy throughput without costly upgrades enabling the lower ‘unit prices’ intended through more efficient utilisation.

The AER should use TETU and TPFU – and any other appropriate new measures – alongside traditional peak demand metrics to benchmark network performance. This would allow networks to measure not just their ability to handle one-way demand, but also their capacity to support exports, maintain reliability, and integrate local CER flows – and the demonstrate the degree to which they are doing so efficiently.

We welcome the inclusion of export services in network performance reporting. However, data on export capacity, battery uptake, tariffs, and curtailments is not a substitute for robust utilisation metrics. These indicators are essential for tracking CER integration, but they do not reveal how well the network supports renewable energy and demand-side strategies.

Recommendation 3

That the AER adopt complementary network utilisation metrics such as TETU and TPFU as part of its performance benchmarking to better reflect how effectively network infrastructure should be delivering value to consumers.

3.2 Competing incentive structures for network businesses

Transmission network service providers (TNSP) and DNSPs are provided with incentives to use existing infrastructure efficiently, including maintaining service levels, reducing operating costs, and investing capital efficiently. However, these incentives are moderated – and arguably outweighed – by a competing, and arguably stronger, incentives to grow their regulated asset base (RAB). This is due to the lower risk profile and the prospect of long-term, stable returns associated with large capital investments, compared with the incentive structures associated with network efficiency.

This tension arguably encourages TNSPs and DNSPs to understate network capacity to justify further infrastructure investment. Put simply, while TNSPs and DNSPs are not necessarily

opposed to better utilisation of existing assets, they understandably have a structural interest in building new infrastructure.

To address this imbalance, more meaningful and consistent metrics for network utilisation are needed as part of effective network performance benchmarking. Standardising how DNSPs assess and report on utilisation would help ensure consumers receive fair value from network investments and enable more effective benchmarking and comparisons across networks. We share the concern that existing metrics of network utilisation with their narrow focus on peak network usage do not sufficiently reflect locational constraints and the effects of two-way flows of electricity on the network.

Recommendation 4

That standardised methodologies for reporting network utilisation be developed to enable fair and effective comparisons and benchmarking across TNSPs and across DNSPs.

3.3 Changing efficient utilisation rates

A formal and transparent framework for identifying and benchmarking the efficient curtailment rate – related to coincident generation, rather than network capacity - at each stage of the transition should also be developed as a critical platform for promoting the consumer interest. That is, at determining and signalling the point at which it is more efficient to curtail generation than to add more storage or network capacity to accommodate it.

The optimal rate of curtailment will grow as the penetration of renewable resources increases and the occurrence of coincident generation increases. Maintaining the same rates of curtailment in the context of a network hosting increasingly coincident generation implies increased network investment. However, as the coincidence of generation rises over time, the economic value of the coincident generation falls. It follows that the marginal returns on investments that enable dispatch from those resources will also fall over time.

The risks associated with enabling increasing levels of coincident generation to be exported on to the grid – namely the risks associated with minimum system load – must be identified and quantified. These should be used to temper the value of transmission and distribution network investments aimed at minimising curtailment. A robust framework for identifying and updating the efficient rate of curtailment will be critical to address this as part of benchmarking of network performance.

Recommendation 5

That a framework for identifying the efficient curtailment rate at each stage of the transition be developed as part of more comprehensive network performance benchmarks.

4. Continued engagement

We welcome the opportunity to meet with the AER and other stakeholders to discuss these issues in more depth. Please contact Michael Lynch at [redacted] regarding any further follow up.