2025 Review of Network Performance Reporting for Regulated Electricity and Gas Networks

Joint Submission to the Australian Energy Regulator

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About Energy Consumers Australia

We are the national voice for household and small business energy consumers. We advocate for a fair, affordable, and reliable energy system—one that meets everyone's needs and leaves no one behind on the journey to net zero.

We promote the long-term interests of households and small businesses who use energy in Australia by providing and enabling evidence-based advocacy to the energy sector on the issues that affect consumers.

We are working towards 7 targets that we believe must be true for a modern energy system operating in a just society. These include:

- **Equity**: Consumers pay a fair share of the energy transition;
- **Value**: Consumers pay a fair share of the energy they use;
- **Agency**: Consumers can make optimal energy decisions;
- **Ownership**: Consumers benefit from the energy transition;
- **Control**: Consumers can manage their energy consumption;
- **Justice**: Consumers have the energy they need;
- **Representation**: Consumers have powerful advocates working in their long-term interests.

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About the Australian Council of Social Service

The Australian Council of Social Service (ACOSS) is a national advocate supporting people affected by poverty, disadvantage and inequality, and the peak council for community services nationally.

Opportunities to Improve Network Performance Reporting

As the AER is aware, network costs are a material component of the retail bills paid by consumers. Accordingly, consumers need assurance that networks are being monitored by the AER to ensure that the prices they pay are fair, that costs and prudent and efficient, and profits are not excessive.

The AER's network performance reporting is valuable -- in particular, the AER's commentary and interpretation of findings adds significant insight and should remain a core feature of future reports.

That said, we welcome opportunities to improve the analysis and reporting, accounting for the large changes happening within networks as our energy system transition. To this end, we make two key recommendations:

- **Improve measurement of network utilisation by applying more advanced metrics**. In an era of high and increasing CER deployment, understanding the efficiency of network operations throughout the year and for both use and export of energy is key to inform stakeholders of the need for additional investment.
- **Incorporate more detailed analysis of network *prices*, in addition to network *costs* per customer**. Network prices are the actual costs paid by consumers, and the current reports lack detailed analysis or benchmarking of these prices.

Below, we provide more detailed responses to the questions posed in the paper. We also provide some suggestions on how to streamline the reports.

If you have any questions, please contact [redacted] at [redacted].

The AER should improve its reporting and analysis on network utilisation by requiring networks to report Total Energy Throughput Utilisation and Two-way Power Flow Utilisation.

The 2024 Network Performance report includes an extended discussion of the importance of measuring and understanding network utilisation.[1] As the AER recognises, the traditional metric used in the reporting is an "informative but incomplete measure of a network's ability to respond to increases in maximum or peak demand on the network".[2]

We recommend that the AER adopt the network utilisation benchmarks outlined in the UTS report *Reimagining network utilisation in the era of consumer energy resources.*[3] The Total Energy Throughput Utilisation (TETU) and Two-way Power Flow Utilisation (TPFU)[4] highlight how effectively network infrastructure delivers value in the era of increasing consumer energy resource (CER) adoption.

Unlike the traditional metric, which only measures one-way peak demand, TETU captures all forms of consumer value including grid imports, exports, and local solar consumption, incentivising networks to maximise energy throughput without requiring costly network augmentation. This is becoming increasingly important in the context of reverse flows of electricity becoming more common in the National Electricity Market (NEM).[5]

As networks are required to provide both energy use and export services for consumers, examining both peak demand and minimum demand on the network is increasingly valuable, hence the insight providing from a TPFU metric.

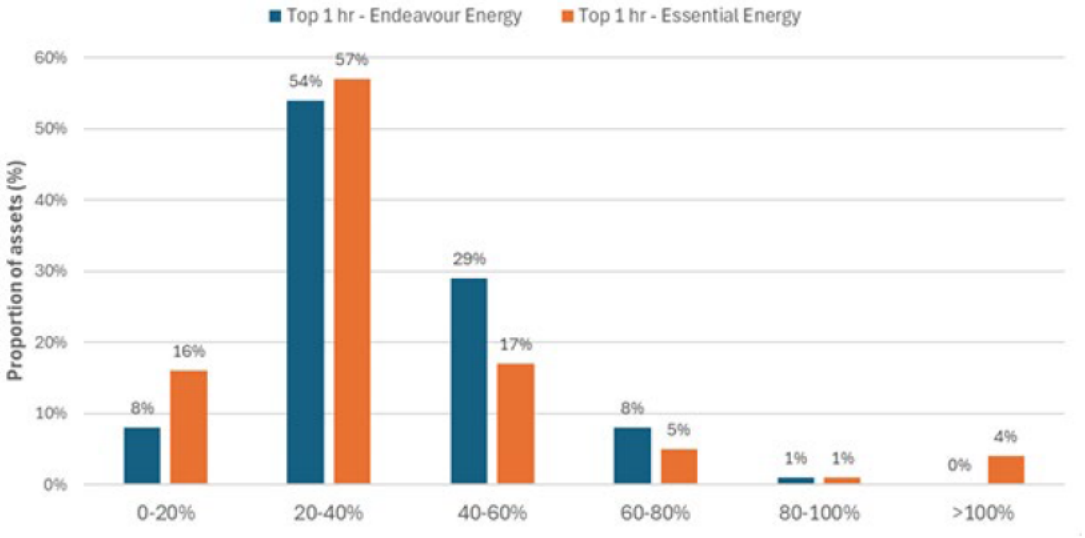
The AER has been laudably public and vocal in its refrain that "if networks want to build more, they need to use more". This push towards utilisation, however, appears much less meaningful if the AER is not willing to adopt 21st century metrics of utilisation in its own reporting to understand in practice how well networks are used.

We understand that changing metrics may require new data collection and broader consultation. These challenges are issues to work through intelligently and improve over time, not a strong rationale for updating and improving the reporting.

Indeed, there are opportunities to improve analysis using existing data. For example, utilisation metrics could be calculated at the substation level, with the AER reporting the proportion of substations above or below certain utilisation thresholds (e.g. X% of substations are above 80% utilisation on peak days, while Y% are below 50%). An example of such analysis is shown in Figure 1. It shows that more than 60% of Endeavour and Essential Energy zone substations operated at under 40% utilisation during the top one hour of demand. Fewer than 10% operated above 60% utilisation. This is more informative than the current metric simply stating that the utilisation of Endeavour Energy and Essential Energy's infrastructure as a whole is 52% and 18% respectively.[6]

[1] AER, 2024 Network Performance report (2024), pp. 41-43
[2] Ibid.
[3] Access here
[4] UTS, Reimagining network utilisation in the era of consumer energy resources (2024), p. 5
[5] AEMO, Emergency under frequency response for South Australia (2024), p. 7
[6] AER, Operational performance data 2024 – Electricity Distribution Networks (2024).

Figure 1: Forward flow utilisation of Endeavour and Essential zone substations in 2024



Source: UTS, Reimagining network utilisation in the era of consumer energy resources (2024), p. 7

Over time, as networks get access to more granular data, the reporting requirements can be further refined to provide better insights and analysis. Regardless, one must start somewhere, and we are confident there is sufficient data in hand now to begin reporting according to more complete metrics of utilisation.

Include network prices as a specific priority for network performance reporting

As the AER would be aware, network prices differ from network costs. Prices are paid by customers, while costs are those incurred by the network service provider. The National Energy Objectives (NEO) clearly promote the long-term interests of consumers with respect to price—without mentioning costs.[7]

Given the NEO, it's surprising that the analysis of network prices is largely absent from the reports, which instead focus on network costs. Network prices are influenced not only by costs, but also by changes in volumes, customer numbers, and cost allocation methodologies (i.e. changes in how costs are allocated between customer classes). These factors are not well understood by many stakeholders, likely due to a lack of transparent reporting.

Currently, the reports use network costs per customer as a proxy for price. However, this approach is misleading and obscures true changes in price because:

- **Analysis is undertaken across all customers and costs not the costs paid by individual customer class basis (e.g. residential, small business, etc).** The historic analysis has resulted in a contradiction in the findings of previous reports and actual prices paid by residential customers. The 2024 Network Performance Report stated that "Consumers pay lower network costs" and that "Electricity network revenue continues to decrease".[8] Yet, network charges (i.e., prices) in the

[7] https://www.aemc.gov.au/regulation/neo
[8] AER, 2024 Network Performance report (2024).

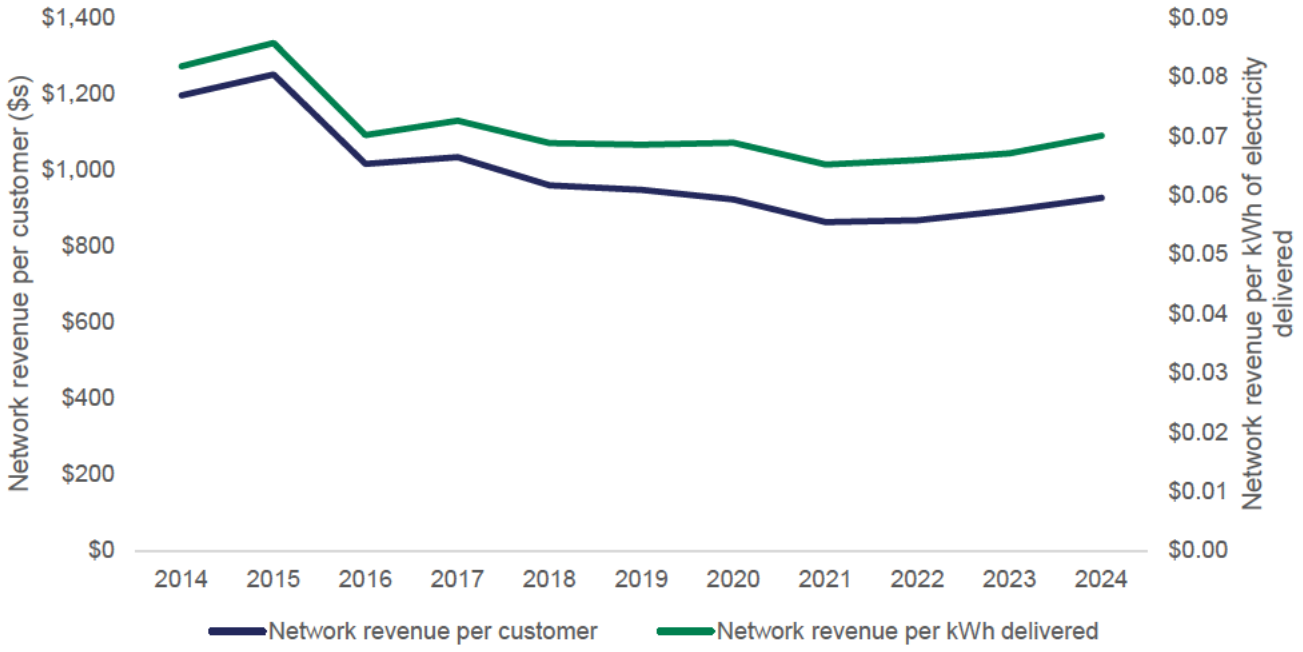
residential Default Market Offer decisions have increased by 10-34% in nominal terms between 2021-22 and 2025-26 depending on network.[9]

- **Most network costs are recovered via volumetric charges, not access charges.** Therefore, changes in volume have a greater impact on prices than changes in customer numbers. To illustrate the issue, if a large industrial customer with large energy demands happened to exit, this would be treated as just one lost customer and costs per customer would be relatively unchanged. However, cost per kWh would rise as costs would be spread amongst less demand.

Figure 2 shows that in recent years, revenue per customer has diverged from revenue per kWh. Network revenue per customer has fallen by around 26% in nominal terms, while revenue per kWh has fallen by only 18%. This reflects falling energy consumption per customer,[10] driven by rooftop solar and increasing energy efficiency of appliances and buildings.

As network costs are predominantly recovered via volumetric charges, network prices have not decreased as much as suggested by the cost-per-customer metric. This highlights the need for updated price analysis.

Figure 2: Electricity network revenue per customer and per kWh of electricity delivered (nominal)



Source: ECA Analysis of DNSP economic benchmarking RINS

Understanding and modelling underlying price changes will become increasingly important for both electricity and gas networks as the energy transition progresses. For example:

- EV uptake may reverse the trend of declining electricity consumption per customer, increasing volumes and putting downward pressure on prices. Conversely, increased adoption of batteries

[9] ECA analysis of AER Default Market Offer Decisions.
[10] This is shown in Figure 3-20 of the 2024 Network Performance report.

may continue the trend of declining demand per customer, inadvertently putting upward pressure on prices.

- Gas networks face similar dynamics, with declining volumes and customer connections likely to drive prices up.

We therefore recommend that network performance reporting include transparent analysis of distribution network prices and explain changes in price levels.

Expand analysis of network price

The AER should undertake detailed analysis of network prices to improve transparency and improve stakeholder understanding of what drives changes in price.

If reporting continues to use cost per customer, we suggest also including a cost per kWh/GJ metric, given most network costs are recovered via consumption-based charges rather than fixed access charges.

In addition, we suggest including:

- Examination of cost recovery allocation by customer class, identifying which classes bear the greatest share of network costs.
- Analysis of tariff levels by DNSP, including comparisons across jurisdictions.
- Annual bill estimates for indicative residential customers, highlighting which networks are more or less expensive to serve, and why.
- Analysis of cost recovery mechanisms, such as the balance between fixed and variable charges.

There is also scope to explain the main drivers of differences in price—both between reporting periods and across DNSPs. This could include:

- Changes in underlying costs;
- Changes in volumes supplied
- Changes in customer numbers
- Changes in cost allocation methodologies; and
- Changes in profit margins.

We understand the AER is seeking to understand where it could streamline the reports and datasets to make them more targeted. We offer the following suggestions to do so.

- **Focus the report on distribution network prices**[11] and explaining changes in price levels over time. This would ensure the analysis remains relevant to consumers and aligned with the National Energy Objectives.

[11] While still monitoring other important aspects of performance like network reliability.

- **Target commentary and analysis to key price drivers**. For example, if cost increases are a significant contributor, the report should explain the nature of those costs and assess whether they were prudent and efficient.
- **Publish a more comprehensive dataset**. This dataset would include all charts and figures from the report, but also other key data and charts not featured in the main report. This would allow the report to potentially be streamlined to focus on the key issues, while still giving stakeholders transparency over other metrics.
- **Provide DNSP-level data for all metrics.** To ensure full transparency, all data should be published at the DNSP level in addition to aggregated national or jurisdictional data. While commentary for each DNSP is not necessary, making the data available would enable stakeholders to conduct their own analysis and monitor trends specific to their region.

Finally, there may be opportunities to improve the timeliness of the reports. We note that the 2024 report was released in September 2024, based on FY23 data, while FY24 data was released just two months later in November 2024.

To improve relevance and currency, we suggest shifting the release of the performance report to early in the calendar year, allowing it to incorporate the most recent data and remain timely for stakeholders. We make this recommendation while recognising that resourcing constraints may be a factor in current timing.

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