10 July 2025

Mr Andrew Lewis

Executive General Manager – Consumer, Markets and Analytics

Australian Energy Market Commission

Dear Mr Lewis,

AEMC The pricing review: Electricity pricing for a consumer-driven future Discussion paper (EPR0097)

Energy Networks Australia (ENA) appreciates the opportunity to respond to the Australian Energy Market Commission's (AEMC) Discussion Paper on *The pricing review: Electricity pricing for a consumer-driven future*.[1]

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

ENA supports the Commission's vision for a broad, forward-looking review examining the role of electricity pricing, products and services in supporting the needs of all customers, including enabling the consumer energy resources necessary to assist the energy transition.

ENA emphasises the need for core economic principles of energy pricing in the review. ENA wants to avoid simplified analysis as the basis for fundamental changes to pricing design. A strong consideration for jurisdictional differences is also required to consider a foundation which benefits all National Energy Market (NEM) customers and participants.

Core economic principles

ENA strongly believes a core consideration of the pricing review should be on clear economic principles. Core economic thinking is foundational to the success of the outcomes of the review over the long-term. In economic terms recovering a greater, and ideally cost reflective share of residual costs in the fixed access charge part of network tariffs may help to:

- Better avoid potential consumer behaviour distortion
- Reduce inequitable cost recovery between consumer energy resources (CER) and non-CER owning customers as cited in the discussion paper
- Lessen the variability in network costs that retailers face when managing the cost effects of consumers energy usage and CER decisions

[1] AEMC, The pricing review: Electricity pricing for a consumer-driven future, Discussion Paper, 3 June 2025

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- Better align the network retail interface by better aligning the more limited share of network costs that are variable with the end user tariff charged to customers.

A desirable approach to network pricing in future could involve separating the network access service from the network use service and price. A variable network usage service might then enable networks to offer a variety of network design options enabling variable tariffs that recover variable costs via a range of use-signalling means. FarrierSwier notes in their paper, attached in Appendix B, that the network could have options to span variable measured demand, annual demand, seasonal or time of use, or only peak and minimum demand and export tariffs. While these would still need to link to cost reflective pricing principles they would better align to the small share of network costs that vary with customer usage.

Purpose of network tariffs

The Commission notes the largest component of the customer bill is the network tariff. However, the role and importance of networks is not highlighted. The primary function of network tariffs is to promote efficient investment in, and use of, the shared network for the long-term interests of consumers. Networks play a critical role in the security and reliability of energy supply, and the expansion of CER.

ENA supports network tariffs designed for retailers, to effectively utilise the retailers' capabilities in the evolving energy market. The current network and retail pricing design pre-dates the significant expansion in CER. Moving towards market signals for retailers, utilises retailers' market capability for sending the right signals to different customer types over a broader range of locations. Customers' needs are diverse and complex and retailers have the capacity to package network tariffs to send clear signals to customers.

A move to pricing for retailers will require a change in the pricing objective and principles under Clause 6.18.5 of the National Electricity Rules (NER). The Commission should consider how the pricing principles will need to change to reflect the retailer as the audience for network tariffs. With the retailer as the audience for network tariffs, the pricing principles may need to change to allow for an equivalent of the customer impact pricing principles. These new principles would need to consider the ability of retailers to manage the price signal, given technology changes and their own customer base.

As an important input into planning, networks engage with customers on regulatory resets. Altering the design of network tariffs does not forgo the need and benefit of direct network to customer engagement on pricing as customers are ultimately the end user of network investments.

ENA finds some analysis in the discussion paper to be over simplified and it may not capture the full context. For example, the discussion in appendix D on aggregated network headroom is used to draw conclusions on the degree of spare capacity in distribution networks, without considering that the analysis focuses on a single point in time and is an average across the network as a whole. In-depth analysis looking at headroom over time, and locational factors within a network area, would avoid the risk of over-simplifying the complexity and importance of network tariffs.

The recovery of transmission costs and jurisdictional scheme costs also occurs through distribution tariffs in each jurisdiction. Distributors have no ability to influence these costs contributing to the overall network charge. While the Commission has indicated that transmission pricing arrangements themselves are out of scope for the review, nonetheless, the review will need to consider the implications of current approaches for pricing outcomes for networks, network cost recovery and tariff design, and final retail costs and signals to consumers.

It is also worth noting that tariff and non-tariff measures are distinct but complimentary in driving efficient outcomes in CER adoption and coordination. Non-tariff measures will likely be required to support sufficient and desirable coordination, for example through direct procurement and support.

Need for further economic analysis of the issues

Customer investment in CER such as rooftop solar, household batteries and electric vehicles, is driving the energy transition. For consumers, ensuring their investments are recognised, and that capacity exists to unlock the value of CER assets, either through self-consumption, or sharing of electricity with other grid participants will be key.

The benefits of CER investment to the network, in addition to the wholesale market, also need to be recognised. The AEMC directions paper places significant emphasis on the study conducted by Energeia in 2025, *Benefit Analysis of Load-Flexibility from Consumer Energy Resources.* ENA finds that further analysis of the potential benefits of CER and coordinated CER to the network may well show a more balanced picture in terms of the overall benefits to the energy supply chain.

Customers want consistency in energy bills as volatility can be difficult to manage. The energy wholesale market is inherently inconsistent between time periods and increasingly volatile due to the rising share of renewable energy reliant on weather patterns. Network tariffs are more consistent over time and in essence are aimed at equitable cost recovery. It is not the role of network tariffs to reflect wholesale price volatility.

ENA does not agree with the analysis undertaken in section 7.2 that concludes network tariffs may unnecessarily work against wholesale market signals. The accelerated smart meter rollout is due to commence on 1 December 2025. Time of Use (ToU) tariffs are only available to customers with a smart meter, and approximately 52% of sites in South Australia have a smart meter and have the ability to use a ToU tariff at present. ToU tariffs are designed to manage network load and not necessarily wholesale costs, it should not be assumed that ToU tariffs should directly reflect wholesale market changes.

NER distortionary pricing signals

As noted in FarrierSwier's paper, the AEMC review could look at the removal of NER based pricing distortions, to create a level playing field for distribution and transmission connected batteries. Currently large batteries are not developed in distribution networks to the same extent as transmission networks due to the network use of system regime, while TUOS connected batteries can negotiate zero TUOS for connection.

The review could also consider whether rule guidance is warranted for non-DUOS network recoveries. FarrierSwier note that there are presently no NER provisions targeting the price structures that distributors use to recover the non-DUoS elements of NUoS, i.e. TUoS and Jurisdictional scheme costs. There can also be a lack of provisions set by jurisdictional governments for the recovery of jurisdictional scheme costs in some instances. Where these costs make up an increasing portion of variable network tariffs, they may exacerbate the energy usage distortions cited in the AEMC's discussion paper.

In addition, there may be distortionary impacts from distributors being required to pay eligible embedded generators avoided transmission use of system charges. The review might also consider whether this transfer is still warranted under the rules.

The need for more flexibility in the existing arrangements

Network pricing can signal avoidable costs that can be an important part of value stacking to encourage some customers to participate in retail coordination offers. FarrierSwier's paper notes that the AEMC pricing review could investigate impediments to these price signals, including the rigidities of the present 5 year tariff structure statements (TSS), fixed annual tariffs (albeit with provision for seasonality), the absence of locational network pricing (other than by voltage level), and prescription for long-run marginal cost (LRMC) without provision for short run marginal or avoidable costs may be affecting the efficacy of using distribution use of system (DUoS) tariffs for such signalling.

ENA notes in particular that flexibility in the 5 year tariff structure statements would enable networks to respond more readily to rapidly evolving changes in customer CER configurations, with cost reflective changes to tariff structure statements, with a net benefit to consumers and the wider system.

Next steps with the review

ENA notes the benefits of such a wide ranging review, but equally the benefit post the discussion paper of developing work streams from the review that are more topic focused with detailed working papers separately addressing both the core economic principles needing to be addressed and some of the changes needed to the existing pricing structure to avoid some of the distortionary price impacts, and lack of flexibility observed to date. This may enable some workstreams to progress more quickly than others, to the benefit of consumers.

If you wish to discuss any of the matters raised in this letter further, please contact Victoria Baikie, Senior Regulatory Analyst via vbaikie@energynetworks.com.au.

Yours sincerely,

Russell Pendlebury
General Manager Regulation & Policy

Appendix A – Response to Discussion Paper Questions

Discussion Paper Question	ENA response
Question 1: If we focus on enabling bookend products (from basic to sophisticated), is this sufficient to enable the range of products and services that will meet consumer preferences and lower system costs?	ENA agrees that a spectrum of retail products ranging from basic to complex is needed but pricing does not need to target having all CER behave in a coordinated way. In the near term, as noted by FarrierSwier in the paper accompanying this submission, the complex bookend product cannot be made available to all customers due to metering constraints.
Question 2: Can we rely on competition in the retail market to deliver the mix of products and services that customers value? • How should this review address issues in the retail market to ensure the products and services needed will be available, recognising work already underway?	Unpacking the network access and usage service and rebalancing relative network revenue recoveries to the access service could: • support competition in the retail market • avoid imposing unnecessary additional costs on both customers and retailers by avoiding variable charges that recover non-variable residual network costs • deliver lower overall costs over time through more efficient network access and network use decisions by consumers
Question 3: How can better outcomes for consumers be enabled through network tariff setting processes? • What can be improved at the retail and network interface that would contribute to better outcomes for consumers? • How can arrangements governing retailers and networks be improved to support better product and service offerings? • Who should receive the network price signal to make it more effective? • Should network tariffs be designed for retailers or consumers? If retailers, how much weight should networks	ENA supports network tariffs designed for retailers, to effectively utilise the retailers' capabilities in the evolving energy market to send the right signals to customers over a broad range of locations and a broad range of customer types.

put on the recommendations and views of retailers? • Should any or all of the following be key design features of network tariffs: support competition in the retail market, avoid imposing unnecessary additional costs, and deliver lower overall costs over time	
Question 4: What role can network tariffs play in meeting customer preferences while also efficiently and effectively contributing to lower overall costs?	Separating the network access service and price from the network use service and price may reduce retailer variable cost exposure and improve retailer and customer agency, while enhancing network tariff cost reflectivity.

Appendix B – Farrierswier Economic Critique for Energy Networks Australia

farrierswier

AEMC pricing review discussion paper

Economic critique for Energy Networks Australia

1. INTRODUCTION

Purpose | This memo provides farrierswier's economic critique of the Australian Energy Market Commission's (AEMC's) June 2025 discussion paper for its pricing review (the discussion paper) commissioned by Energy Networks Australia (ENA). It emphasises the need for stronger economic analysis and consideration of various factors influencing network tariffs. It suggests solutions to enhance efficiency, equity and responsiveness to consumer needs while supporting energy transition.

Summary | This memo finds:

- The discussion paper establishes two helpful anchoring assumptions with which we agree (listed below), but the consequences of these are not consistently accounted for in the problems and analysis cited in the paper
  - Pricing does not need to target having all CER behave in a coordinated way to benefit the whole energy system ← Agreed, noting that:
    - network price signals can be important to the retailer value stacking needed to achieve price-based CER coordination
    - other (non-tariff) fit for purpose CER coordination levers are also important
  - A spectrum of retail products ranging from basic to complex is needed ← Agreed, noting that:
    - the simplified book end is already provided for via retail regulations[1]
    - it would be inappropriate to apply simplification measures in network tariffs as it would impede the efficient versions of complex book end retail offerings.
- The review needs to acknowledge some important threshold network pricing realities:
  - Currently the complex bookend cannot be made available to all customers due to metering constraints
  - Network pricing is necessarily dominated by the recovery of residual costs
  - Network pricing rules cover all NEM jurisdictions and all scales of electricity consumer

[1] While this presently reflects a fixed charge and anytime flat rate offer price structure with default market offer or Victorian default offer price level protections, relevant retailer regulations could be amended in future to make this a subscription-style retail offer if that became the preferred simplified bookend.

  - Network tariff efficiency cannot be robustly considered in isolation of connection contributions based on net incremental costs as required by NER chapter 5A
  - Network tariffs only need to be designed to address a subset of behavioural incentives
  - The AEMC's review time horizon should align with its analysis and conclusions
  - Supply chain participants' roles and capabilities must change to facilitate the energy transition
- Further solutions that could be considered in the review include:
  - Opportunities to change how residual network costs are recovered
  - Removing NER-based pricing distortions
  - Guidance for distribution network price designs for recovering transmission and jurisdictional scheme costs which are largely unavoidable for distributors.

Structure | In this memo:

- Section 2 sets out our understanding of the AEMC's pricing review intent
- Section 3 considers the AEMC's stated anchoring assumptions of the review and their implications
- Section 4 identifies threshold network pricing realities relevant to the review, and shows how some of these have not been accounted for in specific issues and analysis presented in the discussion paper
- Section 5 suggests areas for consideration in the review that could (in our opinion) advance the review objectives whilst addressing stakeholder concerns reflected in the discussion paper.

2. OUR UNDERSTANDING OF THE AEMC'S PRICING REVIEW INTENT

Review scope | The AEMC's self-initiated forward-looking pricing review spans distribution network pricing and retail offers and pricing thereof, but not transmission network pricing or wholesale market pricing.

Review objectives | The discussion paper identifies two 'fundamental objectives' of the review as:

> *ensuring that the pricing framework supports the availability of the products and services that consumers want in the future, while also*
>
> *delivering a lower-cost system for all consumers.*[2]

Discussion paper purpose | The discussion paper represents a take stock moment in the AEMC's review in the face of a very diverse range of candidate pricing and related issues raised in consultation to date, these being more than the AEMC had seemingly contemplated. To which the AEMC aptly notes:

> *Importantly in the context of this review, it is not clear whether these issues will be resolved with more time or if reforms to the arrangements may be required.*[3]

The discussion paper groups candidate issues into 3 broad questions for the review:

1. *Can we rely on competition in the retail market to deliver the mix of products and services that customers value?*

2 AEMC, The Pricing Review: Discussion Paper, June 2025, p.4.

3 AEMC, The Pricing Review: Discussion Paper, June 2025, p.5.

2. *How can better outcomes for consumers be enabled through network tariff-setting processes?*
3. *What role can network tariffs play in meeting consumer preferences while also contributing to lower overall costs?*

At the ENA's request, this memo considers questions 2 and 3, with the critique focussing on the analysis and examples provided to support conclusions the discussion paper reaches regarding network tariffs.

3. CONSIDERING THE ANCHORING ASSUMPTIONS OF THE REVIEW

The discussion paper helpfully identifies a series of key assumptions the AEMC considers should shape the review, and seeks feedback on these. This section considers two of these, provides our comment and observations on each, and where relevant flags how those anchoring assumptions are seemingly at odds with candidate problems and cited analysis presented in the network pricing parts of the discussion paper.

3.1 Pricing does not need to target having all CER behave in a coordinated way to benefit the whole energy system

Assumption 1 | The paper identifies that lower costs for all consumers can be achieved by having **some** CER operated in a coordinated manner via pricing that benefits CER owners and the energy system. It **does not require all CER to be coordinated**.[4]

Our comment | This pragmatic and principled assumption makes sense for a pricing review. We observe that:

- The objective of pricing reform in shared infrastructure is generally only to reward those who *choose* to respond (i.e. because they sufficiently value any financial reward or avoided cost), and others pay the efficient cost of providing the service. It is not to change all, or even most, consumers' behaviour. Other things being equal, this is expected to still lower total costs to the benefit of all consumers over time.
- It is each consumer's prerogative whether they use their CER to its maximum possible productive effect. Some CER customers will choose to respond to improve the payback of their investment and should be able to benefit from this. Others won't respond, taking a passive investment return approach. Experience shows many of us don't try to maximise all hypothetically available economic returns on our consumer investments—e.g. we don't all loan our cars to uber drivers when we're not driving them, and we don't see every spare room in the housing stock being put on Airbnb. But we do see some consumers making those choices and we expect this will lower total societal costs of transport and accommodation.
- Other fit for purpose CER coordination levers will likely to be required to support sufficient and desirable coordination. We discuss some of these as relevant to network coordination in section 4.5 and note that energy system security has caused the Australian Energy Market Operator (AEMO) and the jurisdictional governments of all NEM jurisdictions (except Tasmania) plus W.A. to mandate emergency backstop coordination functionality in the face of no sufficiently scaled retail market solution for this increasingly necessary form of CER coordination.

4 AEMC, The Pricing Review: Discussion Paper, June 2025, p.4.

Implications for network pricing in this review | **Network pricing can signal avoidable costs[5] that can be an important part of value stacking to encourage some customers to participate in retail coordination offers**. The review could investigate these signals and any impediments to them.

We observe that:

- The rigidities of the present 5 year tariff structure statements (TSS), fixed annual tariffs (albeit with provision for seasonality)[6], the absence of locational network pricing (other than by voltage level), and prescription for long-run marginal cost (LRMC) without provision for short run marginal or avoidable costs may be affecting the efficacy of using distribution use of system (DUoS) tariffs for such signalling—this could be investigated in the review.
- Where on average dynamically controlled connection points will have a lower network cost over time, it may be pragmatic to have differential fixed access charges (or 'standing charges) for customers with and without dynamic control. We elaborate on this suggestion in section 5.1.
- Short-term or temporarily avoided costs may be better signalled and incentivised through contracted network support agreements. We elaborate on this consideration in section 4.5.

3.2 A spectrum of retail products ranging from basic to complex is needed in the future

Assumption 2 | The discussion paper states:

> *From a consumer's perspective, we can consider that they would want to choose retail products on a spectrum: from the most 'basic' which provides some degree of price predictability and is relatively easy to understand and engage with to the most sophisticated which provides consumers with a greater opportunity for both risk and reward. Enabling both ends of this spectrum – and so enabling the offers in between – should deliver the breadth of products needed to meet diverse consumer preferences and lower overall system costs.*[7]

Our comment | This is intuitively correct and follows from the first assumption that we are not seeking to change all customers' behaviour. We observe that:

- These bookends are what our energy market has already gravitated towards for the existing diversity of energy price and service offers available for larger sophisticated commercial customers compared to the dominance of simpler anytime tariff offers for residential customers even in those jurisdictions that have fully deployed smart metering.

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5 Avoidable network costs are expected from avoiding investments for growing maximum demand or falling minimum demand. Both of these costs can be avoided through coordination of CER as well as through other tariff-incentivised consumer behavioural change.

6 We note that Victoria has restricted retail tariffs to not change within a year, and equivalent fixed retail pricing periods are in the Minister for Climate Change and Energy's February 2025 rule changes currently under AEMC consideration. Where retailers cannot make intra-year tariff changes, there would be no logic in having intra-year network tariff changes either.

7 AEMC, The Pricing Review: Discussion Paper, June 2025, p.4.

- The simplified book end is already provided for appropriately at the retail level and would be inappropriate to apply in network tariffs for reasons explained in this memo. The AEMC's November 2024 rule changes accompanying the accelerated smart meter roll out establish safeguards requiring designated retailers to offer customers with a smart meter a flat tariff offer (noting that jurisdictions would need to apply this rule through a local instrument) and obtain explicit informed consent to change their tariff structure.

Implications for network pricing in this review | Enabling an efficient version of the complex bookend that is capable of lowering system costs for all customers' benefit presents some critical implications for this review:

1. **Retailers as the business to customer (B2C) intermediary who face the entire electricity supply chain costs are uniquely and best placed to decide which customers will be offered which price signals (if any) and to vary this in a timely way.**

   Retailers can only do that role efficiently if they see the relevant cost signals in the business to business (B2B) prices they incur from that supply chain. Impeding efficient B2B price signals risks locking potential inefficiency into upstream supply chain elements and limiting the co-optimisation of supply, demand and CER integrated responses by consumers who would otherwise choose to benefit from that co-optimisation. For example, absent a network tariff signal of export pricing for peak solar exports that drive minimum demand and associated network costs, a retailer would not face these network cost signals that it can choose to share with customers in their offerings to support the economics of customers' battery investments or load shifting.

   Assumption 1 presupposes that there are opportunities to remove inefficiencies or reduce costs in a supply chain. If so, where should these be managed? The prevailing regulatory policy expectation to date has been that they should be placed where they can competed away or paid for—i.e. with retailers. The counterfactual of not giving retailers these cost signals effectively says, we're not interested in having the upstream efficiency opportunities assessed by those who could benefit from them, which offends the AEMC's review intent. That view implies the AEMC want only innovation that saves retailers' own costs or their generation costs. If that counterfactual intent were true, the various rule reforms to date aimed at CER integration[8] and value stacking would have been in vain.

2. As above, **network pricing can signal avoidable costs that can be an important part of value stacking in the more complex offers** or can have sufficient value in their own right to be motivating for customers of a certain scale or who have automated or ceded response controls.

These implications mean actions taken in this review must not preclude efficient network cost and avoidable cost signals being available for inclusion in future complex offers made by retailers.

[8] Such as the 2021 export pricing rule change and recent rule changes on Integrating price-responsive resources into the NEM and Unlocking CER benefits through flexible trading.

The discussion paper presents a range of concerns that suggest retailer's exposure to network tariff signals should be lessened. We consider these in section 4.7 and present candidate solutions in section 5.1.

In our opinion, retailers are the party that is best placed to manage the risks created by the fact that network tariffs (and underlying network costs) vary based customers' energy usage and export decisions. It is true that unlike wholesale prices, there are no derivative products that allow retailers to hedge network price volatility. However, we note that:

- with network tariff structures fixed for 5 years and price levels for 12 months within a known 5 year price path, volatility in retailers' network costs is primarily a function of volatility in customer usage
- retailers have a range of tools they can use to manage this risk while offering a range of retail price structures that fit customers' preferences, e.g. enhanced analytical capabilities for predicting customer and CER behaviour, forecasting network costs and managing individual customer variation between network and retail costs across their entire customer base, offering CER services to help customers reduce network charges, offering flat tariffs with a risk premium included.

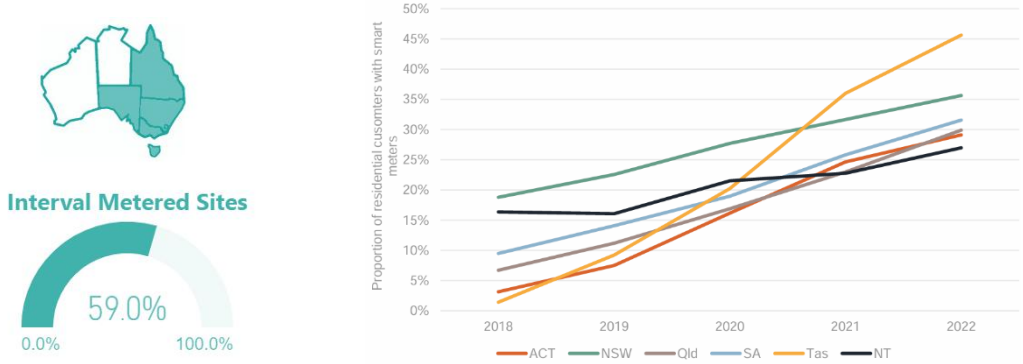
We consider that exposing retailers to cost-reflective network tariffs while still requiring retailers to offer a range of retail tariffs including flat tariffs is one of the most powerful steps the AEMC can take to incentivise retailer innovation in CER products and services instead of just passing through network tariff structures to every customer.

4. THRESHOLD NETWORK PRICING REALITIES THE REVIEW MUST ACKNOWLEDGE

4.1 Currently the complex bookend cannot be made available to all customers

The discussion paper observes that 62% of customers outside Victoria are on a flat-rate volumetric network tariff[9] and 73% of customers are on flat-rate retail offers, which the paper says shows that '*not everyone can access plans that they want*'.[10]

Figure 4.1: Smart meter penetration



Sources: AEMO, NEM DER and interval metering dashboard, 9 July 2025, AER, 2023 Electricity network performance report, p.28.

9 AEMC, The Pricing Review: Discussion Paper, June 2025, p.54.

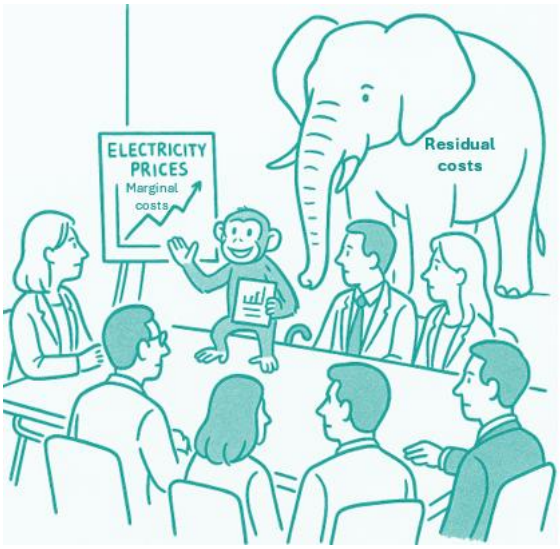
10 AEMC, The Pricing Review: Discussion Paper, June 2025, p.40.

The enabling metering for networks to apply and customers to choose more complex retail offers if they were available will not be universally available before 2030, assuming the acceleration runs to schedule. Figure 4.1 shows the 2024 status of smart meter deployment across the NEM.

Implications for this review | This suggests caution is needed when drawing inference of network pricing rule failings or retail offer inadequacies from the experience to date, with the paper's observation that '*it is not clear whether these issues will be resolved with more time*'[11] being relevant here.

4.2 Network pricing is necessarily dominated by the recovery of residual costs

In a network pricing regime that binds distributors to set tariffs '*based on*' long run marginal cost (LRMC)[12] it is easy to fixate on that aspect of pricing design and compliance. More so, when that is the pricing design aspect linked to the allocative efficiency ideal of minimising network costs in the long-term.

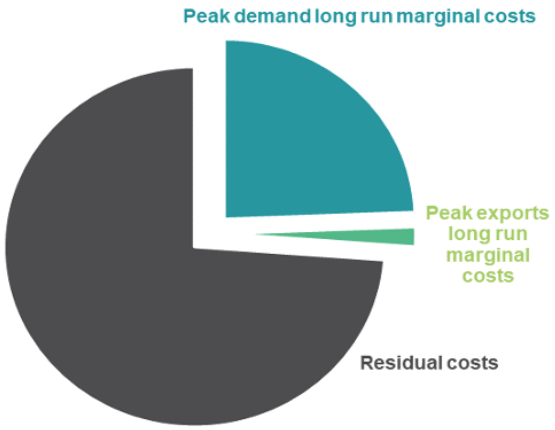


The reality is that most of distributors' costs are not marginal and LRMC-based pricing is only used as a proxy guide to recovering part of the allowed building block revenues and send cost-based price signals.

As the discussion paper observes, the rules recognise that LRMC recoveries alone are insufficient and requires their recovery in a way that 'that minimises distortions to the price signals for efficient usage'.[13]

This must be viewed in the context where distributors' TSSs estimate that the LRMC-based element of pricing is only a fraction of the revenues recovered through their prices—see Figure 4.2.

Figure 4.2: Example distributor LRMC versus residual cost shares of building block revenues



Source: Essential Energy, Essential Energy 2024–29 Revised Tariff Structure Explanatory Statement, Nov 2023, p.25

11 AEMC, The Pricing Review: Discussion Paper, June 2025, p.5.

12 NER cl.6.18.5(f).

13 NER cl.6.18.5(g). noted in AEMC, The Pricing Review: Discussion Paper, June 2025, p.82.

In our experience, distributors' current approaches to residual cost recovery are affected by the realities of transitioning from the two-part tariffs that predated supply chain vertical separation including:

- the necessary path dependency in tariff rebalancing imposed by the customer impact principle in NER cl.6.18.5(h), and
- community and political perceptions (rightly or wrongly) that high fixed access charges can have inequitable impacts.

Implications for this review | The most impactful aspect of network pricing on customer bills and retailers' offer designs will likely be residual cost recoveries. For the review, this means:

- Residual cost recovery measures that avoid distortive effects or exacerbating retailer risk should be considered—we suggest options for this in section 5.1
- Having a menu-style approach to residual tariff recoveries (as arguably many current TSS's do) is unlikely to be efficient for the reasons touched on in the discussion paper.

4.3 Network pricing rules cover all NEM jurisdictions and all scales of electricity consumer

It seems obvious, but the review cannot lose sight of the fact that:

- Customer diversity must be accounted for because these pricing rules apply to network tariffs for the full range of customers from households to steelworks[14]. It spans:
  - commercial and industrial customers whose retail bills separately disclose network tariffs and whose network costs (while material to network cost drivers) are seldom the largest share of their bill
  - residential customers whose network cost contribution may be negligible and who mostly do not yet have smart metering.
- The network pricing rules need to be fit for use in all NEM jurisdiction and the NT, all the time.

Implications for this review | Caution is needed in:

- Being explicit when the AEMC is inherently referring to residential or small business customers to avoid generalisations or responses that would impede efficient tariff designs for industrial customers
- Ensuring the analysis and evidence base considers all applicable jurisdictions—i.e. avoiding 'sound bite' examples.

It is not clear that the AEMC's consumer archetypes for this review sufficiently capture the issue of consumer scale which can be fundamental to considering the economic efficiency of pricing outcomes.

The problems with the jurisdictional coverage will persist if the review continues to be informed by what can best be described as anecdotal case studies instead of NEM-wide analysis of sufficient timescales. This can be seen in the following discussion paper examples:

A single 2 month comparison of South Australian time of use tariffs and wholesale prices in Figure 9 is used to suggest there is a broad issue of conflict in the correct network pricing signals vis wholesale cost signals. A more fulsome assessment of that example would consider:

- whether the equivalent issue exists in all applicable jurisdictions

[14] Even within existing tariff lasses there can be significant relevant diversity due to the nature of the appliances and plan and equipment the customers use (e.g. relatively flat data centre loads versus more peaky waste treatment facilities).

- if it is even a problem in the jurisdictions that have full regulation of retail prices, namely the Australian Capital Territory, Tasmania, regional Queensland and the Northern Territory
- a full year of data and ideally longer timeseries
- the materiality of it in observed relative retail price components
- having regard to customer price elasticity
- whether there are divergent but respectively efficient cost drivers for the network versus wholesale cost outcomes
- any interaction between network and wholesale prices (i.e. via the impact of behavioural response)
- the impact in other jurisdictions where other networks have zero TOU tariffs for their solar sponge equivalent prices reflecting efficient alignment times where minimum demand is affecting both network and wholesale costs
- the likely impacts of the AER's changed practice in the last two rounds of TSS decisions whereby it has started approving contingent triggers to allow adjustment of distributors' TOU pricing windows where reported regulatory information notice data provides evidence that adjustment is warranted.

Analysing system benefits from CER is an area where reasonable minds may differ, or alternative credible scenarios and assumptions warrant testing. For example, analysis of the system benefits of CER detailed in Figure 8 undervalues the benefits to networks compared the findings of ENA's Time is Now report.

4.4 Network tariff efficiency cannot be robustly considered in isolation of connection contributions based on net incremental costs as required by NER chapter 5A

The NER rules regime already recognises that providing a largely postage stamped network tariff can create inefficient network connection decisions that would not be in customers' interests because they would raise system costs for all customers. It addresses this by requiring that customers of sufficient scale to warrant the administrative cost of bespoke connection contributions calculations should pay for the net incremental cost of their connections, including shared network augmentations, via their connection contributions.

Chapter 5A and the AER's guideline therefore establish the following formula for such connection contributions referred to as the cost revenue test:

$$CC = ICCS + ICSN - IR(n=X)$$

Where:

CC ≥ 0

CC = Capital Contribution for standard control services.

ICCS = Incremental Cost Customer Specific

ICSN = Incremental Cost Shared Network

IR(n=X) = Incremental revenue expected to be received from the new connection

Implications for this review | Efficient outcomes for network connection, use and funding of network augmentation cannot be assessed through the lens of network tariffs alone.

Presently the discussion paper is silent on this relationship and the examples provided are therefore wrong in their conclusions.

The AEMC's highly hypothetical example of consumer responses to LRMC signals[15] in relation to a housing development and augmentation, does not match how current connection pricing approaches function in practice. The AEMC says:

> *Because the future is unknowable, long-run marginal cost price signals can also create a disconnect between people responding to them and the reduction of network costs. For example, imagine a set of consumers who have been responding to long-run pricing signals to reduce their peak demand in the expectation that this will defer a network investment in their part of the network in a decade's time. However, before that point, a new housing development emerges nearby, leading to a large augmentation of that part of the network. In this case, those consumers will have been reducing their peak demand in response to the pricing signal, but in reality, this will have no material impact on network costs due to the new development increasing demand and triggering network investment sooner than expected.*

This ignores the important role of capital contributions under NER chapter 5A developed by the AEMC and administered by the AER. It does not reflect how network augmentations are paid by developers via connection contributions and alternative control service developer charges. Those contributions calculated under the AER's guideline necessarily mean that the incremental revenues to be earned from the connecting customers will make the existing customers no worse off because of the network costs driven by those new customers.

This causer pays approach means the customers responding to the network LRMC signal before the developer connection are no worse off for the investment ultimately taking place for reasons beyond those customers' usage decisions.

4.5 Network tariffs may only be fit for a subset of behavioural incentives

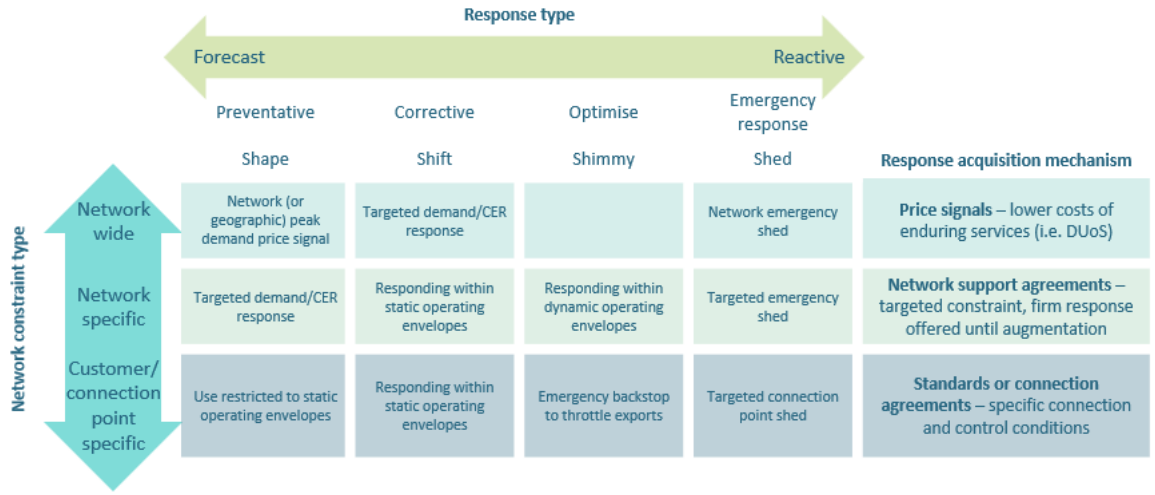
Not all desirable forms of consumer or CER behavioural response lend themselves to network tariffs being the signal. A range of other tools and contracted services can achieve this and are usually more closely linked to a network decision between capital investment and a sufficiently firm response to defer or avoid investment.

For this reason, it is helpful to establish and use a taxonomy of desirable network behavioural responses and the corresponding network constraint or cost driver they can target. This then aids the fit for purpose matching of available tariffs, contracting, or mandated mechanisms of achieving the required form and firmness of behavioural response.

In New Zealand, Energy Networks Aotearoa has worked with the electricity industry and consumer representatives to develop such a taxonomy. In Figure 4.3 below we have adapted that thinking for an Australian distributor's context.

15 Which is inherently ignoring that we don't see local LRMC signals in current network tariff practice.

Figure 4.3: Demand and CER response taxonomy



Implications for this review | A demand response and network cost/benefit taxonomy could aid clarity in the review's analysis and in targeting of review actions. It can avoid assuming network tariff are the right signal for all CER or demand response coordination when locational factors, required response firmness or short-run benefit windows may all be better served through direct procurement of those via network support agreements.

The review should avoid criticisms of network tariff signals that are not grounded in a mature and commonly understood description of the intent of those signals and the time horizon over which they are to be motivated and would support lower system costs. Likewise, it should acknowledge that not all behaviours lend themselves to tariffs whose structure is set 5 years in advance and level is only varied annually.

As Figure 4.3 shows, network tariffs better lend themselves to ongoing network-wide shaping and shifting signals. Analysis in the discussion paper has not yet shown that such an objective cannot be met through network tariffs in the long-term for the long-term benefit of all customers via lower system costs.

For example, analysis presented in the discussion paper using a simplified and stylised discussion on aggregated network 'headroom' or spare capacity across network substations in NEM regions **at a point in time** in appendix D is used to question the merits and trade-offs of long-term investment signalling that is designed to support the '*shape*' form of behavioural response.[16]

Such simplified network-wide point in time analysis cannot be fit for informing regulatory policy on network tariff design amid:

- A long-term interests objective
- Expected network demand drivers of transport electrification, gas electrification and energy demand of an AI-enabled economy that will affect the adequacy of network capacity in the foreseeable future
- The reality that actual cost drivers and capacity outcomes are not network-wide
- The reasonable expectation of allocative efficiency gains in network utilisation where even network-wide long-run marginal signals are provided—noting as we do in section 4.1 that such signals have

16 AEMC, The Pricing Review, Discussion Paper, June 2025, Figure 11, p.79

been impeded to date through the metering fleet capabilities, so history is not necessarily a good predictor of the 2035 state contemplated in this pricing review.

Further issues in the analysis of consumption harms from network-wide LRMC network pricing presented in appendix D are that:

- retailers would need to pass on the network signal including with their own costs which will be the customer facing price that is capable of triggering any behavioural response—while the paper cites retail tariff structures for this assumption it has no analysis of retail tariff levels which would be the relevant behaviour response driver
- for the AEMC's cited harms to occur, the price elasticity of customers who do see that retail signal would need to be sufficient to drive a response—there is no analysis of this.

4.6 The AEMC's review time horizon should align with its analysis and conclusions

It is important to critique network tariff signals and their distributive effects over the time horizon they are designed for.

The discussion paper says: [17]

> *Network tariffs are encouraging the transfer of network costs between consumers rather than reducing costs' and 'most current and future network costs are generally fixed and unavoidable.*

This is necessarily a function of what time horizon you look at, and your expectation of whether CER and demand response participation will actually lower network or system costs over time. Of course revenue rebalancing is the case under a revenue cap within a 5 year regulatory period. But networks' costs are dominated by long-lived assets with up to 50 years of service life, and the horizon of long-term LRMC signals that the NER mandates distributors apply is interpreted by the AER to be no less than 10 years.

Absent critical peak pricing in network (and then retail tariffs), we must recognise the horizon over which the *shape* and *shift* responses in Figure 4.3 are intended to play out.[18] Here the time horizon over which behaviour is being influenced may be daily for *shift*, but more likely it is a gradual change in upon building and appliance upgrades, for instance. This is because incentive-based pricing under a building block regime is about avoiding future marginal costs. The AEMC is right that historical sunk cost recoveries and maintenance investment will persist.

In our view, the question the review could consider in light of the problems it is citing are:

> *Is the size of the prize form to cost reflective network tariffs big enough, and over what horizon should it be expected?*

Implications for this review | Related to the above point (section 4.5), the time horizon for considering network cost minimisation and behavioural response signals must align with the intent of those signals and the review's stated long-term future focus.

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17 AEMC, The Pricing Review: Discussion Paper, June 2025, p.56.

18 Noting this is in part due to the rigidities of a 5 year TSS period and obligations for annual tariff gazettal.

For signals not widely present in network tariffs today (e.g. those targeting automated responses), the review could helpfully examine potential impediments to such dynamic pricing in the rules, TSS and AER practice, if it and stakeholders consider network tariffs are the fit for purpose solution to such signals.

4.7 Supply chain participants' roles and capabilities must change and are changing for energy transition

Networks' roles and pricing have changed to enable energy transition

In the last 5 years the AEMC has mandated that both distribution and transmission networks' roles and corresponding pricing must change to enable energy transition. These changes are still working their way through pricing transitions and behavioural change in the parties that face those prices.

Distribution networks must now provide and are empowered to price for provision of a two-way service.

Transmission networks must now plan and provide for and are required to price for system strength.

Are retailers unable, unwilling or unprepared for managing evolving cost risks?

The discussion paper asks:

> *What can be improved at the retail and network interface that would contribute to better outcomes for consumers?*

We consider an equally important question is

> *What capabilities should each party establish to deliver better outcomes for consumers?*

We acknowledge that the network service, capability and pricing evolutions noted above were required of networks via regulation, albeit with the two-way service proposal being jointly made by distribution and consumer representatives.

Still, amid the foreseeable trends in wholesale price setting, transition to universal smart metering, and material uptake of CER, it may be instructive to consider what capabilities retailers will need to evolve or expand to meet customer expectations.

The discussion paper states:

> *It is not clear to what extent retailers can affordably manage network costs on customers' behalf.*

Given the retail competition observations in the discussion paper, it would be valuable for this review to:

- investigate the claims of retailer inability to manage network costs before taking them as fact when making its review decisions given the potential conflict here for any commercially motivated competitive firm to seek to shift risk
- assess what tools are available to retailers to manage these risks and what if any barriers or limitation exist in the use of these tools
- maintain the principles of efficiently allocating risks to the party that is best able to manage them.

Notwithstanding our suggested retail de-risking of residual network cost recoveries in section 5.1, the questions of capability and preparedness, and efficient risk sharing would be good to include in the empirical assessment that the AEMC says it is undertaking in section 5.4 of the discussion paper.

Importantly, given the AEMC's key review question '*Can we rely on competition in the retail market to deliver the mix of products and services that customers value?*, this analysis need only satisfy the AEMC that a viable number of retailers can acquire those capabilities and efficiency manage those risks.

5. REVIEW OPPORTUNITIES

5.1 Opportunities to change how residual network costs are recovered

In our opinion, where a greater (and ideally a cost reflective[19]) share of residual costs are recovered in the fixed access charge part of network tariffs, this can:

- better meet NER cl.6.18.5(g) of avoiding potential consumer behaviour distortion
- best avoid the inequitable cost recovery effects between CER and non-CER customers cited in the discussion paper[20]
- materially lessen the variability in network costs that retailers face when trying to manage the cost effects of consumer's energy usage and CER decisions
- improve the retail and network interface and contribute to better outcomes for consumers by better ensuring the variable recovery aspect of network costs is aligned with the more limited share of network costs that are actually variable.

Some networks have already sought to standardise their fixed access charges for a given customer type and apply most of their annual allowed price increase to these charges. This was done so that movement between different eligible tariffs or upon receiving a smart meter and being reassigned is not exacerbating retailer and network bill impacts through how residual costs are recovered.[21]

Suggestion | If we place ourselves in the post 2035 future contemplated in this pricing review, a desirable approach to network pricing may involve separating the network access service and price from the network use service and price. This could reduce retailer variable cost exposure and improve retailer and customer agency, whilst enhancing network tariff cost reflectivity.

It could involve:

- **Higher default access charges reflecting the nature of the access service** | A default fixed charge commensurate with the relatively higher residual cost share of networks' costs. This could be:
  - a default fixed access charge by customer type, not a menu
  - use differentiated fixed access charges for dynamically controlled versus uncontrolled[22] connection points reflecting:

19 Because LRMC estimation is an inexact exercise, it may be necessary to prescribe the revenue share deemed to be residual e.g. equivalent to how totex regimes prescribe the capex and opex shares.

20 AEMC, The Pricing Review: Discussion Paper, June 2025, p.55.

21 See Essential Energy 2024-2029 Tariff Structure Statement, November 2023, p.17.

22 Noting emergency backstop measures mean that some control of all PV devices will likely exist by 2035 through new and replacement inverter upgrades.

  - the lower average network cost of supplying dynamically controlled customers, noting that dynamic controls would reflect the local peak or minimum demand events that drive network costs in a more efficient way than the present LRMC signals cited in the discussion paper
  - the customer behaviour the fixed charge is targeting is the terms of their network connection choice not their energy use decisions.
- **Retailer agency in a variable network usage service** | Networks could offer a menu of variable tariffs that recover variable costs via a range of use-signalling means approved by the regulator as still satisfying appropriate cost reflective pricing principles. A retailer could nominate one that suits their retail offer design. For example, the network could have options spanning variable measured demand, annual demand, seasonal or time of use, locational, or only critical peak and minimum demand and export tariffs. These would still need to link to cost reflective pricing principles but would better align to the relatively small share of network costs that vary with customer usage decisions over time.

  The cost reflectivity principles could be broadened to just *marginal or avoidable cost* so that the diversity of use of system cost reflective signals could target short-run or long-run marginal cost drivers depending upon the location, voltage level and behaviours being targeted in the bundled retail offering and the corresponding network benefits or costs they affect.

Some parties have even observed that the network access service and default fixed charge does not have to be recovered through energy prices. It could become part of rates system or be split between the premises owner and premises occupant the way residential water fixed access charges are recovered. This could support a range of tenant agency benefits when those tenants do not always have the means to control the CER status of their occupancies.

Unpacking the network access and usage service and rebalancing relative network revenue recoveries to the access service could:

- **support competition in the retail market** by:
  - creating a level playing field in how retailers incur residual network cost recoveries through lessening the need for a larger retail customer base to manage exposure to variable network cost recovery
  - empowering retailers to chose how they recover the more predictable fixed network costs (i.e. they would not have to pass them on to still benefit from the enhanced predictability)
  - improving retailer agency to still access variable network usage services that work with the bundled service offering they are putting into the market and the efficient value stacking it is attempting to share with customers
- **avoid imposing unnecessary additional costs** on both customers and retailers by avoiding variable charges that recover non-variable residual network costs
- **deliver lower overall costs over time** through more efficient network access and network use decisions by consumers, and by supporting a greater variety of retail offering by derisking variable network cost exposure.

5.2 Removing NER-based pricing distortions

Creating a level playing field for distribution and transmission connected batteries

The discussion paper cites SMA and Elgin Energy's submissions as evidence of network tariffs creating impediments to their wholesale market engagement.[23] That is not the issue those submissions are raising.

Those submissions are concerned with the current distribution pricing rules creating a lack of a level playing field between transmission connected and distribution connection grid scale batteries. They state:

> **SMA** | *We urge you to use this review as an opportunity to ensure there is a 'level playing field' for tariffs available to utility scale batteries. Our customers include developers of utility scale batteries on transmission networks. They have told us that they would be keen to develop grid-scale battery projects on sub-transmission and high voltage distribution networks. They are not doing so at present because the business case is hindered due to the Network Use of System (NUoS) tariff regime. An uneven playing field exists between transmission-connected batteries and those connected to sub-transmission and high voltage distribution networks.*[24]

> **Elgin Energy** | *We also urge the review to establish a fair and equitable tariff structure for utility-scale batteries. There is strong interest in pursuing projects on sub-transmission and high-voltage distribution networks. However, the current Network Use of System (NUoS) tariff regime undermines the viability of these projects (unlike on transmission connected projects) creating a disparity between transmission-connected batteries and those connected at the distribution level.*[25]

This distortion has also been noted by the AER whose commissioned research observes:

> *Currently, distribution connected grid-scale batteries, like any other load customer connected at the same voltage, would face a distribution network tariff that covers the NUOS charges defined in the TSS and counted towards the total revenue cap. At the same time, transmission connected batteries can negotiate access to the transmission services and its price with the transmission service provider.* [26]

In practice this rule distortion means transmission networks can negotiate with batteries for zero TUoS charges, whereas distributors are required to charge NUOS tariffs on equivalent scale distribution connected batteries.

In our experience, notwithstanding the intent of NER cl.6.18.5(g) of avoiding potential consumer behaviour distortion through prudent discounting of residual cost recoveries, and the important consumer protection of NER cl.6.18.5(e)(2) of pricing tariff classes above avoidable cost, the AER has not permitted distributors to prudently discount their NUOS tariffs to desirable connections like grid scale batteries. It has done so on the basis that the NER cl.6.18.5 pricing principles do not use the explicit

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23 AEMC, The Pricing Review: Discussion Paper, June 2025, footnote 112.

24 SMA, p.1.

25 Elgin Energy, p.1.

26 AER, Network tariffs for the distributed energy future | Final paper for the Australian Energy Regulator, June 2022, section 2.6.2, p.23.

wording of '*prudent discounts*' that can be found in the equivalent pricing provisions of the National Gas Rules and in NER chapter 6A for transmission pricing.

This leaves distributors powerless to address the problem SMA and Elgin Power have cited and is a consistent source of dispute in their connection discussions with batter developers.

This distortion cannot be consistent with the AEMC's review objective of delivering a lower-cost system for all consumers.

Suggestion | This review should consider removing impediments to a level playing field between transmission and distortion pricing for equivalent scale customers.

Avoiding unwarranted intra-period network revenue transfers

As noted in section 6.1. aligning residual cost recovery to a network access and associated default charge will lessen network revenue transfers that are not aligned with lessening total network costs. Other transfer distortions exist that are not delivering lower system costs and are driving administrative cost and price variability into network and retail pricing.

Distributors are required to pay eligible embedded generators avoided transmission use of system (avoided TUoS) payments. These are then recovered from retailers annually with financing cost adjustments.

Under transmission network cost structures and pricing methodologies the measured avoided TUoS does not avoid transmission network costs for distributors, retailers or consumers. The deemed 50% locational transmission costs merely resettle to the measured transmission connection point demand the following year.

While this distortion was introduced into the rules decades ago to enhance the economics of embedded generation, that rule bias may not be justified due to changed economics in embedded generation and for the same revenue transfer reasons the AEMC's discussion paper cites about network costs.

Suggestion | This review should consider whether this distorting transfer is warranted anymore.

5.3 Considering guidance for non-DUOS network recoveries

There is presently no NER provisions targeting the price structures that distributors use to recover the non-DUoS elements of NUoS—i.e. TUoS and jurisdictional scheme costs. Where these are included in variable network tariffs, they will necessarily exacerbate the energy usage distortions cited in the discussion paper. With transmission costs and some jurisdictional scheme costs forecast to increase as a share of retail bills during our energy transition, this is a concern directly relevant to the review's objectives.

Suggestion | This review could consider whether rule guidance is warranted and what form it should take (e.g. an equivalent requirement to NER cl.6.18.5(g)).