DRAFT AEMC Terms of Reference

Electricity pricing for a consumer-driven future

Purpose of this document

The Australian Energy Market Commission (AEMC or Commission) is initiating a review to examine the future of electricity products and services, and the prices consumers pay for these.[1] The review, titled *Electricity pricing for a consumer-driven future* (the Review), will consider the important role that electricity pricing, products, and services will play in supporting the diverse needs of customers, including delivering the consumer energy resources (CER) necessary for the energy transition.

We consider that this is an important review, required under the Consumer Energy Resources (CER) Roadmap, to realise the benefits of CER[2] for all energy consumers, including those without CER. The Review will support CER integration in the National Electricity Market (NEM) to deliver lower overall costs to all consumers.

We are publishing these draft Terms of Reference to inform stakeholders about the Review and to seek their input. We encourage stakeholders to engage with the Review at this early stage, and in our future forums. We will facilitate a public forum to elicit stakeholder views on these draft Terms of Reference.

Following stakeholder input, the Terms of Reference will be finalised, and the Commission will publish a consultation paper seeking stakeholder input on the suite of issues we intend to consider in the Review.

Consumers' adoption of CER is an important part of the energy system

Millions of Australian households and businesses are embracing CER, from solar panels,[3] to batteries,[4] home and business energy management systems and electric vehicles.[5]

People are also using CER in the form of 'smart devices' such as hot water systems at home or at work and controlling or programming their use to manage energy consumption through behaviours, timers, and dedicated apps. Alongside CER, 'distributed energy resources' (DER), such as neighbourhood batteries and Virtual Power Plants (VPPs), are a growing part of the power system.

Widespread government commitments to achieve net zero emissions by 2050 are accelerating this shift and CER and DER will play a critically important role in Australia's energy transformation, helping to reduce overall system costs, improve reliability and achieve a secure, low-emission energy supply for all.

[1] The AEMC initiates the Review under section 45 of the National Electricity Law (NEL) and section 232 of the National Energy Retail Law (NERL) and the draft Terms of reference, which have been developed in accordance with section 45 of the NEL, and section 232 of the NERL.

[2] CER includes responsive/ flexible load and generation at customer premises such as rooftop solar panels, batteries, home and businesses energy management systems, and electric vehicles, as well as 'smart devices' such as controllable hot water systems. CER can also include responsive load at large customer sites such as refrigeration and heating ventilation and air conditioning (HVAC).

[3] Around one in four Australian houses have solar panels, with one in two expected by 2040. Over 3 million total solar rooftop PV systems have been installed for residential and small business customers in Australia.

[4] More than 50,000 small-scale battery systems have been installed in the past seven years.

[5] There is predicted to be a surge in electric vehicles in Australia, with approximately 22 million expected to be taken up by 2050.

Successful integration benefits all consumers, including those without CER

As with any new technology, there are risks and opportunities, but the research tells us that if CER is integrated well, the power system will operate more smoothly, and consumers and industry will enjoy the benefits of more cost-efficient and reliable energy.

Benefits for consumers with CER technologies would include:

- flexibility in how and when they use energy so they can save money within their own home or business
- having the option to allow their CER technologies to be used in the wider power system and to be rewarded for that
- contributing to the achievement of a net zero energy system
- lower overall spending on network infrastructure.

Crucially those who do not have CER technologies like solar, batteries and smart hot water systems would also enjoy direct and flow-on benefits, such as:

- Flexibility to use energy more efficiently and save money on bills.
- Benefiting from the lower system costs that integration of CER can deliver, which will reduce costs passed to all consumers. This includes avoiding increases in network costs by better integrating EVs in the NEM, for example.
- Net zero in the NEM as more CER technologies contribute to a cleaner system.

Successful integration of CER would also require fewer new large-scale infrastructure projects to keep the system running, which often come with their own integration challenges from acquiring social licence to achieving connection.

The benefit of getting it right is significant, but there is more work to do

A range of studies has estimated the net benefit of effective integration and coordination of CER to be between $1 billion and $6.3 billion by 2030 - 2040 (CSIRO and Baringa Partners, 2019; ARENA and NERA Economic Consulting, 2022). The Energy Networks Australia (ENA) Electricity Network Transformation roadmap highlighted that $16 billion in network infrastructure investment could be avoided by CER/DER coordination.

CER integration will require a multifaceted approach that matches the complexity of the task. A CER Taskforce convened by Energy Ministers has developed and published an implementation plan in the form of a 'CER Roadmap'[6] that defines and will help to drive the CER integration actions needed.

Energy market bodies are driving a number of interrelated reforms that aim to integrate these resources and realise their full potential. The Energy Security Board's (ESB) Consumer Energy Resources and the Transformation of the NEM report set out key elements of the work plan[7].

A key challenge involves offering consumers the right products and services

Successfully integrating CER starts with serving all energy consumers well. The products and services offered, and their prices, must ensure a diverse set of consumers:

1. can continue to use their CER assets for the reasons they bought them
2. have the opportunity and incentive to:
    a. adjust their energy use

[6] Energy and Climate Change Ministerial Council (2024) *National Consumer Energy Resources Roadmap – Powering Decarbonised Homes and Communities*: www.energy.gov.au/sites/default/files/2024-07/national-consumer-energy-resources-roadmap.pdf

[7] Energy Security Board (2024) *Consumer Energy Resources and the Transformation of the NEM*: https://www.energy.gov.au/energy-and-climate-change-ministerial-council/energy-ministers-publications/consumer-energy-resources-and-transformation-of-nem

b. make their CER assets available in ways that benefit themselves and other energy consumers
c. contribute to reducing emissions

3. benefit from efficient and effective integration of CER, whether they own such assets or not.

Meeting this challenge will require that both consumers who do and do not own CER are provided with clear information, meaningful choices and incentives, and appropriate protections. We must better understand and respond to the reasons consumers may not want to make their assets available, even when the rewards from doing so may benefit them directly, and the broader community.

We are initiating a Review to look at the market and regulatory arrangements governing networks and retailers

There are clear interrelations between consumer outcomes, retail pricing, and network tariffs. While networks create tariffs intended to reflect the behaviours driving network costs, retailers are responsible for packaging and communicating these tariffs to consumers in products and services. These of course have prices, and sometimes rewards, attached.

All of this takes place within a set of market and regulatory arrangements. Getting the right products, services, and prices to consumers requires arrangements that are:

- aligned with consumer needs and preferences
- efficient
- effective.[8]

The current arrangements for electricity network and retail pricing may not deliver the best future for consumers. These arrangements were conceived at a time when energy flowed in one direction and consumers' energy use was inflexible. This has led to some existing issues that need to be addressed, and more issues will likely emerge as the transition proceeds.

This Review will consider how these arrangements should evolve, or even potentially be redesigned, to make sure that they are best positioned to seize the opportunity that CER integration presents.

Our Review will be broad, ambitious, and future-focused

Our work will be centred around the customer. It will consider consumer preferences, and how the products, services, and pricing offered by retailers and networks can meet these.

The Review will have three key focus areas

The Review's key areas of focus are:

1. **market arrangements** that provide for consumer choice between a range of appropriate products, services, and associated prices that suit their needs and preferences
2. **the role of distribution networks** in enabling the right products, services, and incentives for consumers, and the efficient cost and pricing outcomes that result
3. **the role of retailers and energy service providers** in effectively packaging and pricing electricity products and services to match consumer preferences.

The interface between these areas will be a key consideration for the Review.

[8] In using the terms 'efficient' and 'effective', we intend to differentiate between outcomes which are:

- based on economic principles of efficiency ('efficient')
- designed with the end user and ability to implement in mind to have the most effective impact ('effective').

We will take an inclusive view of flexible CER across both large and small consumer segments.[9] We will also consider whether third-party energy service providers and innovators now and in the future are supported in playing a role, or set of roles, to improve choices and outcomes for consumers to engage with network opportunities.

We do not intend to consider:

- transmission network pricing, and the downstream communication of such pricing, to transmission network customers, generators, and distribution networks
- a review of the wholesale electricity market
- a full review of the consumer protection framework (as recently completed by the AER)
- issues being considered through other related reforms as outlined in later sections of this document.

Our work will be guided by a set of principles

We will apply a set of consumer preference principles to inform our assessment of potential solutions. To develop principles we will reference existing analyses of consumer preferences around energy prices, products, services, and CER. We will also consider whether consumer preferences may change in the future as technology and innovation reshape the energy landscape.

Our consumer preference principles will cover consumers who do not have access to CER as well as those who do. We will consult through the development of the principles, and we may supplement our analysis with customer research.

While we will be open to all potential solutions, the work of the review will also be guided by the National Electricity Objective (NEO), the National Energy Retail Objective (NERO), and principles of efficient tariff design and of using competitive markets to deliver effective consumer outcomes.

We will identify opportunities and make recommendations

The Review will make recommendations, both shorter- and longer-term, to deliver the vision for the future. This may include changes to:

- the incentives, roles, responsibilities, and technical requirements of retailers and distribution network service providers
- the safeguards required for consumers both under the rules and other regulatory arrangements.

Recommendations will be targeted to address existing issues, exploit future opportunities, and navigate anticipated bumps along the road. We will consider where previous reform efforts have been less successful and will design recommendations that can be implemented and are ultimately impactful for consumers.

We will make final recommendations to the Energy Ministers in accordance with these Terms of reference. The Commission may recommend changes to the National Electricity Rules (NER), National Energy Retail Rules (NERR), and any other arrangements.

We will collaborate with stakeholders in delivering the Review

The Commission is committed to undertaking the Review in an open, collaborative, and transparent manner. In addition to our early engagement and consultation processes, this will involve making use of existing AEMC forums plus establishing a Stakeholder Reference Group to seek ongoing input from a range of interested stakeholders, including on the scope for the Review.

Stakeholders with an interest in the Review are expected to include:

[9] In this context, the scope of the Review will include issues relevant to CER and DER, such as neighbourhood batteries.

- Consumer groups and advocates including small and large businesses,
- Market bodies, jurisdictions, and other regulators, including:
    - Energy Consumers Australia (ECA),
    - the Australian Energy Regulator (AER),
    - the Australian Energy Market Operator (AEMO)
    - Commonwealth, state, and territory jurisdictions, and
    - the Australian Competition and Consumer Commission (ACCC)
- The Australian Energy Council (AEC)
- The Energy Charter
- Electricity market retailers
- Energy Networks Australia (ENA)
- Network distribution businesses
- The Australian Renewable Energy Agency (ARENA)
- Other interested parties, including third-party aggregators and other non-retail energy service providers.

The Review is part of a broader set of reforms

The Review will consider other broader CER reforms underway or recently completed as outlined in the CER Roadmap.

Related reforms that directly intersect with this Review include but are not limited to:

- AEMC
    - Accelerating smart meter deployment rule change
    - Unlocking CER Benefits through flexible trading
    - Integrating Price Responsive Resources
    - Empowering consumers with real-time data.
- Other reforms and trials
    - AER Review of consumer protections for future energy services (completed)
    - AER review and interim guidance note for flexible export limits
    - ECA work on consumer sentiment, preferences, and trust
    - Ausgrid's Project Edith trial of dynamic, locational, short-run marginal cost pricing
    - Project Edge trial of CER participation (completed).

Proposed timetable for the Review

Indicative dates	Milestone
Phase 1: Initiation engagement – issues and directions	
July 2024	Initiate Review (publish draft Terms of Reference for comment)
July - August 2024	Establish Stakeholder Reference Group and ongoing stakeholder engagement
November 2024	Publish Consultation Paper and final Terms of Reference
December 2024	Close of Consultation Paper submissions
August 2024 – February 2025	Stakeholder engagement including forums and workshops
April 2025	Publish Directions Paper (TBC)
Phase 2: Engagement – options and implementation	
May 2025	Close of Directions Paper submissions (TBC)
September 2025	Publish Draft Report
October 2025	Close of Draft Report submissions
May - November 2025	Stakeholder engagement including forums and workshops
March 2026	Publish Final Report