

**Submission  
No 27**

## **EMBEDDED NETWORKS IN NEW SOUTH WALES**

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Office of Energy and Climate Change

[energy.nsw.gov.au](http://energy.nsw.gov.au)



# NSW Government Submission to the Inquiry on Embedded Networks

June 2022





# Acknowledgement of Country

NSW Treasury acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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# Overview of embedded networks

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## Introduction

A key priority for the NSW Government is putting the customer at the centre of what we do, while delivering an energy system that is affordable, reliable and sustainable.

This submission provides an overview of the current regulatory framework for electricity embedded networks, and hot and chilled water embedded networks. It also provides an overview of future NSW and national work programs.

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## What is an embedded network?

Embedded networks are private energy networks that serve multiple premises and are connected to a distribution or transmission system through a parent connection point in the National Electricity Market (NEM). Common examples of where embedded networks can be found include retirement villages, residential complexes, strata schemes, and shopping centres.

In recent years there has been a significant increase in the number of embedded networks in Australia, reflecting a shift towards higher-density living, together with the evolution of a strong business model associated with establishing and operating embedded networks (AEMC 2019). This business model has been built around an ability for embedded network operators to bulk purchase energy, avoid multiple network connection charges, and on-sell energy at largely unregulated prices without the threat of competition.

Due to the nature of embedded networks, it can be challenging for individuals in embedded networks to access retail competition and their retailer of choice.

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## Estimates of the number of embedded network customers in NSW

There is limited data on the number of embedded network sites and the number of customers served by embedded networks in the NEM or NSW. This is because many embedded network sites are not required to register their exemption with the Australian Energy Regulator (AER) or report the number of customers they serve. Other operators are required to register with the AER; however, are not required to report or keep customer numbers up to date.

The Australian Energy Market Commission (AEMC) has identified that across the NEM, the number of residential sites with network exemption registrations increased from around 500 in 2014 to around 2,500 in 2018. This growth rate is understood to have generally continued in recent years.

Stakeholders have suggested that the number of embedded network customers in the NEM could have exceeded 500,000 in 2019 (AEMC 2019).

In addition, the Energy and Water Ombudsman NSW (EWON) has estimated that there are 49,025 customers in hot water embedded networks across NSW (EWON 2021a).

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## Current consumer protections for embedded network customers under national and NSW laws

Customers of embedded electricity networks are covered by a range of consumer protections (Table 1).

Table 1: Consumer protections for embedded electricity network customers

Consumer protection framework	Coverage
Australian Consumer Law	All customers
National Energy Retail Law (and Rules)	Customers of authorised retailers
(Retail) Exempt Selling Guideline	Customers of exempt sellers

### Australian Consumer Law

All customers purchasing electricity, gas, or hot or chilled water from an embedded network have access to the consumer protections under the Australian Consumer Law (ACL). The ACL includes:

- a national unfair contract terms law covering standard form consumer and small business contracts
- a national law guaranteeing consumer rights when buying goods and services
- a national product safety law and enforcement system
- a national law for unsolicited consumer agreements covering door-to-door sales and telephone sales
- simple national rules for lay-by agreements
- penalties, enforcement powers and consumer redress options.

The ACL applies nationally and in all states and territories, and to all Australian businesses. It is administered by the Australian Competition and Consumer Commission (ACCC) and state and territory consumer protection agencies, and is enforced by all Australian courts and tribunals, including the courts and tribunals of the states and territories. NSW Fair Trading is responsible for administering the ACL in NSW.

### National Energy Retail Law

The National Energy Retail Law (NERL) regulates the supply and sale of energy (electricity and natural gas) to retail customers in NEM jurisdictions, including NSW. The NERL is supported by the

National Energy Retail Rules (NERR) to meet the National Energy Retail Objective 'to promote efficient investment in, and efficient operation and use of, energy services for the long term interests of consumers of energy with respect to price, quality, safety, reliability and security of supply of energy'.

The NERL and NERR form key components of the National Energy Consumer Framework (NECF). The NECF provides energy-specific consumer protections and operates alongside the ACL. The NECF was developed in recognition that energy is an essential service for all Australians and ensures that customers receive the same level of consumer protections, regardless of where they live.

Benefits for households and small businesses include:

- guaranteed connection and offer of supply for all small customers
- mandatory minimum terms and conditions for standard retail contracts
- 10-day 'cooling-off' period for market contracts
- rules to ensure customers receive appropriate information before they enter into an energy contract
- rules for how retailers present information on retail offers in energy price fact sheets
- rules for how billing is calculated and what a bill must include
- an energy retailer is required to obtain explicit informed consent from a customer when entering into a market contract, entering into direct debit arrangements, transferring to another retailer, or altering billing frequency if on a standard contract
- limitations on disconnections including prohibition on disconnections for registered life support customers
- retailers must have hardship policies in place and offer payment plans to customers who are having difficulty paying their bills
- retailers must provide information on the availability of government energy concession schemes
- free access to dispute resolution mechanisms through state and territory energy ombudsman schemes.

The NERL requires that anyone selling energy to customers at a premise must hold either a retailer authorisation or a retail exemption. Most sellers of energy will hold an authorisation.

Retailer authorisations are normally required where the energy seller's main business is the sale of energy to customers, and the energy seller intends to sell a large amount of energy across a number of sites or across a number of states and territories. The AER assesses and approves applications for retailer authorisations.

Situations where a retailer authorisation is not necessary or appropriate include those where:

- the seller is selling energy incidentally (i.e. the sale is not the seller's core business, such as in a caravan park or retirement village)
- the cost of having an authorisation outweighs the benefits to customers
- an insignificant amount of energy is being sold.

People engaging in such activities may be eligible for a retail exemption.

The NSW Government understands that most customers in embedded electricity networks are serviced by an authorised retailer. This is consistent with complaints data from EWON, which opened 446 complaints from customers in embedded networks in 2021, of which 72% were from customers of authorised retailers (EWON 2021b).

## (Retail) Exempt Selling Guideline

The AER developed retailer exemptions to manage the practice of ‘on-selling’ energy. On-selling (or reselling) is when a person or business purchases energy from another person or business – usually an authorised energy retailer – and then sells it to a customer through an embedded network, such as a shopping centre, apartment building, retirement village or caravan park. The main relationship the on-seller has with their customer is not the sale of energy.

Unlike an authorisation, an exemption restricts the exempt entity’s selling activity to a defined class of customers, usually at a specific site (or sites).

Embedded network operators can seek an exemption from the energy retailer authorisation process and instead must comply with the AER (Retail) Exempt Selling Guideline. There are 3 types of exemption:

- deemed exemptions
- registrable exemptions
- individual exemptions.

The core conditions that an exempt seller must meet are based on customer protections under the NERL but will vary according to a seller’s particular operations. They cover such things as:

- provision of key information to customers
- access to independent complaint and dispute resolution
- limitations on energy interruptions
- hardship provisions
- customers requiring life support equipment
- billing and metering requirements.

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## Analysis of prices for embedded network customers in NSW

The Independent Pricing and Regulatory Tribunal NSW (IPART) in its *Monitoring the NSW Electricity Retail Market 2020–21* final report considered electricity pricing outcomes for customers in embedded electricity networks where services are provided by authorised retailers (IPART 2021). This investigated whether prices of authorised retailers are likely to be exceeding the default market offer (DMO). IPART used the offers available on the Commonwealth’s Government EnergyMadeEasy website and requested prices from retailers on a voluntary basis.

IPART did not observe any embedded network offers for small customers that were above the relevant DMO price. IPART found most offers were below the DMO; however, it noted that its



analysis did not represent the full range of prices that could be paid by embedded network customers.

IPART considered that the key benefit of embedded networks is the ability to purchase electricity in bulk at discount rates. This means customers in embedded networks should be on offers lower than would otherwise be available to them individually. However, these outcomes are not always supported where tenants are leasing premises, and owners may not have incentives to negotiate or switch providers for a better deal.

# Recent NSW initiatives

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## NSW energy rebate eligibility

The NSW Government is providing over \$330 million in 2021–22 towards the Energy Social Programs, including 6 different energy rebates and one crisis support scheme to assist eligible low income and vulnerable households pay their energy bills:

- Low Income Household Rebate
- Gas Rebate
- Family Energy Rebate
- Seniors Energy Rebate.
- Medical Energy Rebate
- Life Support Rebate
- Energy Accounts Payment Assistance (EAPA) scheme

Rebates can range from \$200 to \$1,343 per year, and customers may receive more than one rebate, subject to meeting the eligibility criteria. The NSW Government implemented amendments to the NSW Social Programs for Energy Code to ensure the NSW 6 energy rebates are available to all embedded network customers, effective from 1 February 2022. Embedded network operators must comply with any AER registration requirements to be eligible.

This change addressed an important gap in consumer protections for customers of embedded networks, to enable such customers to access energy bill support.

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## Access to dispute resolution services

In 2018, the AER updated its guidelines to require ‘exempt sellers’ in NSW to become members of state energy ombudsman schemes. The NSW Government amended the NSW Electricity Supply (General) Regulation 2014, and worked together with EWON to expand EWON’s charter to ensure residential customers in embedded networks had access to EWON’s dispute resolution services.

This change addressed a gap in consumer protections for customers who are supplied energy by an embedded network, such as those living in residential parks or retirement villages. These customers can now have their energy disputes resolved promptly, and at no charge, by EWON.

# Future NSW initiatives

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## Expansion of eligibility for the Energy Accounts Payment Assistance (EAPA) Scheme

The NSW Government's Energy Accounts Payment Assistance (EAPA) Scheme helps NSW households experiencing a short-term financial crisis or emergency to stay connected to essential energy services by receiving multiples of \$50 vouchers towards their energy bills.

Customers can typically receive vouchers up to the value of \$300 per application for electricity and up to \$300 per application for gas bills, up to twice per financial year. These vouchers are sent directly to the energy provider to help pay an outstanding energy bill.

To help support households experiencing difficulty paying their energy bills, the NSW Government recently increased support payments and eligible customers can now receive payment assistance of up to \$400 per application for electricity and up to \$400 per application for gas bills twice a year. This means the annual maximum limit of vouchers has increased from \$1,200 to \$1,600 per household.

The Office of Energy and Climate Change is consulting with stakeholders on expanding the EAPA scheme to embedded network customers of authorised retailers as part of its review of the EAPA scheme.

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## Strata schemes laws – statutory review recommendations

In 2019, the NSW Government made changes to the *Strata Schemes Management Act 2015* to place limits on the duration of utility contracts with an owners corporation. Under section 132A, a contract for the supply of electricity, gas or other utilities will expire either at the conclusion of the first annual general meeting (AGM) of the owners corporation or, for contracts entered into after the AGM, after 3 years. The changes ensure that lot owners are not locked into long-term utility supply contracts that prevent them from negotiating a better deal on the open market.

However, these limits did not apply to contracts for the supply of electricity to residents of a strata scheme through an embedded network.

A statutory review of the strata schemes laws was tabled in NSW Parliament in November 2021. The review found that the current exemption for contracts for the supply of electricity to residents in a strata scheme through an embedded network is likely to result in adverse outcomes for strata scheme residents by restricting their access to competitive prices and contract options (State of NSW 2021).

These arrangements have seen the development of a business model, whereby property developers contract a third party to fund and supply the electrical infrastructure and metering, and enable the developers to avoid the cost of establishing internal electricity networks and metering. In return, the

third party is often contracted to provide power to the whole building for a certain period. Contracts are generally established before a strata scheme has been registered, and the third party operator effectively becomes the monopoly electricity provider for a contracted period of time.

The review recommended removing the current exemption for embedded networks so that contracts for the supply of electricity to strata scheme residents through an embedded network also have a term limit. To ensure the proposed reform does not prevent the uptake of sustainability infrastructure (such as solar systems and electric vehicle charging stations) by strata schemes, the review recommended that consideration be given to allowing longer initial terms for utility contracts that deliver sustainability measures.

The review also made recommendations to assist new entrants to a strata scheme to better understand the nature of utility services in a strata scheme, including a new disclosure obligation to require a plain English statement of which services are provided as an embedded network and what this will mean for residents as part of any sale of a strata scheme unit. This mandatory disclosure is to be accompanied by additional educational material about embedded networks in strata schemes on the NSW Fair Trading website.

The NSW Government is currently working to implement the recommendations of the review; see State of NSW (2021).

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## Residential land lease communities – electricity charging and statutory review recommendations

A residential land lease community is one in which residents usually own the home they live in and lease the land on which the home sits from a community operator. Residents may also sometimes rent the home from the home owner.

The *Residential (Land Lease) Communities Act 2013* provides the framework for the regulation of land lease communities, including the relationship between community operators, home owners and other residents of permanent sites in residential land lease communities.

Around 40% of residential land lease communities are connected to the electricity network via an embedded network in which the operator of the embedded network is responsible for operating and maintaining the network and administering billing.

Unlike owners of strata properties, the residents of land lease communities do not have the opportunity to choose their utility provider. Because of this, the Act offers protections for these residents to ensure they are not exposed to excessive prices. This was introduced prior to the introduction of the Commonwealth Government's DMO price cap. Section 77(3) provides that an operator must not charge a home owner more than the amount charged by the utility service provider who is providing the service, for the quantity of the service supplied to, or used at, the residential site.

In the 2018 decision *Silva Portfolios Pty Ltd trading as Ballina Waterfront Village & Tourist Park v Reckless (Reckless)*, the Court of Appeal of the Supreme Court of NSW clarified that this provision means that an operator is not entitled to charge a home owner more than the operator has been charged by the energy provider for the electricity consumed by the home owner. Following this, the

matter was returned to the NSW Civil and Administrative Tribunal to decide how the electricity bill should have been calculated. The method the Tribunal used is known as the Reckless method, and it has been used as the basis for calculating energy charges in many communities since.

However, the Reckless method meant that home owners lack certainty about the rate they will be paying for electricity each month, and often face confusion in understanding how their bills have been calculated. Stakeholders advised that the Reckless method is also complex and time-consuming for operators to administer, and means that operators must absorb the cost of maintaining an embedded network, administration costs and the annual price of a mandatory EWON membership.

A statutory review of the Residential (Land Lease) Communities Act was tabled in NSW Parliament in November 2021. The review argued in favour of introducing an electricity price cap for residential land lease community residents that receive their electricity supply by way of an embedded network (DCS 2021).

The review supported setting the maximum price that a resident supplied through an embedded network could be charged for electricity at the median market price for electricity in that distribution area.

This approach would be simple to calculate and transparent, and would provide certainty for residents by enabling them to better budget for their electricity bills. However, due to concerns about the possible price impacts of this approach, the review recommended that further work be undertaken on potential price impacts, including whether there is a need for mitigation strategies, and on any mechanisms to encourage competition and transparency in the electricity prices charged by land lease community operators.

The review also considered the role of third party providers supplying electricity in land lease communities and supported further consideration being given to applying any amended electricity pricing provisions to contracted third party providers as well as the operator. The review also recommended that the Government consider extending any new pricing protections to tenants who rent directly from the operator.

The NSW Government is currently working to implement the recommendations of the review; see DCS (2021).

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## Improving data on embedded network customers – issue in energy consumer consultation paper

As previously noted, there are currently gaps in data on the number of embedded network sites and their customers in NSW and across Australia. This gap arises as ‘deemed exempt’ embedded networks (typically those with fewer than 10 customers per site) are not required to register with the AER, while registered exempt sellers are not required to report the number of customers or child connection points in their network.

The NSW Government began public consultation on opportunities to improve access to data on the number of embedded networks and customers with a consultation paper titled *Promoting Innovation for NSW Energy Customers* (DPIE 2021). One option considered was a requirement for NSW

distribution networks to introduce new measures to collect and report data on the number of embedded network customers in their network. This data is not currently available to distribution networks and a regulatory impact assessment is required to assess this option in more detail.

The NSW Government is reviewing submissions received to this consultation paper.

# National work on embedded networks

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## Review of the regulatory framework for embedded networks

In June 2019, the AEMC published a package of law and rule changes in a report titled *Updating the Regulatory Frameworks for Embedded Networks* (AEMC 2019). The proposed framework is intended to result in better protections for consumers in embedded networks. It would require major changes to the systems and operation of embedded networks. Its recommendations included:

- improving individual consumer access to retail market competition in embedded networks by capturing all embedded network customers in AEMO's market systems and by standardising network billing arrangements between embedded networks and NEM retailers
- elevating embedded networks to the NECF to ensure customers receive the same level of consumer protections as customers that interact directly with their retailer.

At the November 2019 meeting of the former Council of Australian Governments (COAG) Energy Council, National Energy Ministers agreed that Energy Senior Officials would come back to COAG Energy Council in 2020 with a response to the AEMC's proposed regulatory framework for embedded networks.

The outcomes from the analysis of the AEMC's review of the regulatory framework of embedded networks will be considered by National Energy Ministers.

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## Review of the Exempt Seller Guideline

The AER is currently undertaking a review of its Retail Exempt Selling Guidelines (the Guidelines) to improve consumer protections for residents of embedded networks. In March 2022 the AER published its draft Guidelines that included changes to:

- introduce a new hardship policy condition
- introduce a new information provision condition for exempt sellers to provide their customers with an AER fact sheet that provides information and assistance in purchasing energy directly from an energy retailer
- improve compliance by embedded network operators with obligations to obtain ombudsman scheme membership.

The AER's draft Guidelines included copies of newly established AER documents:

- Draft AER fact sheet titled *How to access retailers for your energy needs if you live in an embedded network*
- Draft Exempt Seller Hardship Policy template.

Stakeholders were invited to comment on the draft Guideline proposals. The AER is expected to issue a final version of the Retail Exempt Selling Guideline in 2022. The AER is currently also reviewing the Network Exemption Guidelines that apply to embedded networks.

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## Default market offer

The DMO is a maximum price that retailers can charge electricity customers on default contracts known as standing offer contracts. The DMO commenced from 1 July 2019 through the Commonwealth Government's Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 (the Code).

Embedded network customers who are supplied by an exempt seller cannot be charged more than the DMO price due to a requirement in the Retail Exempt Seller Guideline to not charge more than the standing offer price of the local area retailer.

However, the DMO does not apply to customers in embedded networks supplied by authorised retailers. This gap arises from the Code specifically not applying to embedded network customers of authorised retailers.

The Commonwealth Government Department of Industry, Science, Energy and Resources (DISER) carried out a post-implementation review of the Code, which included a review of the DMO, included a recommendation to consult further on how best to extend the price cap protection provided by the DMO to customers in embedded networks. This consultation will include examining compliance issues and costs. The NSW Government intends to be a part of this consultation.

The outcomes of the review can be found on DISER's 'Price safety net' webpage (DISER 2022).



# Common hot and chilled water embedded networks

In many apartment buildings across NSW, customers are supplied hot water through a common hot water system as opposed to an arrangement where each apartment has its own hot water heater.

This arrangement is referred to as a hot water embedded network when the common hot water system in the building is owned, maintained and metered by a third party - an embedded network operator. This contrasts with a traditional common hot water system in which the hot water meters are owned and operated by the distribution network service provider (e.g. Jemena, Ausgrid, Essential Energy, Endeavour Energy).

EWON has identified that more than 49,000 NSW residents live in apartments where their hot water is supplied by embedded network operators. This figure is expected to rise as new developments are built.

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## How is hot water charged for in traditional common hot water systems?

Customers in traditional common hot water systems in NSW are generally charged for their hot water usage through their retail gas or electricity bill, based on the usage of the underlying energy source to heat the water. This is because distribution network-owned meters (including individual hot water meters) are required to be registered with the Australian Energy Market Operator (AEMO) and are subject to the provisions of AEMO's Retail Market Procedures (NSW and ACT). The market procedures are made under the National Gas Law and provide a formula for calculating the energy component of a hot water bill in relation to common hot water systems.

Customers in traditional common hot water systems, who are charged for hot water usage based on the energy used to heat the water, can access consumer protections contained within the NECF, which regulates the sale and supply of electricity and gas to retail customers. Consumer protections available to electricity and gas customers through the NECF include:

- energy service standards and quality
- access to independent complaint and dispute resolution
- limitations on energy interruptions
- hardship provisions
- customers requiring life support equipment
- billing and metering requirements
- access to competition.

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## Consumer protections for hot and chilled water embedded network customers

Embedded network hot and chilled water customers are not covered by the consumer protections provided within the *NSW Water Industry Competition Act 2006* (WICA) as it specifically exempts entities selling heated water from its obligations. This is because the WICA's purpose is to regulate large private companies constructing and/or providing water supply, rather than companies on-selling water. Requiring hot water embedded network operators to obtain a WICA licence would impose an excessive financial and administrative burden, which would ultimately be passed on to customers.

In addition, individual hot and chilled water meters owned and operated by third parties do not have to be registered with AEMO and are not subject to AEMO's market procedures. This means hot and chilled water embedded network operators can choose how they bill customers for the supply of bulk hot or chilled water (either for the water in litres, or for the energy used to either heat the hot water, or cool the chilled water, in megajoules or kilowatt hours).

The NERL defines energy as 'electricity or gas or both' and does not explicitly apply to hot water or chilled water. This means many hot and chilled water customers in embedded networks billed in litres do not have access to consumer protections in national energy laws.

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## NSW Government consultation on common hot water customers

The NSW Government's '*Promoting Innovation for NSW Energy Customers*' paper, released in December 2021, consulted on opportunities to improve consumer protections for customers of hot water embedded networks. All stakeholders agreed that common hot water customers should not receive different customer protections depending on whether they reside in a premise supplied by traditional common hot water system or an embedded network common hot water system; however, some retailers and embedded network operators argue that they consider hot water services to be distinct from other energy products or services.

Some stakeholders noted that the same issues that broadly apply for common hot water customers also apply for customers with air-conditioning services derived from the chilling of water from a common water system. The NSW Government is now looking to address issues for customers with common hot and chilled water embedded networks collectively.

The consultation paper included an option to require hot water embedded network customers to be billed for the underlying input of energy, as either gas or electricity (in cents per megajoule or cents per kilowatt hour), rather than as a hot water product (in cents per litre). This was proposed to enable hot water embedded network customers to receive consumer protections comparable to those received by customers in traditional common hot water systems where hot water meters are generally owned by the gas distribution network. However, further consultation revealed that this requirement alone may not achieve the desired outcome of equivalent consumer. Additional changes to national energy laws are likely to be needed to clarify that the sale of energy includes

hot and chilled water when billed in the energy source. Such changes could be recommended in the AER's current review of the retailer authorisation and exemption framework.

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## AER's Retailer Authorisation and Exemption Framework review

The AER is undertaking a review of its Retailer Authorisation and Exemption Framework to understand the adequacy of the current energy consumer protection framework in the context of a transitioning energy market.

The AER's review will assess whether the NECF remains fit for purpose for the post-2025 NEM and whether the NECF should and will capture new energy products and services that emerge in the energy transition. It will also identify regulatory reforms that may be required to ensure energy consumers continue to be adequately protected.

A broadened NERL definition of what constitutes the sale of energy (to include hot and chilled water) would help address the regulatory gap that currently leaves hot water and chilled water embedded network customers, billed for their service in cents per litre, without consumer protections under the AER's Retail Exemption Guidelines. Such changes to national energy laws would ensure hot and chilled water customers, where billed in the energy source, receive equivalent consumer and price protections to on-market customers.

The Treasurer and Minister for Energy has written to the AER and requested that it consider the consumer protection gap for hot and chilled water customers in its review of the Retailer Authorisation and Exemption Framework. This issue is not unique to NSW, and as such, national reforms would provide a consistent approach for providers across jurisdictions.

The NSW Government is committed to enhancing consumer protections for hot and chilled water customers and will continue in its work program to address this issue.

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