



Department of Energy, Mines,
Industry Regulation and Safety
Energy Policy WA

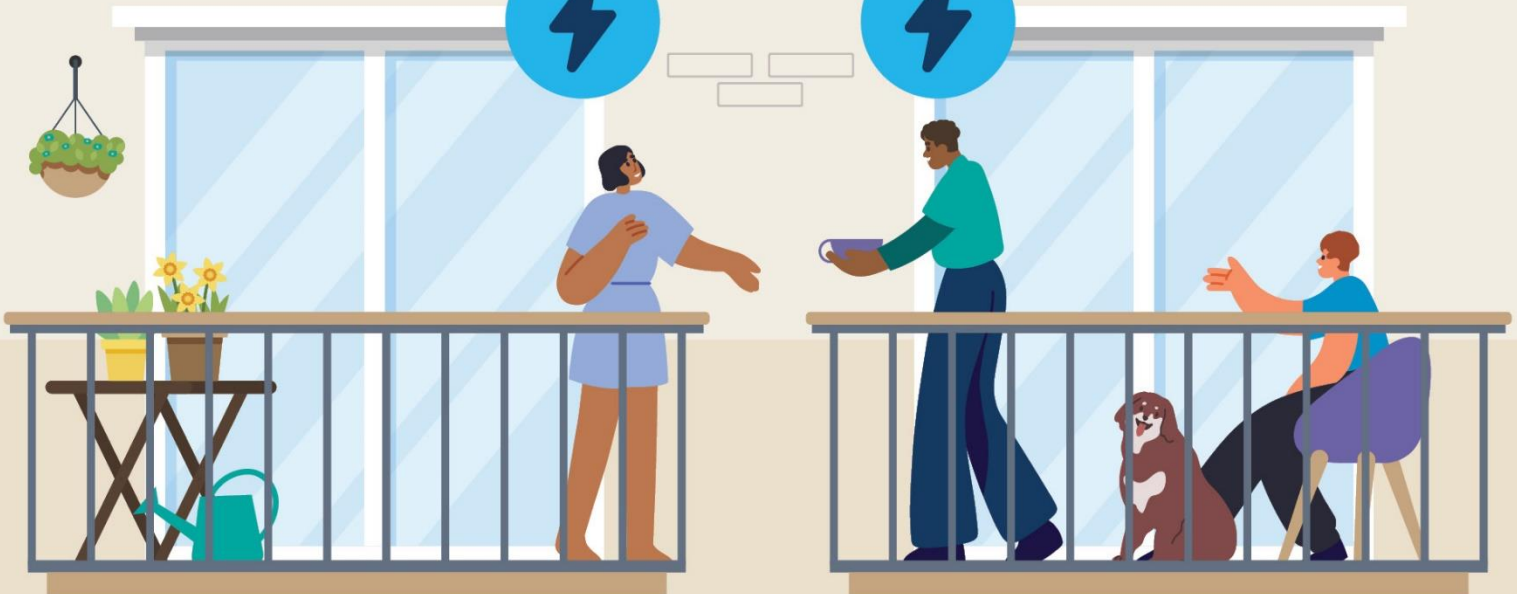
SHARING THE POWER



Regulating the sale and supply of electricity in embedded networks

Consultation Regulatory Impact Statement (CRIS)

FEBRUARY 2024





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Glossary and abbreviations

TERM	EXPLANATION
the Act	<u>Electricity Industry Act 2004</u>
AES Code	A proposed code of practice applicable to providers of prescribed services under the Alternative Electricity Services registration framework.
AES registration framework	The proposed registration framework for alternative electricity services in Western Australia to be enabled under the Electricity Amendment (Alternative Electricity Services) Bill 2023.
Alternative electricity service or AES	A service prescribed as an alternative electricity service under the AES registration framework, such as potentially embedded network services or on-site power supply arrangements.
Caravan Park Exemption Order	The exemption that allows caravan park operators to on-supply electricity to permanent residents without a retail licence – the <u>‘Electricity Industry (Caravan Park Operators) Exemption Order 2005’</u> .
Consultation Regulatory Impact Statement (CRIS)	A requirement under the Better Regulation Program of the Department of Treasury for a consultation document that sets out key details and potential impacts of a regulatory proposal and seeks stakeholder feedback.
DER	Distributed Energy Resources such as solar photovoltaic panels, batteries and electric vehicle charging infrastructure
Disclosure Statement	Annexure A to the Voluntary Embedded Networks Code.
DEMIRS	Department of Energy, Mines, Industry, Regulation and Safety
embedded network	means a distribution system that: (a) is located on a property; and (b) supplies electricity to at least one customer who is not a person in control of the distribution system, or related to a person in control of the distribution system; and (c) is supplied with electricity by another distribution system operated by another person; and (a) is not part of a covered network. <i>Note: a ‘covered network’ is one that is covered by access regulation under the Electricity Industry Act 2004, for example Western Power’s network.</i>
embedded network seller or ENS	The person who has the contract or arrangement for the purchase of electricity from the grid at a master meter for the embedded network, or another person subject to approval of the regulator.
End-use customer or customer	A person who buys electricity for their own personal consumption (or consumption by their household or business) and does not sell that electricity on to someone else.



TERM	EXPLANATION
Energy Ombudsman	Western Australian Energy and Water Ombudsman.
ERA	Economic Regulation Authority, which is the regulator of the electricity licensing framework and will be the regulator of the AES registration framework.
EV	Electric vehicle
Exemption Order	Electricity Industry Exemption Order 2005
Prescribed AES	means an activity prescribed by regulations as an alternative electricity service once the AES registration framework is in place.
small-use electricity customers	A customer to whom electricity is sold for the purpose of consumption and who consumes not more than 160 MWh of electricity per year.
Small Use Code	Code of Conduct for the Supply of Electricity to Small Use Customers 2022 which is the code that set out the standards of conduct that licensed retailers and distributors must comply with.
the Survey	A survey of customers, operators and service providers of embedded networks and other interested stakeholders undertaken by Energy Policy WA in November 2022.
Voluntary Embedded Networks Code or Voluntary EN Code	A non-binding voluntary embedded networks code of practice for the supply of electricity to customers within embedded networks, to be complied with by ENS who choose to participate to 'learn by doing' prior to the potential application of the (mandatory) AES Code to ENS.





Executive summary

It has been almost 20 years since the *Electricity Industry Act 2004* (the Act) came into effect and set up the electricity licensing and exemption framework. The framework was established at a time when electricity supplies were for the most part centrally generated and supplied to consumers through large transmission and distribution networks under supply contracts with retailers.

Licences were applied to large operators (e.g. retailers like Synergy), while exemptions from the licensing requirements recognised that not all arrangements would be practical to be licensed. For example, operators of caravan parks were exempted from holding a retail electricity licence as they tend to be smaller operators and they do not sell electricity as their core business.

There is, however, now a growing range of atypical electricity retail services that involve the selling and management of electricity under differing arrangements to those provided by 'typical' licensed electricity retailers.

These arrangements, referred to in this paper as alternative electricity services (AES), include services like solar power purchase agreements (SPPAs), peer to peer trading, the sale and supply of electricity in embedded networks, electricity aggregation services and electric vehicle charging services. AES business models can include the retailing, storage, aggregation, generation, and/or distribution of electricity, and could incorporate a membership-based or subscription payment arrangement for electricity or electricity services.

Following a 2019 review of the electricity licensing and exemption framework in Western Australia, Energy Policy WA developed the AES registration framework to apply customer protection obligations on persons offering electricity services through emerging and atypical business models that fall outside the licensing framework, or for which the licensing framework is not fit for purpose.

Legislative amendments to the *Electricity Industry Act 2004* to give effect to the AES registration framework were introduced into Parliament on 15 August 2023, in the form of the [Electricity Industry Amendment \(Alternative Electricity Services\) Bill 2023](#).

This Bill does not prescribe services required to register as an AES as they will be prescribed in regulations and providers of those services will then need to register and meet any relevant obligations in the AES Code.

In this paper, Energy Policy WA is considering whether the sale and supply of electricity in embedded networks should be covered by the AES registration framework. This Consultation Regulatory Impact Assessment (CRIS) compares four options:

- the status quo – a class-based licence exemption;
- individual licence exemptions;
- retail licences and potentially also distribution licences; and
- AES registration.

The policy objective is to find the best and most practical way to extend substantively equivalent protections to customers of ENS as to those received by customers of licensed electricity retailers, including an adequate dispute resolution pathway and a suitable compliance and enforcement mechanism, without imposing unnecessary regulatory burden on providers. Energy Policy WA is seeking feedback on which of the above options is the most appropriate form of regulation for embedded networks.

If the sale and supply of electricity in embedded networks were to be regulated under the AES registration framework, small use customers supplied through embedded networks (i.e. consuming less than 160 megawatt hours (MWh) of electricity per year) would receive similar types of customer protections to equivalent customers supplied by a licensed retailer such as Synergy or Horizon Power (as per requirement of the [Code of Conduct for the Supply of Electricity to Small](#)





Use Customers 2022 (Small Use Code)). There would also be safety net prices based on existing Government regulated electricity tariffs for small use customers.

Protections that may be included relate to:

- a requirement for supply agreements to be in writing and include certain information such as tariffs, fees and charges and how they may be varied;
- not unreasonably withholding, preventing or obstructing the supply of electricity to a customer;
- provision of information up-front to customers through a standard Disclosure Statement;
- facilitating non-residential customers who consume more than 50MWh in any 12 month period of electricity obtaining a supply of electricity from a different supplier, at the customer's cost;
- access to suitable meters and ability to request a meter test;
- information that must be included on bills, and other billing requirements;
- support for residential customers experiencing financial hardship or family violence;
- robust dispute resolution procedures, including access to the Energy and Water Ombudsman (the Energy Ombudsman) to assist with disputes;
- suitable processes for disconnections, reconnections and interruptions;
- protections for residential customers who rely on life support equipment; and
- cost pass-through measures to facilitate decarbonising the electricity supply in embedded networks.

Your feedback is vital in weighing up the costs and benefits of the options presented in the paper to assist in any recommendations to the Western Australian Government about how the sale and supply of electricity in embedded networks will be regulated in the future – specifically whether embedded network sellers (ENS) should be registered under the AES registration framework.



1. Introduction

1.1 Overview of this paper

This CRIS seeks feedback from stakeholders about the best option for future regulation of electricity supply in embedded networks.

Section 1 sets out what an embedded network is, and how to provide feedback.

Section 2 provides an overview of the current regulatory framework for electricity licensing and exemptions and the new AES registration framework.

Section 3 sets out the problem statement and the case for additional regulation.

Section 4 states the policy objective for future regulation of electricity supply in embedded networks.

Section 5 explains the four options being considered, and policy questions that Energy Policy WA is seeking specific stakeholder feedback on.

Section 6 compares the four options against the policy objective.

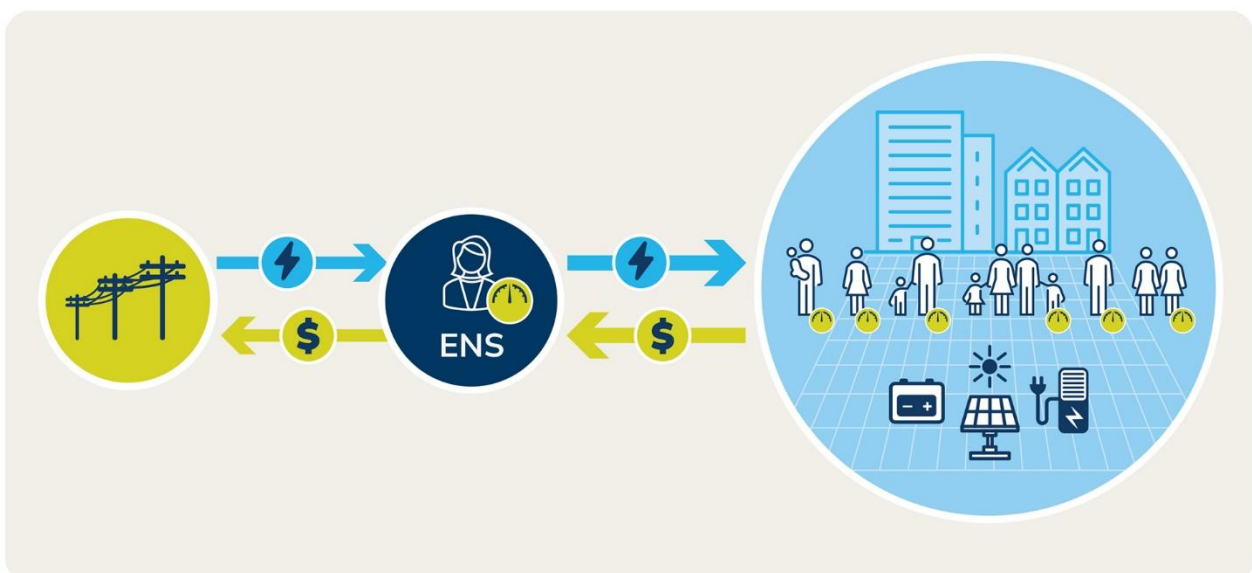
Section 7 provides some information on implementation considerations.

Further information about the regulatory approach used in other jurisdictions and the detail of proposed code obligations if this service is regulated under the AES registration framework can be found in the appendices.

1.2 What is an embedded network?

An embedded network is a private electricity network servicing multiple lots or tenancies within the one property. It is connected to the electricity grid through a 'master meter' measuring the power supplied to the private network on that property through that connection point.

Figure 1: Embedded electricity network



The operator of the embedded network buys electricity from a licensed retailer (or sometimes another on-seller) to supply the whole property and on-sells that electricity to individual customers on the property. The operator of the embedded network may be the property owner (or owners), or a third party under contract.

Persons on-supplying and on-selling electricity in embedded networks are currently exempt from the requirements to hold an electricity retail or distribution licence and there is no obligation for these operators to register to provide the service. There is consequently a lack of data on the number of embedded networks operating in Western Australia and number of customers supplied electricity in this manner. It is estimated that small business customers in embedded networks in Western Australia number in the thousands, and residential customers in the tens of thousands.

Embedded network customers do not have access to any of the customer protections that are provided to customers of licensed retailers like Synergy, including those contained in the Small Use Code. For example, customers in embedded networks do not have access to regulated protections in relation to:

- supply agreements needing to be in writing;
- a right to request a meter test if they suspect the meter may be inaccurate;
- support for residential customers experiencing financial hardship or family violence;
- robust dispute resolution procedures; or
- suitable processes for supply disconnections, reconnections and interruptions.

Customers who otherwise would be able to access market offers and choose their retailer (i.e. non-residential customers consuming more than 50 MWh of electricity in any 12 month period) do not have this ability in embedded networks as they are only able to source electricity supply from the exempt on-seller.

Over time this atypical business model is becoming more prevalent. For most, if not all, customers in embedded networks the on-selling arrangement is usually the customer's sole supply of electricity, exactly like any customer connected directly to the grid via a Western Power or Horizon Power meter.

Continuing to rely on licence exemptions for the sale and supply of electricity in embedded networks leaves potentially tens of thousands of small use customers without recourse to enforceable customer protections, or access to the Energy Ombudsman to resolve complaints and disputes for their essential electricity supply.

The Western Australian Government is concerned that these customers are negatively impacted by the current lack of customer protections and seeks public and stakeholder feedback on the different options for regulating the sale and supply of electricity in embedded networks, ranging from maintaining the status quo to requiring embedded network operators to become licensed retailers and distributors.

1.3 Scope of this consultation

The scope of this CRIS relates to:

- the on-sale of electricity – that is, the function of retailing electricity to customers – in embedded networks, other than in the situations listed as being out of scope below; and
- elements of the supply of electricity that are necessary to support the on-sale of electricity, for example providing electrical meters and/or the management of disconnections and interruptions to supply.

The regulated party – the one doing the on-selling – would be the person who has the contract or arrangement for the purchase of electricity at the point at which the embedded network connects to the grid (where a person may be an individual or a company). A different person could take on responsibility for the regulatory obligations, subject to approval by the regulator.

1.4 Out of scope

The scope of this CRIS does not relate to:

- grid-connected customers (those who receive a bill from Synergy, Horizon Power or other licensed retailers in the contestable market);
- customers supplied by BHP or Rio Tinto in mining towns, or by the Rottnest Island Authority;
- the proposed business model of private embedded networks supplying multiple green titled lots in new developments for which electricity retail and distribution licences would be required;
- microgrids using on-site generation and storage that are designed to operate independently (i.e. islanded from the main grid) for a period of time, for which electricity retail and distribution licences would be required; and
- the short-term on-supply of electricity to end use customers where there is no retailing of electricity, for instance the on-supply of electricity in hotels and other short-term accommodation where electricity costs are bundled into a room rate.

1.5 Additional resources on embedded networks

Further information to assist an understanding of embedded networks is set out in Table 1 below.

Table 1: Additional resources on embedded networks in Western Australia

Topic	Go to	Content
Understanding embedded networks in Western Australia	Understanding Embedded Networks in Western Australia (www.wa.gov.au)	Video and text explainer about embedded networks and how they operate in WA
Electricity on-selling in embedded networks in Western Australia	On-selling of electricity and gas (www.wa.gov.au)	Factsheets to assist customers and on-sellers understand the current rules about on-selling electricity in embedded networks and how to access energy concessions
Typical business models in use in embedded networks in Western Australia	Draft Voluntary Embedded Networks Code of Practice (www.wa.gov.au)	Case studies providing examples of typical business models in use in embedded networks in Western Australia, and who the ENS would be in different scenarios
Results from embedded network stakeholder survey (Nov 2022)	Survey – Experiences in Embedded Networks in Western Australia (www.wa.gov.au)	Survey responses showing the experiences of people who use, operate or have an interest in embedded networks in Western Australia to inform future regulation of embedded network services.
Consultation draft of the Voluntary EN Code (May 2023)	Draft Voluntary Embedded Networks Code of Practice (www.wa.gov.au)	Feedback on proposed voluntary code obligations for ENS to inform potential future regulation under the AES registration framework.

1.6 Invitation for submissions

Energy Policy WA is seeking feedback on specific questions about the options for regulating the provision of electricity services in embedded networks. A consolidated list of questions is included below, for your convenience. You do not have to respond to all the questions or all the options. Please feel free to focus on the areas that are important and relevant to you.

There is no specified format for submissions or responses. You are welcome to write a letter or send us an email:

- outlining your views;
- telling us your own experience; and/or
- responding specifically to the questions included in the CRIS.

You are also welcome to suggest alternative options for addressing matters of concern to you. When providing your submission or response to questions, it would be helpful if you could include the reasons behind your suggestions, along with the potential costs and benefits of them. This will help the Government to better understand your viewpoint and will assist in assessing the potential impact of the most suitable options for reform.

The issues outlined in this paper are complex. If there is anything you require clarification on please do not hesitate to contact EPWA-AES@dmirs.wa.gov.au with the subject heading 'Request for clarification: Regulating embedded networks'.

Written submissions or letters can also be emailed to EPWA-AES@dmirs.wa.gov.au or posted in hard copy to Locked Bag 100, East Perth WA 6892.

Closing date

The closing date for providing comments on this CRIS is Friday 19 April 2024 at 5pm (WST).

Who are you?

When making your submission please let us know who you are and/or who you represent. For example, are you a household or business customer, embedded network operator or service provider or industry body.

How your input will be used?

Energy Policy WA will carefully consider all the information gathered through this consultation process in order to provide advice and recommendations to the Government.

Energy Policy WA will publish submissions received on the Energy Policy WA website shortly after the end of the consultation period. Energy Policy WA will also publish further information on the Government's final policy decision in due course.

Information provided may become public.

Please note that as your feedback forms part of a public consultation process, the Government may quote from your comments in future publications. If you prefer your name to remain confidential, please indicate this in your submission. Please also clearly indicate if there is information or data in your submission that is confidential and should be redacted before publication.

Please also note that submissions made in response to this paper will be subject to freedom of information requests and will be treated in accordance with the *Freedom of Information Act 1992* (WA).

1.7 Consolidated list of questions for consultation

1. What costs and benefits have you experienced under the status quo arrangements for ENS being exempt from needing to hold a licence?
2. What minimum conditions would need to be imposed as part of individual exemptions for ENS?
3. Do you agree that a lack of access to the Energy Ombudsman and means of enforcing exemption conditions are significant problems? Are there any other concerns with licence exemptions additional to those identified in Section 3 – Problem Statement? (*relevant to Options 1 and 2*)
4. If an exempt ENS fails to meet exemption conditions they are no longer legally able to supply electricity until the issue is remedied. What consequences could arise from this? (*relevant to Options 1 and 2*)
5. Is licensing a suitable option to address some of the issues raised in Section 3 – Problem statement?
6. Are the costs of licensing ENS proportional to the benefits?
7. Is the AES registration framework a suitable option to address some of the issues raised in Section 3 – Problem statement?
8. Are the costs of requiring ENS to register under the AES registration framework proportional to the benefits?
9. Do you agree that ENS should be required to facilitate large use customers obtaining a separate master meter at the customer's cost?
10. If you are a large use customer, what is your experience in being sold or supplied electricity in an embedded network?
11. What, if any, other obligations should ENS have in respect of large use customers? Why?
12. Do you support use of the 'fast track' route to assess ENS registration applications? Why/why not?
13. What minimum information should ENS be required to supply under an AES registration application process?
14. Should licensed electricity retailers be permitted to operate embedded networks under authorisation of their licences (with additional licence conditions), or should they be required to also hold an AES registration as an ENS? Please provide justification for your position.
15. What circumstances should be considered for transitional arrangements? What types of obligations on ENS should be subject to transitional arrangements?
16. Are there any types of ENS that require special consideration or additional time where a phased approach might be appropriate? Why is this the case and how long should such a phased approach take?
17. What is the best means of accessing all relevant audiences for ENS educational materials?
18. What materials and resources would be most suitable to help both ENS and their customers to transition to the AES registration framework?

1.8 Previous consultation

Energy Policy WA has undertaken extensive public consultation regarding the further regulation of embedded networks, including:

- An online [embedded networks survey](#) (the Survey) for people using, operating or having an interest in embedded networks.
- Consultation with peak consumer groups including the WA Advocacy for Consumers of Energy (WA ACE) Forum, the Small Business Development Corporation, WACOSS, and representative bodies for specific groups of residential and small business customers that are likely to have constituents in embedded networks.
- Consultation with embedded network operators and service providers, as well as industry groups representing embedded network operators such as the Shopping Centre Council of Australia and Strata Communities Association of WA.
- A seven-week consultation period on the [Voluntary Code – Embedded Network Services in Western Australia](#), including a public forum.

The latter included consultation on draft code obligations, which has informed the final obligations in the voluntary and non-binding code (the Voluntary EN Code) to apply to ENS who choose to participate.

This Voluntary EN Code is a precursor to the mandatory AES code of practice (should it be applied to ENS) and will be a ‘learn by doing’ exercise to work with industry and consumers, and encourage stakeholder buy-in and engagement with reforms to the regulation of embedded networks in Western Australia. The aim is to streamline code obligations and ascertain the lowest cost and most effective way of achieving the desired outcomes for electricity customers in embedded networks.

Energy Policy WA also undertook public consultation to inform the establishment of the AES registration framework as set out in Table 2 below.

Table 2: Overview of consultations on the AES registration framework

Formal consultation	When	Go to	Purpose of the consultation
Review of the electricity retail licensing and exemptions framework	January 2020 – Directions Report; November 2020 – Final Report	Electricity retail licensing and exemptions review (www.wa.gov.au)	This review looked at whether the current regulatory regime adequately provided protections for customers of new and emerging electricity services, and identified a preferred regulatory framework to address identified inadequacies.
Consultation draft of the Electricity Industry (Alternative Electricity Services) Bill 2023	March 2023	Electricity Industry Amendment (Alternative Electricity Services) Bill 2023 (www.wa.gov.au)	Consultation draft seeking public feedback on the amendments of the <i>Electricity Industry Act 2004</i> to enable the AES registration framework.

2. Regulatory overview

2.1 Current licensing and exemptions framework

The electricity licensing and exemption framework has been in effect since 2004 and is set out in Part 2 of the *Electricity Industry Act 2004*.

Under the regulatory framework, electricity licences are issued, overseen and enforced by the Economic Regulation Authority (ERA). Exemptions from licensing requirements are issued by the Governor on advice from the Minister for Energy.

Licences, with comprehensive customer protection obligations and stringent compliance requirements, have been applied to large operators, while licence exemptions have been used in some instances recognising that it was not practical for all energy supply arrangements to be licensed.

The sale and supply of electricity in embedded networks (such as apartment buildings, shopping centres, retirement villages and long-stay residential parks), are examples of where class-based exemptions were applied (under the Electricity Industry Exemption Order 2005 and Electricity Industry (Caravan Park Operators) Exemption Order 2005), because many providers were of a smaller scale and the on-supply of electricity was ancillary to the main purpose of their business model.

Licence exemptions can include high level conditions, like price controls, however there is no oversight of exempt parties and no enforcement mechanism to deal with exempt operators not meeting the required conditions.

Licence holders can be subjected to a range of disciplinary actions for non-compliance with licence conditions, ranging from warnings to financial penalties through to, in extreme cases, the revocation of a licence.

By contrast, if an exempt entity does not comply with one of the conditions that have been included in the licence exemption, then the exemption automatically ceases to apply until the issue is rectified. In this case the entity holding the exemption can no longer legally conduct its business and faces prosecution and fines of up to \$100,000 plus \$5,000 per day for operating without a licence or exemption. The regulatory framework provides no ability to implement a more robust, or proportionate, compliance and enforcement regime to ensure adequacy of consumer protections.

Table 3 provides a comparison of the types of customer protections under the licensing regime and current class-based exemption for ENS.



Table 3 : Comparison of licensing and exemptions framework (small use customer protections)

	Licensed retailer	Exempt on-seller
Oversight by a regulator	✓	X
Customer access to Energy Ombudsman / requirement for robust dispute resolution procedures	✓	X
Enforceable Code setting out standards of conduct	✓	X
Price regulation	✓* Price regulation applies to Synergy and Horizon Power customers using <50MWh/year; customers over this threshold have a choice of retailer	Limited* Some price regulation applies for residential customers only
Information disclosure – Up front – On bills	✓	Limited* Only requires disclosure of quantity of electricity supplied and the fees and charges payable
Visibility of suppliers operating in the market (for regulator, government and potential customers)	✓	X
Protections for residential customers who rely on life support equipment	✓	✓
Obligation on service provider to offer support to residential customers experiencing financial hardship or family violence	✓	X
Requirements on service providers regarding disconnections, reconnections and interruptions	✓	X
Regular performance reporting requirements	✓	X

2.2 The new AES registration framework

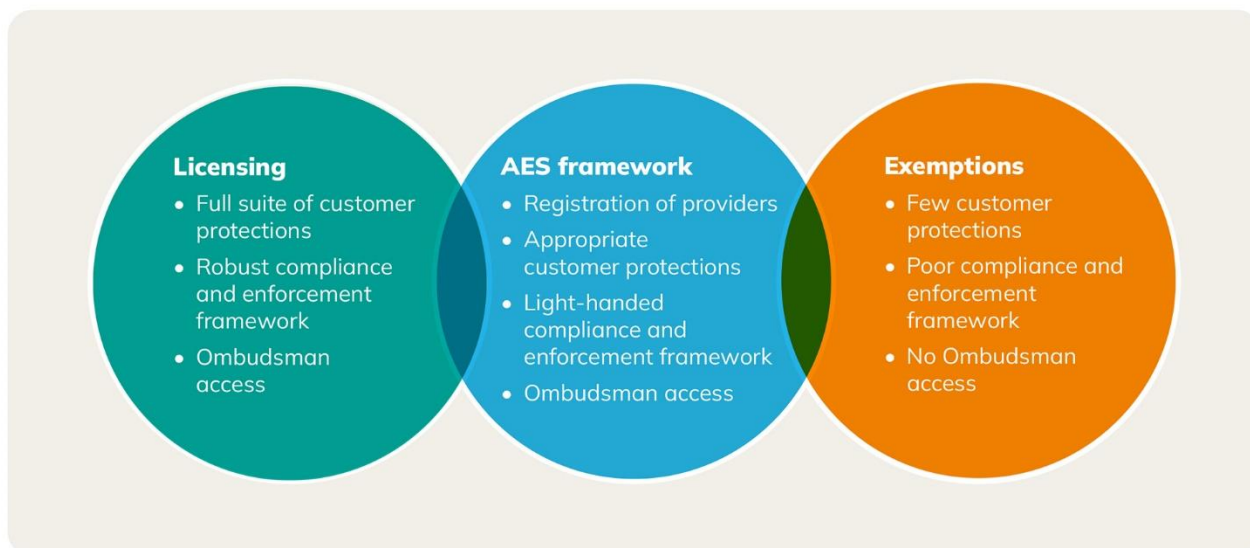
The AES registration framework will operate alongside the existing electricity licensing and exemption frameworks established under Part 2 of the Act. Legislative amendments to establish the AES registration framework are currently before Parliament.

The framework will require providers of a prescribed service to register, become a member of the Electricity Ombudsman scheme and comply with obligations contained in a single code of practice, the Alternative Electricity Services Code (AES Code). This registration framework will deliver enforceable protections for electricity customers of those AES providers.

To allow flexibility for the framework to be applied to new and innovative services, the activities regulated under the AES registration framework will be prescribed in regulation. The requirements for providers of each prescribed service can be tailored to particular service characteristics. The ERA will be responsible for monitoring compliance with, and enforcement of, the registration framework, as well as for maintaining the register of AES providers.

The AES registration framework is intended to be flexible enough to cover a broad range of electricity-related activities into the future, if, and when, a need for regulation of those activities arises. It is designed to provide a fit for purpose regulatory regime to extend protections to customers of innovative and emerging electricity services.

Figure 2: Comparison of licensing, AES and exemption frameworks



Consistent with the Principles of the Better Regulation Program, before any activity is regulated under the AES registration framework a regulatory impact assessment will be undertaken, including stakeholder consultation, to examine whether regulation is warranted, whether the AES registration framework is the appropriate form of regulation for the activity, and – if so – the regulatory settings that should be applied for that activity.

This Consultation Regulatory Impact Statement is an example of this process and provides stakeholders an opportunity to provide feedback on whether the AES registration framework is the appropriate form of regulation for ENS and whether the obligations outlined in Appendix B are suitable.

2.3 AES Code and Voluntary Embedded Networks Code

In anticipation of embedded networks potentially being covered by the AES registration framework, Energy Policy WA is introducing a non-binding and [voluntary code of practice](#) for ENS – the Voluntary EN Code. It is envisaged the Voluntary EN Code will encourage ENS to provide a suitable level of customer protections and operate until such time as the AES Code comes into effect for embedded networks.

It is intended to offer embedded network customers of ENS who choose to fully comply with the Voluntary EN Code, provisions that are substantially equivalent (or the same types of) customer protections as are supplied by a licensed retailer, for example:

- a requirement for supply agreements to be in writing and include certain information such as details of applicable tariffs, fees and charges and how they may be varied;

- a prohibition on unreasonably withholding, preventing or obstructing the supply of electricity to a customer;
- disclosure of information up-front prior to a customer being supplied by the ENS;
- access to suitable meters and ability to request a meter test;
- information that must be included on bills, and other billing requirements;
- support for residential customers experiencing financial hardship or family violence;
- robust dispute resolution procedures;
- suitable processes for supply disconnections, reconnections and interruptions; and
- protections for residential customers who rely on life support equipment.

The Voluntary EN Code provisions also seek to capture some of the benefits that may otherwise be available to grid-connected customers, including measures to facilitate a customer decarbonising their electricity supply at the customer's reasonable cost (similar to the purchasing of a GreenPower product).

Further, the Voluntary EN Code contains provisions for ENS to make safety net prices available, based on existing Government regulated electricity tariffs for small-use customers.

As the Voluntary EN Code is intended to inform policy development, it will not be legally binding on participants. It will also not authorise entities to undertake on-selling in embedded networks and from a regulatory perspective they will continue to operate under the existing licence exemption while the Voluntary EN Code is in effect. A customer within an embedded network will not be able to choose whether their ENS should participate in the Voluntary EN Code.

The obligations contained in the Voluntary EN Code will be used as the basis for developing and refining obligations to be included in the mandatory AES Code.



3. Problem statement

Customers sold or supplied electricity in embedded networks do not have the customer protections that equivalent grid-connected customers enjoy, including contact with the Energy Ombudsman to help resolve any problems.

Energy Policy WA considers that both types of customers should have access to similar customer protections.

Energy Policy WA estimates that tens of thousands of small use customers are currently sold and supplied electricity as an essential service through embedded networks.

This atypical business model is becoming more common, particularly in medium to large strata complexes (such as urban infill projects). Sophisticated third party service providers have emerged to assist with installing and/or operating embedded networks, most commonly embedded networks in situations where there is a shared property ownership structure (e.g. strata scheme). Drivers for the embedded network business model in the South West Interconnected System include:

- Reducing total energy costs for the property by aggregating total load and bulk buying electricity, which can yield savings for occupants and/or an arbitrage opportunity for the ENS on both retail and network components of electricity costs.
- Enabling easier integration of shared sustainable infrastructure, such as solar panels or electric vehicle chargers.
- For greenfields projects, it may be faster and/or cheaper to install a private embedded network than for Western Power to install metering infrastructure at the site.

Given the expansion of this business model, continuing to rely on licence exemptions for ENS leaves more and more small use customers:

- without recourse to important electricity-specific customer protections;
- with no fit for purpose compliance and enforcement framework to impose proportionate consequences on ENS who do not comply with the current (limited) protections; and
- without access to the Energy Ombudsman to resolve complaints and disputes.

3.1 Is there a need for additional regulation?

Since 2021, Energy Policy WA has undertaken extensive consultation with embedded network stakeholders to better understand the current situation.

As well as one on one consultation with embedded network service providers and industry representative bodies, Energy Policy WA also surveyed residential and non-residential customers in embedded networks, embedded network operators and service providers (refer to Table 4: Survey responses - quotes).

Further, Energy Policy WA has received numerous queries and complaints regarding customer experiences in embedded networks.

These inputs have highlighted that many small use customers who receive their primary electricity supply (an essential service) within an embedded network would benefit by having enforceable customer protections (including access to the Energy Ombudsman for dispute resolution) and a robust compliance and enforcement regime.

3.1.1 Embedded network survey – results

To inform this project, Energy Policy WA completed a [survey](#) of embedded network customers, operators, service providers and other interested stakeholders (the Survey) in late 2022. In total, 942 respondents participated in the survey.

Figure 3: Respondents to embedded networks survey



Despite the majority of residential customers in embedded networks (62 per cent) reporting paying electricity rates that are lower than if they were grid connected, only around 23 per cent reported a positive experience from receiving their electricity supply through an embedded network.

Responses suggest high levels of customer concern in embedded networks due to issues including (but not limited to) lack of upfront information, lack of essential information to understand the price paid for electricity and absence of a clear and adequate dispute resolution pathway.

The majority of non-residential customers who responded to the survey (albeit from a small sample size of 36) reported having a very negative experience within embedded networks, particularly with respect to lack of information and pricing outcomes. (Please refer to Table 4: Survey responses - quotes.)

Energy Policy WA was able to identify clear trends in the survey results between residential and non-residential customers (noting that some of the issues are more relevant to residential customers) as outlined in Figure 4 below.

Table 4: Survey responses - quotes

“If I am aware in future that a rental property has an embedded network I will purposely refuse to rent that property and look elsewhere” – Tenant, strata

“We have multiple problems with meters... No one can provide answers to the vast number of queries and dissatisfied residents. The developer ignores queries and the strata manager will not respond to queries. Very suspect data is used to calculate charges for hot water. No one is engaged to monitor or maintain the embedded network which is completely unreliable and in a state of disrepair” – Owner occupier, strata

“...Basically, I can be billed any amount they see fit and I will have to pay it” – Owner occupier, strata

“I cannot see the consumption details like units consumed, I just receive an amount due” – Tenant, strata

“We are given very little information on our bills and have to assume that we get no benefit from the solar panels on our roof. Because we get so little information we have no idea if we are being charged a fair amount” – Owner occupier, retirement village

“We cannot get our electricity at a cheaper price by negotiating directly with suppliers. We have no negotiation ability... We cannot benefit from solar panels etc” – Tenant in neighbourhood shopping centre

“I have absolutely no rights as a consumer, I have been forced to pay hundreds of dollars of bills that were proven wrong in the past because I didn’t have an ombudsman to look into it for me.” – Tenant, strata

“Honestly, it feels like a scam to me. I’m a renter, and in this economy I don’t feel safe asking my real estate agent questions about why I have so little info about my water and electricity bills. If I cause too much fuss they’ll just end my lease at the end of the fixed term leaving me homeless. I don’t feel I have ANY protection from being scammed.” – Tenant, strata

Figure 4: Key Survey findings - Embedded network customer experiences



4. Policy objective

Energy Policy WA considers that small use electricity customers who receive their electricity supply through embedded networks should have substantively equivalent protections as customers of licensed retailers because:

- the electricity sold or supplied in embedded networks is the sole or primary source of electricity for the vast majority of these customers, making the arrangement an essential service;
- the number of customers supplied through embedded networks is growing, meaning more customers are receiving electricity as an essential service from an ENS;
- most other Australian jurisdictions benefit from greater regulatory oversight of embedded networks (refer to Appendix A) including better visibility of ENS by the regulator, Government and potential customers, as well as customer access to a relevant ombudsman service;
- there is evidence that customers are unaware that they will not have the same customer protections as grid connected customers at the time that they consider moving to an embedded network, or even that electricity supply arrangements vary between different property types; and
- aligning customer protections with grid-connected customers addresses a majority of concerns raised in both the Survey and directly with Energy Policy WA.

Energy Policy WA also considers that the licensing regime would impose potential barriers to entry and/or force some existing suppliers to exit the market due to the costs and regulatory burden of licensing, which are disproportionate to the operating model of most ENS.

Therefore, the policy objective is to find the best and most practical way to extend substantively equivalent protections to customers of ENS as provided by licensed retailers, including an adequate dispute resolution pathway and a suitable compliance and enforcement mechanism, without imposing unnecessary regulatory burden on ENS.

Examples of the types of customer protections that Energy Policy WA seeks to extend to customers sold or supplied electricity in an embedded network include, but are not limited to:

- a requirement for supply agreements to be in writing and include certain information such as tariffs, fees and charges and how they may be varied;
- a prohibition on unreasonably withholding, preventing or obstructing the supply of electricity to a customer;
- disclosure of information up-front prior to a customer being supplied by the ENS;
- facilitating non-residential customers who consume more than 50MWh in any 12 month period of electricity obtaining a supply of electricity from a different supplier, at the customer's cost;
- access to suitable meters and the ability to request testing of a meter;
- minimum billing information requirements;
- support for residential customers experiencing financial hardship or family violence;
- robust dispute resolution procedures, including access to the Energy Ombudsman to assist with disputes;
- suitable processes for managing disconnections, reconnections and supply interruptions;
- protections for residential customers who rely on life support equipment; and
- cost pass-through measures to facilitate decarbonising the electricity supply in embedded networks.

5. Options to address the problem

5.1 Option 1: Status quo – class-based exemption

Maintaining the existing class-based exemption for the on-supply of electricity in embedded networks is the lowest impact and lowest cost option for ENS and the Government. However, it does not meet the policy objective of extending substantively equivalent protections to small use customers in embedded networks as those enjoyed by customers of a licensed retailer.

This option is not considered to be a sustainable option and is therefore viewed as a baseline to compare costs and benefits.

Table 5: Status quo – indicative impact

Affected party	Impacts
Industry – ENS providers	
Costs (negative impacts)	<ul style="list-style-type: none"> • Lack of standardisation across industry results in customer uncertainty and concerns regarding ENS behaviours. • Regulatory uncertainty for providers, as failure to comply with conditions of exemption means the exemption no longer applies, regardless of how minor the non-compliance is. Minor non-compliance may expose an ENS to large monetary penalties for operating without a licence or exemption. • Absence of a robust and proportionate compliance and enforcement regime for exempt ENS.
Benefits	<ul style="list-style-type: none"> • No additional regulation imposed upon ENS. • No registration or compliance costs. • No price caps for non-residential customers, who cannot access the contestable market. • No costs associated with regulator oversight or regulatory compliance obligations.
Government	
Costs (negative impacts)	<ul style="list-style-type: none"> • Legislative framework remains unfit for purpose. • No clear legislated responsibility for enforcement of the exemption framework and no proportional enforcement options for minor breaches of licence exemptions. • Limited understanding of the number of exempt providers and customers serviced by the providers as there is no registration or application requirement for ENS. • Exemptions are insufficiently sophisticated or flexible to support possible future policy settings (e.g. to support emissions reduction targets or the possible future introduction of contestability in embedded networks).
Benefits	<ul style="list-style-type: none"> • No disruption to existing regulatory obligations.

Affected party	Impacts
Community/Small Use Customers	
Costs (negative impacts)	<ul style="list-style-type: none"> • Inequality of customer protections between different groups in the community. • Customers of exempt ENS have limited customer protections and may remain unaware that they do not have access to the same protections that are generally provided by traditional licensed retailers. • Absence of a robust and proportionate compliance and enforcement regime for exempt ENS. • No price caps for non-residential customers who cannot access the contestable market while they are in an embedded network. Consultation indicates some non-residential customers are paying significantly more than grid-connected customers, particularly those who – if they were outside an embedded network – would be able to access the contestable market. • No access to the Energy Ombudsman to assist with resolving complaints and disputes.
Benefits	<ul style="list-style-type: none"> • Regulatory costs that may be passed on to customers would remain unchanged. • Price caps in Exemption Order means residential customers should not be paying more than grid-connected customers for their electricity supply. A majority of those residential customers surveyed reported paying lower rates than grid-connected customers.



1. What costs and benefits have you experienced under the status quo arrangements for ENS being exempt from needing to hold a licence?

5.2 Option 2: Individual exemptions

Under this option each ENS would no longer operate under a class-based exemption, but would rather have to apply for an individual exemption, providing an opportunity to establish and maintain a database of ENS¹.

However, this option does not meet the policy objective of extending substantively equivalent protections to small use customers in embedded networks as those enjoyed by customers of a licensed retailer.

¹ An example of comparable individual exemptions is the Electricity Industry (Solar Power Purchase Agreements) Exemption Order 2016 that currently applies to providers offering solar power purchase agreements.

Table 6 : Individual exemptions – indicative impact

Affected party	Impacts
Industry	
Costs (negative impacts)	<ul style="list-style-type: none"> • Requires ENS to apply for an individual exemption and potentially adhere to additional conditions. • Lack of standardisation across industry results in customer uncertainty and concerns regarding ENS behaviours. • Regulatory uncertainty for providers, as failure to comply with conditions of an exemption means it no longer applies, regardless of how minor the non-compliance is. Minor non-compliance therefore expose ENS to large monetary penalties for operating without a licence or exemption. • Absence of a robust and proportionate compliance and enforcement regime for exempt ENS.
Benefits	<ul style="list-style-type: none"> • Minimal additional regulation imposed upon ENS. • No registration fees or additional compliance costs. • No price caps for non-residential customers, who cannot access the contestable market (unless imposed as a new exemption condition). • No oversight by a regulator and no regulatory compliance obligations.
Government	
Costs (negative impacts)	<ul style="list-style-type: none"> • Legislative framework remains unfit for purpose. • No clear legislated responsibility for enforcement of the exemption framework and no proportional enforcement options for minor breaches of licence exemptions. • Exemptions are insufficiently sophisticated or flexible to support possible future policy settings (e.g. to support emissions reduction targets or the possible future introduction of contestability in embedded networks). • Administratively burdensome to maintain the database of exempt providers and number of customers they service, given the volume of ENS. Additional resources to undertake this function would need to be funded by taxpayers as there is no mechanism for industry funding under the current legislative framework.
Benefits	<ul style="list-style-type: none"> • Minimal disruption to existing regulatory obligations. • Some transparency about number and type of ENS operations and customers served by ENS.
Community/Customer	
Costs (negative impacts)	<ul style="list-style-type: none"> • Inequality of customer protections between different groups in the community. • Customers of exempt ENS have limited customer protections and may remain unaware that they do not have access to the same protections that are generally provided by traditional licensed retailers. • Absence of a robust and proportionate compliance and enforcement regime for exempt ENS. • No price caps for non-residential customers who cannot access the contestable market while they are in an embedded network (unless imposed as a new exemption condition). • No access to the Energy Ombudsman to assist with resolving complaints and disputes.
Benefits	<ul style="list-style-type: none"> • Some additional transparency around ENS operating in the market.



2. What minimum conditions would need to be imposed as part of individual exemptions for ENS?
3. Do you agree that a lack of access to the Energy Ombudsman and means of enforcing exemption conditions are significant problems? Are there any other concerns with licence exemptions additional to those identified in Section 3 – Problem Statement? *(relevant to Options 1 and 2)*
4. If an exempt ENS fails to meet exemption conditions they are no longer legally able to supply electricity until the issue is remedied. What consequences could arise from this? *(relevant to Options 1 and 2)*

5.3 Option 3: Licensing

Under this option each ENS would need to obtain both an electricity retail and distribution² licence. As a licensed entity the ENS would be required to meet associated legislative obligations under the Act and subsidiary instruments to which electricity retail licensees must adhere. Together the Act and these subsidiary instruments constitute a customer protection regime for the retailing and distribution of electricity.

The design of the licensing framework for a traditional electricity system is reflected in the licence types (generation, transmission, distribution, retail and integrated regional) and the scale of compliance obligations including (but not limited to):

- Comprehensive application process subject to a public interest test.
- Stringent financial and technical assessments.
- Independent performance audits against licence obligations at least every 24 months (or longer period allowed by the regulator – the typical period is three years).
- Detailed annual performance reporting.

Some of the relevant subsidiary instruments that licensees need to comply with are the:

- Electricity Industry (Customer Contracts) Regulations 2005;
- Electricity Industry (Network Quality and Reliability of Supply) Code 2005;
- Electricity Industry (Metering) Code 2012;
- Electricity Industry (Obligation to Connect) Regulations 2005;
- Electricity Industry (Licence Conditions) Regulations 2005, and
- Small Use Code.

Collectively these instruments ensure that customers of licensed electricity distributors and retailers have access to protections commensurate with the provision of an essential service. Among other things, these instruments specify:

- the types of information that must be contained in an electricity customer contract;

² Or alternatively obtain a retail licence only and continue to be exempt from having a distribution licence, but this would limit the ability to apply the full suite of customer protections (e.g. protections related to disconnections, reconnections and interruptions).

- the standards of conduct retailers and distributors must adhere to in the supply of electricity to small use customers; and
- quality and reliability standards to which an electricity distributor must adhere.

Under the licensing framework, an ENS would also need to become a member of the Electricity Ombudsman Scheme in order to supply small use customers.

The framework does not contemplate atypical business models like ENS. Many of the above regulatory obligations were not designed for smaller-scale applications such as an embedded network on a single property, and some are either impractical or not relevant. Further, for many ENS, the on-supply of electricity is ancillary to their main business operating model.

The licensing framework has limited scope for flexibility or customisation to, for example, apply only a portion of the compliance obligations to a particular licensee or subclass of licensee. This means that ENS would need to comply with the full suite of obligations of a licensed retailer (and possibly also those that apply to a licensed distributor).

This option imposes inflexible and costly obligations on ENS that are disproportionate to the services provided. Particularly for smaller ENS that serve a single embedded network, regulatory costs associated with the licensing framework may be higher than total revenues from electricity on-selling.

The table below outlines the types of annual fees current retailers must pay every year. Annual fees are for both retail and distribution licences to reflect that ENS operate a distribution network behind the grid connected meter. Application fees are excluded from the table as they depend on the size and complexity of the retailer or distributor. However, applicants for a retail and/or distribution licence can expect to pay application fees in the thousands of dollars.

Table 7: Indicative licence costs that current electricity retailers/distributors face

Type of licensing fee	Indicative electricity licensing costs under current framework	Cost per customer – based on licensee with 150 small use customers
ERA annual retail licence fee	\$3,416 ³	~\$23
ERA annual distribution licence fee	\$2,732 ⁴	~\$18
Indicative audit costs for both retail and distribution licences – annualised (audits occur at minimum every three years)	~\$17,000 ⁵	~\$110
Combined ERA standing charge for retail and distribution licence	Depends on customer numbers and size of the distribution network (in kilometres)	Less than \$1 ⁶
Ombudsman annual levy	\$1,000 to \$90,000 ⁷	~\$1
Ombudsman dispute resolution costs	Depends on number of complaints	Depends on number of complaints

³ [Economic Regulation Authority \(Licensing Funding\) Regulations 2014 - \[00-a0-03\].pdf \(legislation.wa.gov.au\)](#), page 5.

⁴ As above.

⁵ Licensees are usually subject to distribution and retail licence audit every three years and it is estimated that a licensee holding both licence types may face costs of approximately \$40,000 to \$45,000 for an audit (based on industry knowledge).

⁶ Energy Policy WA estimate based on <https://www.erawa.com.au/cproot/21589/2/Operation-of-the-electricity-licensing-scheme-and-licensee-compliance---Annual-Report-201920---Final-clean-.PDF>

⁷ Depends on the number of customers - smaller licensees with up to 1,000 customers incur an annual levy of \$1,000.

Table 8: Licensing – indicative impact

Affected party	Impacts
Industry	
Costs (negative impacts)	<ul style="list-style-type: none"> • May need both distribution and retail licence and under the current structure would incur over \$20,000 in annual fees and associated compliance costs⁸ - refer to Table 7: Indicative licence costs that current electricity retailers/distributors face. • Costs to develop systems and processes to comply with licence obligations. • Some obligations are not fit for purpose or relevant, for instance being required to adhere to full Metering Code requirements, including metrology procedures. • Inflexible and limited ability to tailor obligations to the specific characteristics of embedded networks. • Compliance and regulatory oversight regime not flexible and regulatory burden is disproportionate to scale of many ENS operations.
Benefits	<ul style="list-style-type: none"> • Increases industry standardisation, improving consumer trust in the sector. • Increases regulatory certainty and allows for proportionate enforcement options in the event of minor non-compliance with obligations.
Government/ Regulator	
Costs (negative impacts)	<ul style="list-style-type: none"> • Legislative framework remains unfit for purpose due to inflexibility to be tailored to the specific characteristics and scale of the business model. • ERA likely to require system updates and very significant increase in staffing resources due to significant increase in number of licensees.
Benefits	<ul style="list-style-type: none"> • Equality of customer protections between different groups in the community (with a few exceptions, including price protections and the ability to access concessions directly through the customer's retailer). • Clear legislated responsibility for the administration or enforcement of the licensing framework. • Transparency of number of ENS and number of customers supplied electricity by ENS.
Community/Customer	
Costs (negative impacts)	<ul style="list-style-type: none"> • Licensing and administration costs would ultimately be borne by customers. • Absence of price regulation (unless imposed as a new licence condition) and still no access to the contestable market for non-residential customers consuming more than 50 MWh of electricity in any 12 month period.
Benefits	<ul style="list-style-type: none"> • Equality of customer protections between different groups in the community (with a few exceptions, including price protections and the ability to access concessions directly through the customer's retailer). • Access to Energy Ombudsman to assist with resolving complaints and disputes. • Robust and proportionate compliance and enforcement regime to ensure customers have access to compliant operators.

⁸ Fees and charges may need to be amended to reflect a material increase in total number of licensees.



5. Is licensing a suitable option to address some of the issues raised in Section 3 – Problem statement?
6. Are the costs of licensing ENS proportional to the benefits?

5.4 Option 4: AES registration framework

Under this option each ENS would be required to register with the ERA, become a member of the Electricity Ombudsman Scheme, and meet obligations under the AES Code that would extend substantially equivalent customer protections to those of a licensed retailer, modified as necessary to reflect the characteristics of the business model.

While the customer protection obligations would be similar to those applying to a licensed retailer, it is anticipated that both regulatory compliance costs and the registration fees and charges payable to the ERA under the AES registration framework would be materially less than those for licensees.

Energy Policy WA has, with input from the ERA and the Energy Ombudsman, developed estimates for both establishment costs (for example building new systems) and ongoing operation costs for the AES registration framework. These estimates are based on a high-level overview of the framework and are yet to be tested. The costs are based on high, medium and low:

- cost scenarios for ongoing system and resourcing costs, if both Onsite Power Supply (OPS) services and embedded network services were to become registered AES; and
- customer numbers ranging from 30,000 to 100,000 customers (estimated customer numbers for OPS and embedded network services combined).

The indicative costs assume estimated operating costs of the registration scheme are recovered through an annual fee. However, the legislation makes provision for application and annual fees. As it has not yet been determined what portion of the operating costs will be recovered from each fee, full recovery through an annual fee is assumed for simplicity. Based on this process Energy Policy WA was able to estimate indicative annual costs per customer for ongoing operational costs of the AES registration framework under different scenarios, ranging from \$10 to \$37 per customer per year⁹ (combined annual costs for both the Energy Ombudsman and ERA).

By comparison existing licensees (retail and distribution combined) would expect to pay around \$41 per customer in annual fees and around \$110 per customer for auditing that has to occur every three years (and is likely not to be required as regularly or at all for small AES service providers).

It should be noted that the ongoing operational costs for the AES registration framework are all inclusive, meaning they include costs that may ultimately be recovered through application fees. In contrast, the licensing fees above do not include application fees, which can be several thousands of dollars in each instance, increasing the total regulatory cost per customer.

⁹ It should be noted that while this range represents Energy Policy WA's best estimate for the combined ongoing annual costs of the ERA and Ombudsman, it is based on high level assumptions and incomplete data. Final per customer costs may fall outside this range

It is also noted that the ERA's licensing process is well established with knowledgeable service providers and an experienced regulator, so it is expected that licensing costs represent efficient unit costs. It may take some years for the AES registration process to become established, with costs expected to become more efficient over time.

The proposed AES registration framework would have a simpler assessment process for ENS applicants than the licensing framework, including the option of a fast-track process that does not require assessment against a public interest test or public consultation.

Furthermore, the AES registration framework would not require regular performance audits of ENS. Compliance audits would be the exception, rather than the norm. Unlike audits of electricity licensees, the auditor would be appointed by the ERA, not the regulated entity, to avoid potential conflicts of interest and/or bias – this is consistent with the audit arrangements for water licensees under the *Water Services Act 2012*.

The ERA would have access to a similar toolkit of enforcement options as for that to address licensing contraventions, but with the important additional option of enforceable undertakings.

5.4.1 Proposed obligations under the AES Code

The proposed obligations on ENS under the AES Code seek to address key concerns raised in the Survey, feedback received in consultation on the draft Voluntary EN Code and issues raised during one-on-one stakeholder engagement. The obligations would be aimed at issues including improving information transparency, both at the time of entering the property and in bills; dispute resolution processes; and price regulation.

It is intended to offer embedded network customers substantially equivalent (or the same types of) protections as to those provided by a licensed retailer, for example:

- a requirement for supply agreements to be in writing and include certain information such as tariffs, fees and charges and how they may be varied;
- prohibiting an ENS from unreasonably withholding, preventing or obstructing the supply of electricity to a customer;
- provision of information up-front to customers through a standard Disclosure Statement;
- facilitating non-residential customers who consume more than 50MWh in any 12 month period of electricity obtaining a supply of electricity from a different supplier, at the customer's cost;
- access to suitable meters and ability to request a meter test;
- information that must be included on bills, and other billing requirements;
- support for residential customers experiencing financial hardship or family violence;
- robust dispute resolution procedures, including access to the Energy Ombudsman to assist with disputes;
- suitable processes for disconnections, reconnections and supply interruptions;
- protections for residential customers who rely on life support equipment; and
- cost pass-through measures to facilitate decarbonising the electricity supply in embedded networks.

It is also proposed that ENS would be required to make safety net prices available, based on existing Government regulated electricity tariffs for small-use customers.

For more detail of the obligations proposed for ENS under the AES Code refer to the Voluntary EN Code, attached at Appendix B. The Voluntary EN Code cannot impose functions on the ERA or the Energy Ombudsman, and as a result some provisions differ from the expected position for the AES Code. This is explained in notes accompanying the relevant provisions.

Table 9 AES registration framework – indicative impact

Affected party	Impacts
Industry	
Costs (negative impacts)	<ul style="list-style-type: none"> • AES registration and Ombudsman fees and levies – best estimate for these costs is in the order of \$10 to \$37 per customer per year. • Costs to develop systems and processes to comply with registration obligations.
Benefits	<ul style="list-style-type: none"> • Increases industry standardisation, improving consumer trust in the sector. • Increases regulatory certainty and allows for proportionate enforcement options in the event of minor non-compliance with obligations.
Government	
Costs (negative impacts)	<ul style="list-style-type: none"> • Establishment costs – best estimate is in the order of \$1 to \$1.5 million for both system and resource costs (noting these establishment costs are a once-off cost associated with any and all services regulated under the AES registration framework – they are not duplicated if both OPS services and embedded network services are prescribed as AES). • Cost to the ERA to administer and enforce the AES registration framework for ENS (noting these would be industry funded and do not duplicate the regulatory costs to industry listed above). • Cost to the Energy Ombudsman to manage complaints and disputes of ENS customers (noting these would be industry funded after a transitional period and do not duplicate the regulatory costs to industry listed above)
Benefits	<ul style="list-style-type: none"> • Equality of customer protections between different groups in the community (with a few exceptions, such as the ability to access concessions directly through the customer’s provider). • Flexible and tailorable regulatory obligations that can respond to change. • Meets policy objective. • Clear legislated responsibility for administration and enforcement. • Transparency of number of ENS and number of customers supplied electricity by ENS.
Community/Customer	
Costs (negative impacts)	<ul style="list-style-type: none"> • Licensing and administration costs would ultimately be borne by customers.
Benefits	<ul style="list-style-type: none"> • Equality of customer protections between different groups in the community (with a few exceptions, such as the ability to access concessions directly through the customer’s provider). • Access to Energy Ombudsman to assist with resolving complaints and disputes. • Robust and proportionate compliance and enforcement regime to ensure customers have access to compliant operators. • Price regulation for non-residential customers that cannot access the contestable market.



7. **Is the AES registration framework a suitable option to address some of the issues raised in Section 3 – Problem statement?**
8. **Are the costs of requiring ENS to register under the AES registration framework proportional to the benefits?**

5.4.2 Policy questions under the AES registration framework

Protections for large use customers

The AES registration framework outlined in the Final Report was designed to deliver customer protections to small use customers only (any customer using below 160 MWh of electricity per year). However, since this approach would have added unintended complexities for some AES, including embedded networks, the heads of power for the AES registration framework have been modified to permit:

- registration to authorise the provision of a prescribed service to large use customers (using above 160 megawatt hours of electricity per year); and
- the application of a limited subset of regulatory obligations when providing an AES to large use customers.

Some of the unintended consequences were that:

- an ENS servicing one or two large use customers alongside several small use customers within the same embedded network would be required to hold an AES registration (to service the small use customers) as well as a licence, or a licence exemption, to service the large use customers; and
- it would not be possible to repeal the Electricity Industry (Solar Power Purchase Agreements) Exemption Order in its entirety as the Order allows exempt persons to provide this type of service to both small use and large use customers.

In addition, many large use customers in embedded networks, unlike their counterparts operating outside the confines of an embedded network, are unable to negotiate and choose their own electricity supplier. Consultation has indicated this is a major concern for these large use customers and several have reported paying significantly more per unit of electricity than for similar customers at standalone sites where they can access market offers.

The Voluntary EN Code includes clause 3.2, which requires an ENS to facilitate an eligible customer (consuming more than 50 MWh in any 12 month period) obtaining a separate master meter to be able to source their electricity supply directly from a licensed retailer, at the customer's reasonable cost. Energy Policy WA is considering extending this requirement for services to large use customers.



9. **Do you agree that ENS should be required to facilitate large use customers obtaining a separate master meter at the customer's cost?**
10. **If you are a large use customer, what is your experience in being sold or supplied electricity in an embedded network?**
11. **What, if any, other obligations should ENS have in respect of large use customers? Why?**

Fast track application

Although the AES registration framework requires the ERA to undertake a public interest test and public consultation when assessing an AES registration application, the heads of powers for the AES registration framework allow regulations prescribing an AES to specify that, for that service:

- the ERA is not required to take the public interest into consideration when assessing an application for that type of AES (see new s.59F(3) inserted by the AES Bill); and/or
- the ERA is not required to consult publicly on an application for that type of AES (see new s.59L(2) inserted by the AES Bill).

Under this 'fast track' route, approval of applications would still be conditional on the applicant meeting a narrower set of criteria. Such criteria could include, but not be limited to:

- the satisfactory completion of a registration form available on the ERA website;
- payment of an appropriate fee; and/or
- a registrant's commitment to join the Electricity Ombudsman Scheme before providing services to small use customers.

Energy Policy WA anticipates that the 'fast track' application process will help register ENS in the most efficient way possible. There are a large number of ENS operating in Western Australia and the ERA would require significant additional resources to assess each application.



12. Do you support use of the 'fast track' route to assess ENS registration applications? Why/why not?

Information requirements for registration

If ENS were to be covered by the AES registration framework, the ERA would have discretion about the form of an application and information to be provided. Regulations to prescribe AES services can also prescribe particular information to be provided to the ERA for publication on the register, likely as part of the application process.

Energy Policy WA considers that along with standard business identification information, like address and name, an ENS should provide details of:

- how many embedded networks they are managing;
- the address of each embedded network; and
- the number of customers in each embedded network.



13. What minimum information should ENS be required to supply under an AES registration application process?

Requirement for retail licensees to register

Where a licensed electricity retailer is also an ENS there are two options for registration:

- Require the retailer to separately register as an ENS with the ERA; or
- Allow the retailer to be an ENS under the authorisation of their retail licence with additional conditions for consistency with the AES Code, for example requiring the retailer:
 - to provide details on the number of embedded networks, embedded network addresses and number of customers in the embedded networks they operate;
 - to not stand in the way of an eligible customer (consuming more than 50 MWh of electricity in any 12 month period) obtaining electricity supply direct from another licensed retailer; and
 - to adhere to any price caps that are stipulated in the AES Code.

The retailer would also need to hold either a distribution licence or have the benefit of an exemption from the requirement for a distribution licence. Additional conditions may also be required to apply provisions of the AES Code related to metering and disconnections, reconnections and supply interruptions, if the licensed retailer does not also hold a distribution licence.



14. Should licensed electricity retailers be permitted to operate embedded networks under authorisation of their licences (with additional licence conditions), or should they be required to also hold an AES registration as an ENS? Please provide justification for your position.

Transitional arrangements

Energy Policy WA understands that there will be a need for transitional arrangements if ENS were to be covered by the AES registration framework, including but not limited to:

- Allowing time for existing providers who already have leases and contracts with customers to transition to the new regulatory framework.
- A phased approach for smaller and/or less well-resourced ENS that may need more time to adapt or other special considerations/conditions. For example, caravan park operators with long stay residents.



15. What circumstances should be considered for transitional arrangements? What types of obligations on ENS should be subject to transitional arrangements?

16. Are there any types of ENS that require special consideration or additional time where a phased approach might be appropriate? Why is this the case and how long should such a phased approach take?

Applicability of safety regulations

Building and Energy (within DEMIRS) is responsible for the technical safety regulation of electricity production, transmission, distribution and utilisation (consumers' installations and appliances). This includes the technical safety of the distribution in an embedded network.

Building and Energy will determine separately the extent to which existing safety legislation is to be applied to ENS that are registered under the AES registration framework.

6. Comparative analysis

The table below provides a consolidated summary of the individual cost benefit analysis undertaken for every option in Section 5.

Overall, class-based and individual exemptions are likely the lowest cost options for industry although they present regulatory uncertainty and do not encourage industry standardisation. The costs to customers under these options are largely qualitative and relate to customer experiences and difficulties around resolving disputes or accessing information.

However, the customer survey results highlight the need for more substantial customer protections for residential and business customers in embedded networks.

Licensing and the AES registration framework are likely the most beneficial options for customers, but licensing presents significant regulatory burden and administration cost for industry.

Realistically, only the AES registration framework option meets the objective of balancing regulatory burden with the provision of benefits to customers.



Table 10 Comparative analysis of regulatory options for ENS providers

	Class based exemption (status quo)	Individual exemption	Licensing	AES registration framework
Meets Government policy objective	X	X	X	✓
Tailorable and flexible to respond to changing landscape of business model	X	X	X	✓
Clear legislated responsibility for the administration or enforcement (Regulator)	X	X	✓	✓
Ombudsman / robust dispute resolution procedures	X	X	✓	✓
Enforceable Code	X	X	✓	✓
Price regulation	Limited* Some price regulation applies for residential customers only	Limited* Some price regulation applies for residential customers only	X* Price regulation only applies to Synergy and Horizon and would not apply to licenced ENS without new licence conditions	✓
Information disclosure – Up front – In bills	Limited** Only requires disclosure of quantity of electricity supplied and fees and charges payable	Limited** Only requires disclosure of quantity of electricity supplied and fees and charges payable	✓	✓
Visibility of suppliers operating in the market (for regulator, government and potential customers)	X	✓	✓	✓
Protections for residential customers who rely on life support equipment.	✓	✓	✓	✓
Support for residential customers experiencing financial hardship or family violence.	X	X	✓	✓
Suitable processes for disconnections, reconnections and interruptions.	X	X	✓	✓

7. Implementation

Energy Policy WA anticipates that, subject to the passage of the AES Bill and subsidiary instruments, registration of ENS under the AES registration framework could commence in 2025. Due to the anticipated volumes of applicants from existing ENS, there would likely be a transition period of around six months between registrations opening and compliance obligations taking effect.

It is expected that during 2024, the non-binding Voluntary EN Code will provide learnings that will be used to refine obligations in the mandatory AES Code. As and when ENS are covered by the AES registration framework and are subject to the AES Code, the Voluntary EN Code would fall away.

Leading up to the commencement and operation of the AES registration framework, Energy Policy WA would:

- review the current Exemption Order to assess if any residual exemptions are required if and when embedded network services are prescribed as an AES;
- run awareness raising activities and education campaigns from at least six months prior to the obligation for ENS registration commencing; and
- conduct further consultation on any other implementation issues not raised in the CRIS and the final form of the AES regulations and AES Code as they would apply to ENS.



17. What is the best means of accessing all relevant audiences for ENS educational materials?

18. What materials and resources would be most suitable to help both ENS and their customers to transition to the AES registration framework?



Appendices

Appendix A. Approach used in other jurisdictions

A.1 National Electricity Market framework

The Australian Energy Regulator (AER) is the regulating body for the authorisation and exemption framework in all jurisdictions where the National Energy Retail Rules (NERR) apply. This includes Queensland, New South Wales, Australian Capital Territory, South Australia and Tasmania.

Under the National Retail Law, a person selling electricity or gas to small customers¹⁰ must hold a retail authorisation. However, a person engaging in certain activities may be eligible for a retail exemption. The Australian Energy Regulator (AER) administers retail authorisations and exemptions from the requirement to hold a retail authorisation. The *Retail Exempt Selling Guideline* sets out the AER's approach to retail exemptions.¹¹

The criteria for granting a retail exemption are similar to the criteria applied in Western Australia, such as where the sale of electricity is not the seller's core business, where the cost of having a retailer authorisation outweighs the benefits to customers, or where an insignificant amount of energy is being sold.

There are three different types of retail exemptions:

1. Deemed exemptions - Deemed exemptions apply automatically to certain classes of energy sellers and usually for small-scale arrangements that require little to no regulatory oversight. Deemed exemptions are similar to some clauses in Western Australia's Exemption Orders in that they apply to particular activities, such as the on-supply of electricity to caravan park residents.
2. Registrable exemptions - Due to the scale of the on-selling activities and the nature of the customers involved, these classes require greater transparency and regulatory oversight through registration with the AER.
3. Individual exemptions - Individual exemptions normally apply to the sale of energy at a particular site and/or to a particular customer/s, with conditions attached that are intended to balance the needs and rights of customers and the regulatory requirements that the exemption holder has in meeting those conditions.

Embedded network operators are usually eligible for a registrable retail exemption to on-sell electricity and are listed on the AER public register of retail exemptions. Operators that sell electricity to fewer than ten small business or residential customers automatically benefit from a deemed exemption. Some larger embedded network operators are registered as 'authorised' retailers by the AER and must comply with stricter regulatory requirements.

Exempt embedded network operators must comply with conditions of their retail exemption that include:

- providing adequate information to their customers on available rights and protections, including for customers using life support equipment;
- charging tariffs and fees that are consistent with what the local area retailer would charge;

¹⁰ Small customers are defined by jurisdictional legislation and mostly refers to customers who consume less than 1TJ of gas and 100MWh of electricity in any 12 month period.

¹¹ AER *Retail Exempt Selling Guideline*, July 2022, available at <https://www.aer.gov.au/documents/aer-retail-exempt-selling-guideline-version-6-july-2022>.

- issuing bills on a regular basis and providing adequate information to understand the bill amount;
- respecting safeguards for customer disconnection; and
- if they supply residential customers:
 - maintaining a hardship policy;
 - joining the energy ombudsman scheme in the state/territory where they operate, and having a clear dispute resolution process in place; and
 - providing information on energy concessions.

Depending on the characteristics and type of the network, embedded network operators are usually also eligible for a deemed or registrable network exemption to operate a private electricity network.

A.2 Victorian exemption framework

In Victoria, the Essential Services Commission (ESC) regulates the retail energy sector and the electricity and gas retail licensing framework.

Embedded network electricity on-sellers are required to register with the ESC for an electricity licence exemption and comply with some obligations. For instance, since July 2018, embedded network providers must join the Energy and Water Ombudsman (Victoria) (EWOV) so that customers supplied by these providers are able to access EWOV dispute resolution services.

Victoria is currently undergoing reforms to how embedded networks are regulated under its licencing and exemption framework. See 'Ban of embedded networks in Victorian residential apartment buildings', below.

A.3 Reviews and inquiries into regulation of embedded networks

Reports of embedded network customer concerns in other Australian jurisdictions have prompted several reviews and inquiries into embedded networks, at a state and national level, over the past several years. Common issues identified include:

- limited access to customer protections through insufficient information disclosure and transparency of the terms and conditions of electricity supplies;
- absence of clear dispute resolution pathways; and
- concerns over the price paid for electricity, and sometimes other energy or utility services.

In these other jurisdictions, where electricity retail competition exists embedded network customers, including residential and small business customers, are notionally contestable and can therefore access competition. In practice, there are barriers preventing many of these customers switching retailers in an easy and low cost manner.

In 2019, the Australian Energy Market Commission (AEMC) submitted a proposed new framework for embedded networks and associated legislative package to the Council of Australian Governments (COAG).

- The reforms were designed to put embedded networks consumers on a more equal footing with consumers who connected directly to the National Electricity Market (NEM).
- Part of these reforms included moving most embedded network on-sellers out of the exemption framework and regulating them under retailer authorisations.
- As of November 2023, the proposed new framework has not yet been progressed.

Western Australia, Victoria, New South Wales and South Australia have since undertaken their own inquiries into embedded networks and are seeking to update regulatory settings to improve oversight and enforcement powers over embedded network providers.

A.3.1 Ban of embedded networks in Victorian residential apartment buildings

To address ongoing concerns that embedded networks customers pay higher prices and do not have access to the same level of consumer protections as other Victorians, the Victorian Government announced an election commitment to “ban embedded networks in new residential apartment buildings” in October 2018. The ban included exemptions for buildings that use renewable energy microgrids to deliver low-cost renewable energy to apartment buildings.

The Victorian Government is currently updating its embedded networks regulatory framework:

- In September 2020, the Victorian Default Offer (VDO) was set as the maximum price for most embedded network customers. The VDO provides Victorian consumers access to a fair electricity deal even if they are unable or unwilling to engage in the retail market.
- In 2021, an Expert Panel conducted an Embedded Network Review. In its Final Recommendations Report of January 2022, the Panel found that the residential electricity embedded network market in Victoria was not working in the best interests of customers. The Panel concluded that intervention was necessary to ensure better consumer outcomes while supporting renewable energy uptake.

The Victorian Government supported all recommendations and planned a series of reforms:

- The General Exemption Order (GEO) was amended to include a renewable energy condition requiring 100 per cent of electricity consumed at the site by residential customers to be met from a mix of on- and off-site renewable sources, with a minimum of 5 per cent of that electricity to be met by on-site renewable energy generation. The amended GEO took effect on 1 January 2023.
- The Victorian Government is currently working on replacing the relevant exemptions in the GEO with a fit-for-purpose licensing framework through which an entity which supplies, sells and distributes electricity in an embedded network will need to obtain a licence from the ESC. This will ensure that residential embedded network consumers have the same retail market access, legal protections, and regulatory oversight as for other Victorian consumers.
- The Victorian Government is preparing further reforms to improve consumer protections and provide access to competitive retail offers for all embedded network customers.

A.3.2 Review of the AER retailer authorisation and exemption frameworks

In 2022, the AER completed a review of the retailer authorisation and exemption frameworks set out in the National Energy Customer Framework.

- The AER's position was that the current regulatory framework would not be fit for purpose for the future energy market, given the potential risks posed by new energy products and services and that many of these were unlikely to be captured by the current framework.
- The AER also has identified substantial risks for consumer harm for embedded network customers and is currently undertaking a separate review on the topic.

The AER, as part of its review of the exemptions framework for embedded networks, published an Issues Paper on 30 November 2023. The objectives of the review are to:

- Better understand the harms, or risk of harms, residential embedded network customers may be facing;
- Better understand the benefits of residential embedded networks, and the extent to which customers are receiving them; and
- Determine whether action is needed, which could include strengthening regulatory oversight of embedded networks, enhancing reporting arrangements and consumer protections, and restricting the growth of future residential embedded networks.

A.3.3 New South Wales embedded network inquiry

In 2022, the New South Wales Legislative Assembly conducted an inquiry into embedded networks in the state, following concerns raised by many consumers about unfair pricing and negative impacts on health and safety. The inquiry covered issues related to electricity, but also extended to other services provided in embedded networks such as gas, and hot and chilled water.

The inquiry report indicated strong evidence of “significant consumer issues” involving embedded networks supplying electricity, hot water and gas, due to an outdated regulatory regime.

Following the inquiry, in early 2023 the New South Wales Government launched the Embedded Network Action Plan to provide more equitable consumer and price protections for embedded network customers, in line with customers of traditional retailers. Some of the key actions announced were:

- issuing a Ministerial Statement of Expectations that outlines the New South Wales Treasurer and Minister for Energy’s expectations on the way embedded network operators engage with their customers;
- expanding of the New South Wales Energy Accounts Payment Assistance scheme to embedded network customers;
- improving disclosure and customer information prior to property purchasing or leasing;
- protecting electricity embedded network customers from long contract terms; and
- initiating a review by the Independent Pricing and Regulatory Tribunal (IPART) to address issues such as how price caps should be set.

A.3.4 South Australia embedded network inquiry

In 2022, the Economic and Finance Committee of the Parliament of South Australia conducted an inquiry into embedded networks in South Australia.

The Committee emphasised how the retail exemption framework was no longer fit for purpose, and how embedded network consumers, including commercial lessees, were facing comparative disadvantage:

- “The Committee encountered an exemptions framework that sacrificed consumer rights in favour of liberating embedded networks from heavy regulation.”

The Committee made nine recommendations to improve customer protections, transparency and information provision, and supported implementing the recommendations of the 2019 AEMC embedded network framework review.



Appendix B. Voluntary Embedded Networks Code of Practice



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