



Embedded Networks Review

Final Recommendations Report

January 2022



Author

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We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.



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Message from the Embedded Networks Review Expert Panel

We are pleased to present our Final Report on the Embedded Networks Review to the Minister for Energy, Environment and Climate Change.

This report sets out the Panel's key recommendations on how to best implement the Victorian Government's 2018 election commitment to ban embedded networks in new residential apartment buildings. As required by the Terms of Reference, the Panel has also considered how the ban should best intersect with legacy (existing) embedded networks and other forms of residential embedded networks.

At the outset of the Review, the Panel developed four agreed principles: placing benefits to consumers at the centre, prioritising equitable pricing outcomes and consumer protections, future proofing the design of the system, and ensuring that Victoria's regulatory framework will mirror or enhance the national standards. These principles have guided our review and underpin our recommendations.

The Panel consulted broadly with the public, consumers, industry and regulatory and government stakeholders in identifying issues and solutions. During the Review, the Panel identified a range of concerns with customers' experiences in existing embedded networks, including inequities in consumer protections and a range of practical barriers that prevent access to the competitive retail market and concessions. There is also a lack of information disclosure, and limitations in the regulatory framework which frequently result in poor outcomes for embedded network customers.

This comprehensive package of recommendations will ensure that, to the fullest extent practicable, Victorians living in new residential apartment buildings and legacy (existing) embedded networks will experience significantly improved equity and fairness outcomes. In particular, the suite of recommendations provides customers with more power and control, as well as encouraging the uptake of renewable energy and innovative technologies consistent with Victorian Government policy. Customers will benefit from improved protections and the ability to choose an electricity retailer. The recommendations also outline a pathway to a new, fit-for purpose licensing regime that will apply to legacy (existing) networks and any future networks that are exempt from the ban. In addition, regulatory oversight will be strengthened and access to locally generated renewable energy will be improved – with benefits passed directly on to consumers.

The Panel would like to thank everyone who has contributed to the Review. The input provided by stakeholders has enabled the Panel to develop a comprehensive and practical set of recommendations which, when implemented, will give effect to the ban while also providing all Victorian electricity customers with equivalent protections, market access and treatment – no matter where they live or how they get their energy.

The Panel would also like to acknowledge the DELWP Secretariat, whose excellent support and hard work, particularly through difficult conditions created by COVID-19, facilitated our endeavours.

We commend this report to you Minister.

Jo Benvenuti – Chair

Gerard Brody

Neil Gibbs

Andrea Steele

Embedded Networks Review Expert Panel

1. Introduction

In October 2018, the Victorian Government announced an election commitment to ban embedded networks in new residential apartment buildings, with appropriate exemptions for buildings that use renewable energy microgrids to deliver low-cost renewable energy to apartment blocks.

The Government's election commitment was made in response to ongoing concerns that consumers living in embedded networks pay higher prices and do not have access to the same level of consumer protections as those who live outside of embedded networks.

The Government appointed an Expert Panel (Panel) to conduct the Embedded Networks Review (Review) and to provide recommendations to the Minister for Energy, Environment and Climate Change (Minister) on how best to implement the Government's election commitment. The Panel comprised Jo Benvenuti, Gerard Brody, Neil Gibbs and Andrea Steele.¹ The Panel was supported by a Secretariat administered by the Department of Environment, Land, Water and Planning (DELWP).

In January 2021, the Panel published the Embedded Networks Review Issues Paper (Issues Paper), setting out some of the key issues identified with embedded networks and seeking feedback from stakeholders. The Panel received 133 submissions in response to the Issues Paper from a wide range of stakeholders.² The Panel also held two online sessions during February 2021, an Issues Paper Webinar with 87 participants, and a Solutions Design Workshop with 37 participants.

In June 2021, the Panel published a Draft Recommendations Report (Draft Report) outlining proposed recommendations to implement the ban. The Draft Report considered the stakeholder feedback the Panel received in response to the Issues Paper. The Panel received 50 submissions to the Draft Report from a diverse cross-section of stakeholders.³

In July 2021, the Panel hosted an online public information webinar designed to clarify details about the draft recommendations. The webinar was attended by 67 stakeholders.

This Final Recommendations Report (Final Report) outlines the Panel's recommendations to meet the Terms of Reference and implement the ban. In forming the final recommendations, the Panel considered feedback from the many stakeholders with which it engaged throughout the Review.⁴ These stakeholders included consumer and industry representatives, energy market bodies, local councils and building developers. The Panel also consulted with the Essential Services Commission (ESC), the Energy and Water Ombudsman (Victoria) (EWOV), the Victorian Building System Review Panel and Better Regulation Victoria.

As a result of this extensive consultation, the Panel has developed a comprehensive suite of recommendations that, if implemented in full, will provide consumers with the benefits⁵ they should be receiving when living in an embedded network, while making sure consumers are adequately protected and have actual rather than theoretical access to the competitive retail energy market. This will ensure that, to the fullest extent practicable, all Victorian energy consumers will have access to the same competitive retail offers and consumer protections, regardless of where they live.

1.1 Embedded networks in Victoria

Embedded networks are private electricity networks that serve multiple customer premises (or lots) within a building or self-contained site. They are common in multiple occupancy developments, such as apartment blocks, retirement villages, social housing, caravan parks and shopping centres.⁶

¹ The biographies for each of the Panel members are provided in Appendix 1.

² The Issues Paper and submissions are available on the Engage Victoria website. <https://engage.vic.gov.au/embedded-networks-review>

³ The Draft Report and submissions are available on the Engage Victoria website. <https://engage.vic.gov.au/embedded-networks-review>

⁴ Stakeholder quotes from submissions (as referenced in this document) are as provided to the Review, including any grammatical or spelling errors.

⁵ For example, benefits flowing from bulk purchasing and reduced energy costs associated with renewable or clean energy technologies.

⁶ Further information on the current landscape of embedded networks in Victoria is available in Appendix 2. For more information on how an embedded network is configured and the key development phases in the lifecycle of an embedded network, please refer to the Issues Paper.

In Victoria, a party that supplies and/or sells electricity to customers in embedded networks is often called an ‘exempt person’, because that party is exempt from the normal requirement under section 16 of the *Electricity Industry Act 2000* (EIA) to hold a licence to sell, supply or distribute electricity.

The activities that are exempt from the requirement to hold a licence under the EIA are set out in the *General Exemption Order 2017* (GEO).⁷ While persons covered by the GEO may be exempt from the legal requirement to hold a licence, this does not mean that they are exempt from regulation altogether.⁸

When the GEO was originally established, it was designed to cover the incidental sale and supply of electricity where this was not the core business of the person or entity selling or supplying that electricity. At that time, there were not many consumers living within embedded networks. Since the GEO came into effect, a well-established industry of professionals has developed, whose primary business is to supply electricity and other services into embedded networks.

Due to the absence of clear and transparent information about embedded networks generally, it is difficult to establish actual numbers of embedded network sites or affected consumers. However, it is known that the nature of housing in Victoria has changed over time, with an increasing number of people living in multiple occupancy developments such as apartment buildings and retirement villages. As a result, as at March 2021 more than 131,000 consumers⁹ reside in over 1,500 embedded network sites registered with the ESC.¹⁰

The Panel acknowledges there are differences in the physical infrastructure in an embedded network compared to a standard grid-connection, and this can sometimes mean that obligations applicable to standard licensed retailers or distributors are not appropriate for embedded networks (for example, marketing protections).

Despite these differences, the Victorian Government has demonstrated its commitment to improve outcomes for consumers living in embedded networks. Recent policy and regulatory improvements for residents of embedded networks include setting the Victorian Default Offer (VDO) as the maximum price cap and providing most embedded network customers with access to free and independent dispute resolution via the EWOV.

1.2 Terminology used in this Final Report

Throughout this Final Report, we have used some phrasing or terminology for ease of reference. We have explained below how we have used these terms.

In addition, a glossary of other commonly used terms is available in Appendix 3.

⁷ The current GEO is dated 15 November 2017 and was made under s17 of the EIA, which enables the Governor-in-Council to create an Order specifying conditions for an exemption from the requirement to obtain a licence.

⁸ For details on a range of obligations on exempt persons, see ESC, *Embedded Electricity Networks: Exempt Providers’ Obligations in Victoria (Commission Guidance)*.

⁹ According to the ESC, as at March 2021 (the most up-to-date data available), 131,000 consumers are being billed by embedded networks, while over 142,000 consumers are supplied by embedded networks. However, the actual number of consumers who are billed and supplied by embedded networks is likely to be higher because not all embedded networks are required to be registered. Therefore, the ESC data is only an indication of the total number of embedded network customers.

¹⁰ ESC, Embedded electricity network data and customer numbers, 2021. <https://www.esc.vic.gov.au/electricity-and-gas/licences-and-exemptions/electricity-licensing-exemptions/embedded-electricity-network-data-and-customer-numbers>

Embedded networks and local energy networks

The Panel refers to ‘embedded networks’ and ‘local energy networks’¹¹ throughout this document.

For the purposes of the Review and the recommendations, an embedded network is an existing network that was built before the recommendations are implemented and/or take effect.

Once the recommendations are implemented and/or take effect and the embedded network operator has updated their exemption registration or the Essential Services Commission (ESC) has granted a ‘Local Energy Service’ (LES) licence,¹² new and existing networks will be referred to as ‘local energy networks’. The obligations which fall on an LES licence-holder under the proposed framework are distinctly different to those which fall to an embedded network under the current regulatory framework.

Renewable energy and clean energy

Throughout this document, the Panel refers to ‘renewable or clean energy’.

For the purposes of the Review and recommendations, these terms are used to describe renewable or clean energy options or technologies that help with carbon emission reduction in line with Victorian Government policy.

The terminology is intended to cover various options available in the context of delivering emissions reduction, examples of which include, but are not limited to, renewable energy such as solar photovoltaics (PV), microgrids, energy storage and battery energy systems, energy efficiency, demand management and smart systems. In some instances, it may also relate to enabling the purchase of energy derived from renewable sources from the market.

It is intended that these terms are technology neutral, in line with the principles underpinning the Review to enable future-proofing of the system. The Panel’s intent is that future innovative technologies, business models which deliver access to renewable technologies, and/or other clean energy options will also be enabled under the changes proposed by the recommendations.

1.3 Helping you read this Final Report

This Final Report has been structured to outline the Panel’s task, namely, to provide recommendations to the Minister on how to implement the ban, and how the Panel has approached that task.

The Final Report sets out the scope of the Review and principles the Panel established to guide the Review. The Panel has then set out its vision for the future, and a summary table of its recommendations. Following that, the Final Report is structured broadly by topic, with the topics aligned to the Terms of Reference and outputs expected of the Panel.

Under each topic, there is an exploration of the issues and reasons behind the recommendations and how and why they may have changed from the Draft Report. In this section, the Panel also sets out its proposed implementation approach to the recommendations.

We have included a summary of stakeholder submissions to the Draft Report, and our response at the end of this report in Appendix 4.

¹¹ In the Draft Report, the Panel used the term ‘private networks’ when referring to embedded networks after the recommendations come into effect. However, following stakeholder feedback, and to remain consistent with the LES licensing scheme, the Panel refers to these networks as ‘local energy networks’ in the Final Report.

¹² A proposed new licence category for local energy network providers, which is discussed in more detail in the Panel’s Vision (p 12) and Recommendations 3 and 4. To be eligible to apply for an LES licence, local energy networks will have to meet conditions relating to renewable or clean energy.

1.4 Scope of the Review

Under the Terms of Reference, the core focus of the Panel is to provide recommendations to the Minister on how to implement a ban on embedded networks in new residential apartment blocks, with appropriate exemptions for renewable energy microgrids that deliver low-cost renewable energy.¹³

In doing so, the Panel was obliged to consider how such a ban would intersect with legacy (existing) embedded networks in residential apartment blocks, including options for retrofitting or removing existing infrastructure if appropriate.

The Panel was also tasked with providing recommendations about how to ensure that, to the fullest extent practicable, embedded network customers in legacy (existing) residential settings can access the same competitive retail offers and consumer protections as on-market customers.¹⁴

In addition to the core recommendations, the Panel was asked to provide advice on:

- an exemptions pathway for innovative new technologies including in the form of microgrids;
- the expected impacts of the Panel's recommendations, including how such a ban would intersect with legacy (existing) embedded networks;
- actions for regulators, particularly in relation to compliance and enforcement; and
- steps to implementation, including the timing and sequencing of recommended changes.

The Terms of Reference asked the Panel to consider additional matters as part of the Review. Although the Panel was not required to make specific recommendations on these matters, they have identified some significant issues for the Minister's attention and future consideration.

Table 1 outlines the key aspects related to the scope of this Review.

¹³ The Terms of Reference for the Review are in Appendix 5.

¹⁴ 'On-market' or 'standard' customers are those customers who are connected directly to the grid and not part of an embedded network. Under the current framework, they are supplied electricity from a licensed distributor and sold electricity from a licensed retailer.

Table 1: Key outputs and considerations of the Review

Key outputs and considerations	
Primary outputs	How to implement a ban on embedded networks in new residential apartment blocks, including appropriate exemptions to the ban for buildings that use renewable energy microgrids to deliver low-cost renewable energy to apartment blocks
	How such a ban would intersect with legacy embedded networks in residential apartment blocks, including options for retrofitting or removing existing embedded network infrastructure if appropriate
	How to ensure that, to the fullest extent practicable, Victorian consumers in residential embedded networks can access the same competitive retail offers and consumer protections as other customers. This includes consideration of frameworks for electricity, gas and any other embedded networks
Secondary outputs	How exemptions to the ban may allow for innovative new technologies or new/existing applications and other appropriate uses of embedded electricity networks
	Recommended actions for regulators, particularly in relation to compliance and enforcement
	Expected impacts of the Panel's recommendations and the expected impacts of any of the Panel's non-preferred options
	Steps to implementation, including the timing and sequencing of recommended changes
Considerations	Where the Panel recommends more than one potential option, to specify its preferred recommendation
	Any amendments necessary to ensure that Retailer of Last Resort arrangements extend to embedded network customers
	Infrastructure and contractual barriers/opportunities to retrofit or remove legacy embedded networks
	Current regulatory regimes and enforcement options and their effectiveness
	Outcomes of government reviews on embedded networks, including from DELWP, the Essential Services Commission and the Australian Energy Market Commission
	The interaction of the Panel's recommendations with the national energy framework and relevant building and planning legislation
	The interaction of the Panel's recommendations with reforms related to the Victorian Government's Energy Fairness Plan
	Current embedded network retail offerings, in order to identify innovations, competitive pricing practices and the costs faced by embedded network customers, perhaps by using case studies

Renewable energy and/or other clean energy technologies, beyond ‘microgrids’

Under its Terms of Reference, the Panel was tasked with recommending appropriate exemptions to the ban on embedded networks for ‘renewable energy microgrids’ that deliver low-cost renewable energy to new residential buildings.¹⁵

The exemption highlights government commitments to encourage renewable energy uptake and wider technology innovations as a key pillar of Victoria’s approach to carbon emissions reduction. The exemption also aligns with the government’s commitment to reduce power prices and to ensure the cost benefits of renewable energy are passed onto consumers.

During the Review the Panel identified that limiting the exemption to ‘renewable energy microgrids’ alone was problematic for a variety of reasons.

Stakeholder engagement on the Issues Paper revealed concerns across consumer and industry sectors about limiting the scope of the exemption in such a way. Stakeholder submissions reflected the lack of sector agreement about what a ‘microgrid’ is and submissions also raised concerns about the requirement for a microgrid to be ‘islandable’ (ie. able to operate independently of the grid). Back-up generation for a microgrid is also commonly supplied using fossil fuels (gas or diesel) which is contrary to renewable energy policy objectives, so any exemption allowing a microgrid would still need to define acceptable renewable energy technologies to ensure consistency with the wider policy intent.

Relatedly, both consumer and industry stakeholders noted the lost opportunity to install different types of renewable energy generation or technologies at apartment buildings and other residential embedded networks if the exemption was limited to microgrids¹⁶.

The Panel also received a significant number of submissions from customers currently living in embedded networks, including those lamenting the lack of access to renewable energy. Consumer advocates were particularly concerned that customers in legacy (existing) networks would be ‘left behind’ if the exemption to the ban required microgrids to be installed in older residential embedded networks, given installing microgrids would in many cases only be possible following substantial capital outlay. The Panel was concerned that these high capital costs would be passed on to residents in older embedded networks.

Moreover, the Panel was concerned that limiting the exemption to microgrids may trigger a sudden exodus of many embedded network operators from the market in 2022 due to the prohibitive costs of installing microgrids in new buildings and retrofitting in legacy (existing) networks. This would leave thousands of customers without an embedded network operator for a significant period of time.

For the reasons outlined in the Draft Report and above, the Panel has taken a more expansive interpretation and approach, and has considered how renewable or clean energy requirements, including but not limited to microgrids, can be incorporated into the requirements for local energy networks moving forward – both as a mechanism to pass on benefits to consumers in addition to encouraging renewable energy generation and uptake.

By including renewable and clean energy technology requirements as part of its proposal, the Panel has developed recommendations which address the underlying policy intent within its Terms of Reference – to support renewable energy uptake to reduce emissions and ensure the benefits associated with innovative renewable or clean energy technologies are passed onto consumers – without the need for a specific exemption for, or potentially restrictive definition of, microgrids.

¹⁵ In addition to the exemption for ‘renewable energy microgrids’, the Terms of Reference also require the Panel to advise how exemptions to the ban may allow for innovative new technologies or new/existing applications and other appropriate uses of embedded electricity networks. As well potentially encouraging renewable energy uptake, the Panel is conscious that when used appropriately, embedded electricity networks can bring benefits to consumers, for example where bulk purchasing can result in lower prices in a social housing or retirement village setting.

¹⁶ For example, types of renewable generation that could be excluded under a microgrid definition include on-site solar without back-up generation or other technology to support renewables (such as battery/storage, demand management).

1.5 Principles guiding the Review

The Panel developed four agreed principles to guide the Review and its recommendations to the Minister:

- **Place benefits to consumers at the centre**, so that the Review was driven by the needs of customers, particularly those consumers experiencing vulnerability or disadvantage, and not the business model of suppliers and other interested parties.
- **Prioritise equitable pricing outcomes and consumer protections**, where residential embedded network customers can access the same competitive retail offers and consumer protections as other Victorian electricity consumers.
- **Future-proof the design of the system** to ensure access to the energy options of today and tomorrow (such as solar photovoltaics (PV), renewable microgrids, energy storage, electric vehicles, demand response and other markets).
- **Ensure that Victoria's regulatory framework will mirror or enhance the national standards** for embedded networks. The Panel's recommendations considered whether the Australian Energy Market Commission (AEMC)'s proposed amendments to the national regulatory framework for embedded networks are appropriate for Victoria.¹⁷

These principles aimed to ensure that implementing the Government's commitment does not inadvertently create barriers to residential embedded networks or technologies that deliver benefits to consumers.

1.6 Purpose of the Final Report

The purpose of this Final Report is to present the recommendations and advice to the Government on how to implement the ban on embedded networks, consistent with the Terms of Reference.

The report also provides stakeholders with a clear understanding of how the Panel considers the Government's election commitment can be delivered and outcomes for embedded network customers can be improved.

¹⁷ A summary of how the Panel's proposed recommendations intersect with the AEMC's recommendations is available in Appendix 6. The Panel has considered and explored potential linkages with related reforms at the national level, such as the AEMC's recommendations and the Australian Energy Regulator's *Retail Exempt Selling Guidelines* review. See also Australian Energy Regulator (AER), *Updating the Retail and Network and Exemption Guidelines*, Consultation Paper, 2021. <https://www.aer.gov.au/retail-markets/guidelines-reviews/retail-exempt-selling-guideline-review-2021/initiation>.

2. The Panel's vision

As energy is an essential service, consumers should have equal protections, market access and treatment no matter where they live or how they get their energy services.

Well-managed embedded networks have the potential to generate a range of benefits for customers. From bulk purchasing of energy, access to commercial network tariffs (rather than residential network tariffs)¹⁸ through to investment in on-site renewable energy and other clean energy technologies, embedded networks can be operated in a way that provides real cost savings and other benefits to their customers.

However, evidence gathered during the Review identified that a significant number of embedded networks are not passing the benefits onto their customers in practice. In addition, the way the exemptions framework currently operates means embedded network customers do not have access to the same consumer protections as on-market customers.

Moreover, embedded networks have not been subject to the same type of monitoring and oversight as other energy providers because they fall outside of Victoria's energy licensing framework for the supply or sale of electricity and gas. Therefore, it has not been possible for the ESC to take tailored and proportionate enforcement action, such as applying penalties, for breaches of the GEO.

Current regulatory requirements for embedded networks, including the conditions of the GEO, are not as extensive as those applicable to on-market customers. The limited regulatory oversight and monitoring has also resulted in unequal treatment of embedded network customers when compared to on-market customers in Victoria, and shows a limitation in the operating environment for embedded networks. Stakeholders have called for this to be addressed, and through its election commitment to ban embedded networks in new apartment buildings, the Government has demonstrated its intention to improve outcomes for customers living in embedded networks.

2.1 Banning new residential embedded networks

To give effect to the ban, the Panel is recommending that local energy networks will need to meet new conditions in order to be able to operate legally. Initially, amendments to the GEO will give effect to the ban by introducing a stronger regulatory regime and additional conditions.

Consistent with the Government's policy, the Panel is recommending that these new conditions include a stringent renewable energy requirement which local energy networks will need to satisfy to be allowed to operate. This renewable energy obligation will require local energy networks to demonstrate that 50% or more of electricity consumption at the site is met by on-site renewable sources, in line with the 2030 Victorian Renewable Energy Target. Local energy networks will also need to be able to demonstrate that they are regularly passing on the benefits from the renewable energy on-site to customers within the network. Further, local energy networks will need to provide additional customer protections that align with the protections afforded to standard electricity customers and to facilitate access to retail choice for customers.

The Panel is recommending that this stronger regulatory regime should initially be implemented via changes to the GEO to give effect to the election commitment within this term of government. This is because the GEO can be amended relatively quickly, ensuring improved customer outcomes while further legislative changes are developed. However, the Panel considers the ultimate solution is to transition to a licensing regime for local energy networks, with the need to satisfy the same renewable energy requirements and new obligations as a condition of their licence.

Given electricity is an essential service, the Panel considers it is appropriate for the sale and supply of energy within local energy networks to be brought into the licensing framework. Bringing local energy network operators within the licensing framework will ensure equity and fairness for all consumers, no matter where they live or how they get their energy.

¹⁸ Commercial tariffs are often cheaper than residential tariffs, although this is not always the case as some commercial tariffs have a demand component which can be expensive.

This staged approach that moves from an exempt person having to meet tighter conditions under a revised GEO to complying with a new licensing regime acknowledges the transition time that many operators will need to comply with the new regulatory requirements.

While all local energy networks will need to meet conditions in the revised GEO relating to improved consumer protections, only some local energy networks will need to meet the renewable energy conditions straight away. Older networks will be given time to meet the renewable energy requirements. More detail about the phased transition and the conditions different types of local energy networks will need to meet, and when they will need to do so, is contained in sections 2.2 and 2.3 below, as well as sections 4 and 5.9 relating to specific recommendations.

2.2 Initial changes to the GEO to implement the ban

To deliver the overarching election commitment of banning embedded networks in new residential apartment buildings, the Panel recommends amending the GEO as an initial step, so embedded networks as they currently exist will no longer be allowed.

Instead, the revised GEO will require all new residential local energy networks to have on-site renewable energy or other clean energy that will deliver carbon emission reductions in line with Victorian Government policy, and to deliver to residents an enhanced set of consumer protections.

To be able to operate legally, new local energy networks will need to have 50% or more of electricity consumption at the site generated from on-site renewable sources, with operators required to show how benefits arising from the renewable or clean energy generated within the local energy network¹⁹ are passed on to consumers. New local energy networks that do not have renewable or other clean energy generation capability and/or cannot show how the benefits from these capabilities are passed on to consumers within the site will no longer be allowed to sell or supply electricity under the revised GEO.²⁰ Continuing to do so would be an unlawful activity under the EIA, with the parties involved subject to the penalties for the illegal sale, supply and distribution of electricity.

It is vital that operators who are selling or supplying electricity in all local energy networks are adequately equipped to provide this essential service. Therefore, entities which sell or supply electricity in local energy networks will be required to register a new exemption or update an existing registered exemption with the ESC to supply or sell electricity under the revised GEO. The amended registration process will require operators to declare to the ESC that they meet a range of requirements under the revised GEO, including a plan for deploying appropriate metering and other internal infrastructure to meet Victorian standards (which will enable residents to more readily transfer to other retail market offers if they wish).

There will be some conditions in the revised GEO, such as those providing additional consumer protections, with which all local energy networks will need to comply straight away. As part of the amended registration process, they will also need to show the ESC how these conditions are being met.

However, the timing for renewable or clean energy obligations to apply will be different for new and legacy (existing) sites. Those sites which register or update their registration with the ESC on or after 1 January 2023 will need to comply with the new requirements relating to renewable or clean energy technologies immediately.

Sites registered by 31 December 2022 will not need to meet the renewable energy requirement straight away, but they will be required to meet other new conditions immediately, such as expanded customer protections obligations. The Panel acknowledges that there are likely to be challenges in retrofitting some older sites, so these legacy (existing) sites will need to meet the new renewable or clean energy obligations within three years of the new licensing regime being implemented.

¹⁹ For example, reduced energy costs due to on-site renewable energy generation, energy storage, demand management and/or energy management technologies.

²⁰ The Panel acknowledges that it may not be suitable for renewable or clean energy technologies to be retrofitted at some legacy (existing) sites. However, the intention is that local energy networks will be able to comply with the new renewable or clean energy requirements by providing some market sourced renewable energy options to the customers within those sites. Alternatively, the site could remove the local energy network and change to individual dwellings directly connected to the grid.

2.3 Phased transition into a licensing regime

In the longer term, the Panel recommends that the Government replace much of the GEO with an expanded fit-for-purpose licensing framework to ensure ongoing implementation of the ban. As a result, an entity which supplies, sells and distributes energy in a local energy network will be required to have a 'Local Energy Service' (LES) licence.

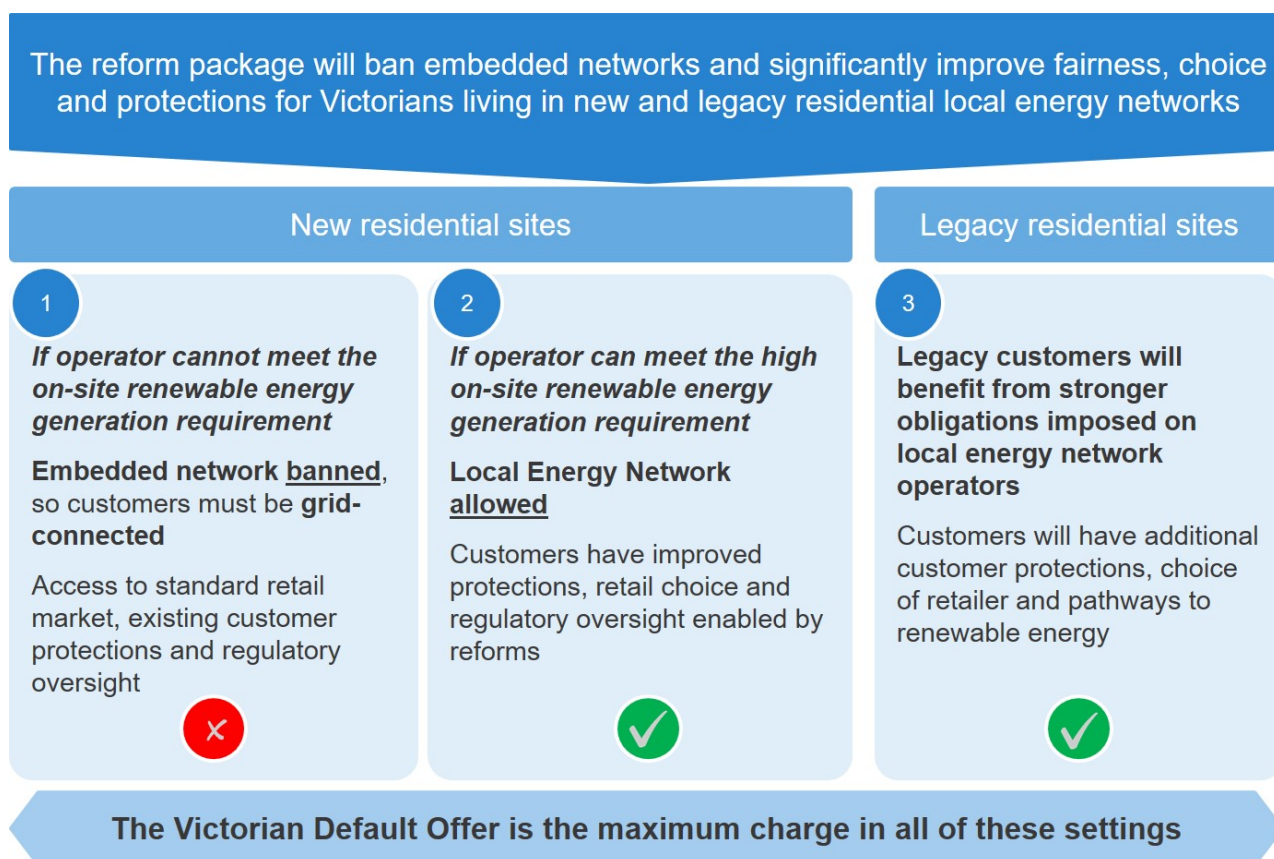
This will be a new type of licence administered by the ESC. Under the proposed licensing regime, LES providers will supply, sell and distribute electricity at sites that meet the recommended renewable or clean energy requirement. LES providers will also need to demonstrate to the ESC that the benefits from the on-site renewable or clean energy are being passed on to customers.

This goes beyond the exemption for microgrids that was flagged in the election commitment, in order to incentivise renewable/clean energy innovation and future-proof the system regardless of whether the technology at the site can be considered a microgrid.²¹

The Panel understands that this is likely to have a significant impact on the market, with the potential in future for a smaller number of larger LES providers to distribute, supply and sell electricity in local energy networks, rather than the large number of smaller exempt entities currently operating in the market.

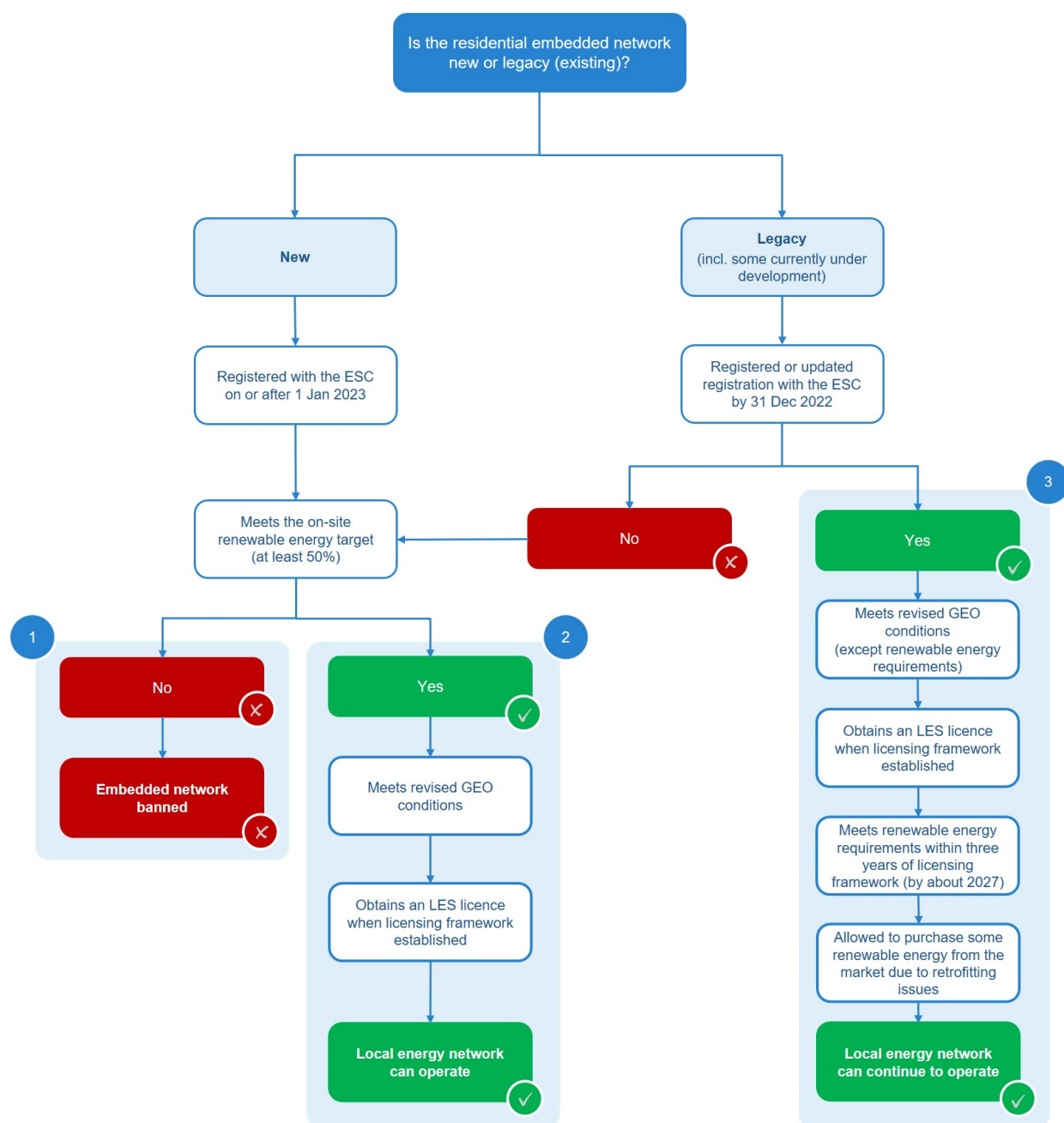
The Panel's vision is that over time, there will be a new future market of competitive businesses licensed as LES providers that distribute, supply and sell electricity at sites in a way that fosters renewable or clean energy technologies to help with carbon emission reduction in line with Victorian Government policy.

Figure 1: Proposed implementation pathways for new and legacy (existing) local energy networks



²¹ As noted earlier in this report, the Panel identified that limiting the exemption narrowly to microgrids was problematic for a number of reasons, including the challenge in establishing an appropriate microgrid definition, the need for microgrids to be 'islandable' (capable of working separate from the grid) which is normally achieved via back-up generation powered by fossil fuels (contrary to the underlying policy intent to foster renewables), lost opportunity to install other varied forms of renewable or clean energy technology and potential high capital outlay creating a barrier to microgrid installation or retrofitting.

Figure 2: Proposed implementation pathways for new and legacy (existing) local energy networks



Pathways Key	Abbreviated Terms
1 = New residential sites, where the operator <i>cannot</i> meet the on-site renewable energy generation requirement 2 = New residential sites, where the operator <i>can</i> meet the on-site renewable energy generation requirement 3 = Legacy residential sites (customers will benefit from stronger obligations imposed on embedded network operators)	ESC – Essential Services Commission GEO – General Exemption Order LES – Local Energy Service

2.4 Other protections and market access

Once the new licensing framework is in place, Victorian consumers will have equal or equivalent protections no matter where they live or how they get their energy, as all residential consumers will be sold or supplied energy via a licensed energy provider.

However, until the licensing regime is in place, the Panel recommends that the GEO be strengthened to ensure that all embedded network customers have access to equal or equivalent protections and benefits as on-market customers. For example, consumers should have access to relevant family violence, disconnection and life support protections, as well as extended payment difficulty support, under the GEO.²²

The Victorian Government also committed under its Energy Fairness Plan to strengthen the ESC's powers and to overhaul and significantly increase penalties, so that companies that do the wrong thing face the consequences of their actions. As of 1 December 2021, new laws to implement the Energy Fairness Plan came into effect.²³ Under these laws, the ESC now has strengthened investigatory and enforcement powers, ensuring it can monitor and appropriately penalise operators for non-compliance with the GEO. These strengthened powers will ultimately benefit customers within local energy networks.

Under the strengthened GEO and the new licensing framework, all residential local energy network customers will have access to an independent dispute resolution body (EWOV). These consumers will also be able to access energy concessions at the time of paying their bills.

The Panel believes that equity and fairness go beyond access to consumer protections. Therefore, the Panel has made recommendations that will improve consumer outcomes. For example, many submissions to the Review noted that while in theory all Victorian consumers can choose who they buy their electricity from, in practice this is not the reality for most consumers who live in embedded networks.

The technical barriers around metering infrastructure and practical barriers around billing mean that it is very difficult, if not impossible, for these consumers to access the competitive retail electricity market. There is also limited oversight of compliance with metering requirements, and exempt persons do not have the same obligations to ensure accuracy of meters or metering data. This means the accuracy of data used to bill customers could be brought into question.

Therefore, the Panel is recommending changes that will make it easier for consumers to choose their own energy retailer if they desire. Similarly, the Panel is recommending that there be more oversight and requirements for anyone supplying energy to ensure the meters and internal infrastructure meet relevant standards and the data used to bill customers is accurate.

The Panel is also recommending changes to the way decisions are made about the installation of a local energy network before a site is constructed, as well as improvements to information transparency requirements so that consumers are aware when the site they're considering moving to is part of a local energy network.

A case study is included below to illustrate the Panel's vision for future local energy networks. The Panel's recommendations are set out in Table 2 below, with each recommendation explored further in the report.

The Panel understands that there will be impacts from these recommendations, including additional regulatory requirements for industry to accommodate the proposed enhanced consumer protections and retail market access for customers. In drafting the recommendations, the Panel has tried to balance various and sometimes competing interests, while keeping the principles guiding the Review firmly in mind.

The Panel believes that these recommendations, once implemented, will lead to more positive outcomes for all Victorians living in local energy networks.

²² The Panel has identified customer protection gaps during the Review and a list of these is included in Appendix 7.

²³ See *Essential Services Commission (Compliance and Enforcement Powers) Amendment Act 2021*.

Case study 1 (conceptual): The Panel's vision for LES customers

It is 2028, and Joanna has recently moved into a new apartment with assistance from a community housing provider, after years of experiencing bouts of homelessness and a lack of access to affordable housing. Her apartment complex has solar panels on the roof and battery storage in the basement.

Joanna received her first energy bill and was pleased to learn that concessions had been applied and bill repayments would be made automatically via Centrepay, along with her rent. Joanna was also able to easily see from her bill that she'd received clean energy benefits from the solar panels and battery storage in her apartment building. Not only was there a reduction in the amount she had to pay, she could feel satisfied that she was contributing to lower carbon emissions by getting her energy from renewable sources.

Joanna's new energy provider was very different to her previous one, as it was a new class of energy provider called a 'Local Energy Service' (LES). Within the last 5 years, LES providers had become popular, particularly for people living in apartments. An LES site enabled residents to take advantage of reduced energy prices through bulk purchasing and clean energy technologies, whilst the site remained connected to the local distribution network service provider. There were different LES providers offering different options – some ensured all buildings offered solar, others focused on the most efficient building materials and most took advantage of affordable renewable technology offerings.

To ensure a safe and efficient supply of electricity and as a condition for providing an essential service, a LES is required to obtain a licence from the ESC. This means that all the consumer protections applicable to on-market retailers also apply to LES customers. LES providers must also ensure that benefits from clean energy technologies and bulk purchasing flow on to customers. Whilst Joanna is satisfied with her current LES, she takes satisfaction in the knowledge that she can switch electricity retailer at any time if she wants to do so.

Figure 3: Proposed timeframe for implementation of the ban and the new licensing framework



3. List of the Panel's final recommendations

The Panel's recommendations are presented here. Each recommendation is further explored in the body of this Final Report, along with a discussion of how the recommendation may have changed since the Draft Report and considerations for implementing each of the recommendations.

Appendix 8 outlines how the recommendations relate to the Terms of Reference and how each will be applied to legacy (existing) embedded networks and new local energy networks.

Table 2: The Panel's recommendations

The Panel's recommendations	
Recommendation 1	Initially, the Victorian Government's commitment to ban embedded networks in new apartment buildings (allowing limited exemptions) should be implemented via amendments to the General Exemption Order (GEO). Changes to the GEO should include a new renewable energy condition requiring at least 50% of electricity at the site to be met from on-site renewable sources. In addition, the new GEO obligations should also ensure expanded customer protections and should facilitate retail market access. ²⁴
Recommendation 2	All legacy (existing) and new residential exemptions under the revised GEO should be subject to additional conditions, such as appropriate registration and declaration requirements. Compliance with these additional conditions should be subject to ongoing strengthened oversight, monitoring and enforcement by the Essential Services Commission (ESC).
Recommendation 3	To give ongoing effect to the ban and to ensure equity and fairness for customers, the licensing framework under the <i>Electricity Industry Act 2000</i> (EIA) should be amended to enable licensing of 'Local Energy Service' (LES) providers for local energy networks. LES providers will only be able to operate if they satisfy conditions that require them to ensure customers have equal consumer protections, the benefits of renewable or clean energy and retail choice. Once the new licensing framework is in place, anyone who supplies and sells electricity in new residential sites containing a local energy network (including apartment buildings, social housing, retirement villages and residential parks) must obtain a specific LES licence from the ESC.
Recommendation 4	Entities which supply and sell metered electricity to legacy (existing) local energy networks under the revised GEO should transition into the LES licensing framework.
Recommendation 5	The Victorian Government should consider whether the Recommendations relating to residential local energy networks should be extended to small business customers. Further, in the future, if the Victorian Government undertakes a broader licensing framework review, it should consider the intersection of these Recommendations with that review, and whether the exemptions framework remains fit for purpose.
Recommendation 6	Once the GEO amendments are given effect as specified in Recommendations 1 and 2, consumers living in all types of residential local energy networks (including those living in social housing, retirement villages and residential parks) should have access to customer protections which are equal or equivalent to those provided to on-market customers.
Recommendation 7.1	The monitoring, compliance and enforcement framework for local energy networks should be robust and proportionate and aligned with the ESC's framework and approach for current licensed energy providers. The ESC should be provided with appropriate resourcing to enable it to implement the strengthened exemption and licensing regimes, so it can effectively and adequately monitor compliance and/or engage in enforcement activities relating to local energy networks.

²⁴ As noted above, the ban is to be given effect through amendments to the GEO. These amendments will incorporate new conditions which will need to be met for a local energy network to operate legally.

Recommendation 7.2	To support strengthened oversight, monitoring and enforcement of the local energy network market, the ESC should be able to collect appropriate data and information. Local energy networks should also be required to proactively provide, and periodically update, relevant data and information to the ESC. Data and information collected by the ESC could be used for market monitoring purposes as well as informing potential future reviews (including improvements to the policy and regulatory framework for local energy networks).
Recommendation 8	All local energy network customers should have unencumbered access to the energy retail market and it should be easy for them to transfer to an on-market energy retailer without the need for a meter exchange. Customers within a local energy network should not face a greater financial or administrative burden to change retailers than other Victorian customers.
Recommendation 9	Customers within legacy (existing) local energy networks should have ready access to alternative on-market retail providers. Over time, metering and/or other internal infrastructure in legacy (existing) local energy networks should be upgraded and/or changed to enable these customers to access the retail market without imposing a direct cost burden on customers to do so.
Recommendation 10	Owners and occupants in residential local energy networks must be provided with adequate information about their rights and obligations as a customer within a local energy network and about commercial agreements relating to the local energy network infrastructure and ownership and management of these assets. Adequate information disclosure should be required under both the GEO and as part of the LES licensing regime.
Recommendation 11	Planning, building and strata requirements should be amended to oblige anyone proposing to install relevant infrastructure associated with the supply and sale of electricity within a residential building via a local energy network to design, build and operate the local energy network to incorporate renewable or other clean energy which enable benefits to be passed on to consumers. Information, especially relating to infrastructure assets, must also be disclosed to prospective purchasers in an easy-to-understand format.
Recommendation 12	Planning, building and strata requirements should also be amended to oblige anyone proposing to supply other bundled services within a residential building/site (including bulk hot-water, bulk heating/cooling or unmetered gas for cooktops) to meet similar standards to design, construct, establish and operate those services in the best interests of prospective owners and occupants, and to disclose appropriate information.
Recommendation 13	There should be appropriate regulation, monitoring and enforcement relating to currently unregulated bundled services (including bulk hot-water, bulk heating/cooling and unmetered gas cooktops) to ensure there is no longer secondary, separate treatment for consumers of these essential services. While these bundled services are not intended to be captured within the LES licensing framework, the Victorian Government should consider how to regulate these monopoly essential services to ensure appropriate customer protections, access to dispute resolution and reasonable prices for customers as well as suitable monitoring, compliance and enforcement.
Recommendation 14	Customers in a local energy network should be adequately protected in the event that the local energy network fails or the entity operating or responsible for the local energy network becomes insolvent. The Victorian Government should give the ESC power to appoint an alternative provider to operate the local energy network in this situation to ensure continuity of supply for customers within that local energy network.

Recommendation 15	A mechanism (or mechanisms) should be established to ensure that the voices of consumers living in apartment buildings, retirement villages, social housing and residential parks are heard in policy and regulatory development.
Recommendation 16	The changes to the GEO and the new LES licensing regime will need to be phased in over time. All local energy networks will need to comply with expanded customer protection obligations. In addition, new and some legacy local energy networks²⁵ will need to meet the renewable energy conditions straight away and will need to become licensed within six months once the new framework is introduced. Other legacy networks²⁶ will need to meet the renewable energy requirements within three years of the LES licensing regime being implemented.

²⁵ Those sites that register or update their registration with the ESC on or after 1 January 2023 will need to comply with the new requirements relating to renewable or clean energy immediately.

²⁶ Sites registered by 31 December 2022 will not need to meet the renewable energy requirement immediately.

4. Banning embedded networks

The Panel considers that the ban on embedded networks in new residential apartment buildings (with appropriate exemptions) will best be implemented via a staged approach:

- Initially through amendments to the GEO, requiring compliance with new conditions such as expanded customer protections or facilitating retail market access. In addition, local energy networks that register or update their registration with the ESC on or after 1 January 2023 will need to comply with the new renewable energy condition (requiring at least 50% of electricity at the site to be generated from on-site renewable sources).²⁷
- Giving longer-term effect to the ban by expanding the licensing framework under the EIA with a new licensing category for LES providers (from late-2023).

Although moving immediately to a new licensing framework is the Panel's preferred approach to implementing the ban, this requires legislative amendments and will take some time to implement. Conversely, the GEO can be amended comparatively quickly, meaning consumers living in residential local energy networks will begin benefitting from the new framework much sooner than if they had to wait for their provider to become licensed.

The Panel is conscious of the potential impact these recommendations may have on the sector. This staged approach includes sufficient lead times to allow industry, including embedded network operators and developers, the opportunity to amend their business models and prepare for the new regime before it comes into effect. It also takes embedded network consumers' needs into consideration, allowing them to receive the same protections as on-market consumers as soon as practicable.

This section provides an overview of the Panel's recommendations for implementing the ban on embedded networks and how it will be applied to new apartment buildings and other types of local energy network.

4.1 Banning new embedded networks (Recommendation 1)

Recommendation 1	Initially, the Victorian Government's commitment to ban embedded networks in new apartment buildings (allowing limited exemptions) should be implemented via amendments to the General Exemption Order (GEO). Changes to the GEO should include a new renewable energy condition requiring at least 50% of electricity at the site to be met from on-site renewable sources. In addition, the new GEO obligations should also ensure expanded customer protections and should facilitate retail market access.
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The Panel recommends that the Victorian Government should ban embedded networks in new residential apartment buildings and other residential settings through amendments to the GEO.

When implementing this recommendation, the Government should ensure that the GEO amendments require all new sites with a residential local energy network, including apartment buildings, social housing, retirement villages and residential parks²⁸, to meet certain conditions. This means embedded networks as previously known will no longer be permitted in new sites unless they satisfy these new conditions.

To give effect to the renewable energy aspect of the election commitment, local energy networks will have to demonstrate compliance with a renewable energy target and show that the benefits from the renewable or clean energy are being regularly passed on to customers within the embedded network.

Stakeholders proposed a range of methods for setting a target or benchmark in their submissions to the Draft Report. For example, an embedded network customer suggested that the target should be set as a percentage of the total electricity consumed within the site, while Allume Energy recommended a kilowatt per bedroom

²⁷ This includes new local energy networks which are created after 1 January 2023 and are not able to register by that date and also includes legacy (existing) local energy networks that fail to update their registration by that date. Legacy (existing) local energy networks that register or update their registration by 31 December 2022 will not be required to meet the renewable energy requirement until three years after the new LES licensing regime is introduced.

²⁸ The term "residential parks" has been used in this report to refer to caravan parks with long term residents, as described in Parts 4 and 4A of the *Residential Tenancies Act 1997*, as distinct from short stay holiday rental accommodation at caravan parks.

threshold. Similarly, the City of Melbourne recommended either setting a kilowatt per customer ratio appropriate for the size and type of site (for example large or small apartment building, retirement village etc), or alternatively suggested target of at least 50% of total electricity volume might be appropriate.

Stakeholders also advised the Panel to consider a range of factors when setting the target. For example, Consumer Action Law Centre warned against setting a threshold that encourages 'greenwashing' whereby a very small renewable generation system is installed to gain an exemption, while WINConnect highlighted the importance of ensuring renewable energy requirements are technology neutral and flexible to avoid stifling future innovation. EnergyAustralia argued that the renewable energy threshold should not be 'unduly high', because local energy network customers will have equivalent consumer protections as on market customers and access to competition.

The Panel considers the benchmark should be consistent with the Government's approach to renewable energy policy. Therefore, in line with the 2030 Victorian Renewable Energy Target (VRET), residential local energy networks should only operate if they can demonstrate that 50% or more of electricity consumed at the site be met by on-site renewable sources. The Panel considers it appropriate to align the renewable energy target with the 2030 VRET as once the renewable energy target applicable for local energy networks comes into effect, it is likely there will only be a short gap between construction of complying new apartment buildings and when the 2030 VRET applies. Therefore, it is reasonable for LES providers to be meeting renewable standards that will apply to the broader energy sector by that time.

The Panel recommends that the benchmark be set as a volumetric measure to capture the total energy produced and consumed onsite when the building is fully occupied. If the embedded network generates excess solar electricity during the day, this energy does not need to be stored in a battery to be consumed onsite at a later date. Instead, it can be exported to the grid.

The Government should undertake further consultation to determine how to best measure the recommended target. The consultation process should also be used to ensure the benchmark has appropriate parameters. For example, the Panel considers that general residential consumption, common area load and electrified common area services to lots (such as electric hot water services) should be captured when calculating the target. However, it may be appropriate for other types of load profiles to be excluded (such as that relating to electric vehicles, which currently may not be high, but is likely to increase significantly over time). Consideration must also be given to how consumption profiles are calculated when determining the target.

The consultation should also contemplate whether the renewable energy target should shift with the movements in the VRET for sites that have been granted an exemption.

The Panel does not recommend that the renewable energy obligations can be met by purchasing GreenPower from the electricity grid for new local energy networks, given the Victorian Government's policy commitment to ban embedded networks in new residential apartment buildings but allow exemptions for sites meeting a high renewable threshold. The purpose of the renewable energy obligation is to give effect to the ban and ensure that only those new local energy networks which are able to show that 50% or more of electricity consumption at the site is met by on-site renewable sources (i.e. aligned to the 2030 VRET) will be allowed to operate. The Panel considers that if a local energy network customer wishes to purchase renewable energy from the grid, they can become an on-market customer.

However, the Panel acknowledges that purchase of energy from renewable sources from the market (for example, via Power Purchase Agreements or via GreenPower) may be necessary for legacy (existing) local energy networks once they are required to meet the renewable energy conditions (within 3 years after the LES licensing regime has taken effect), given the difficulties and potential expense in retrofitting these sites. It is expected that once required to meet the renewable energy condition, any legacy (existing) local energy network site would install the maximum on-site renewable energy capacity, and then may need to make up the difference between that capacity and the minimum target by purchasing from on-market renewable sources.

The Victorian Government's preferred renewable or clean energy requirement should be included in the revised GEO.²⁹ The renewable energy requirement should be periodically reviewed to evaluate its effectiveness and alignment with government policy.

The ESC will be responsible for monitoring compliance with the renewable energy obligations. For new embedded networks, this may involve operators providing the ESC with modelling to demonstrate the anticipated energy consumption and local generation based at the site when it is fully occupied. The ESC may then consider how to assess the accuracy of this assessment. For example, the ESC may require an energy audit one year after the exemption is registered to confirm the modelling is accurate. Penalties may apply if the site is found to be non-compliant on completion of the audit.

4.1.1 Passing benefits onto consumers

Most stakeholder submissions to the Draft Report expressed support for the benefits derived from the local energy network being demonstrably passed onto consumers. However, there was acknowledgement that this could be difficult.

"... the demonstration of the benefit of renewable or clean energy technology flowing onto customers... may be challenging to achieve given the variation in embedded networks size and structure. For example, the energy related context of a 200 unit apartment complex differs from a retirement village." – EWOV

Stakeholders also noted that embedded networks and renewable energy can provide a range of benefits that go beyond the price of electricity, including environmental and social benefits. Therefore, it is important to clearly define the benefits so that local energy networks can demonstrate how these are passed onto customers.

"...many consumers will be motivated by a range of other factors including environmental stewardship and the ability to participate through a range of distributed energy services..." – AGL

The Panel recommends the GEO be amended to require local energy network operators to demonstrate how benefits derived from within the local energy network³⁰ are regularly³¹ passed onto consumers within that site. It is intended that benefits would be passed on at regular intervals to customers through, for example, information included on individual customer bills and ongoing auditing and monitoring processes undertaken by the ESC.

The Panel recommends these renewable energy and reporting obligations are included in the revised GEO (expected to be drafted by 30 June 2022), with these changes to apply to new residential embedded networks from 1 January 2023.³²

Once these recommendations come into effect, any person or entity operating a new local energy network that does not meet the renewable energy benchmark will no longer qualify for an exemption under the GEO, meaning they will be operating illegally and will be subject to enforcement action from the ESC.

4.1.2 Identifying gaps in the GEO

While conducting the review, the Panel identified a number of issues with the drafting of the GEO which should be clarified to ensure consistent and accurate interpretation of the Order. For example, the GEO refers to persons undertaking activities within 'a site that they own occupy or operate' to identify activities that qualify for an exemption. However, there is a lack of consistent understanding across the sector as to what is meant by this phrase as well as ambiguity about who, and what activities, qualify for an exemption.

²⁹ The renewable energy requirement in the GEO (and subsequently as part of the LES licensing regime) will initially affect new local energy networks (those which register their exemption with the ESC on or after 1 January 2023). It is not intended that legacy (existing) local energy networks would need to comply with the new renewable energy requirements until after the LES licensing regime has been implemented. However, 1 January 2023 is intended to act as a "cut off" date, and so legacy (existing) local energy networks that fail to update their registration by that date will be required to comply with all the new requirements in the revised GEO, including the renewable energy obligations. Legacy (existing) local energy networks that register or update their registration by 31 December 2022 will not be required to meet the renewable energy requirement until three years after the new LES licensing regime is introduced.

³⁰ Benefits can include lower costs resulting from the installation of renewable energy and bulk purchasing.

³¹ It is intended that benefits noted under this and other recommendations would be passed at regular intervals to customers, for example at each billing period.

³² The obligation to pass on benefits from on-site renewable energy will not apply to legacy (existing) local energy networks until three years after the LES licensing regime has been implemented unless the legacy (existing) embedded network has failed to register or update their registration with the ESC by 31 December 2022, in which case the legacy (existing) local energy network would need to comply with the new renewable energy obligations, including the requirement to pass through the benefits to customers. However, legacy (existing) local energy networks will still need to comply with other new obligations (such as increased consumer protections) in the revised GEO once these have taken effect.

Another significant issue identified by the Panel is that the GEO does not necessarily apply to third party service providers. Therefore, if a person or business is operating an embedded network on behalf of an exempt person as a third-party service provider or agent, they are not required to register with the ESC. Nor are they subject to any regulatory oversight. This is particularly concerning given the growth of third-party services providers over recent years. A list of the gaps in the GEO identified by the Panel is available in Appendix 9.

The Panel urges the Government to make further amendments to the Order to identify and address any gaps that may be leading to unintended consequences. These amendments could be made in conjunction with those amendments to the GEO that are necessary to implement the Panel's recommendations.

4.1.3 The Panel's implementation strategy to ban new embedded networks

In implementing Recommendation 1, the Panel suggests the following should be done to give effect to the ban on new embedded networks:

- A. The amendments to the GEO should require new local energy networks (parent and child meter connections) to:
 - i. Have renewable or clean energy at the registered site which delivers carbon emission reduction by meeting a minimum target or benchmark. The Panel suggests the minimum target or benchmark be aligned with the 2030 Victorian Renewable Energy Target (VRET) and require 50% or more of the electricity consumed at the site to be met by on-site renewable sources.
 - ii. Regularly pass on the benefits within the local energy network to consumers and demonstrate how this is being achieved. Local energy networks could show the benefits are being passed onto consumers through information provided on customer bills and ongoing auditing and monitoring processes undertaken by the ESC.
- B. The Victorian Government should consult further on the methodology for measuring the minimum renewable energy target or benchmark for new local energy networks prior to its implementation. The minimum target or benchmark could also be periodically reviewed to evaluate its alignment with government policy, including future increases in the VRET.
- C. The above requirements should come into effect for new residential local energy networks when the GEO is revised. It is recommended that the GEO be revised by 30 June 2022, with the changes to take effect from 1 January 2023.
- D. Once the revised GEO comes into effect, new local energy networks that do not comply with the renewable or clean energy requirements will no longer qualify for an exemption under the GEO and will be in breach of requirements in the *Electricity Industry Act 2000*. This would mean the local energy network would not be operating legally and would be subject to enforcement action. Legacy (existing) local energy networks will not need to comply with the new renewable energy requirements in the GEO until after the LES licensing framework has been implemented (unless they have failed to update their registration by 31 December 2022).
- E. As there is an opportunity for the benefits flowing from renewable or clean energy to be passed on to consumers, the GEO amendments should also apply to other types of new residential local energy networks, not just apartment buildings. This includes social housing, retirement villages and residential parks.
- F. When reviewing and amending the GEO, the Government should also take the opportunity to clarify obligations and address any identified gaps in the GEO.

4.1.4 Applying Recommendation 1 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	This recommendation does not apply to legacy (existing) local energy networks registered (or with updated registration) before 1 January 2023. Legacy (existing) local energy networks that do not update their registration by 31 December 2022 will need to meet the new renewable energy conditions as soon as the revised GEO takes effect.
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New local energy networks (registered on or after 1 January 2023)	The Panel anticipates the GEO will be revised and the renewable energy target or benchmark developed by 30 June 2022, with implementation likely to take effect from 1 January 2023.
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4.2 Additional conditions for legacy (existing) local energy networks (Recommendation 2)

Recommendation 2	All legacy (existing) and new residential exemptions under the revised GEO should be subject to additional conditions, such as appropriate registration and declaration requirements. Compliance with these additional conditions should be subject to ongoing strengthened oversight, monitoring and enforcement by the ESC.
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Currently, most embedded networks can access the exemption framework automatically, and self-assess whether they meet the exemption criteria required by the GEO. For many sites there is a requirement to register with the ESC, however, there is limited capacity for the ESC to monitor or enforce compliance with the GEO requirements (for example the requirement to become an EWOV member). Until recent changes to the ESC's powers, the ESC was not able to impose any penalties for non-compliance by embedded networks and the only enforcement measure available to the ESC was to deregister the embedded network and pursue the operator for a breach of the EIA. However, this could have led to issues for customers within the embedded network relating to certainty of supply.

The Panel considers it vital that operators who are selling or supplying electricity in local energy networks are adequately equipped to provide this essential service. Therefore, in the Draft Report, the Panel recommended that self-assessed 'automatic' exemptions under the GEO be replaced with an approval process overseen by the ESC as a transitional measure to enable improved monitoring and oversight of the sector.

Although there was broad support for this recommendation, a number of stakeholders noted that, given the number of embedded networks currently in Victoria operating under the exemption framework, the approvals process would create a significant workload for the ESC. If the ESC is not adequately resourced to undertake this role, it could result in significant delays for approvals which could have implications for customers, embedded network operators and developers.

As a result, the Panel has amended its recommendation to require anyone wanting to rely on the revised GEO to distribute, supply and sell electricity to update their exemption registration (or in the case of a new energy network, apply for an exemption registration). As part of this new registration process, applicants should be required to make a declaration to the ESC that they comply with a range of conditions and provide additional information to demonstrate their compliance with the new obligations or a plan to demonstrate how and when they will become compliant if they do not already meet requirements.

The Panel considers that this approach achieves the right balance of ensuring operators are adequately equipped to provide an essential service, while not over burdening the ESC with additional obligations.

One of the declarations that the exempt person will be required to make to the ESC is that they are satisfied that they meet the conditions of exemption under the revised GEO, including ensuring the correct individual or entity is the exempt person. Through the review, the Panel has become aware that currently embedded network operators are often managing embedded networks while the owners' corporation is the exempt person. This can be problematic as it means the owners' corporation is liable for any breaches of the GEO, despite not operating the network.

Under the revised framework, the Panel wants to ensure that in most instances an owners' corporation is the exempt person for distribution activities and responsible for the wiring within the building. However, the embedded network operator should be the responsible person for the supply, network and metering functions such as faults, disconnections, reconnections and meter testing and calibration. They will also be responsible for sales including billing and customer services. There should be alignment of legal responsibility with the person carrying out the role or function.

Anyone wanting to rely on the revised GEO to distribute, supply and sell electricity should also have a plan for deploying appropriate metering and other associated infrastructure as required to meet current Victorian

metering standards, if they are not already compliant. The plan should be implemented within timeframes consistent with other transitional and retail market access recommendations outlined in this report.

Local energy network operators should also be required to make a declaration that they extend the relevant consumer protections to their customers within their site, and that the operator is a member of EWOV.

The ESC may determine additional requirements or standards that the local energy network operator may be required to meet when registering for an exemption.

To ensure ongoing compliance the ESC should have ongoing oversight, monitoring and enforcement of the updated registration requirements. The ESC should also produce clear information and guidance material to assist applicants in this process and to help them understand their obligations.

4.2.1 Renewable energy obligations in legacy (existing) embedded networks

The renewable energy obligations that have been recommended for new local energy networks, along with the nature of existing embedded networks, will make it impractical for some legacy (existing) networks to meet the renewable energy obligations in the short-term under the revised GEO. However, all local energy networks should be required to meet the renewable energy obligations under the LES licensing framework (see section 4.3 for further description of the LES licensing framework).

The Panel is proposing the GEO be revised by 30 June 2022 with the new requirements to take effect from 1 January 2023. Therefore, local energy networks registered with the ESC on or after 1 January 2023, should be required to meet the renewable or clean energy obligations under a revised GEO (and LES licensing framework) immediately.

Local energy networks registered prior to this date (that is, up until 31 December 2022) will not be required to retrofit or otherwise meet the renewable or clean energy conditions until after they have transitioned to the LES licensing framework (Recommendation 3). However, the Panel considers that legacy (existing) local energy networks should update their registration with the ESC as soon as practicable, as they will otherwise need to immediately comply with the new renewable or clean energy conditions from 1 January 2023. Therefore, it is recommended that any legacy (existing) sites that have not updated their registration before 1 January 2023 should be required to meet the renewable energy requirements earlier (under the revised GEO), similar to new local energy networks registered after that date.

The Panel acknowledges that there are likely to be challenges in retrofitting some older sites, and that many legacy (existing) local energy networks will be unable to meet the proposed 50% or more onsite renewable generation target immediately. These legacy (existing) sites will need to meet the new renewable or clean energy obligations within three years of the new licensing regime being implemented (estimated to be by 2027). In some instances, the difficulties and potential expense of retrofitting the site may mean the renewable energy threshold is not able to be met solely through on-site renewable energy options. In that instance, legacy (existing) local energy networks may be able to meet the target through a combination of on-site renewable energy and purchasing renewable energy from the market (for example, via Power Purchase Agreements or GreenPower). It is expected that once required to meet the renewable energy condition, any legacy (existing) local energy network would install the maximum on-site renewable energy capacity, and then may need to make up the difference between that capacity and the minimum target by purchasing from on-market renewable sources.

In the event the existing local energy network established before 1 January 2023 has renewable energy infrastructure in place, the local energy network should be required to pass the benefits of that renewable energy onto customers once the revised GEO takes effect, and to demonstrate how they are doing so (for example via information included on customer bills). This will need to be demonstrated to the ESC as part of the exemption registration.

4.2.2 The Panel's implementation strategy for additional conditions for legacy (existing) local energy networks

In implementing Recommendation 2, the Panel suggests the following should be required:

- A. Anyone wanting to rely on the revised GEO to distribute, supply and sell electricity should have to update their exemption registration (or in the case of a new local energy network, apply for exemption registration).

- B. As part of the registration process, applicants should be required to provide additional information to the ESC to demonstrate their compliance with the new obligations or a plan to show how and when they will become compliant if they do not already meet requirements.
- C. As part of the updated exemption registration process, applicants should be required to make a declaration to the ESC that they:
 - i. Are satisfied that they meet the conditions of exemption under the revised GEO, including ensuring the correct individual or entity³³ is the “exempt person”.
 - ii. Extend relevant consumer protections to customers within the local energy network they own, operate or occupy.
 - iii. Are members of EWOV, giving their customers access to independent dispute resolution services.
 - iv. Have a plan for deploying appropriate metering and other associated infrastructure as required to meet current Victorian metering standards (if they are not already compliant). The plan should be implemented within timeframes consistent with other transitional and retail market access obligations included in these recommendations.
 - v. Are able to meet and satisfy any other requirements and/or standards that the ESC considers appropriate for any amended registration process.
- D. Applicants’ compliance with obligations under the revised GEO, including updated registration requirements, should be subject to ongoing oversight, monitoring and enforcement by the ESC (see also Recommendations 7.1 and 7.2).
- E. Due to issues with retrofitting, it will not be practical for all legacy (existing) local energy networks to meet the renewable energy obligations under the revised GEO, although all local energy networks should be required to meet the renewable energy obligations under the ‘Local Energy Service’ (LES) licensing framework. In relation to this:
 - i. It is recommended that the GEO be revised by 30 June 2022, with the changes to take effect from 1 January 2023.
 - ii. Local energy networks registered with the ESC on or after 1 January 2023 should be required to meet the renewable or clean energy obligations under the revised GEO (and also under the LES licensing framework), with benefits regularly passed through to consumers.
 - iii. Local energy networks registered prior to this date (that is, up until 31 December 2022) will not be required to retrofit or otherwise meet the renewable or clean energy conditions until after the transition to the LES licensing framework has taken place.
 - iv. It is intended that 1 January 2023 will operate as a ‘cut off’ date and legacy (existing) local energy networks which have updated their registration with the ESC prior to that date will only need to comply with the renewable energy requirements once the LES licensing framework is in place. Legacy (existing) local energy networks that do not update their registration until 1 January 2023 or after will need to meet the renewable energy requirement earlier (under the revised GEO), similar to new local energy networks registered after that date.³⁴
 - v. The exception should be where there is already existing renewable or clean energy infrastructure in place at legacy (existing) local energy networks registered before 1 January 2023. In this instance, the local energy network should be required to pass on the benefits from the renewable energy to customers once the revised GEO takes effect.
 - vi. Information about existing renewable or clean energy infrastructure in place at a legacy (existing) local energy network should be provided to the ESC as part of any updated registration application.
 - vii. Where a local energy service provider needs to meet the renewable energy condition in the revised GEO, they should be required to demonstrate how they will regularly pass on the benefits

³³ In many instances an owners’ corporation may be the exempt person for distribution activities, but the exempt person for the sale activities may be the entity which bills a customer.

³⁴ Any local energy network that has not updated their registration and then fails to meet the renewable energy requirement will be subject to potential action from the ESC for non-compliance with exemption conditions.

from renewable or clean energy to consumers within the local energy network as part of their exemption registration to the ESC.

F. The ESC may need to amend its current registration process to accommodate these requirements.

G. The ESC should produce clear information and guidance material to assist applicants in this process and to help them understand their obligations.

4.2.3 Applying Recommendation 2 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Legacy (existing) local energy networks will be required to update their registration with the ESC before 1 January 2023. Legacy (existing) local energy networks that have updated their registration with the ESC by 1 January 2023 will not be required to meet the renewable energy obligations until after the LES licencing framework is in place. However, the benefits of any existing renewable energy will need to be shared with customers once the revised GEO takes effect. Once obliged to meet the renewable energy requirements, legacy (existing) local energy networks may be able to meet those requirements through a combination of on-site and market purchased renewable energy. Legacy (existing) local energy networks that have not updated their registration with the ESC by 1 January 2023, will need to meet the renewable energy requirement when the revised GEO comes into effect (similar to new local energy networks).
New local energy networks (registered on or after 1 January 2023)	New local energy networks will be required to meet the new registration (or licencing) and renewable energy obligations immediately.

4.3 Introducing a licensing framework for new local energy networks (Recommendation 3)

Recommendation 3	To give ongoing effect to the ban and to ensure equity and fairness for customers, the licensing framework under the <i>Electricity Industry Act 2000</i> (EIA) should be amended to enable licensing of 'Local Energy Service' (LES) providers for local energy networks. LES providers will only be able to operate if they satisfy conditions that require them to ensure customers have equal consumer protections, the benefits of renewable or clean energy and retail choice. Once the new licensing framework is in place, anyone who supplies and sells electricity in new residential sites containing a local energy network (including apartment buildings, social housing, retirement villages and residential parks) must obtain a specific LES licence from the ESC.
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To give ongoing effect to the ban and ensure equity and fairness for consumers, the Panel recommends expanding the licensing framework under the EIA to include a new category for LES providers. The Panel considers a licensing framework the most appropriate long-term approach because it provides the ESC with greater flexibility and oversight to ensure that those operating in the market are adequately equipped to do so. The licencing framework also creates greater equity and fairness as it will require LES providers to meet the same standards as on-market retailers.

Once the proposed new licensing regime is in place, anyone who supplies and sells electricity in new residential sites containing a local network (including apartment buildings, social housing, retirement villages and residential parks) must obtain an LES licence from the ESC. This will be a new licence category in addition to those which the ESC currently administers.

Most stakeholders were broadly supportive of the Panel's proposed approach:

"Recommendation 3 is the logical next step in the process to bringing longer term effect to the ban ... the conditions outlined with the proposed LES licence would see customers being able access their choice of retailer as well as equivalent and relevant consumer protections." – EWOV

“Given the nature of energy as an essential service, it is appropriate to do away with exemptions for businesses supplying and selling energy in private networks and instead require these providers to obtain a licence from the ESC, which requires them to demonstrate that they possess the capacity to deliver services. Eliminating disparities between the conditions and regulatory obligations placed on licensed energy retailers and exempt sellers is critical to ensuring that all Victorians have access to the same retail offers and consumer protections regardless of where they live or how they purchase their electricity.” – Consumer Action Law Centre

However, some stakeholders raised concerns with the proposed licensing framework. For example, the Embedded Network Industry Action Group (ENIAG) called for the licensing framework to be harmonised with AEMC’s proposed approach. Some stakeholders also argued that the framework should not require providers with existing retail licences to obtain an LES licence. Instead, those stakeholders proposed that they should have additional conditions attached to their licence that will enable them to operate in a local energy network.

“As Real Utilities is already a licensed energy retailer by the ESC, adoption of the LES is not considered to enhance the protections, benefits and access to competition already provided to our customers... authorised retailers [should] not be required to hold an LES, as having authorised retailers be required to hold an LES would not meet the objectives of the review.” – Real Utilities

The Panel acknowledges that an LES licence will share many of the same requirements as an electricity retail licence. This will ensure that consumers living in local energy networks are provided equal or equivalent benefits and protections as on-market customers. LES providers would also be subject to similar monitoring, compliance and enforcement standards by the ESC as on-market electricity retail and distribution businesses.

However, the nature of a local energy network means that licensees will also be performing functions that go well beyond those of a licensed retailer. This includes network functions such as faults, connections and disconnections. Although the LES will not necessarily own the meter asset within the local energy networks, they will have metering functions such as the provision, installation, testing and maintenance of meters.

Unlike licensed retailers and distributors, LES licence holders will also be required to demonstrate to the ESC that they meet the same renewable energy target or benchmark as outlined in Recommendation 1, with benefits passed onto customers. The Panel believes the renewable energy target set for licensed LES providers must be consistent with the renewable energy target set under the revised GEO.

Given these additional requirements are significant, the Panel does not consider amendments to existing licence categories an adequate approach to ensuring operators are fit to sell electricity in local energy networks. This means that any parties who hold an existing retail or distribution licence under the EIA will be required to apply for a separate LES licence, if they wish to supply and sell electricity in new residential sites containing a local energy network.

In addition to the renewable energy requirements, the Panel recommends that a licence should include a range of conditions. These conditions for LES licence-holders are intended to be similar to those required for exemptions registration under an amended GEO, as outlined in Recommendation 2.

“With the growth of third-party providers involved in providing services relating to the supply and sale of energy ... the LES licensing regime must capture the appropriate entities – those businesses providing energy supply and sale services within the private network. This will ensure that these entities, for whom the supply and sale of electricity is their core business, are accountable for operating in consumers’ best interests and are subject to compliance and enforcement action when they fail to do so.” – Consumer Action Law Centre

The Panel recommends that the licensing regime be established in a way that covers and captures the appropriate entities – those for whom the supply and sale of electricity is their core business, including third-party service providers or entities whose business model is set up to provide services (such as metering, billing and customer service centre support) relating to the supply and sale of energy. This will overcome current compliance and enforcement challenges that result from embedded network operators establishing contracts that excuse them from being defined as the ‘exempt person’.

While it is not intended that asset owners such as owners’ corporations would become the licensed entity, these entities could apply to obtain an LES licence if they wish to supply and sell energy within the local energy network on their own, rather than contracting this function out. The Panel envisages that in the vast majority of cases, licensed LES providers would sign contracts with owners’ corporations allowing them to access distribution

assets (such as internal wiring between parent and child meters) enabling the supply and sale of energy. However, such contracts should not lock owners' corporations into long-term arrangements in order to meet the cost of applying for an LES licence (see Recommendation 10).

A number of stakeholders raised concerns with this approach, with South Street energy suggesting it would "entrench anti-competitive behaviour and negative outcomes" for local energy network customers because property developers could still lock owners' corporations into unfavourable contracts prior to settlement. The Panel shares these concerns and has sought to address them by recommending that such contracts should not lock owners' corporations into long-term arrangements to meet the cost of applying for an LES licence (see Recommendation 10).

The Panel acknowledges that the requirement to become licensed may be burdensome for some businesses, and they may ultimately decide to exit the market. However, the Panel considers that ensuring consumers receive adequate protections and benefits from the LES regime outweighs the concerns that some entities may exit the market as a result of these recommendations. The Panel has taken the potential impact of businesses leaving the market in developing its recommendations (see Recommendation 14).

The Panel wants to avoid and/or limit over-burdening an owners' corporation (when they are not the LES licence holder) with any additional metering and network related obligations. Therefore, asset owners such as owners' corporations should not be required to obtain a licence under the new framework. Instead, the revised GEO should continue to be the appropriate instrument to provide an exemption for the distribution function undertaken by relevant parties.

4.3.1 The Panel's strategy to implement an LES licensing regime, giving ongoing effect to the ban

A. An LES licence should impose conditions on the licensee, which:

- i. Ensure choice of electricity retailer and frictionless transfer for customers (mirroring arrangements for standard on-market customers), including ensuring that no meter exchange is required to enable a customer to change retailers (see Recommendation 8).
- ii. Ensure, to the fullest extent possible, equal consumer protections to standard on-market customers.
- iii. Require the LES site to include renewable or clean energy, meeting a minimum target or benchmark requiring 50% or more of the electricity consumed at the site to be met by on-site renewable sources (aligned with the 2030 VRET) (see Recommendation 1).
- iv. Require the LES licensee to demonstrate the benefits related to the local energy network³⁵ are regularly passed on to consumers. This could be achieved through information provided on individual customer bills and ongoing auditing and monitoring processes by the ESC.
- v. Require the licensee to consider the best interests of consumers and show how benefits will be passed on to consumers when making agreements relating to the local energy network, including contracts for services with developers, owners' corporations or other related parties.
- vi. Require the licensee to meet appropriate financial, organisation and technical capacity and general suitability requirements as determined by the ESC.
- vii. Require the licensee to meet additional responsibilities for network functions (such as faults, connections, disconnections) and metering functions (provision of meters, installation, testing, maintenance etc). This will not necessarily mean the LES licence holder will own the meter asset within the local energy network.
- viii. Require the licensee to meet any other conditions or relevant criteria developed by the ESC.

The standards and conditions for LES licence-holders are intended to be similar to those required for exemption registration for new local energy networks under an amended GEO (see Recommendations 1 and 2).

³⁵ During the Review, stakeholders have indicated there are various advantages for customers in an embedded network setting. These include being able to receive the benefits from access to locally generated renewable energy and lower costs due to bulk pricing.

Any parties who hold an existing retail or distribution licence under the EIA will be required to apply for a separate LES licence if they wish to supply and sell electricity in new residential sites containing a local energy network.

- B. The LES licensing regime should be established in a way that covers and captures the appropriate entities – those for whom the supply and sale of electricity is their core business, including third-party service providers or entities whose business model is set up to provide services (such as metering, billing and customer service centre support) relating to the distribution, supply and sale of energy.
- C. It is not intended that asset owners, such as owners’ corporations, would become the licensed LES entity, although those entities could seek an LES licence if they wished. Instead, licensed LES providers could sign contracts with owners’ corporations allowing them to access assets (such as internal wiring between parent and child meters) enabling the distribution, supply and sale of energy. However, such contracts should not lock owners’ corporations into long-term arrangements in order to meet the cost of applying for an LES licence (see Recommendation 10).

The Panel’s intent is to avoid and/or limit over-burdening an owners’ corporation (when they are not the LES licence holder) with any additional metering and network related obligations.

- D. The revised GEO should continue to be the appropriate instrument to provide an exemption for the distribution function undertaken by relevant parties, such as asset owners like owners’ corporations.

4.3.2 Applying Recommendation 3 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered or updated registration before 1 January 2023)	Legacy (existing) local energy networks will be required to have a licence within three years of the LES licensing regime being established. Legacy (existing) local energy networks will not be required to meet the renewable or clean energy target until the licensing framework is established, by about 2027. Legacy (existing) local energy networks that do not register or update their registration with the ESC prior to 1 January 2023 will be required to have a licence within six months of the LES licensing regime being established. They will need to continue to meet the renewable energy condition while licensed.
New local energy networks (registered on or after 1 January 2023)	New local energy networks will be required to have a licence within six-months of the LES licensing regime being established. They will need to continue to meet the renewable energy condition while licensed.

4.4 Applying the new LES licensing framework to legacy (existing) local energy networks (Recommendation 4)

Recommendation 4	Entities which supply and sell metered electricity to legacy (existing) local energy networks under the revised GEO should transition into the LES licensing framework.
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In addition to apartment buildings, the Panel recommends that all entities that supply and sell metered electricity to legacy (existing) local energy networks under the revised GEO should transition to the LES licensing framework. This includes social housing, retirement villages and residential parks.

Most stakeholders were supportive of this approach.

“Ensuring all sites are brought under the new framework is essential to ensuring equity and fairness for all Victorian energy consumers.” – Consumer Action Law Centre

The Panel understands that it is likely to take some time to establish and introduce a new licensing category for LES providers. However, there is an urgent need to ensure all consumers are receiving the benefits of living in a local energy network and equivalent protections to on-market customers, and that the ESC has adequate oversight of the sector. Therefore, the Panel considers it paramount that the new licensing regime be implemented as quickly as possible. The Panel has tried to balance the potential impacts on both industry and consumers when considering reasonable timeframes for introducing the LES licensing regime.

Therefore, the Panel recommends that the LES licensing framework be established by late-2023 to mid-2024, within 12 to 18 months after changes to the GEO have been implemented.

Local energy networks that are registered with the ESC after 1 January 2023 and legacy (existing) local energy networks that do not update their registration with the ESC prior to 1 January 2023 should be given up to six months to apply for an LES licence. The Panel considers this timeframe to be feasible as developers and prospective LES operators should have sufficient knowledge of what is likely to be required of them to ensure their sites meet the relevant LES requirements before the licensing framework comes into effect.

All other local energy networks (those registered with the ESC on or before 31 December 2022) should be given up to three years after the new licensing regime comes into effect to apply for an LES licence (i.e. by late-2026 to mid-2027).

While some stakeholders were supportive of the proposed timeframes, others suggested they were too long.

“We do not consider it sufficient that legacy embedded networks transition in late 2026/2027, given the high level of frustration expressed in submissions to this Review and the volume of consumers currently residing in embedded networks ... and not being able to access more affordable energy plans.” – AGL

However, the Panel maintains that this approach reflects and accommodates some of the complexities legacy (existing) embedded networks are likely to face around retrofitting and existing contracts.

Further detail on the timing for the introduction of the new licensing regime is set out in the Figure 4 below.

It is important that the ESC is adequately resourced to facilitate a smooth transition to the new licensing framework, ensuring affected local energy networks understand their obligations and the timeframes for transition. Therefore, Government should work with the ESC to run a public education campaign, advising stakeholders of their rights and responsibilities under the new framework and assisting industry throughout the licensing process. Further information about the Panel's proposal for a transitional information campaign is in Recommendation 16, at implementation strategy point B.

The ESC should also be resourced to monitor the market to ensure new local energy networks and legacy (existing) networks are transitioning to the new regime and customers are receiving appropriate supply and protections. Further information about the Panel's recommendations regarding monitoring and enforcement for local energy networks is in Recommendations 7.1 and 7.2.

4.4.1 The Panel's implementation strategy for transitioning legacy (existing) local energy networks into the new LES licensing framework

In implementing Recommendation 4, the Panel considers that entities which supply and sell metered electricity in existing residential embedded networks should be given a transitional period to comply with any modified requirements.

- A. Once the new licensing regime is established (expected to occur by late-2023 to mid-2024):
 - i. Local energy networks that are registered³⁶ with the ESC on or after 1 January 2023 should be given up to six months to apply for an LES licence.
 - ii. All other local energy networks (those registered³⁷ with the ESC on or before 31 December 2022) should be given up to three years to apply for an LES licence.

³⁶ This includes legacy (existing) local energy networks that do not **update** their registration with the ESC prior to 1 January 2023.

³⁷ This includes updated registration for current legacy (existing) local energy networks as well as newer local energy networks completed and able to have their registration processed after these recommendations are implemented and by 31 December 2022.

4.4.2 Applying Recommendation 4 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Legacy (existing) local energy networks will be required to have a licence within three years of the LES licensing regime being established. Legacy (existing) local energy networks will not be required to meet the renewable or clean energy target until the licensing framework is established (by about 2027). Legacy (existing) local energy networks that do not update their registration with the ESC prior to 1 January 2023 will be required to have a licence and meet the renewable energy requirements within six months of the LES licensing regime being established.
New local energy networks (registered on or after 1 January 2023)	New local energy networks will be required to have a licence and meet the renewable energy requirements within six months of the LES licensing regime being established.

4.5 Reviewing the broader licensing and exemptions framework (Recommendation 5)

Recommendation 5	The Victorian Government should consider whether the Recommendations relating to residential local energy networks should be extended to small business customers. Further, in the future, if the Victorian Government undertakes a broader licensing framework review, it should consider the intersection of these Recommendations with that review, and whether the exemptions framework remains fit for purpose.
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The Panel recommends that if the Victorian Government undertakes a broader licensing framework review in the coming years it should consider the intersection of these recommendations with that review and whether the exemptions framework remains fit for purpose.

Any review should also consider whether it is appropriate to extend these reforms to small business customers and the feasibility of extending the LES licensing regime to other exempt entities, such as commercial sites, industrial sites and business parks. This was broadly supported by stakeholders.

"Many of the commercial tenants within embedded networks are small energy users and do not typically possess a detailed understanding of the energy market. As such many are vulnerable to the same price gouging and inflating margins occurring within the residential market ... Extending the LES licensing scheme to both [residential and commercial] customer segments would avoid creating adverse impacts on either customer group..." – City of Melbourne

4.5.1 The Panel's implementation strategy regarding further licensing or exemption framework reviews

In implementing Recommendation 5, the Panel suggests the Victorian Government should consider:

- Whether it is appropriate to extend the reforms in these Recommendations to small business customers, and if so, when this should occur. This is because small business customers are often provided with similar protections to residential customers.
- Whether remaining exemption holders under a revised GEO should hold a small-scale licence to supply and sell electricity instead of being able to continue to operate under the exemptions framework.
- The feasibility of extending the LES licensing regime to other exempt entities, such as operators in commercial sites, industrial sites and business parks.

Figure 4: The timeline for transitioning to the LES licensing framework

	1 Until Jun 2022	2 Jun 2022 to Dec 2022 GEO changes announced	3 Jan 2023 to Early-2024 GEO changes comes into effect	4 Early-2024 to Late-2026 LES regime established	5 Early-2027 onwards Consolidation
New residential sites Registered from 1 Jan 2023	N / A	Local energy networks which are in development and become operational after a revised GEO takes effect must register their exemption with the ESC complying with the declaration requirement Sites will need to meet the new renewable energy condition for registrations on or after 1 January 2023 (at least 50% of on-site renewable energy target)	Ban on embedded networks in new residential sites, to be implemented by a revised GEO: Amendments include: - Renewable energy conditions - Enhanced consumer protections, enforcement powers and information disclosure requirements	LES licence is required to be able to sell and supply into these sites Exemptions allowed under the revised GEO for the 'distribution' component (i.e. for owners' corporations) <i>***If registered between 1 January 2023 and when the LES framework is established, an applicant will be given up to six months to apply for a LES licence once the licensing framework is established</i>	
Legacy (existing) residential embedded networks Registered by 31 Dec 2022	Exempt from licensing requirements under the <i>Electricity Industry Act 2000</i> Self-assessed, automatic exemption under the General Exemption Order (GEO)	Update exemption registration with the ESC by 31 Dec 2022 , if wishing to rely on a revised GEO Statutory declaration requirement: - Meeting renewable energy obligations within three years of a LES licensing framework being established (renewable energy may be purchased from the market for legacy sites) <i>*If no updated registration, will be subject to the same conditions for new residential sites from 1 January 2023</i>	Exemptions subject to a revised GEO: - Same conditions as new residential sites, except the renewable energy obligations	LES licence is required to be able to sell and supply into these sites Prepare to meet the renewable energy obligations by early-2027 Exemptions allowed under a revised GEO for the 'distribution' component <i>***An applicant will be given up to three years to apply for a LES licence after licensing framework established</i>	Required to meet the renewable energy obligations
Other exempt entities (e.g. commercial)		Regulated under a revised GEO, but not all obligations on residential local energy networks would necessarily apply to other exempt entities The Victorian Government could consider whether the Panel's recommendations relating to residential local energy networks should be extended to small business customers, where appropriate			

5. Additional recommendations to improve outcomes for local energy network customers

In addition to banning embedded networks in new residential apartment buildings, the Panel was asked to consider a range of other issues that impact outcomes for embedded network customers.

This section outlines the Panel's recommendations in relation to:

- Enhancing consumer protections (Recommendation 6)
- Enhancing the ESC's enforcement powers and information about local energy networks (Recommendations 7.1 and 7.2)
- Access to competitive retail offers (Recommendations 8 and 9)
- Improved information disclosure (Recommendation 10)
- Planning and building requirements (Recommendations 11 and 12)
- Bundled services and other fees and charges (Recommendation 13)
- Mitigating disruption of supply due to failure of an embedded network (Recommendation 14)
- Giving voice to energy consumers in local energy networks (Recommendation 15)
- Transitional arrangements (Recommendation 16)

5.1 Enhancing consumer protections (Recommendation 6)

Recommendation 6	Once the GEO amendments are given effect as specified in Recommendations 1 and 2, consumers living in all types of residential local energy networks (including those living in social housing, retirement villages and residential parks) should have access to customer protections which are equal or equivalent to those provided to on-market customers.
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"...all consumers should have the same or equivalent protections no matter where they reside." – EnergyAustralia

The Panel recommends that all local energy network customers, including those living in social housing, retirement villages and residential parks, should have access to customer protections which are equal or equivalent to those provided to on-market customers. This will go some way to ensuring all electricity consumers have equal or equivalent protections and treatment, no matter where they live or how they get their energy.

This recommendation received overwhelming support from stakeholders who made submissions to the Draft Report, including energy retailers, consumer groups, city councils and embedded network operators.

The Panel maintains that, once licensed (Recommendations 3 and 4), LES providers should be required to extend protections and benefits to their customers that are equal or equivalent to those that licensed retailers and distribution businesses are required to provide to on-market customers.

However, the licensing framework will take a number of years to come into effect. Therefore, as an interim measure, the Government should align all appropriate obligations placed on exempt persons under the GEO with those placed on licensed retailers and electricity distributors (Recommendation 2).³⁸ These include

³⁸ Most of the relevant provisions are in either the Energy Retail Code, the Electricity Distribution Code or the *Electricity Industry Act 2000*.

relevant family violence, disconnection and life support protections, and the aspects of the Payment Difficulty Framework that do not currently apply.³⁹

The business models and network structures of LES licensees are likely to be quite different to those of existing licensed retailers and distribution businesses. The ESC should be mindful of this when determining how these new obligations are placed on LES operators and ensure they are appropriately tailored to reflect the differences. For example, while the Panel believes that LES licensees should be subject to reliability standards and Guaranteed Service Level (GSL) payments, these should be modified to reflect the different operating models and size of the networks. Similarly, the on-market retail consumer protections should be appropriately reflected in the LES obligations.

Multi-activity exemptions holders⁴⁰ are not currently required to be members of EWOV. The Panel maintains that the GEO should also be amended to ensure all local energy network customers, including multi-activity exemption holder customers, have access to independent dispute resolution services. Moreover, EWOV's jurisdiction should be sufficiently broad so there is one organisation for consumers to go to if they need independent help resolving energy-related complaints. As noted by EWOV in its submission to the Draft Report, this is a "necessary step in closing the gaps in protections" for local energy network customers.

The Panel has retained the recommendation that the LES licensing regime and the GEO (Recommendations 2 to 4) should require local energy networks to disclose to customers upon sign up and at least once annually in writing that they have access to these additional protections.

In the Draft Report, the Panel recommended that the ESC should have the appropriate powers and resources to monitor and enforce compliance with regulatory and consumer protection obligations under the GEO and the new LES framework. The Panel proposed that these powers should include appropriate investigation, information and data collection, monitoring and enforcement tools to ensure compliance with customer protections. The Panel is pleased to note that the ESC's powers were expanded between the release of the Draft Report and the release of this report, with the passing of legislation which took effect from 1 December 2021. The ESC's new powers are consistent with the Panel's previous recommendations and will provide the ESC with the tools and powers it needs to monitor and enforce compliance with the proposed new regulatory regime.

"...within some embedded networks the standards of regulatory understanding and professionalism varies widely. This can result in poor consumer outcomes..." – EWOV

The Panel also encourages government and the ESC to conduct a targeted public information campaign to ensure local energy network operators are aware and have a sound understanding of these new obligations and conditions under the GEO. This is an additional step in the implementation strategy that will likely result in greater compliance with the new obligations, and ensure all local energy network consumers are afforded the appropriate protections.

5.1.1 Access to concessions

As outlined in the Draft Report, embedded network customers do not have the same access to rebates and concessions as on-market customers. Eligible on-market customers receive a 17.5% concession automatically applied on each energy bill.⁴¹ However, embedded network customers can only apply for the 'non-mains energy concession', which is an amount paid annually based on the amount paid for each energy type in that year.

Although the rebate available to embedded network customers can be as much as 52% of the customer's bill, the customer must pay their energy bill in full each year before they can claim the concession.⁴² This may be particularly difficult for vulnerable consumers who struggle to pay their monthly bills.

³⁹ Appendix 7 provides an overview of the Energy Retail Code, Electricity Distribution Code and the *Electricity Industry Act 2000* consumer protections that do not currently apply to embedded network customers.

⁴⁰ Which can include entities engaging in co-gen operations and Power Purchase Agreements.

⁴¹ Department of Health and Human Services (DHHS), Non-mains energy concession, 2020. <https://services.dhhs.vic.gov.au/non-mains-energy-concession>

⁴² DHHS, Non-mains energy concession.

Information provided to the Panel also suggests that having to apply for the rebate, rather than having the amount automatically deducted from their bill, discourages customers from accessing the support for which they are eligible.

There was a large amount of support across industry, consumer advocacy and community stakeholders, as well as from EWOV, for embedded network customers to be given access to energy concessions that are automatically applied on customer bills so that their experience is aligned with that of on-market customers.

“If customers can receive concessions and emergency relief grants payment in their energy invoices, it is a better outcome for customers.” – Energy Locals

In response to this feedback, the Panel maintains that all consumers should have access to concessions at the time of paying their energy bills, without having to wait until the end of the year to claim a rebate, under both the revised GEO and the new licensing framework (Recommendations 2 to 4). Exempt persons and LES licensees should be required to disclose to customers upon sign up and at least once annually in writing that they may have access to concessions.

While this change to the concessions framework may result in a decrease in the overall concession some individual consumers receive, the number of consumers receiving the non-mains concession remains very low.⁴³ The Panel expects the overall number of consumers who will access the benefits of concessions to which they are entitled will increase if customers have an immediate discount applied to their energy bill (as opposed to a rebate at the end of the year).

Although there was overwhelming stakeholder support for the extension of access to concessions at the time of paying the bill to local energy network companies, stakeholders raised some points for the Government to consider when implementing this recommendation.

For example, in its response to the Draft Report, Housing for the Aged Action Group noted that the application process for concessions must be accessible and take into consideration people who may be vulnerable, digitally illiterate and without a support network able to assist with lodging an application.

The Australian Energy Council also noted that issues with the concessions framework itself can make compliance difficult, especially for smaller providers.

Therefore, the Panel has strengthened its proposed implementation strategy, recommending the Victorian Department of Fairness, Families and Housing develop arrangements to facilitate agreements with exempt persons to ensure energy concessions are easily accessible to all local energy network customers.

Extending the application of concessions to local energy network customer bills will require significant policy and process changes and may take time to implement. The Panel encourages the Government to work through these issues as quickly as possible to ensure customers receive the benefits they are entitled to. However, the Panel acknowledges that any changes to the concessions framework are unlikely to be extended to consumers as quickly as other enhanced protections are likely to become available.

5.1.2 The Panel’s implementation strategy for ensuring equal or equivalent consumer protections

In implementing Recommendation 6 and later transitioning to a licensing framework, the Panel considers the Victorian Government should:

- A. Align all appropriate obligations placed on local energy networks with those placed on licensed retailers and electricity distributors (including family violence, disconnection and life support protections as well as aspects of the payment difficulties framework not yet applied to customers of exempt persons).
- B. Ensure that all customers have access to concessions at the time of paying their energy bills, without having to wait until the end of the year to claim a rebate. To give effect to this outcome, the relevant concessions order should be updated to include exempt persons under the revised GEO and/or LES licensees under the LES licensing framework. Further, the relevant department (i.e. Department of

⁴³ DHHS 2019-20 annual report

Fairness, Families and Housing) should develop arrangements to facilitate agreements with these entities.

- C. Ensure that all customers, including customers of multi-activity exemption holders, have access to EWOV for independent dispute resolution.
- D. Require an exempt person and LES licensee to disclose to customers upon sign up and at least once annually in writing that they have access to concessions and additional protections (e.g. family violence etc).
- E. Encourage the ESC to provide adequate education and information awareness training to ensure that exempt persons understand their new conditions and obligations under the revised GEO.
- F. Ensure the ESC has the appropriate powers and resources to monitor and enforce compliance with regulatory and consumer protection obligations, including conditions in the GEO and the obligation to join EWOV. Whether an entity is licensed or subject to the GEO, the ESC should have appropriate investigation, information and data collection, monitoring and enforcement tools to ensure compliance with customer protections, including the ability to issue notices for non-compliance or penalties (see also Recommendations 7.1 and 7.2). The recent legislative changes that strengthen the ESC's powers address this aspect of the recommendation.

5.1.3 Applying Recommendation 6 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Amendments to the GEO, including the suite of new customer protections, to apply by 1 January 2023 for all local energy network customers with a registered exemption. Some protections, such as access to energy concessions on bills and GSL payments, may take longer to implement due to required process changes.
New local energy networks (registered on or after 1 January 2023)	Customers in new local energy networks will have access to the customer protections immediately. Some protections, such as access to energy concessions on bills and GSL payments, may take longer to implement due to required process changes.

5.2 Enhancing the ESC's enforcement powers and information about local energy networks (Recommendations 7.1 and 7.2)

Recommendation 7.1	The monitoring, compliance and enforcement framework for local energy networks should be robust and proportionate and aligned with the ESC's framework and approach for current licensed energy providers. The ESC should be provided with appropriate resourcing to enable it to implement the strengthened exemption and licensing regimes, so it can effectively and adequately monitor compliance and/or engage in enforcement activities relating to local energy networks.
Recommendation 7.2	To support strengthened oversight, monitoring and enforcement of the local energy network market, the ESC should be able to collect appropriate data and information. Local energy networks should also be required to proactively provide, and periodically update, relevant data and information to the ESC. Data and information collected by the ESC could be used for market monitoring purposes as well as informing potential future reviews (including improvements to the policy and regulatory framework for local energy networks).

5.2.1 Strengthening compliance, monitoring and enforcement

Until late 2021, the embedded networks framework, as set out in the GEO, provided the ESC with limited ability to enforce an exempt person's compliance with their exemption conditions. This meant, for example, if an exempt person charged their customers more than the regulated maximum price (set at the VDO) for electricity or refused to join EWOV, the ESC could not impose any penalties for non-compliance. The only enforcement

measure available to the ESC was to deregister the embedded network and pursue them for a breach of the EIA. This may have had implications for customers within the embedded network relating to certainty of supply.

Therefore, the Panel is recommending that the monitoring, compliance and enforcement framework for local energy networks should be strengthened so that it is robust and proportionate and aligned with the ESC's framework and approach for current licensed energy providers. In its Draft Report, the Panel recommended that the ESC should be given effective investigative, information and data collection, monitoring and enforcement powers, as well as a full suite of enforcement options if an operator is found to be non-compliant.

There was overwhelming support for this recommendation, with stakeholders agreeing that the compliance and monitoring regime should be aligned with existing framework for licensed on-market retailers.

“A robust and proportionate approach, aligned with the ESC's framework for current licensed energy providers, would be welcomed...” – EWOV

It is important the new compliance and enforcement framework recognises the LES licensee as being responsible or accountable for the actions performed by third-party service providers or agents. Under a revised GEO, until the LES regime is established, the exempt person will be subject to regulatory oversight and compliance (see Recommendations 1 and 2).

The Panel is pleased to acknowledge that from 1 December 2021, the ESC now has strengthened monitoring and enforcement powers in respect of exempt persons. These powers were included in recently-enacted legislation to give effect to the Victorian Government's Energy Fairness Plan.

The Panel believes that Government should provide the ESC with sufficient resources to enable it to implement the strengthened exemption and licensing regimes. This will enable the ESC to effectively and adequately monitor compliance and/or engage in enforcement activities relating to local energy networks.

5.2.2 Information gathering powers

The Panel recommends that the ESC should be able to collect appropriate data and information to support its strengthened oversight, monitoring and enforcement of the local energy network market. Local energy networks should also be required to proactively provide, and periodically update, relevant data and information to the ESC. Data and information collected by the ESC could be used for market monitoring purposes as well as informing potential future reviews (including improvements to the policy and regulatory framework for local energy networks).

This is a new recommendation that was not included in the Draft Report. It is aimed at further strengthening the ESC's information gathering powers and the transparency and availability of information.

Throughout this review, the Panel has been constrained by an absence of clear and transparent information about embedded networks, despite multiple requests for information and opportunities for all stakeholders to provide data and information to the Review. This has made it difficult to establish, for example:

- the actual number of embedded network sites
- the number of embedded network customers
- metering configuration within each of these sites
- the amounts being paid by customers for electricity and other bundled services
- the asset ownership structure
- whether bulk pricing or other benefits of embedded networks are being passed on to customers; and
- the extent of renewable energy infrastructure within embedded networks.

Therefore, the Panel considers that greater data and information collection by the regulator could support the ESC's regulatory and market monitoring functions, to enable appropriate assessment of the impact of these recommendations for consumers and to help identify whether further regulatory reform may be needed for this sector. For example, the ESC could gather information to assess whether there are alternative retail offers available to local energy network customers to ensure those customers can transfer on-market if they would like to do so. It is expected that the ESC would assess the impact of these reforms on the sector within three years.

It is recommended that the ESC be given the discretion to determine the types of data and information to be provided by LES licensees and exempt persons at both the exemption registration and LES licence application stages and on an ongoing basis. For example, the ESC may choose to collect data on the number of lots, occupancy information and information relating to the type of meters installed. LES licensees (or exempt persons before the LES licensing framework is established) should have to provide any information as soon as practicable or as otherwise directed by the ESC.

5.2.3 The Panel's proposed implementation strategy for improved compliance, enforcement and information gathering powers

In implementing Recommendation 7.1, the Panel considers the following should happen:

- A. To ensure compliance by local energy networks, the ESC should have:
 - i. effective investigative, information and data collection, monitoring and enforcement powers
 - ii. a full suite of options that are proportionate and appropriate, so it can take action against non-compliant operators.

The Panel acknowledges that the ESC's powers (including its investigative and information gathering powers) have been expanded between the release of the Draft Report and this report. The ESC's recently expanded powers should provide the ESC with the capacity to appropriately monitor and enforce local energy network regulatory compliance.

- B. EWOV should have a sufficiently broad jurisdiction so there is one organisation for customers to go to if they need independent help to resolve complaints.
- C. The LES licensee should be responsible or accountable for the actions performed by third-party service providers or agents. Under a revised GEO, until the LES regime is established, it is the exempt person who is subject to regulatory oversight and compliance (see Recommendations 1 and 2).

In implementing Recommendation 7.2, the Panel considers the following should happen:

- A. The ESC should gather relevant information to support its regulatory and market monitoring⁴⁴ functions, to enable appropriate assessment of the impact of these Recommendations for consumers and to help identify whether further regulatory reform may be needed for this sector. It is expected that the ESC would assess the impact of these reforms on the sector within three years.
- B. The ESC should determine the types of data and information to be provided by LES licensees (for example, number of lots, occupancy information, information relating to meters installed) to gather aggregated datasets, such as the number of local energy networks, the number of customers churned away, pricing outcomes for electricity and/or bundled services and renewable energy capabilities. The ESC should determine the types of data and information to be collected both at the LES licence application stage and on an ongoing basis. LES licensees (or exempt persons before the LES licensing framework is established) should have to provide any information as soon as practicable or as otherwise directed by the ESC.
- C. Consistent with Recommendation 14, local energy networks should be required to proactively self-report relevant data and information to the ESC if there is the possibility of insolvency or other issues which may put ongoing supply to local energy network customers at risk. Information to be provided to the ESC should be aligned with duties in the *Corporations Act 2001* (Cth).
- D. Under the revised GEO, until the LES licensing framework is in place, the exempt person should have the equivalent obligations as outlined in the implementation strategy for Recommendation 7.2 above at point A. In addition, at the registration stage, parties seeking to rely on the revised GEO should provide information about their anticipated activities at the site, including their plan for meeting the renewable or other clean energy requirements (see Recommendation 2).

⁴⁴ For example, the ESC could gather information to assess whether there are alternative retail offers available to local energy network customers so they can transfer on-market if they would like to do so.

5.2.4 Applying Recommendations 7.1 and 7.2 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Both legacy (existing) and new local energy networks will be subject to enhanced monitoring and oversight by the ESC with its recently changed compliance and enforcement powers. Legacy (existing) and new local energy networks will need to provide information as requested by the ESC.
New local energy networks (registered on or after 1 January 2023)	

5.3 Access to competitive retail offers (Recommendations 8 and 9)

Recommendation 8	All local energy network customers should have unencumbered access to the energy retail market and it should be easy for them to transfer to an on-market energy retailer without the need for a meter exchange. Customers within a local energy network should not face a greater financial or administrative burden to change retailers than other Victorian customers.
Recommendation 9	Customers within legacy (existing) local energy networks should have ready access to alternative on-market retail providers. Over time, metering and/or other internal infrastructure in legacy (existing) local energy networks should be upgraded and/or changed to enable these customers to access the retail market without imposing a direct cost burden on customers to do so.

As discussed in the Draft Report, access to the retail energy market is a key issue. The overwhelming majority of embedded network customers who made a submission to the Review expressed strong views that access to competitive retail offers and being able to exercise their choice of retailer is a consumer right that should be mandated.

Moreover, the submissions highlighted that choice is not simply about price but also about autonomy and a sense of control. While not being an end in itself, retail choice enables customers to seek better customer service or improved outcomes from an alternative provider, rather than being stuck in an ongoing relationship with a provider that doesn't address their needs or give them the services or outcomes they want.

"I just moved into a building with an embedded network. I was appalled to find out I have no choice about any of my energy contracts. On the phone to the energy company I said 'what's the point of asking me to consent to this contract?' and they confirmed that I have no choice. It is very hard to compare the cost of what I'm getting with other options, but there's no point anyway. Let alone the possibility of choosing green energy, which I would have done. If this happened in another country we would call it what it is, a scam. Even if hot water is centralised in the building, what possible reason is there for bundling electricity and giving me no choice about how I obtain it? When these utilities were privatised the point was for 'consumers' to have 'choice' in a 'free market'. But of course what private operators like best is when consumers have no choice." – Embedded network customer

For consumers, retail choice means being able to change providers not only when they want a better price, but also when they have experienced bad customer service, or when they wish to choose renewable options such as GreenPower or an 'ethical' provider.

"As a consumer of anything from chocolate bars to cars, I have the right to support the companies I choose to - but not when it comes to my energy supplier. I am forced to pay money to a company I despise for services that I would prefer to receive from just about anyone else. Consumers should always be allowed choice and free access to the market to choose the providers they want. Big companies shouldn't be able to buy their way to customers." – Embedded network customer

To address these concerns, the Panel recommends that all local energy network customers should have unencumbered access to the energy retail market. It should be easy for them to transfer to an on-market energy retailer without the need for a meter exchange. Customers within a local energy network should not face a greater financial or administrative burden to change retailers than other Victorian customers.

There was strong support from all stakeholders to open up market access to all local energy network customers.

“Even in the case of a well-functioning private network delivering benefits to consumers, people should have the right to opt-out and seek an alternative if they so choose. Not only do many consumers view this ability to exercise choice important in and of itself ... but the ability also to easily access the retail market incentivises future LES licence holders to deliver value to consumers in order to retain their business.” – Consumer Action Law Centre

As highlighted in the Draft Report, there are range of practical barriers to being able to move to an on-market retailer, including the prohibitive cost of upgrading metering infrastructure for individual consumers, the lack of visibility of child meters within the national Market Settlement and Transfer Solutions system (MSATS) because they do not have a National Meter Identifier (NMI) allocated, lack of business-to-business arrangements and the lack of suitable energy-only plans offered by on-market retailers for embedded network sites.

The Panel is recommending a range of measures to address these concerns. For example, the Panel recommends that all child meters within embedded networks should be issued with a NMI so they are visible within MSATS. Furthermore, there should be oversight of metering and related infrastructure installed in local energy networks after 1 December 2017 to make sure entities are meeting existing metering and ancillary obligations (which ensure compliance with National Energy Market (NEM) standards).

One of the challenges and barriers to implementing improvements has been a lack of information or data on which to base recommendations or timeframes for change which are reasonable to industry while also enabling consumers to exercise the choice of retailer to which they are legally entitled. Therefore, the Panel recommends that local energy networks be required to provide information on customer numbers and the type/age of metering/infrastructure periodically to the ESC, enabling transparency of this information. This will allow any proposal for the exchange or upgrading of infrastructure (to enable customers to exercise retail choice) to be based on reliable information

Given that electricity is an essential service, and the strong support for equal retail market access and customer protections from stakeholders, it is appropriate that over time all sites will be brought up to current standards. Embedded networks have been required to meet improved metering standards and requirements since the Power of Choice changes took effect on 1 December 2017. Metering installed prior to this date may not meet NEM standards, and may be more difficult to bring up to current standards for space or other infrastructure reasons.

Therefore, over time, metering and/or other internal infrastructure in legacy (existing) local energy networks should be upgraded and/or changed in all existing embedded networks that are not compliant with current NEM standards to enable these customers to access the retail market without imposing a direct cost burden on customers to do so.

One of the most contentious issues of the review was determining who would pay for upgrading the meters and wiring. Embedded networks customers argued that customers should not have to pay for the infrastructure upgrade, and instead it should fall to embedded network operators or the Government.

“Customers shouldn’t have to pay for something that isn’t their fault and constrains them.” – Embedded network customer

“Embedded networks have been overcharging for some time already and this should be used to fund the upgrade.” – Embedded network customer

The Panel considers it may be appropriate for energy networks to recover some of the costs to upgrade meters or other infrastructure upgrade costs over time via tariffs charged to customers, similar to the way distributors were able to recover costs for the Advanced Metering Infrastructure (AMI) rollout. Any costs would need to be incorporated into the prices local energy service providers are allowed to charge customers, which is currently capped at the Victorian Default Offer. It must also comply with the AER’s NSP Guideline⁴⁵ price. The Panel considers this approach is reasonable because customers will benefit in the longer term from having updated meters that enable retail market access (and which should also be more accurate if they meet current standards and are maintained appropriately). The added competition should drive improved behaviour, service

⁴⁵ See AER NSP exemption guideline (p61) - a charge no greater than the published regulated charge which the distributor would have charged that customer, had the customer been served directly by the distributor.

and costs for local energy network customers. The Panel is of the view that it is acceptable to have customers contribute over time for these additional benefits, especially as industry will be constrained by the VDO and AER Guideline requirements.

Not-for-profit organisations and industry groups, such as the Victorian Caravan Parks Association whose revenue derives from the rents of low-income tenants, noted that it would be very costly for them to upgrade all of the metering and infrastructure at their sites. This is particularly problematic for the not-for-profit sector as they may have to shift funds away from other needed maintenance and upgrades to pay for the retrofitting. The Community Housing Industry Association of Victoria suggested that longer timeframes for requiring compliance for legacy (existing) infrastructure would enable them to better plan for and manage the upgrade as they would be able to spread their costs.

However, while some retailers, embedded network customers and consumer groups were calling for the infrastructure to be upgraded at a faster rate, others suggested that waiting until the infrastructure's end of life is the most prudent approach.

“... a reasonable timeframe for upgrade or changes to metering and/or other internal infrastructure is when assets reach their end of life. This will minimise wasted investment (and be most environmentally responsible), ensuring the lowest cost possible to deliver energy services.” – Origin Energy

Having listened to the stakeholder views, the Panel recommends that relevant metering and infrastructure should be upgraded where needed within either 10 years of being commissioned in the embedded network, or three years from when the LES licensing regime comes into effect (anticipated to be by 2026/2027), whichever is the earlier.⁴⁶ This approach balances the need to ensure meters are replaced within a reasonable timeframe so customers access the benefits of retail market competition, while also ensuring meters that are already installed are not removed too early within their lifespan. LES providers can choose to upgrade metering and infrastructure earlier than the deadline. The Panel considers this is the most appropriate approach as it balances financial concerns with the desire for local energy network customers to access the market within a reasonable timeframe.

To ensure compliance with these new obligations, and to assist the ESC with its monitoring and enforcement, the Panel recommends requiring LES providers⁴⁷ to establish a plan for how they propose to make retail choice available to customers. The plan could include timeframes to meter/infrastructure upgrades and could be made available to owners and/or the ESC.

The Panel understands that in some cases, there may be constraints, such as the space required for the new meters and related infrastructure that may prevent the site from being upgraded within the specified timeframe. In this instance, the local energy service provider should report to the ESC outlining why metering and related infrastructure cannot be upgraded. The ESC should determine whether it is satisfied with information provided or whether it considers enforcement action is appropriate. In future, if national standards change or alternative options become available to enable installation of NEM-compliant metering, sites would be expected to upgrade metering and related infrastructure as soon as practicable.

5.3.1 Enabling market transfer

The Draft Report noted there were a number of additional barriers that currently prevent embedded network customers from accessing the retail market, including a lack of business-to-business arrangements and a dearth of suitable energy-only plans offered by on-market retailers for embedded network sites.

“...retailers do not generally offer usage only plans, so even a ‘NMI enabled’ embedded network customer can find themselves unable to sign on with a new retailer. Where a customer in an embedded network chooses to go on-market, it is unclear whether the embedded network or the customer’s retailer of choice will be responsible for paying the network components of the bill.” – EWOV

There was broad support from stakeholders for regulatory changes that simplify the market transfer process for customers, local energy network operators and licenced energy retailers.

⁴⁶ By 2027, the Power of Choice requirements will have been in place for 10 years (since 2017). Since that time, embedded networks have been required to have NEM compliant metering, which means that by 2027 any metering that is not NEM compliant will be at least 10 years old, and is also likely to have reached the end of its lifespan, or be close to that.

⁴⁷ Local energy networks built after the Power of Choice changes came into effect (December 2017) should already have NEM compliant metering and infrastructure, so this will only affect older, legacy (existing) local energy networks.

“... all people in an embedded network [should have] practical, not just theoretical capacity to choose their preferred retailer.” – Housing for the Aged Action Group

Therefore, the Panel recommends that the Victorian Government should implement changes necessary to enable ease of market transfer and single billing (which includes both retail and network costs) for customers.

The regulatory amendments should include systems or other changes necessary to facilitate transfers and single billing, such as appropriate settlement processes through the Australian Energy Market Operator (AEMO), standardised formats for the ‘network’ billing component, and network charges no greater than what the customer would pay to the local electricity distributor if they were directly connected to the grid. There should also be obligations for on-market retailers regarding publication of available offers for local energy network customers, including on the Victorian Energy Compare website.

The Panel anticipates that with better retail market contestability, there will be an opportunity for on-market retailers to make offers to customers within local energy networks, and that the number of available offers is likely to increase over time. However, this could be an aspect considered by the ESC in any assessment of the effectiveness of these reforms or when performing future market monitoring functions in respect of local energy networks. Where possible and appropriate, any changes necessary to enable ease of market transfer and single billing for customers should align with the national framework and/or AEMC recommendations.

Consistent with the experience for existing on-market customers, there should be no meter exchange required when a customer within the local energy network elects to transfer to an on-market retailer. The LES licence holder should retain responsibility for network functions (for example faults, disconnections, connections) and metering functions (provision of meters, installation, testing, maintenance etc) in relation to that customer.

Local energy network customers must have access to relevant information so they can determine whether moving to an on-market retail offer is an appropriate decision for them. Local energy networks should be required to provide their customers with the same sort of rates/tariff information on their bills as licensed retailers, and to publish this information on their websites, so customers can readily compare the price they pay with available market offers. Consistent with requirements for on-market retailers, local energy networks should also be required to publish information about Victorian Energy Compare on their bills.

5.3.2 The Panel’s proposed implementation strategy regarding retail market access for all customers

In implementing Recommendations 8 and 9, the Panel considers the following should be done to make true retail market access possible for customers in local energy networks:

- A. All child meters within embedded networks should be issued with a NMI so these meters are visible within the national settlement system, MSATS.
- B. There should be oversight of metering and related infrastructure installed in local energy networks after 1 December 2017 to make sure entities are meeting existing metering and ancillary obligations (which ensure compliance with NEM standards).
- C. Local energy networks should be required to provide information on customer numbers and the type/age of metering/infrastructure periodically to the ESC, enabling transparency of this information. This will allow any proposal for the exchange or upgrading of infrastructure (to enable customers to exercise retail choice) to be based on reliable information (see also Recommendation 7.2).
- D. Existing metering, wiring and/or associated infrastructure will need to be changed in some legacy (existing) embedded networks to enable retail choice, as the current metering and/or associated infrastructure can be a material barrier to retail choice. In relation to upgrades required to enable retail choice:
 - i. It may be appropriate for local energy networks to recover some of the costs to upgrade meters or other infrastructure upgrade costs over time via tariffs charged to customers, similar to the way distributors were able to recover costs for the AMI rollout. Any costs would need to be

incorporated into the prices local energy service providers are allowed to charge customers (which should not exceed the VDO and should comply with the AER's NSP Guideline⁴⁸ price).

- ii. Relevant metering and infrastructure should be upgraded where needed within either 10 years of being commissioned in the embedded network, or three years from when the LES licensing regime comes into effect⁴⁹, whichever is the earlier. LES providers can choose to upgrade metering and infrastructure earlier than the deadline.
 - iii. LES providers⁵⁰ could be required to establish a plan for how they propose to make retail choice available to customers. The plan could include timeframes to meter/infrastructure upgrades and could be made available to owners and/or the ESC.
 - iv. Under the recommended arrangements for the local energy network, the option should exist for owners' corporations to make it a contract condition that their LES provider upgrade metering and associated infrastructure to enable choice of retailer.
 - v. There may be sites where the meters and related infrastructure cannot be upgraded to national standards within the specified timeframe due to space or other constraints. In this instance, the local energy service provider should be required to report information to the ESC outlining why metering and related infrastructure cannot be upgraded⁵¹. In future, if national standards change or alternative options become available to enable installation of NEM-compliant metering, sites would be expected to upgrade metering and related infrastructure as soon as practicable.
- E. Customers who choose to become an on-market retail customer should receive a single electricity bill which includes both 'retail' and 'network' components.
- F. The Victorian Government should implement any regulatory changes necessary to enable ease of market transfer and single billing for customers, including:
- i. Systems or other changes necessary to facilitate transfers and single billing, such as appropriate settlement processes through the Australian Energy Market Operator (AEMO), standardised formats for the 'network' billing component, and network charges no greater than what the customer would pay to the local electricity distributor if they were directly connected to the grid.
 - ii. Obligations to ensure there is no meter exchange required when a customer within the local energy network elects to transfer to an on-market retailer. The LES licence holder should retain responsibility for network functions (for example faults, disconnections, connections) and metering functions (provision of meters, installation, testing, maintenance etc) in relation to that customer.
 - iii. Obligations for on-market retailers to publish information about available offers for local energy network customers, including on their websites and Victorian Energy Compare.

Any changes necessary to enable ease of market transfer and single billing for customers should, where possible and appropriate, align with the national framework and/or AEMC recommendations.

- G. Any proposals for change or upgrading of metering and/or internal infrastructure should be consistent with appropriate safety standards. There should be provision for costs associated with meeting safety requirements when considering reasonable requirements and timeframes. Liaison with Energy Safe Victoria regarding relevant safety standards and obligations may be required.
- H. Local energy network customers must have access to relevant information so they can determine whether moving to an on-market retail offer is an appropriate decision for them. Local energy networks should be required to provide their customers with the same sort of rates/tariff information on their bills as licensed retailers, and to publish this information on their websites, so customers can readily compare the price they pay with available market offers. Consistent with requirements for on-market

⁴⁸ See AER NSP exemption guideline (p61) - a charge no greater than the published regulated charge which the distributor would have charged that customer, had the customer been served directly by the distributor.

⁴⁹ It is anticipated that the LES licensing regime will come into effect in approximately late 2023 to early 2024, so it is expected this deadline will be by about 2026/2027.

⁵⁰ Local energy networks built after the Power of Choice changes came into effect (December 2017) should already have NEM compliant metering and infrastructure, so this will only affect older, legacy (existing) local energy networks.

⁵¹ The ESC should determine whether it is satisfied with information provided or whether it considers enforcement action is appropriate.

retailers, local energy networks should also be required to publish information about Victorian Energy Compare on their bills.

5.3.3 Applying Recommendations 8 and 9 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Customers within legacy (existing) local energy networks established before 1 December 2017 may require metering and/or internal infrastructure to be upgraded or changed to enable access to the electricity retail market. This upgrade should take place within either 10 years of the metering and infrastructure being commissioned in the network, or three years from when the LES licensing regime comes into effect (anticipated to be by 2026/27), whichever is earlier. Customers within legacy (existing) local energy networks established after 1 December 2017 should have NEM complaint metering and infrastructure. Therefore, they should have unencumbered access to the energy retail market once the Victorian Government has made the necessary regulatory changes to enable ease of market transfer and single billing for customers.
New local energy networks (registered on or after 1 January 2023)	Customers within new local energy networks should have unencumbered access to the electricity retail market when they move into their premises once the relevant systems and other processes are in place. Meters and other internal infrastructure should not be an impediment to retail market access.

5.4 Improved information disclosure (Recommendation 10)

Recommendation 10	Owners and occupants in residential local energy networks must be provided with adequate information about their rights and obligations as a customer within a local energy network and about commercial agreements relating to the local energy network infrastructure, and ownership and management of these assets. Adequate information disclosure should be required under both the GEO and as part of the LES licensing regime.
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The Panel recommends that lot owners and tenants in local energy networks be provided with adequate information about their rights and obligations as a customer within a local energy network and about commercial agreements relating to local energy network infrastructure and assets.

5.4.1 Transparency and disclosure of the existence of an embedded network

Commercial agreements and decisions around the ownership of an embedded network's infrastructure and assets are made long before new lot owners and tenants take possession or occupy the site. As a result, prospective customers have very little, if any, influence over the design (including technology offerings) and operation of the embedded network.

A lot owner and occupant's understanding of the commercial contracts and ownership arrangements associated with the embedded network infrastructure and assets is also often quite limited, making it difficult for them to negotiate a better deal.

Despite the information and disclosure obligations on exempt persons under the GEO and owners under the *Residential Tenancies Act 1997*,⁵² embedded network customers are not always fully informed of the presence of an embedded network or their rights as a customer of an embedded network.

"[There is] a persistent lack of clarity or understanding of when an embedded network exists, what the service entails, what it costs, what the benefits are, and how, if it is possible, that a customer can exit one." – Housing for the Aged Action Group

In relation to information disclosure, prospective purchasers are at an even greater disadvantage than tenants, because there is no obligation to disclose information relating to an embedded network to a prospective purchaser. For example, prospective purchasers do not have to be told about the existence of an embedded network, the implications an embedded network may have on contractual arrangements or asset ownership,

⁵² *Residential Tenancies Act 1997* (Vic), s 498LB(d).

or any buy-back provisions. These issues can all have a significant impact on energy affordability and future capital expenses within the local energy network. It is also quite common for a developer to decide to install an embedded network part-way through construction. There is no obligation for a developer to disclose this decision to customers who have already purchased a property within the development.

To address these concerns regarding the transparency and disclosure of the existence of an embedded network, the Panel recommends that prospective purchasers and owners be provided with information disclosing the existence and details relating to a local energy network, such as information about the ownership of critical infrastructure⁵³ and assets at the site and/or buy-out provisions. For prospective purchasers, the information could be included in the Vendor's Statement required under the *Sale of Land Act 1962* (section 32). Such information could be similar to the information required for tenants pursuant to the *Residential Tenancies Act 1997* or could be similar to the type of information required in other state jurisdictions.⁵⁴

If a local energy network is not contemplated when initial sale documentation is provided to a purchaser, then new/supplementary vendor disclosure statements should be provided to the purchaser once the decision is made to install the local energy network (usually by the developer). Such documentation should be provided a reasonable time prior to settlement of the transaction taking place. This will improve transparency for purchasers, by ensuring they are notified of changes to the development (which affect their purchase) at all times during the sale process. The Victorian Government could also consider whether the failure to provide such information, or a decision to install a local energy network after the original exchange of contracts, could be a sufficient reason to enable a purchaser to avoid the sale or seek other compensation.

Industry participants generally supported greater information disclosure requirements. The Embedded Network Industry Action Group (ENIAG) suggested Victoria adopt a similar legislative framework to New South Wales which provides the incoming owners' corporation with agency over the appointment of long-term service agreements and contracts. ENIAG argued that this would "reduce the risk of an Owners Corporation entering into an unfavourable commercial agreement". However, Active Utilities suggested Victoria adopt similar disclosure legislation to Queensland as it would "create a fair and reasonable framework of information disclosure to prospective owners and occupants".

Therefore, the Panel recommends that when assessing how these obligations should work, the Victorian Government could consider the operation of information disclosure obligations in other state jurisdictions.

To further enhance transparency, the Panel recommends that owners' corporation members be advised about any immediate or future financial transactions arising from the developer's relationship with the owners' corporation manager that will benefit the developer. Owners' corporation members should also be advised about ongoing service management of the local energy network as soon as practicable. Owners' corporation managers should be required to disclose beneficial relationships with suppliers, and commissions, payments or other benefits relating to contracts for the supply of goods or services to an owners' corporation. These requirements are consistent with new disclosure obligations relating to owners' corporations required from 1 December 2021.⁵⁵

The Panel suggests the Government either limit the length of contracts for ongoing management of a local energy network or adopt obligations similar to those that exist in other state jurisdictions relating to agreements made between developers and third-party service providers for the ongoing management of a local energy network. In doing so, the Victorian Government should ensure these contracts are subject to unfair contract laws, such as those within the *Australian Consumer Law*.

The Panel notes that these topics intersect with the issues currently under consideration by the Building System Review Expert Panel. It is anticipated that recommendations coming out of that review may increase building obligations in order to improve customer outcomes (for example, there may be additional obligations for developers, or relating to sites where developers choose to install local energy networks). This is consistent with the Panel's recommendations about changes required to planning, building and strata requirements (see Recommendations 11 and 12).

⁵³ For example, meters (electricity, hot water), hot water systems, heating/cooling systems, solar PV system, electric vehicle charging, battery storage.

⁵⁴ See *Residential Tenancies Act 1997* (Vic) section 30D(d) and *Body Corporate and Community Management Act 1997* (Qld) sections 213, 214 and 217.

⁵⁵ New disclosure obligations on the owners' corporations are outlined in the *Owners Corporations and Other Acts Amendment Act 2021* (Vic).

5.4.2 Asset Ownership

The ownership of pivotal or critical essential service infrastructure can be problematic in embedded network settings. In the Draft Report, the Panel suggested the Government consider whether there should be limitations on who can own the infrastructure, suggesting a fee-for-service approach could be adopted. A fee-for-service approach is one where ownership of the embedded network infrastructure can remain with the owners' corporation or residents' association while the LES provider performs internal billing and network management services on the owners' corporation's behalf. This type of 'fee-for-service' model is more common in retirement villages, shopping centres and industrial parks.

The fee-for-service model was supported by Network Energy Services, an embedded network operator specialising in retirement villages.

"A 'fee for service' model is the most appropriate model for the retirement village / Over 50's sector given that it puts the decision-making in the hands of the party who owns the electricity infrastructure and reticulation." – Network Energy Services

However, other embedded network operators did not support the approach, suggesting it could stifle investment in the area. In fact, most embedded network operators did not support any restrictions being placed on the ownership of critical infrastructure within a local energy network.

"The contractual conditions relating to the appointment of a competent service provider should be a matter for the owners of the embedded network and do not require regulation." – WINConnect

"... embedded network operators are better placed to be responsible to own and operate critical infrastructure such as electricity meters solar PV, batteries, central hot water plant. As risks for operating these technologies should be allocated to the parties with a vested interest in ensuring they are operating optimally." – Real Utilities

However, the Panel believes there are repercussions for consumers when a third party owns critical infrastructure, such as a lack of transparency, locked-in contracts and limitations on being able to address issues even at the end, or on review, of a contract.

The Panel acknowledges that, although these issues are key to some of the poor experiences by customers within embedded networks, they are not able to be resolved solely by recommendations in this Review because the solutions do not lie just within the energy portfolio, but straddle a number of portfolio areas. The issues are also not core to the Panel's Terms of Reference and task. The Panel has engaged with the Building System Review Expert Panel as part of the consultation for this Review and supports the work of that Expert Panel to improve outcomes for Victorian consumers.

Therefore, the Panel recommends the Victorian Government consider whether there should be limitations or prohibitions on who can own pivotal or critical essential service infrastructure in a local energy network setting (for example meters, wiring, bulk hot water systems, bulk heating/cooling systems). Alternatively, the Building Systems Review Expert Panel could consider this issue as part of their review.

5.4.3 Clarity and transparency around pricing and bundling of services

Transparency of pricing information is another ongoing issue for customers in embedded networks. Commonly, embedded networks bundle several services together on a single bill, including charges for the gas used to produce hot water and unmetered gas for stove tops. Further, the limited information on the bills means that some customers do not know how the price was calculated.

The Panel considers it vitally important that customers are aware of their provider bundling services and that the pricing of these services is clear and transparent.

Therefore, it is recommended that information packs should be provided to each lot owner and occupant advising who the exempt person is, as well as how common area, bulk hot water and bulk cooling/heating, unmetered gas and fees (such as connection or move-in/move-out fees) are calculated and charged to each lot.

"Customer accessibility should be at the forefront of the information being provided." – EWOV

The information pack should be written in plain English and be provided annually or on request by owners or occupants. Furthermore, any information provided to customers should be in an accessible form and easily understood by prospective purchasers, owners and occupants.

5.4.4 The Panel's implementation strategy regarding information disclosure to customers

In implementing Recommendation 10, the Panel suggests the following should be done:

- A. Prospective purchasers and owners should be provided with information disclosing the existence and details relating to a local energy network, such as information about the ownership of critical infrastructure⁵⁶ and assets at the site and/or buy-out provisions. For prospective purchasers, the information could be included in the Vendor's Statement required under the *Sale of Land Act 1962* (section 32). Such information could be similar to the information required for tenants pursuant to the *Residential Tenancies Act 1997* or could be similar to the type of information required in other state jurisdictions.⁵⁷
- B. If a local energy network is not contemplated when initial sale documentation is provided to a purchaser, then new/supplementary vendor disclosure statements should be provided to the purchaser once the decision is made to install the local energy network (usually by the developer). Such documentation should be provided a reasonable time prior to settlement of the transaction taking place. When assessing how these obligations should work, the Victorian Government could consider the operation of information disclosure obligations in other state jurisdictions. The Victorian Government should also consider whether the failure to provide such information, or a decision to install a local energy network after the original exchange of contracts, could be a sufficient reason to enable a purchaser to avoid the sale or seek other compensation.
- C. Information packs should be provided to each lot owner and occupant advising who the local energy network operator is, as well as how common area, bulk hot water and bulk cooling/heating, unmetered gas and fees (such as connection or move-in/move-out fees) are calculated and charged to each lot. The information pack should be written in plain English and be provided annually or on request by owners or occupants.
- D. Owners' corporation members should be advised about any relevant agreements relating to ongoing service management of the local energy network as soon as practicable. This is consistent with new disclosure obligations relating to owners' corporations required from 1 December 2021.⁵⁸
- E. The Victorian Government should either limit the length of contracts for ongoing management of a local energy network or adopt obligations similar to those that exist in other state jurisdictions relating to agreements made between developers and third-party service providers for the ongoing management of a local energy network. In doing so, the Victorian Government should ensure these contracts are subject to unfair contract laws, such as those within the *Australian Consumer Law*.
- F. The Victorian Government should consider whether there should be limitations or prohibitions on who can own pivotal or critical essential service infrastructure in a local energy network setting (for example meters, wiring, bulk hot water systems, bulk heating/cooling systems). If it is appropriate to ensure these assets are owned and controlled by the owners' corporation, there could be a transfer of the asset when the owners' corporation is established. Alternatively, there could be restrictions on how much an owners' corporation can be charged to buy-back critical infrastructure, or, in instances where developers put in place contracts with other parties for these assets/services, a requirement for them to provide an equivalent to the purchase price for these assets to be held in a capital expenditure fund or an alternative specific fund established on the owners' corporation's behalf.
- G. Any information provided to customers should be in an accessible form and capable of being easily understood by prospective purchaser, owners or occupants.

⁵⁶ For example, meters (electricity, hot water), hot water systems, heating/cooling systems, solar PV system, electric vehicle charging, battery storage.

⁵⁷ See *Residential Tenancies Act 1997* (Vic) section 30D(d) and *Body Corporate and Community Management Act 1997* (Qld) sections 213, 214 and 217.

⁵⁸ New disclosure obligations on the owners' corporations are outlined in the *Owners Corporations and Other Acts Amendment Act 2021* (Vic). The new disclosure obligations include requirements to advise about immediate or future financial transactions benefiting a developer which arise from their relationship with the owners' corporation manager. There are also disclosure obligations for owners' corporation managers regarding beneficial relationships with suppliers, commissions or other benefits relating to contracts for the supply of goods or services to an owners' corporation.

5.4.5 Applying Recommendation 10 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Adequate information disclosure should be required under both the GEO and as part of the LES licensing regime, meaning they will apply to both legacy (existing) and new local energy networks.
New local energy networks (registered on or after 1 January 2023)	

5.5 Planning and building requirements (Recommendations 11 and 12)

Recommendation 11	Planning, building and strata requirements should be amended to oblige anyone proposing to install relevant infrastructure associated with the supply and sale of electricity within a residential building via a local energy network to design, build and operate the local energy network to incorporate renewable or other clean energy which enable benefits to be passed on to customers. Information, especially relating to infrastructure assets, must also be disclosed to prospective purchasers in an easy-to-understand format.
Recommendation 12	Planning, building and strata requirements should also be amended to oblige anyone proposing to supply other bundled services within a residential building/site (including bulk hot-water, bulk heating/cooling or unmetered gas for cooktops) to meet similar standards to design, construct, establish and operate those services in the best interests of prospective owners and occupants, and to disclose appropriate information.

Throughout this review, the Panel has uncovered a range of issues that are having a detrimental effect on owners and occupants in apartment buildings, some of which lie outside of the Panel's remit. One of the most significant issues, is that embedded networks are often established in new residential sites with very little regard for the likely impact on consumers.

"New buyers and occupants are not privy to the contractual arrangements between developer and/or subcontractors / supplier nor [do they] understand what the implications of buying into an apartment with an embedded network is." – Embedded network customer

"Most issues... stem from the initial agreements put in place between the developer, embedded network owner and occasional billing agent" – EWOV

This is an issue that has significant implications for consumer outcomes, however, any resolution would require amendments to Victorian building and planning legislation. Given the review's Terms of Reference limits the Panel to considering the interaction of its recommendations with the relevant building and planning legislation, it is more difficult for the Panel to influence outcomes and drive change in this area. Therefore, the Panel has consulted with Victoria's Building Systems Review on this issue to develop recommendations to address the consumer protection and transparency concerns.

The Panel recommends that planning, building and strata requirements should be amended to oblige anyone proposing to supply or sell electricity within a residential building via a local energy electricity network to design, construct, establish and operate the local energy network in the best interests of prospective owners and occupants. The local energy network should also incorporate renewable or other clean energy that drive carbon emissions reduction in line with the government's renewable energy policies and targets.

Any information, including any one-off or ongoing financial arrangements between a developer, owners' corporation and a third-party entity, should be disclosed at the time of sale to prospective purchasers, including off-the-plan sales, in an easy-to-understand format. The ownership and buy-out arrangements for any infrastructure assets, including electricity and hot water meters, centralised hot water systems, solar PV systems and electric vehicle infrastructure assets should also be disclosed to the prospective purchaser at the time of sale.

If infrastructure is owned by third-party entities, debt for these assets should not fall on prospective owners within the local energy network to fund in the event that an agreement entered into at the design and construction stage of the residential building was terminated and a buy-out of the infrastructure assets was a consequence of the termination. Similarly, prospective owners should not incur a debt in the event of a default rather than a termination.

The Panel understands that that these recommendations are supported by Building Systems Review Panel and will be further considered in the second stage of that review.

5.5.1 The Panel's implementation strategy for changes planning, building and strata requirements

In implementing Recommendation 11, the Panel considers that amendments to planning, building and strata requirements for local energy networks should include obligations to:

- A. Design, construct, establish and operate the local energy network in the best interests of prospective owners and occupants.
- B. Design, construct, establish and operate the local energy network to incorporate renewable or other clean energy that drive carbon emission reduction in line with government policies and targets.
- C. Disclose any and all appropriate information, including any one-off or ongoing financial arrangement between a developer, owners' corporation and a third-party entity, at the time of sale to prospective owners and occupants, including off-the-plan sales.
- D. Disclose at the time of sale to prospective purchasers whether any infrastructure assets⁵⁹ are owned by third-party entities, and if there are any applicable buy-out arrangements or obligations on the owners' corporation.
- E. Not incur a debt for any infrastructure assets⁶⁰ that are owned by third-party entities, which would fall on prospective owners within the local energy network to fund in the event that an agreement entered into at the design and construction stage of the residential building was terminated and a buy-out of the infrastructure assets was a consequence of the termination. Similarly, prospective owners should not incur a debt in the event of a default rather than a termination.

In implementing Recommendation 12, the Panel considers that amendments to planning, building and strata requirements for bundled services within residential buildings should include:

- A. Disclosure of any and all appropriate information, including any one-off or ongoing financial arrangement between a developer, owners' corporation and a third-party entity, at the time of sale to prospective purchasers, including off-the-plan sales.
- B. Disclosure at the time of sale to prospective purchasers about whether any infrastructure assets⁶¹ are owned by third-party entities, and if there are any applicable buy-out arrangements or obligations on the owners' corporation.

5.5.2 Applying Recommendations 11 and 12 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	The changes to planning, building and strata requirements are unlikely to apply to legacy (existing) local energy networks.
New local energy networks (registered on or after 1 January 2023)	New planning and building requirements may come into effect following the conclusion of Victoria's Building Systems Review.

⁵⁹ Including, but not limited to, electricity and hot water meters, centralised hot water systems, solar PV systems, electric vehicle infrastructure assets, Battery Energy Storage Systems (BESS), Building Management Systems (BEMS), market participation systems and services, load control devices, control and communications systems.

⁶⁰ See above for examples of various infrastructure assets.

⁶¹ See above for examples of various infrastructure assets.

5.6 Bundled services and other fees and charges (Recommendation 13)

Recommendation 13	There should be appropriate regulation, monitoring and enforcement relating to currently unregulated bundled services (including bulk hot-water, bulk heating/cooling and unmetered gas cooktops) to ensure there is no longer secondary, separate treatment for consumers of these essential services. While these bundled services are not intended to be captured within the LES licensing framework, the Victorian Government should look at how these monopoly essential services can be effectively regulated to ensure appropriate customer protections, access to dispute resolution and reasonable prices for customers as well as suitable monitoring, compliance and enforcement.
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Some services that are common in apartment buildings, such as bulk hot-water, bulk heating/cooling, unmetered gas cooktops and solar PV, are often bundled together with electricity embedded networks and provided by the same third-party service provider. As a result, customers may be unable to decipher how much they are paying for each service.

“...[residents] living in retirement villages, residential parks and caravan parks [report] that they often do not know what they are being charged [and] what the service is providing specifically... This causes stress and mistrust.” – Housing for the Aged Action Group

The Panel remains very concerned about bundled services and is therefore recommending that they should be appropriately regulated and monitored to ensure there is no longer secondary, separate treatment for consumers of essential services. This position was supported by most stakeholders who responded to the Draft Report.

Stakeholders raised concerns about customers of bundled services missing out on basic customers protections.

“Customers within unregulated bundled services do not have access to retail competition, do not receive consumer protection, nor can they access EWOV.” – EWOV

As a result, the Panel has strengthened its final recommendation, advising that the Government should look at how these services can be regulated to ensure appropriate customer protections, access to independent dispute resolution and reasonable prices for customers. For example, the Victorian Government should consider whether protections similar to those in the *Energy Retail Code* should be extended to the sale and supply of bundled services. Similarly, it should be considered whether it would be appropriate for these services to fall within the remit of EWOV so customers can obtain independent assistance to resolve disputes.

A suitable monitoring, compliance and enforcement framework in line with that suggested under Recommendations 7.1 and 7.2 should also be considered.

Although unmetered gas cooktops are common as a bundled service, there is no equivalent exemptions framework like the GEO for gas and anyone who sells or supplies gas must hold a licence under the *Gas Industry Act 2001* (GIA). Although developers and/or embedded network operators may suggest that they do not “sell” gas (as these services are unmetered, and therefore not charged individually), these services are still being “supplied” to the site, which the Panel considers is likely to be a breach of the GIA if done without a licence. Further, the Panel considers that these services should be subject to the same sort of customer protections as the sale and supply of other energy.

Although the VDO price cap on the sale of electricity in an embedded network is now in place, some third-party service providers and exempt persons may seek to recover costs (or lost profits) through these other bundled services.

“...the confusing nature of billing for bundled services in embedded networks presents a significant risk that excessive profit margins, which were removed by aligning the cap for electricity pricing in embedded networks with the VDO, are shifted to other services or general lease charges.” – Consumer Action Law Centre

“...we have no idea what our hot water costs as opposed to general usage.” – Embedded network customer

Therefore, the Panel is recommending that pricing relating to bundled services should be clear and transparent, and customers should be provided with bills which clearly specify how each component of the bill is calculated.

The Panel also recommends caps should be placed on the costs which can be imposed on customers for bundled and other services, such as connection charges or move-in/move-out fees. The ESC should be able to monitor and enforce compliance with maximum pricing for such services, alongside any assessment of compliance with other pricing obligations (for example, the VDO).

While regulation of bundled services is not intended to be captured within the LES licensing framework, the Panel recommends that the Government consider the most appropriate method to regulate these services in a timely manner, acknowledging further review may be necessary to determine the best approach. To ensure positive outcomes for customers, the Panel suggests that it may be reasonable for regulation of bundled services to be implemented in line with other legislative changes or timelines relating to this Review.

5.6.1 The Panel’s implementation strategy for regulation, monitoring and enforcement of bundled services

In implementing Recommendation 13, the Panel suggests the following:

- A. Any regulation of these monopoly essential services should include appropriate customer protection mechanisms and access to independent dispute resolution. For example, the Victorian Government should consider whether protections similar to those in the *Energy Retail Code* should be extended to the sale and supply of bundled services. Similarly, it should be considered whether these services should fall within EWOV’s jurisdiction so customers can access independent assistance to resolve disputes.
- B. Any regulation of these monopoly essential services should also include appropriate monitoring, information and data collection, compliance and enforcement mechanisms for the ESC (see also Recommendations 7.1 and 7.2).
- C. Pricing relating to bundled services should be clear and transparent, and customers should be provided with bills which clearly specify how each component of the bill is calculated.
- D. Providers should also be required to publish details of the rates, tariffs, fees and charges applicable for bundled services or other services, such as connection and move-in/move-out fees. For example, prices should be made readily available on the provider’s website.
- E. There should be maximum prices which can be charged for bundled services, to ensure customers are not subject to price gouging for these monopoly services.
- F. Caps should be placed on the costs which can be imposed on customers for other services, such as connection charges or move-in/move-out fees.
- G. The ESC should monitor and enforce compliance with customer protection requirements and maximum pricing for bundled services or fees and charges, alongside any assessment of compliance with other pricing obligations (for example, the Victorian Default Offer).
- H. The ESC should enforce unlicensed supply and sale of bundled services if these activities breach legislative or regulatory requirements (see also Recommendation 7.1).

5.6.2 Applying Recommendation 13 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Regulation of bundled services to be introduced following Government consideration of appropriate approach, with further review prior to implementation if necessary
New local energy networks (registered on or after 1 January 2023)	Any outcomes from this review should apply equally to legacy (existing) and new local energy networks to the fullest extent possible.

5.7 Mitigating disruption of supply due to failure of a local energy network (Recommendation 14)

Recommendation 14	Customers in a local energy network should be adequately protected in the event that the local energy network fails or the entity operating or responsible for the local energy network becomes insolvent. The Victorian Government should give the ESC power to appoint an alternative provider to operate the local energy network in this situation to ensure continuity of supply for customers within that local energy network.
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As an essential service, disruption to electricity and other bundled service supply should be minimised to the fullest extent possible, regardless of where people live. For electricity supply, the Retailer of Last Resort (RoLR) scheme under the EIA is designed to guarantee continuity of electricity supply in the event of failure of an on-market retailer, by designating a RoLR that will continue to supply consumers in the event in the incumbent retailer fails.

In recent times, there have been heightened concerns around embedded network operators, particularly related to the impacts of the COVID-19 pandemic. For example, if multiple customers within an embedded network are unable to pay their bills, an exempt person may, in an extreme circumstance, be unable to pay the retailer for supply at the parent meter. This in turn may prompt the retailer to request disconnection of the parent meter, jeopardising supply for the embedded network customers.

The risk of operator failure therefore represents a regulatory gap for embedded network customers in Victoria, as the RoLR scheme does not extend to consumers living in embedded networks. This is because the RoLR scheme only applies to licensed retailers under the EIA, and not exempt persons operating under the GEO.

There was strong stakeholder support for RoLR-type arrangements (a colloquial term) to be extended to cover embedded network customers.

“... we support the creation of a LES of last resort, to minimise disruption to existing customers. Without a LES of last resort, customers in existing embedded networks are likely to experience supply disruptions should their embedded network operator cease to operate, as well as be required to invest in connecting directly to our network.” – Citipower, Powercor and United Energy

The Panel recommends local energy network customers should be adequately protected in the event that a local energy network (or an LES provider once the licensing regime is in place) fails or the entity operating or responsible for the local energy network (or LES provider) becomes insolvent.

The Victorian Government should confer on the ESC power to appoint an alternative provider to operate the local energy network (or an alternative LES provider) in this situation to ensure continuity of electricity and other bundled services supply for customers within the local energy network.

For example, this may include establishing a public register of interested parties, including local energy network operators, who may step in and manage a site on behalf of the owners of the local energy network if the existing operator fails. If no parties join the register or do join but are unwilling to take over the functions of a failed operator in a particular case, the ESC should have the power to appoint a party that is then required to supply and sell electricity within the site.

Once the licensing regime is in place, the alternative provider should be required to hold an LES licence.

5.7.1 The Panel's implementation strategy to protect customers' ongoing supply if a local energy network fails

In implementing Recommendation 14, the Panel suggests the following should be done:

- A. Local energy networks or their operators should be required to proactively provide any relevant information to the ESC if there is the possibility of insolvency or if there is another issue which may put ongoing supply for customers within the local energy network at risk. This information should be provided to the ESC as soon as the local energy network or their operator becomes aware of a potential issue which could give rise to a risk to ongoing supply.

- B. Local energy networks should be required to self-report to the ESC as a condition of their exemption or under the LES licensing framework once established. Criteria or disclosure thresholds triggering the obligation to self-report to the ESC should be aligned with duties in the *Corporations Act 2001* (Cth).
- C. In conjunction with Recommendation 13, the Government should give consideration to the nature of bundled services being supplied into local energy networks, and how these services would be maintained in the event that a local energy network fails.

5.7.2 Applying Recommendation 14 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Any measures introduced to protect customers living in local energy networks and ensure continuity of supply in the event that the entity operating or responsible for the local energy network (or LES provider) fails or the becomes insolvent should apply equally to customers in legacy (existing) and new local energy networks.
New local energy networks (registered on or after 1 January 2023)	

5.8 Giving voice to energy consumers in local energy networks (Recommendation 15)

Recommendation 15	A mechanism (or mechanisms) should be established to ensure that the voices of consumers living in apartment buildings, retirement villages, social housing and residential parks are heard in policy and regulatory development.
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In August 2021, the ESC published its vulnerability strategy, *Getting to Fair: Breaking Down Barriers to Essential Services*.⁶² The purpose of the strategy is to ensure the ESC is supporting consumers who are at risk or experiencing vulnerability to access essential services, noting that legislation requires the Commission to consider vulnerable and low-income consumers in its decision-making.⁶³

The Panel recognises that many people living in apartment building, retirement villages, social housing and residential parks may be experiencing vulnerability. Indeed, it was the recognition of the barriers experienced by consumers living in these settings that was a key trigger for the establishment of this Review.

Core to the ESC's strategy is better incorporation of the full spectrum of consumers' voices in regulatory processes. The ESC's decision paper states: "We see improving our consumer engagement and incorporating consumer voices in our work as integral to us remaining an effective, empathetic, and responsive regulator". Many of the goals and strategies proposed by the ESC involve the embedding of "consumer voices" in its regulatory decision-making.

"Direct engagement with people in vulnerable circumstances is critical to shaping policy and regulatory reform, as hearing people's lived experience provides a deeper understanding of the challenges people face." – Consumer Action Law Centre

In the Draft Report, the Panel recommended a mechanism be established to ensure the voices of embedded network customers are heard in policy and regulatory development. Although a number of stakeholders supported this initiative, a number thought it was unnecessary, arguing that existing mechanisms adequately support embedded network customer engagement in policy and regulatory development.

"... consumers in private network can turn to and influence the Owners Committee and by doing so have a much more powerful voice than an individual consumer outside of a private network." – WINConnect

"...customer access to EWOV [is] the most important mechanism to ensure the voices of private-network consumers are heard." – Origin Energy

⁶² ESC, *Getting to Fair: Breaking Down Barriers to Essential Services – decision paper*, 2021. <https://www.esc.vic.gov.au/other-work/regulating-consumer-vulnerability-mind>

⁶³ *Essential Services Commission Act 2001* (Vic) s 8A(1)(e)(i).

Despite this feedback, the Panel maintains the view that local energy network customers are not adequately represented and that for the voices of these customers to be considered effectively in policy and regulatory decision-making, they need to be appropriately coordinated and resourced.

For this reason, the Panel has maintained its recommendation that a mechanism or mechanisms be established to ensure consumer voices are heard. This could involve the Government resourcing relevant consumer groups to represent consumers of local energy networks in policy and regulatory discussions relevant to services delivered in local energy networks. This mechanism should complement the ESC’s strategy and not replace it.

5.8.1 The Panel’s implementation strategy for giving voice to energy consumers living in local energy networks

In implementing Recommendation 15, the Panel suggests the following:

- A. Establishing appropriate support services for tenants/occupiers with grievances, in addition to access to EWOV’s independent dispute resolution services.
- B. The Victorian Government may wish to consider providing funding or support for organisations or entities representing consumer interests and protections, where appropriate.

5.8.2 Applying Recommendation 15 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Any mechanism (or mechanisms) established to ensure that the voices of consumers living local energy networks are heard in policy and regulatory development should represent all customers in legacy (existing) and new local energy networks.
New local energy networks (registered on or after 1 January 2023)	

5.9 Transitional arrangements (Recommendation 16)

Recommendation 16	The changes to the GEO and the new LES licensing regime will need to be phased in over time. All local energy networks will need to comply with expanded customer protection obligations. In addition, new and some legacy local energy networks⁶⁴ will need to meet the renewable energy conditions straight away and will need to become licensed within six months once the new framework is introduced. Other legacy networks⁶⁵ will need to meet the renewable energy requirements within three years of the LES licensing regime being implemented.
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When the Government is undertaking significant regulatory reform, it is vital that affected stakeholders have a clear understanding of the key changes, including their rights and obligations as well as the sequencing and timelines for the reforms coming into effect. Therefore, the Panel recommends a phased transition, to allow stakeholders time to familiarise themselves with the new obligations and reallocate resources as required.

Although many stakeholders supported the Panel’s transitional arrangements, others had concerns. Some suggested the timeframes were too short and should be extended to allow legacy (existing) local energy networks to spread the cost of the changes over time. Others, however, were concerned that they were too long, claiming the LES licensing framework should be established immediately so it can commence by June 2022 and be extended to legacy (existing) local energy networks by 2024.

⁶⁴ Those sites that register or update their registration with the ESC on or after 1 January 2023 will need to comply with the new requirements relating to renewable or clean energy immediately.

⁶⁵ Sites registered prior to 31 December 2022 will not need to meet the renewable energy requirement immediately.

Despite this feedback, the Panel is not changing its recommended transitional arrangements because it expects this phased approach will minimise negative impacts or consequences flowing from the proposed changes. It also gives embedded network providers the opportunity to familiarise themselves with the new obligations and reallocate resources as required.

The Panel believes that the initial step of amending the GEO will ensure local energy network customers receive additional customer protections and the benefits of living in a local energy network as quickly as possible. This is because it will take time for the legislative changes required to enable the new licensing regime to come into effect, whereas the GEO can be amended relatively quickly.

All residential embedded network customers should have access to consumer protections from a specific date. However, the practicalities of implementing some of the recommendations may delay access to some protections. For example, rolling out NEM complaint meters in existing embedded networks is likely to be complex and protracted at some sites. Therefore, access to the retail electricity market will not be available for all legacy (existing) sites simultaneously. It may also take time for the new concessions framework to be established and rolled out to consumers.

Some stakeholders noted that consideration should be given to legacy (existing) embedded networks, in particular to allow them to understand and transition to the new framework.

“Most smaller operators do not have the energy specific resources and experience to navigate the various requirements and rely on the information provided by the ESC to help them ensure they are doing the right thing to meet their obligations.” – EWOV

The new regulatory framework will also have implications for new developments, given the lead times for the planning and building phase of apartment buildings.

The Panel considers that the recommended phased approach will account for the various needs of stakeholders as well as the forms and levels of understanding of regulatory obligations across different kinds of exempt persons (including those administering networks in apartment buildings, social housing, retirement villages and residential parks).

To assist with this, the Panel recommends that the Victorian Government and the ESC (with necessary resources provided) conduct a targeted information campaign to ensure all stakeholders impacted by these changes, including developers, embedded network operators and consumers are aware of and have sound understanding of the new framework and obligations. This will enable a smooth transition to the new licensing framework.

5.9.1 The Panel’s implementation strategy for a phased transition

In implementing Recommendation 16, the Panel suggests the following:

- A. A phased approach as set out in Figure 4 will:
 - i. allow stakeholders time to familiarise themselves with the new obligations and reallocate resources as required.
 - ii. account for the various forms and levels of understanding of regulatory obligations across different kinds of exempt persons.
 - iii. account for the lead times for the planning and building phase of apartment buildings.
- B. The Victorian Government and ESC should, with necessary resources provided, conduct a targeted information campaign, advising developers, owners’ corporations, entities that own or operate local energy networks and customers of the new obligations and rights (see also Recommendation 6).
- C. All residential local energy network customers will have access to relevant consumer protections from the date of changes to the GEO as set out in Recommendations 1 and 2.
- D. As set out in Recommendations 8 and 9, retail contestability will not be available for all legacy (existing) sites simultaneously, and will depend on system changes, as well as metering and other internal infrastructure upgrades taking place.

5.9.2 Applying Recommendation 16 to legacy (existing) and new local energy networks

Legacy (existing) local energy networks (registered before 1 January 2023)	Registering with the ESC Legacy (existing) local energy networks will be required to update their registration with the ESC before 1 January 2023. Legacy (existing) local energy networks that have updated their registration by 1 January 2023 will not be required to meet the renewable energy obligations until after the LES licencing framework is in place. However, the benefits of any existing renewable energy will need to be shared with customers once the revised GEO takes effect. Once obliged to meet the renewable energy requirements, legacy (existing) local energy networks may be able to meet those requirements through a combination of on-site and market purchased renewable energy. Legacy (existing) local energy networks that have not updated their registration by 1 January 2023, will need to meet the renewable energy requirement when the revised GEO comes into effect (similar to new local energy networks). Obtaining an LES licence Legacy (existing) local energy networks will be required to have a licence within three years of the LES licensing regime being established. They will not be required to meet the renewable or clean energy target until the licensing framework is established (by about 2027). Legacy (existing) local energy networks that do not register or update their registration with the ESC prior to 1 January 2023 will be required to have a licence within six months of the LES licensing regime being established. They will need to continue to meet the renewable energy condition while licensed. Consumer protection Amendments to the GEO, including the suite of new customer protections, to apply by 1 January 2023 for all local energy network customers with a registered exemption. Some protections, such as access to energy concessions on bills and GSL payments, may take longer to implement due to required process changes. Retail contestability Customers within legacy (existing) local energy networks established before 1 December 2017 may require metering and/or internal infrastructure to be upgraded or changed to enable access to the electricity retail market. This upgrade should take place within either 10 years of the metering and infrastructure being commissioned in the network, or three years from when the LES licensing regime comes into effect (anticipated to be by 2026/27), whichever is earlier. Customers within legacy (existing) local energy networks established after 1 December 2017 should have NEM complaint metering and infrastructure. Therefore, they should have unencumbered access to the energy retail market once the Victorian Government has made the necessary regulatory changes to enable ease of market transfer and single billing for customers.
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New local energy networks (registered on or after 1 January 2023)	<i>Registering with the ESC</i> New local energy networks will be required to meet the new registration and renewable energy obligations immediately. <i>Obtaining an LES licence</i> New local energy networks will be required to have a licence within six months of the LES licensing regime being established. They will need to continue to meet the renewable energy condition while licensed. <i>Customer protections</i> Customers in new local energy networks will have access to the customer protections immediately. Some protections, such as access to energy concessions on bills and GSL payments, may take longer to implement due to required process changes. <i>Retail contestability</i> Customers within new local energy networks should have unencumbered access to the electricity retail market when they move into their premises once the relevant systems and other processes are in place. Meters and other internal infrastructure should not be an impediment to retail market access.
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Appendix 1: Biographies of the Expert Panel Members

Jo Benvenuti

Jo is an experienced consultant across a range of consumer matters, specialising in consumer engagement and energy and water policy.

Jo is currently a sole trade consultant, as well as a Director at Gippsland Water and a Panel Member of the Energy National Cabinet Reform Committee Independent Selection Panel.

As part of her consulting work, Jo produced a 2016 research report on embedded networks for the Energy and Water Ombudsmen of SA, NSW and Victoria. The research report examined the applicability of ombudsman jurisdiction for Australian energy consumers in the midst of energy market reform and innovation, with particular focus on identifying energy transactions that fall outside of the jurisdiction of ombudsmen schemes.

During 2016-17, Jo provided consultancy services to the Consumer Policy and Research Centre on embedded networks.

Prior to her current roles, Jo was the Chair of the Consumers' Federation of Australia from 2013 to 2015 and Executive Officer of the Consumer Utilities Advocacy Centre from 2008 to 2015. Jo has previously held executive positions for the Energy and Water Ombudsman Victoria and RSPCA Victoria.

Jo holds a Higher Diploma of Teaching Secondary from the Melbourne College of Education and a Graduate Diploma in Public Policy from the University of Melbourne.

Gerard Brody

Gerard has been the CEO of the Consumer Action Law Centre for more than six years and is a leading consumer rights advocate and lawyer. Prior to his role as CEO, he spent around ten years in various policy officer, solicitor and management roles at both the Consumer Action Law Centre and the Brotherhood of St Laurence.

Gerard has also held the role of Chairperson at the Consumers' Federation of Australia for the past four years.

Gerard has represented consumers on a number of bodies, including the ACCC's Consumer Consultative Committee, the Australian Securities and Investments Commission's Consumer Advisory Panel and the Australian Energy Regulator's Customer Consultative Group.

Gerard holds a Bachelor of Laws and Bachelor of Arts (both with Honours) from the University of Melbourne and also holds a Master of Public Policy and Management from the University of Melbourne.

Neil Gibbs

Following a career in global energy markets, Neil now actively supports the decarbonisation of the electricity system, specialising in the evolution of technology, business models, regulation and markets at the "grid edge" – harnessing the value of innovation and customer engagement to deliver secure, reliable, affordable and low-emissions energy and services. His core skills are in strategy development, the art of building organisational support for change, and the diligence of strategy execution.

He is the Founder & Principal of OnLine Power, a boutique advisory firm serving the Australian energy industry. He is also Co-Chair of the Clean Energy Council's Distributed Energy Leadership Forum, and is currently engaged to support the Energy Security Board's Post 2025 Electricity Market Redesign process with a focus on Distributed Energy Resource markets. His previous roles include as the Founding Chair of both GreenSync and i.n. concepts, Founder & CEO of Marchmont Hill Consulting, VP for AT Kearney (Asia Pacific Energy), VP for Cap Gemini Ernst & Young, and Global Energy Practice leader for PA Consulting Group.

Andrea Steele

Andrea is a lawyer who specialises in providing legal, regulatory, compliance and energy-related strata law advice to the Australian electricity and gas sectors.

Andrea is currently a Principal Consultant at ENRG Consulting, which specialises in providing advice to the Australian energy sector – with a particular focus on the embedded network industry.

Between 2012 and March 2019, Andrea worked in-house at WINconnect, an embedded electricity network provider in Australia, as an Executive General Manager and General Counsel. Andrea advised WINconnect on their retail electricity and gas operations, embedded network, hot water and solar businesses.

Andrea's key focus and capabilities include advice relating to the national electricity and gas markets and their respective regulatory frameworks, including how the regulatory instruments apply in these markets.

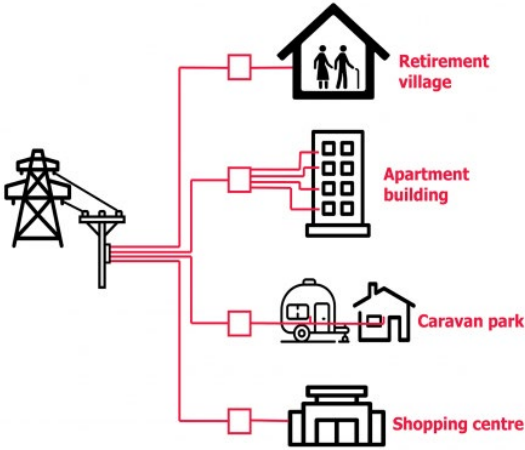
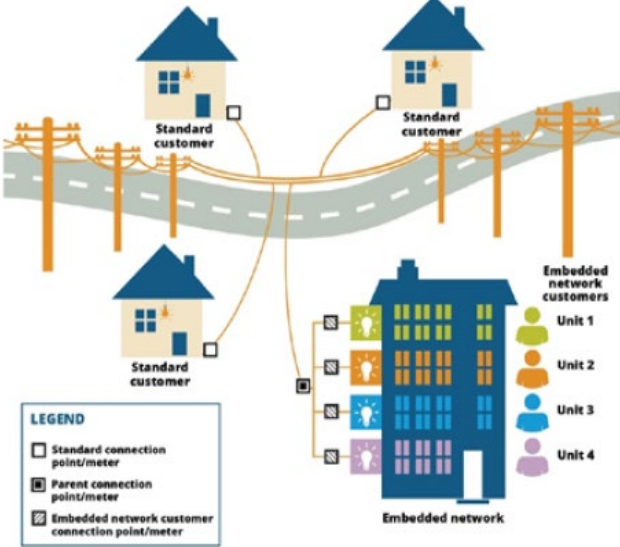
Andrea holds Bachelor's degrees of Law and Commerce from Bond University. In addition, Andrea holds a Masters of Laws (International Banking & Finance and European Law) and a Masters of Legal Practice.

Appendix 2: The current embedded network landscape

What is an embedded network?

Embedded networks are private electricity networks that serve multiple customer premises (or lots) within a building or self-contained site. Generally, embedded networks are established via a parent meter connection to the electricity grid, with child meters measuring the consumption for individual residences (or shops in a commercial setting) internally within the embedded network.

They are common in multiple occupancy developments, such as apartment blocks, retirement villages, social housing, caravan parks and shopping centres.

Figure 5 Types of embedded networks 	Figure 6 Comparison of standard supply arrangements and embedded networks 
Source: ESC Maximum prices for embedded networks⁶⁶	Source: AEMC Updating the regulatory frameworks for embedded networks Final Report⁶⁷

Embedded networks operate in a unique space from the regulatory perspective.

In Victoria, a party that supplies and/or sells electricity to customers in embedded networks is often called an ‘exempt person’, because it is exempt from the normal requirement under section 16 of the *Electricity Industry Act 2000* (EIA) to hold a licence to sell, supply or distribute electricity.

The activities that are exempt from the requirement to hold a licence under the EIA are set out in the *General Exemption Order 2017* (GEO).⁶⁸

⁶⁶ Essential Services Commission (ESC), Maximum electricity prices for embedded networks and other exempt sellers review 2020, 2020. <https://www.esc.vic.gov.au/electricity-and-gas/prices-tariffs-and-benchmarks/embedded-network-tariffs-including-caravan-parks/maximum-electricity-prices-embedded-networks-and-other-exempt-sellers-review-2020>

⁶⁷ Australian Energy Market Commission (AEMC), *Updating the regulatory frameworks for embedded networks, Final Report*, 2019, p 11. <https://www.aemc.gov.au/sites/default/files/2019-06/Updating%20the%20regulatory%20frameworks%20for%20embedded%20networks%20-%20FINAL%20REPORT.PDF>

⁶⁸ The current GEO is dated 15 November 2017 and was made under s 17 of the EIA, which enables the Governor-in-Council to create an Order specifying conditions for an exemption from the requirement to obtain a licence.

The GEO has three broad categories of exemptions:

- retail exemptions
- distribution exemptions
- generation and multiple activity exemptions.

While persons covered by the GEO may be exempt from the legal requirement to hold a licence, this does not mean that they are exempt from regulation.⁶⁹

When the GEO was originally established, it was designed to cover the incidental sale and supply of electricity where this was not the core business of the person or entity selling or supplying that electricity. At that time, there were not many consumers living within embedded networks.

Due to the absence of clear and transparent information about embedded networks generally, it is difficult to establish actual numbers of embedded network sites or affected consumers. However, it is known that the nature of housing in Victoria has changed over time, with an increasing number of people living in multiple occupancy developments such as apartment buildings and retirement villages. As a result, as at March 2021, more than 131,000 consumers⁷⁰ reside in over 1,500 embedded network sites registered with the ESC.⁷¹ It is clear the sector has matured with many operators now selling and supplying electricity and/or other services into these embedded networks as their primary business.

The Panel acknowledges there are differences in the physical infrastructure in an embedded network compared to a standard grid-connection, and this can sometimes mean that obligations applicable to standard licensed retailers or distributors are not appropriate for embedded networks (for example, marketing protections).

Despite these differences, the Victorian Government is committed to improving outcomes for consumers living in embedded networks. Recent policy and regulatory improvements for residents of embedded networks include setting the Victorian Default Offer (VDO) as the maximum price cap and providing most embedded network customers with access to free and independent dispute resolution via the Energy and Water Ombudsman (Victoria) (EWOV). For further information on how an embedded network is configured and the key development phases in the lifecycle of an embedded network, please refer to the [Issues Paper](#).

⁶⁹ For details on a range of obligations on exempt persons, see ESC, *Embedded Electricity Networks: Exempt Providers' Obligations in Victoria* (Commission Guidance).

⁷⁰ According to the ESC, as at March 2021 (the most up-to-date data available), 131,000 consumers are being billed by embedded networks, while over 142,000 consumers are supplied by embedded networks. However, the actual number of consumers who are billed and supplied by embedded networks is likely to be higher because not all embedded networks are required to be registered. Therefore, the ESC data is only an indication of the total number of embedded network customers.

⁷¹ ESC, Embedded electricity network data and customer numbers, 2021. <https://www.esc.vic.gov.au/electricity-and-gas/licences-and-exemptions/electricity-licensing-exemptions/embedded-electricity-network-data-and-customer-numbers>

Appendix 3: Glossary of terms

Term	Description
Centrepay	A Centrelink service where regular bills, such as rent, electricity and phone are paid directly from a person's Centrelink payment. The Centrelink recipient must give permission for this to occur, and it is only available for bills owed to approved businesses.
Child connection point	A connection point that connects to the parent meter and measures the consumption for individual residences (or shops in a commercial setting) within the embedded network.
Community energy project	A project where a community of people develops, delivers and derives benefits from sustainable energy, including renewable energy, in terms of the installation, generation and storage of sustainable energy.
<i>Electricity Industry Act 2000</i> (EIA)	This Act regulates the Victorian electricity supply industry. It prohibits persons from generating, transmitting, distributing, supplying or selling electricity without either holding a licence from the Essential Services Commission of Victoria, or being exempted from the requirement to obtain a licence.
Embedded network	A distribution system connected at a parent connection point to either a distribution system or transmission system that forms part of the national grid and which is owned, controlled or operated by a person who is not a network service provider. For the purposes of the Review and the recommendations, an embedded network is an existing network that was built before the recommendations are implemented.
Embedded network operator	Operates the embedded network, including purchasing electricity from licensed retailers and billing individual customers within the embedded network.
Embedded network owner	Owns the site of the embedded network, and can purchase electricity from a licensed retailer.
<i>Energy Retail Code</i> (ERC)	A code that sets out the rules which electricity and gas retailers and exempt persons must follow when selling energy to Victorian customers.
Essential Services Commission (ESC)	Victoria's economic regulator of essential utility services.
Energy and Water Ombudsman (Victoria) (EWOV)	A free and independent dispute resolution service for Victorian energy and water customers.
Exempt person	A person who is exempt from holding a licence under section 16 of the <i>Electricity Industry Act 2000</i> (EIA) to engage in certain activities as set out in the General Exemption Order.
General Exemption Order (GEO)	An order made under section 17 of the EIA that outlines the terms and conditions under which an electricity supplier can operate without a licence.

Local energy network	Once the recommendations are implemented and the ESC has approved registration (or updated registration) or an LES licence, new and existing networks will be referred to as a 'local energy networks'.
Local Energy Service (LES) Licence	A proposed new licence category for local energy network providers. Licensing conditions will require renewable energy and/or other clean energy technology and the benefits from this to be demonstrably passed on to customers. Once the new LES licensing framework is in place, anyone who supplies and sells electricity in new residential sites containing a local energy network (including apartment buildings, social housing, retirement villages and residential parks) must obtain a specific LES licence from the ESC.
Microgrid	A small energy system that efficiently manages the supply and demand of electricity from local sources of generation and storage for end-user consumption. Often microgrids will be able to operate in an "islanded" mode, where they can operate independently of the grid. Commonly, this back-up function is enabled via fossil fuel generation (gas or diesel).
Multiple activity exemption	An exemption for a provider that generates, distributes and/or sells electricity at a site. This can include solar power purchase agreement providers and community energy projects. See also Part 4 of the GEO 2017 for the multiple activity exemptions.
National Electricity Market (NEM)	A synchronous electricity grid comprising of transmission lines and cables connecting most states and territories in Australia, to create a national wholesale electricity market operated by the Australian Energy Market Operator (AEMO).
On-market customers	Those who are connected directly to the electricity grid and not part of an embedded network. On-market customers are serviced by licensed retailers and distributors.
Parent connection point (also known as parent meter or gate meter)	The connection point between the distribution network and the individual child meters in an embedded network.
Renewable or clean energy	For the purposes of the Review and recommendations, these terms are used to describe renewable or clean energy options or technologies that help with carbon emission reduction in line with Victorian Government policy. Examples include, but are not limited to, renewable energy generation options (such as solar photovoltaics), energy storage and batteries, energy efficiency, demand management and smart systems, and/or enabling purchase of energy using renewable sources from the market. These terms are technology neutral, in line with the principles underpinning the Review to enable future-proofing of the system.
Retailer of Last Resort (ROLR) event	An event that triggers the operation of the Retailer of Last Resort scheme under the EIA and/or the National Energy Retail Law, whereby the right to buy or sell electricity or gas is revoked.
Third-party service provider	A utility service provider that buys and sells energy to end-user consumers.
Victorian Default Offer (VDO)	A simple, trusted and fair electricity price regulated by the ESC that safeguards residential and small business customers who may be unable or unwilling to engage in the Victorian electricity retail market.

Appendix 4: Summary of stakeholder submissions on the Draft Report

The Expert Panel – Embedded Networks Review (Panel) released a Draft Recommendations Report (Draft Report) in June 2021, seeking industry and community feedback to the identified issues and questions posed. The Draft Report was released through the Government’s online consultation platform, Engage Victoria.

The Panel held a Draft Report webinar on 22 July 2021. There were 67 participants for the webinar. Submissions on the Draft Report closed on 6 August 2021.

DELWP received 50 responses to the Draft Report, including answers to short and long questionnaires as well as written submissions. The responses were from a broad range of stakeholders:

- 16 individual consumers (30.6%)
- 3 consumer advocacy groups (6.1%)
- 24 industry stakeholders (including embedded network operators, energy retailers, distributors and industry groups) (49%)
- 7 others including local government, Energy and Water Ombudsman (Victoria) (EWOV), Australian Energy Market Operator, Energy Safe Victoria, Green Tech and Monash University (14.3%).

Overview and key points from submissions

Overall, submissions from stakeholders broadly support implementing changes to improve embedded network customers’ access to competitive retail offers, consumer protections and concessions.

There was also broad support from stakeholders, including industry and consumers, for the proposed licensing scheme for Local Energy Service (LES) providers. The submissions showed general support for the renewable or clean energy obligations. However, some submissions queried who would pay for the cost of infrastructure upgrades in legacy (existing) embedded networks to meet the renewable energy obligations and a number of submissions highlighted the need for clarity around the renewable energy obligations.

Stakeholders were also concerned about the lack of transparency around bundled services, flagging that bundled services could be used as a profit-making exercise by providers. On these points, the submissions highlighted that the recommendations should be prescriptive enough to address these issues.

There was stakeholder divergence on some other points, particularly on timeframes for retrofitting legacy (existing) embedded networks. Submissions suggested various timeframes for retrofitting of legacy (existing) embedded networks, ranging from those who support immediate implementation to those who support more extended timeframes.

What we did with stakeholder feedback

Submissions covered the full range of issues, topics and recommendations in the Draft Report.

All the submissions were reviewed and key points in each submission were categorised against the relevant recommendations and into thematic areas.⁷²

Together with the stakeholder feedback from the Issues Paper, the feedback from the Draft Report was used to refine the Panel’s final recommendations and to develop the Final Recommendations Report (Final Report).

⁷² Stakeholder quotes from submissions are as provided to the Review, including any grammatical or spelling errors.

Key feedback themes

1. Transition to a 'local energy service' (LES) licensing framework

"SCA (Vic) broadly supports the establishment of a new licensing category for energy providers selling into private networks in the Local Energy Service (LES) designation, especially where this relates to the protection of consumers wishing to stay in existing embedded networks." – Strata Community Association (Vic)

"The current lack of regulatory oversight and monitoring for embedded networks has resulted in unequal treatment of embedded network customers compared to on-market customers in Victoria. We support the expansion of the licensing framework under the Electricity Industry Act 2000 (EIA) to include a new category for 'Local Energy Service' (LES) providers. The licensing framework and obligations enhance customer protections and sets a higher standard for compliance and enables more enforcement opportunities by regulators." – Citipower, Powercor & United Energy

"Given the nature of energy as an essential service, it is appropriate to do away with exemptions for businesses supplying and selling energy in private networks and instead require these providers to obtain a licence from the ESC, which requires them to demonstrate that they possess the capacity to deliver services." – Consumer Action Law Centre

"Government needs to treat embedded networks like the normal electricity market so that customer benefits such concessions and rebates can be applied regardless of how the customer is connected." – Embedded network customer, Owners Corporation Committee Member

"City of Melbourne supports the establishment of a licensing scheme through the proposed 'Local Energy Service' (LES). We believe such a scheme would help create a clearer regulatory environment for private network operators to navigate and better ensure the benefits are passed onto consumers." – City of Melbourne

"The Group supports the creation of a licensing framework for embedded network operators that replaces the current exemption framework to improve consumer protections. This framework should be harmonised with the proposed AEMC Embedded Network Framework and rule changes proposed in Updating the regulatory frameworks for embedded networks." – Embedded Network Industry Action Group

"As Real Utilities is already a licenced energy retailer by the ESC, adoption of the LES is not considered to enhance the protections, benefits and access to competition already provided to our customers." – Real Utilities

What we heard

Overall, there was broad support from stakeholders, including industry and consumer representatives, for the proposed licensing scheme for LES providers. The reasons provided in the submissions for supporting the licensing framework are aligned with the vision of the Panel and were reaffirmed throughout the submissions.

Submissions supported the proposed LES licensing framework because it:

- a. Provides greater consumer protections, that match protections afforded to on-market customers
- b. Provides a strengthened regulatory regime (compliance, monitoring and enforcement) to ensure quality service, greater reliability of service and greater protections for consumers
- c. Protects consumers with access to independent dispute resolution through EWOV
- d. Empowers consumers of embedded networks (which will subsequently be referred to as 'local energy networks'), including vulnerable consumers, with greater choice of retailers, price and access to market offers, including renewable energy options or an 'ethical' retailer
- e. Removes the risk of local energy network customers being stranded indefinitely inside a local energy network

- f. Facilitates energy costs savings from renewable energy to be passed onto customers by incentivising the use of renewable energy
- g. Provides consumers with the ability to contribute to protecting the environment (i.e. wider, non-economic benefits).

A large proportion of the submissions raised the issue of vulnerable consumers who are being disadvantaged in the current framework and viewed the proposed move to LES licensing as a step to address this gap. Stakeholders are supportive of a transitional approach to implement the ban, initially via a revised General Exemption Order (GEO) followed by a new licensing regime.

While supporting the move to a licensing regime, some stakeholders also noted the need to align changes as closely as possible to the proposed Australian Energy Market Commission (AEMC) changes to reduce potential differences in the national and Victorian regulatory obligations.

Some stakeholders indicated replacing the exemptions framework with licensing would not provide benefits to consumers. Some providers noted they were already licensed and so already provide protections aligned with licensing requirements to their customers or raised concerns that a move to licensing would entrench existing anti-competitive behaviours.

Our response

The Panel has maintained its recommendation of introducing a licensing framework for new local energy networks, to give effect to the election commitment and to ensure equity and fairness for customers. The Panel is aware of the challenges for current embedded network operators to transition to a new licensing framework and has devised short and long-term transition processes.

Despite some criticisms of the proposed move to licensing, the Panel maintains its view, supported by most stakeholders, that a move to a fit-for-purpose LES licensing regime is the most appropriate way to ensure parity in customer protections and effective monitoring, compliance and enforcement for local energy networks.

In the short-term, a revised GEO will require legacy (existing) embedded networks to update their exemption registration with the Essential Services Commission (ESC) by 31 December 2022, declaring that they are able to comply with relevant requirements, including meeting a renewable energy requirement by 2027.

To give long-term and ongoing effect to the ban, the *Electricity Industry Act 2000* will be amended to enable licensing of LES providers. Under both the revised GEO and the licensing framework, LES providers must satisfy conditions requiring them to ensure equal customer protections and demonstrate that benefits of renewable or clean energy will be regularly passed on to consumers.

2. The Panel's more expansive approach to renewable energy

"We are also supportive of the Panel's decision to focus on requirements for private networks to incorporate 'renewable and clean energy technology', rather than limiting to microgrids. This is a sensible decision, which will allow the definition to encompass new and evolving technologies in future." – Consumer Action Law Centre

"We support the proposed requirements that LES providers demonstrate renewable/clean technology solutions and how these will benefit consumers through bulk purchasing or installation. We consider these new requirements will support greater benefits for embedded network customers as well as serving the Government's policy intent to support the continued development of microgrids." – AGL Energy

"We strongly support the proposal to introduce a positive scheme of regulation for 'Local Energy Services', and support in principle the proposed scope of the scheme to authorise 'renewable or clean energy options or technologies that help with carbon emission reduction' in line with Government policy." – Monash University

"Our view is that the requirements of installation of renewable or clean energy and the licensing of the sale of energy within an embedded network should not be intermingled. Any renewable or clean energy technology

requirement should be site specific and, given the rapid development of new technologies, should be technology neutral.” – WINConnect

“Our preference is that the minimum requirements are very clearly defined to ensure that embedded network providers understand the expectations from the beginning and the objectives of this market transformation are delivered soundly and not exploited due to ambiguity in the rules.” – Energy Locals

What we heard

The submissions showed strong support for the more expansive interpretation and approach to renewable energy, extending beyond the original concept of ‘microgrids’. For example, the City of Melbourne, the Consumer Action Law Centre and AGL acknowledged the benefits of this approach.

In their view, the inclusion of a range of renewable energy options and clean energy technologies will allow for:

- future technological evolution
- acceleration of renewable energy uptake
- reduced carbon emissions.

These aims were also widely supported by other submissions.

Monash University also emphasised the importance of the scheme authorising the “full range of activities involved” to provide a Local Energy Service, and so that activities are not defined in such a way as to create a barrier to distributed clean energy technologies.

The submissions were very supportive of the suggested approach to licensing (LES scheme), despite additional costs that might result from the renewable energy requirement.

Stakeholders consistently asked for greater guidance and clarity around how an LES licensee (and an exempt person under a revised GEO) could satisfy the renewable or clean energy requirement, with a small number of submissions providing indicative measurement thresholds. In particular, these submissions asked for clarity around:

- How the renewable energy requirement would be measured and demonstrated
- How benefits would be passed onto consumers
- How retrofitting costs would be covered.

Some of the submissions were less concerned about how the benefit sharing would be demonstrated, but were adamant that the incentive to “go green” be implemented. Many of the submissions flagged the challenge of showing benefit sharing and agreed that requiring a renewable energy component was a step in the right direction, irrespective of how effectively it could be shown.

Suggestions were made as to what kind of renewable energy requirement might reasonably and practically be implemented for local energy networks, with some submissions providing potential thresholds. The submissions also emphasised that cost limitations and physical space limitations must be considered in the Panel’s final recommendations.

Our response

The Panel heard stakeholder support for a more expansive approach to renewable energy that extends beyond microgrids. The Panel is also aware of the Government’s commitment to encourage renewable energy uptake and wider technology innovations as a key pillar of Victoria’s approach to carbon emissions reduction.

The Panel has maintained its broader, technology-neutral approach to renewable energy and has recommended that new residential local energy networks can only operate if they can demonstrate that 50% or more of electricity consumed at the site is met by on-site renewable sources, in line with the 2030 Victorian Renewable Energy Target (VRET).

3. Implications for legacy (existing) embedded networks

“The best solution to disgruntled customers is to allow frictionless exit from embedded networks.” – Embedded Network Industry Action Group

“We support this proposal and the timeframes outlined. We consider the move to a licence to be a necessary step to providing a baseline for consumers within the energy market to access equivalent rights and protections (including access to external dispute resolution) regardless of the way their energy is delivered.” – EWOV

“As a mere ancillary service, VicParks rejects the proposed implementation of a further and additional layer of regulation and compliance with the introduction of a Local Energy Service license. This additional regulation creates another layer of complexity for a sector already overwhelmed with regulation for no discernible customer benefit within the caravan park sector.” – Victorian Caravan Parks Association

What we heard

Generally, there was broad support from stakeholders, including industry and consumers, to transition legacy (existing) embedded networks into a new LES licensing framework. A minority of stakeholders did not support this transition.

Embedded network customers expressed concern at the prospect of any delay in being able to choose their preferred retailer. Consistent with submissions received on the Issues Paper, embedded network customers once again expressed feelings of being ‘trapped by unmotivated, irresponsible or underhanded energy providers and unable to act or get help’. Individual consumers expressed the view that existing embedded networks should transition sooner rather than later. One consumer suggested 18 months and believes that there has already been sufficient time for the industry to plan for a transition.

Whilst there are some differences of opinion in how legacy (existing) embedded networks could be transitioned into a new LES licensing regime, industry and consumer stakeholders support improved access to market competition and customers having a practical (not just theoretical) choice of retailer. Generally, industry and consumer stakeholders also support any upgrade for legacy (existing) metering to be consistent with national standards and current requirements.

In terms of a possible timeframe for retrofitting non-compliant metering infrastructure, there was not a consensus view. Suggestions from stakeholders ranged from: 1) as soon as possible; 2) between 12 and 24 months; 3) within 3 years; 4) within 5 years; to 5) ‘at a meter’s end-of-life’.

The most common stakeholder preference came from industry for a maximum timeframe of ‘3 years after obtaining a LES licence’. This preference supports, and is aligned with, the Panel’s vision. Consumer advocates were concerned that an extended period of time of 5, 10 or 15 years (at a meter’s end-of-life) may not be in the best interests of some vulnerable consumers. These are consumers who – depending on their financial position, age, health and wellbeing – may be trapped in an embedded network until they relocate or die.

Some industry stakeholders noted that the cost to retrofit metering assets may be high and perhaps beyond what some small, older legacy (existing) sites could afford to pay. Industry stakeholder submissions also sought further information on how metering upgrades could be funded. Further, some industry submissions noted potential high costs associated with requiring infrastructure upgrades in legacy (existing) sites (required to support full access to retail choice for customers in those networks).

Individual consumers and consumer advocates highlighted that metering upgrade costs should not flow on to consumers, but should be shared fairly among all relevant parties, or paid by industry. Industry stakeholders generally noted that costs should be shared rather than being borne solely by industry.

Our response

The Panel recommends that legacy (existing) embedded networks update their exemption registration with the ESC by 31 December 2022, declaring that they are able to comply with relevant requirements, including the ability to meet the renewable energy requirement within three years after the LES licencing framework is established (i.e. by 2027).

Legacy (existing) embedded networks that do not update their registration after the cut-off date of 31 December 2022 will be subject to the same regulatory requirements as new local energy networks.

There will be three implementation pathways for how new and legacy (existing) embedded networks will be regulated.

Whether a site is classified as ‘new’ or ‘legacy’ will depend on registration by the cut-off date as described below:

- For new residential sites, the embedded network will be banned if the operator cannot meet the on-site renewable energy generation requirement. This means customers must be grid-connected, so they can access standard retail market offers and customer protections.
- For new residential sites, if the operator can meet the on-site renewable energy generation requirement, a local energy network will be allowed, with improved consumer protections, retail choice and regulatory oversight.
- Legacy (existing) embedded networks can continue to operate, with stronger obligations imposed on the operator. This means customers will have additional customer protections, choice of retailer and pathways to renewable energy.

4. Consumer protections and dispute resolution

“We welcome enhancements to customer access to independent dispute resolution. Complaints about embedded network operators that aren’t EWOV members continue to comprise a significant proportion of our out of jurisdiction cases. In 2020/21, they accounted for 17% for all such cases, which was a 2% increase on the preceding financial calendar year and second only to solar installations, which accounted for 30% ... we are cognisant of the need to ensure all Victorian consumers have access to consumer protections (including access to external dispute resolution) regardless of their energy choices. This is a necessary and time critical next step.”
– EWOV

“HAAG has heard reports of older residents of retirement villages knowing they are eligible for concessions or rebate but being unable to navigate the user-unfriendly system. Some people reported giving up and missing out on financial assistance they have a right to. Others reported that they were the only resident in their village with a computer and the digital literacy skills, so had to go through the process for all her neighbours. Concessions should be applied automatically, and embedded network providers should be obliged to disclose to customers concessions information.” – Housing for the Aged Action Group

“EnergyAustralia supports the general principle that all consumers should have the same or equivalent protections no matter where they reside. We support an uplift in consumer protections for private network customers, where it makes sense.” – EnergyAustralia

“The AEC and its membership support an improved consumer protection regime for embedded networks, and equivalent consumer protections for both benefit of customers and a level playing field for providers. Consistency of business requirements helps make the delivery of consumer protection at lowest operating costs (that are ultimately borne by consumers) whilst still delivering equivalent outcomes.” – AEC

What we heard

Similar to the consultation process on the Panel's Issues Paper, embedded network customers expressed a high level of distress and frustration relating to living in embedded networks.

Consumers shared their experiences about feeling 'trapped' in an arrangement which they variously described as 'demoralising', 'not right nor fair', 'anti-competitive' and lacking transparency, where they are forced to pay high energy rates with no say or input.

In principle, most stakeholders are strongly supportive of consumers having the same or equivalent protections as on-market customers, including access to independent dispute resolution services.

Consumer groups also noted the need for stronger protections for vulnerable consumers living in retirement villages and caravan parks, where there are commonly unequal power dynamics between village or park operators and residents.

Our response

The Panel recognises the need for enhanced consumer protections to be implemented as soon as practicable and therefore suggests that the Government align obligations for exempt persons under the GEO with licensed retailer and distributor obligations.

The Panel also recommends extending consumer protections to all local energy network customers in addition to social housing, retirement village and residential park customers, so that they have equivalent rights to on-market customers.

In terms of dispute resolution requirements, the Panel recommends that the GEO be amended to ensure that all local energy network customers have access to independent dispute resolution services. Under a revised GEO and new licensing framework, a local energy network will need to disclose to customers what protections customers are entitled to upon entering a contract, and on an annual basis.

5. Bundled services

"As these are essential services, there is a need for strong consumer protections. Consumers should have transparency with regards to each item they are being billed for. These bundled services should be individually metered otherwise there is no incentive to reduce usage."
– Embedded network customer

"I just moved into a building with an embedded network. I was appalled to find out I have no choice about any of my energy contracts. On the phone to the energy company I said 'what's the point of asking me to consent to this contract?' and they confirmed that I have no choice. It is very hard to compare the cost of what I'm getting with other options, but there's no point anyway. Let alone the possibility of choosing green energy, which I would have done. If this happened in another country we would call it what it is, a scam. Even if hot water is centralised in the building, what possible reason is there for bundling electricity and giving me no choice about how I obtain it? When these utilities were privatised the point was for 'consumers' to have 'choice' in a 'free market'. But of course what private operators like best is when consumers have no choice." – Embedded network customer

"All bundled services and service providers should be brought under the purview of the ombudsperson enabling anyone who is currently living with a bundled service an avenue of support and complaint should they experience any issues" – Embedded network customer

"HAAG supports the recommendation that bundled services should be regulated ... HAAG commonly hears from RAAG members and HAAG clients living in retirement villages, residential parks and caravan parks that they often do not know what they are being charged, what the service is providing specifically, and how much the village is purchasing and on-selling the electricity for. This causes stress and mistrust." – Housing for the Aged Action Group

“EnergyAustralia strongly agrees with the Panel’s intent to ensure that Private Networks do not seek to “cross subsidise” by price gouging bundled services in response to the regulation of electricity prices in Private Networks via the VDO or increased retail competition. However, we do not consider that setting regulated prices for bundled services is the most effective means to address this risk.” – EnergyAustralia

“Origin believes that services such as bulk hot water, bulk heating/cooling and unmetered gas cooktops are independent services (for Origin products) and cannot be considered 'bundled' services or 'embedded networks.'” – Origin

“We have received complaints from embedded network customers living in apartments that are fitted with a centralised air-conditioning and heating system, known as Variable Refrigerant Volume (VRV). These remain outside our jurisdiction ... Customers can be disconnected from VRV for non-payment. VRV is not contestable, meaning customers cannot transfer to a licensed energy retailer. We believe that bulk hot-water, unmetered gas for cooktops and the VRV arrangement constitute an ongoing energy supply relationship between seller and customer, which should be adequately regulated, including giving the customer access to EWOV. Without change, there is a stranded section of customers that receive energy bills that are not covered by any regulation.” – EWOV

What we heard

Submissions showed strong support for the proposed regulation of bundled services, although there were some submissions which either did not agree with the need to regulate these services or suggested it would be difficult to do so. Those stakeholders in support of additional regulation of bundled services agreed that the proposed approach would lead to greater transparency and consumer protections.

Providing consumers with the ability to make informed decisions about the kind of bundled service arrangement for their rental contract or property purchase was viewed favourably.

Stakeholders agreed that reforms should provide adequate information disclosure about the existence, and type, of bundled services when first renting or purchasing a property, as well as greater billing transparency for bundled services.

Our response

The unregulated nature of bundled services (including bulk hot-water, bulk heating/cooling and unmetered gas cooktops) remains a challenging area of concern for the Panel, who believe that energy is an essential service no matter where a customer lives, or how they receive their energy.

The Panel recommends that the Government determine how to best ensure that there is no longer a secondary, separate treatment for customers receiving these services.

A fit-for-purpose monitoring, compliance and enforcement framework should therefore be considered by the Government to address the lack of consumer protection and access to independent dispute resolution for these services as well as the issue of high costs for monopoly bundled services.

6. Enhancing the ESC’s enforcement powers

“On both this issue and the related need for a more robust compliance and enforcement regime for embedded networks more generally, VCOS notes that this Review has established a solid foundation for further work by relevant Victorian agencies.” – Victorian Council of Social Services

“Equal monitoring, compliance and enforcement mechanisms for private networks in line with on-market licensed providers will prove beneficial to consumers within said networks.” – Strata Community Association Victoria

“From what I have been able to learn, there is too little power in the hands of any regulatory body to enforce companies to do what they are supposed to do.” – Embedded network customer

“We agree that the ESC should be empowered with effective investigative and enforcement powers as well as options to act against non-compliant embedded networks as is the case with distribution and retail businesses.” – AGL Energy

“We support the enhancement of any enforcement powers for the ESCV in regulating the GEO to be the same as those available to it in regulating licenced retailers and distributors in Victoria.” – WINConnect

What we heard

Stakeholders responded positively to the proposed recommendation to ensure the ESC's monitoring, compliance and enforcement for local energy networks is robust and aligned with the ESC's existing regulatory framework for standard energy providers. Local government stakeholders view the current regulatory framework as no longer fit-for-purpose, with regulators having an insufficient ability to appropriately address instances of bad industry behaviour.

Some industry stakeholders also agreed that a lack of strong monitoring, compliance and enforcement powers has inadvertently led to instances where embedded network operators are not always aware of their obligations.

Suggestions to address this issue included ensuring the ESC has sufficient information-gathering, auditing and reporting powers. It was additionally emphasised that the ESC's oversight regime should be 'comprehensive and robust' and 'mirror the obligations under the Retail Licence'.

Our response

The Panel supports the ESC having recently been granted stronger compliance and enforcement powers under the Government's Energy Fairness Plan. These powers grant the ESC the ability to collect information and data from the industry, to address the issue of a lack of transparency in the market.

In order for the ESC to exercise these new powers, the Panel believes that the ESC should also be sufficiently resourced by Government.

7. Access to competitive retail offers

“Even in the case of a well-functioning private network delivering benefits to consumers, people should have the right to opt-out and seek an alternative if they so choose. Not only do many consumers view this ability to exercise choice important in and of itself (as evidenced by the number of consumers submissions to this effect in response to the Issues Paper), but the ability to easily access the retail market incentivises future LES holders to deliver value to consumers in order to retain their business.” – Consumer Action Law Centre

“The Group supports a ban on all embedded networks that do not provide frictionless access to retail competition.” – Embedded Network Industry Action Group

“To further advance access to retail market competition, require that all legacy embedded network metering and internal infrastructure be upgraded to market grade by 2024 by mandating that embedded network operators submit upgrade programs to the Essential Services Commission (ESC) for approval.” – AGL Energy

“HAAG is in support of all people in an embedded network having the practical, not just theoretical capacity to choose their preferred retailer.” – Housing for the Aged Action Group

“It is incredibly stressful being trapped by unmotivated, irresponsible or underhanded energy providers and unable to act or get help.” – Embedded network customer

“The Electric Vehicle Council is concerned that Recommendations 8 and 9 of the Draft Recommendations Report could be read to require that supply to a residents’ EV charger in an apartment complex be made only via an on-market meter, which would significantly increase the minimum cost to the resident both up-front and ongoing and decrease the choice for the building in terms of how they operate EV charging.” – Electric Vehicle Council

What we heard

Generally, stakeholders were supportive of improved access to the retail market and competitive offers, including both industry and consumer representatives. Consumers in particular reiterated that they should be able to move to an on-market retailer or stay with the embedded network, but that the choice should be theirs.

Industry stakeholders were broadly supportive of providing a single bill for embedded networks. However, one stakeholder noted non-standard embedded network billing arrangements as a barrier for customers accessing retail competition.

A customer’s ability to choose their preferred retailer was also cited as being a basic consumer right that should be extended to embedded network customers. One suggested approach to address this challenge was allowing meter readers to facilitate the provision of meter data to retailers. Stakeholders also highlighted the risk of churn and urged the Panel to consider the implications of placing new obligations on providers.

The Electric Vehicle Council raised concerns that the recommendations about retail market access could be an impediment to electric vehicle uptake if applied to electric vehicle (EV) chargers.

Our response

To address customer views regarding a lack of access to competitive retail offers, the Panel has maintained its recommendations that all local energy network customers should have unfettered access to the retail market.

The Panel also maintains that metering, or any other legacy (existing) local energy network infrastructure should be retrofitted to enable customer access to the retail market, without direct costs flowing on to customers. The changes required to enable retail market access should be timely.

8. Mitigating disruption of supply due to failure of an embedded network

“Origin supports the proposed recommendations and implementation strategy. We agree that the prospect of retailer failure presents significant risks to embedded customers. Continuity of supply is critical for customers and it is important that any arrangement is coordinated and seamless and results in minimal customer impact.” – Origin

“We would be supportive of a system similar to the Retailer of Last (ROLR) process. Extending the ROLR process that currently applies to licensed retailers to embedded networks would appear a plausible solution to ensure continuity of supply for customers.” – EWOV

“We support the creation of a LES of last resort.” – Citipower, Powercor & United Energy

What we heard

Stakeholders were supportive of the recommendation and implementation mechanisms for mitigating the disruption of supply in the event of an embedded network failure.

Submissions from distribution businesses noted how financial pressures experienced by some embedded network operators has led to customer uncertainty, particularly regarding an embedded network operator’s

ability to ensure a secure and continuous electricity supply. Minimising this risk by creating a 'LES of last resort' (similar to the current retailer of last resort scheme) was supported.

One industry stakeholder suggestion for how to mitigate this risk is to appoint a licenced retailer capable of servicing a local energy network to supply the parent meter and therefore, the end customer.

The ESC was recognised as being the appropriate regulator for appointing a LES of last resort to step in and supply and sell electricity if an operator fails. Submissions noted that the Panel should consider the regulatory gaps for the ESC to ensure it can sufficiently fulfil this role.

Our response

To mitigate concerns of a possible local energy network failure to supply electricity to its customers, the Panel has maintained its recommendation that the ESC be granted powers to assign a provider to deliver these services.

This will ensure that continuity of supply is safeguarded, and customers are protected from supply disruptions outside their control.

9. Planning and building requirements

"EWOV supports recommendations 11 and 12. Most issues in this area stem from the initial agreements put in place between the developer, embedded network owner and occasional billing agent." – EWOV

"Real Utilities strongly supports the requirement for adequate information disclosure and that formalise a minimum requirement disclosure regime for embedded network arrangements in the contract of sale and for the inaugural meeting of Owners Corporations." – Real Utilities

What we heard

In general, there were divergent views amongst stakeholder submissions regarding how best to improve planning and building requirements for embedded networks.

Industry stakeholders supported amending planning and building regulations that will foster retail competition and consumer benefits or requested further information regarding the Panel's implementation strategy. Industry support for planning and building requirements was also predicated on providing body corporate managers with any new planning and building requirement information to support their engagement with building owners.

Some industry stakeholders did not support implementing reforms through planning and building requirements, in the event of a possible conflict with other planning and/or building codes.

Our response

The Panel has maintained its recommendation that there be amendments to building and planning requirements so that any new residential local energy network can incorporate renewable energy for customer benefit. These amendments should also extend to bundled services to improve the buildings standards at the initial design stage.

Appendix 5: Terms of Reference

Background

The Victorian Government has committed to ban embedded networks in new residential apartment blocks, which too often lock in high costs on consumers. Exemptions will be allowed for buildings that use renewable energy micro grids to deliver low-cost renewable energy to apartment blocks.

Purpose

The Embedded Network Expert Panel (the Panel) is requested to engage with and advise the Minister for Energy, Environment and Climate Change and the Minister for Solar Homes (the Minister) on the implementation of a ban on embedded electricity networks in new residential apartment blocks.

The purpose of banning embedded networks in new residential apartment blocks is to ensure that, to the fullest extent practicable, these Victorian consumers can access the same competitive retail offers and consumer protections as other Victorian consumers.

Any Victorian consumers that will remain in residential embedded networks (including apartment blocks and other types of residential embedded networks) should also, to the fullest extent practicable, have access to the same competitive retail offers and consumer protections as other Victorian consumers.

Function and Output

The main output of the Panel will be written recommendations to the Minister on:

- how to implement a ban on embedded networks in new residential apartment blocks, including the appropriate exemptions to the ban for buildings that use renewable energy micro grids to deliver low-cost renewable energy to apartment blocks;
- how such a ban would intersect with legacy embedded networks in residential apartment blocks, including options for retrofitting or removing existing embedded network infrastructure if appropriate; and
- how to ensure that, to the fullest extent practicable, Victorian consumers in residential embedded networks (including apartment blocks and other types of residential embedded networks) can access the same competitive retail offers and consumer protections as other Victorian consumers. As part of this, the Panel should consider the frameworks for electricity, gas and any other (such as bulk hot water and variable refrigerant volume) embedded networks.

In addition to its written recommendations, the Panel's Review should also deliver written advice on:

- i. how exemptions to the ban may allow for innovative new technologies or new/existing applications and other appropriate uses of embedded electricity networks;
- ii. recommended actions for regulators, particularly in relation to compliance and enforcement;
- iii. the expected impacts of its written recommendations and the expected impacts of any of its non-preferred options; and
- iv. steps to implementation, including the timing and sequencing of recommended changes.

While undertaking the Review, the Panel should consider:

- where it recommends more than one potential option, to specify its preferred recommendation;
- any amendments necessary to ensure that Retailer of Last Resort arrangements extend to embedded network customers;
- infrastructure and contractual barriers/opportunities to retrofit or remove legacy embedded networks;
- current regulatory regimes and enforcement options and their effectiveness;

- outcomes of government reviews on embedded networks, including from DELWP, the Essential Services Commission and the Australian Energy Market Commission;
- the interaction of its recommendations with the national energy framework and relevant building and planning legislation;
- the interaction of its recommendations with reforms related to the government's Energy Fairness Plan; and
- current embedded network retail offerings, in order to identify innovations, competitive pricing practices and the costs faced by embedded network customers, perhaps by using case studies.

The scope of the Review excludes the price cap for embedded electricity network customers.

In preparing its recommendations, the Panel:

- may attend meetings with DELWP and other government departments to discuss policy and implementation considerations;
- may meet with relevant stakeholders (including from industry, consumer groups, the Energy and Water Ombudsman and government)
- may publish written reports to guide consultation and accept written or verbal submissions from stakeholders;
- will be required to make consensus recommendations at the conclusion of its Review; and
- may brief the Minister throughout the Review on its proposed recommendations and the implications for Victorian consumers, embedded network operators and other energy retailers.

Chair

The Minister will nominate the Panel Chair.

Secretariat

The Panel will be supported in its work by the DELWP Secretariat (the Secretariat). The Secretariat will comprise a DELWP manager and staff. The Secretariat will be responsible for the administration and operation of the Panel including:

- providing all necessary project management and policy support;
- providing guidance on key technical elements of the Review;
- facilitating consultation with other State and Commonwealth Government stakeholders (such as the Essential Services Commission, Consumer Affairs Victoria and the Australian Energy Market Commission);
- drafting written material as necessary, preparing briefings and arranging meetings with relevant stakeholders and/or the Minister; and
- procurement of any additional advice required by the Panel to inform their considerations.

Completion

The Panel will be required to provide its recommendations to the Minister within 12 months of its establishment. The Panel may be asked to provide follow-up advice related to its recommendations. To allow for this, the Panel may be extended as necessary.

Appendix 6: How the Panel and the AEMC's recommendations intersect

The Panel's draft recommendations	Comparing the Panel's draft recommendations to the AEMC recommendations ⁷³
Initially, the Victorian Government's commitment to ban embedded networks in new apartment buildings (allowing limited exemptions) should be implemented via amendments to the General Exemption Order (GEO). (Recommendation 1) All legacy (existing) and new residential exemptions under the revised GEO should be subject to additional conditions, such as appropriate registration and declaration requirements. Compliance with these additional conditions should be subject to ongoing strengthened oversight, monitoring and enforcement by the Essential Services Commission (ESC). (Recommendation 2) To give ongoing effect to the ban and to ensure equity and fairness for customers, the licensing framework under the <i>Electricity Industry Act 2000</i> (EIA) should be amended to enable licensing of 'Local Energy Service' (LES) providers for local energy networks. LES providers will only be able to operate if they satisfy conditions that require them to ensure customers have equal consumer protections, the benefits of renewable or clean energy and retail choice. Once the new licensing framework is in place, anyone who supplies and sells electricity in new residential sites containing a local energy network (including apartment buildings, social housing, retirement villages and residential parks) must obtain a specific LES licence from the ESC. (Recommendation 3)	The AEMC is not recommending that embedded networks be banned, however, it does believe that the number of parties eligible for a network service provider and retail exemptions should be significantly reduced. Similar to the Panel, the AEMC recommends a new licensing (authorisation) category be established for 'Off-market retailers'. Under the AEMC's proposed model, off-market retailers would be required to obtain an authorisation from the Australian Energy Regulator (AER) and would be subject to most requirements that existing authorised retailers are subject to. The AEMC also recommends a role for Embedded Network Service Providers (ENSPs) be created. ENSPs would be required to register with AEMO and subject to many of the existing regulatory requirements placed on distributors. Any remaining exempt parties that do not fall within these categories will be required to register with the AER.

⁷³ AEMC, *Updating the regulatory frameworks for embedded networks, Final Report*, 2019, p 11.
<https://www.aemc.gov.au/sites/default/files/2019-06/Updating%20the%20regulatory%20frameworks%20for%20embedded%20networks%20-%20FINAL%20REPORT.PDF>

The Panel's draft recommendations	Comparing the Panel's draft recommendations to the AEMC recommendations ⁷³
Entities which currently supply and sell metered electricity to legacy (existing) local energy networks under the revised GEO should be transitioned into the LES licensing framework. (Recommendation 4)	The AEMC's approach to legacy embedded networks is somewhat different to the Panel's. The AEMC recommends that legacy embedded networks that are currently subject to deemed and individual exemptions would not be required to transition to the new framework. Under the AEMC's proposed model, there would be two possible pathways for legacy embedded networks with registrable exemption, depending on the age of the network: • Legacy embedded networks established on or after 1 December 2017 would be required to fully comply with the new requirements. • Legacy embedded networks established prior to 1 December 2017 would be required to comply with the arrangements for off-market retailers under the <i>National Energy Retail Rules</i> but would be exempt from the metering provisions. Network exemptions would be grandfathered into the new arrangements. • Legacy embedded networks may seek an individual exemption.
The Victorian Government should consider whether the recommendations relating to residential local energy networks should be extended to small business customers. Further, in the future, if the Victorian Government undertakes a broader licensing framework review, it should consider the intersection of these recommendations with that review, and whether the exemptions framework remains fit for purpose. (Recommendation 5)	While the AEMC recommends that existing retail pricing protections be extended to small business customers of exempt sellers, it does not recommend extending a licensing framework to embedded networks servicing small business customers. The AEMC does not also make recommendations regarding a broader licensing framework review.
Once the GEO amendments are given effect as specified in Recommendations 1 and 2, consumers living in all types of residential local energy networks (including those living in social housing, retirement villages and residential parks) should have access to customer protections which are equal or equivalent to those provided to on-market customers. (Recommendation 6)	Similar to the Panel's draft recommendations, the AEMC recommends that almost all of the existing consumer protections under the <i>National Energy Retail Law</i> and <i>National Energy Retail Rules</i> should apply to embedded network customers. This includes consumer protections in areas such as disconnections, billing information, payment options and notification of planned outages. Like the Panel, the AEMC is calling for embedded network customers to have better access to concession schemes and independent dispute resolution.

The Panel's draft recommendations	Comparing the Panel's draft recommendations to the AEMC recommendations ⁷³
The monitoring, compliance and enforcement framework for local energy networks should be robust and proportionate and aligned with the ESC's framework and approach for current licensed energy providers. The ESC should be provided with appropriate resourcing to enable it to implement the strengthened exemption and licensing regime, so it can effectively and adequately monitor compliance and/or engage in enforcement activities relating to local energy networks. (Recommendation 7.1) To support strengthened oversight, monitoring and enforcement of the local energy network market, the ESC should be able to collect appropriate data and information. Local energy networks should also be required to proactively provide, and periodically update, relevant data and information to the ESC. Data and information collected by the ESC could be used for market monitoring purposes as well as informing potential future reviews (including improvements to the policy and regulatory framework for local energy networks). (Recommendation 7.2)	Consistent with the Panel, the AEMC recommends that embedded networks be subject to stronger regulation which enhances the AER's ability to enforce compliance with obligations to provide protections.
All local energy network customers should have unencumbered access to the energy retail market and it should be easy for them to transfer to an on-market energy retailer without the need for a meter exchange. Customers within a local energy network should not face a greater financial or administrative burden to change retailers than other Victorian customers. (Recommendation 8) Customers within legacy (existing) local energy networks should have ready access to alternative on-market retail providers. Over time, metering and/or other internal infrastructure in legacy (existing) local energy networks should be upgraded and/or changed to enable these customers to access the retail market without imposing a direct cost burden on customers to do so. (Recommendation 9)	Like the Panel, the AEMC believes that embedded network customers should have access to competitively priced market offers by making it possible for customers to choose their retailer. The AEMC suggests the <i>National Electricity Rules'</i> metering framework be extended to all embedded networks built after 1 December 2017. However embedded networks established before this date should be exempt from these metering requirements. The Panel's approach is consistent with the AEMC's approach but goes further to ensure that customers in legacy embedded networks are not stranded without retail market access indefinitely. The Panel recommends that over time all embedded network customers should have access to the retail market through upgraded compliant metering. Similar to the Panel, the AEMC recommends the introduction of standardised billing arrangements for the recovery of external network charges from embedded network customers who choose to go on-market with an alternative retailer.

The Panel's draft recommendations	Comparing the Panel's draft recommendations to the AEMC recommendations ⁷³
Owners and occupants in residential local energy networks must be provided with adequate information about their rights and obligations as a customer within a local energy network and about commercial agreements relating to the local energy network infrastructure and ownership and management of these assets. Adequate information disclosure should be required under both the GEO and as part of the LES licensing regime. (Recommendation 10)	While the AEMC does not make recommendations regarding the provision of information requirement, the AEMC recommends that any charges levied by ENSPs should be required to be reasonable and that any disputes should be resolved by the AER.
Planning, building and strata requirements should be amended to oblige anyone proposing to install relevant infrastructure associated with the supply and sale of electricity within a residential building via a local energy network to design, build and operate the local energy network to incorporate renewable or other clean energy which enable benefits to be passed on to customers. Information, especially relating to infrastructure assets, must also be disclosed to prospective purchasers. (Recommendation 11)	The AEMC does not make any recommendations regarding the introduction of planning, building and strata requirements to design, build and operate local energy networks to incorporate renewable or other clean energy technologies.
Planning, building and strata requirements should also be amended to oblige anyone proposing to supply other bundled services within a residential building/site (including bulk hot-water, bulk heating/cooling or unmetered gas for cooktops) to meet similar standards to design, construct, establish and operate those services in the best interests of prospective owners and occupants, and to disclose appropriate information. (Recommendation 12) There should be appropriate regulation, monitoring and enforcement relating to currently unregulated bundled services (including bulk hot-water, bulk heating/cooling and unmetered gas cooktops) to ensure there is no longer secondary, separate treatment for consumers of these essential services. While these bundled services are not intended to be captured within the LES licensing framework, the Victorian Government should consider how to regulate these monopoly essential services to ensure appropriate customers protections, access to dispute resolution and reasonable prices for customers as well as suitable monitoring, compliance and enforcement. (Recommendation 13)	The AEMC does not make any recommendations regarding the planning, operation and regulation of bundled services.

The Panel's draft recommendations	Comparing the Panel's draft recommendations to the AEMC recommendations ⁷³
Customers in a local energy network should be adequately protected in the event that the local energy network fails or the entity operating or responsible for the local energy network becomes insolvent. The Victorian Government should give the ESC power to appoint an alternative provider to operate the local energy network in this situation to ensure continuity of supply for customers within that local energy network. (Recommendation 14)	The AEMC recommends a modified set of Retailer of Last Resort (RoLR) arrangements be established for embedded networks where the retailer at the parent connection point would become the RoLR in the event of the failure of an off-market retailer. This may not be possible under the Panel's proposed approach as the retailer at the parent connection point may not have an LES licence.
A mechanism (or mechanisms) should be established to ensure that the voices of consumers living in apartments buildings, retirement villages, social housing and residential parks are heard in policy and regulatory development. (Recommendation 15)	The AEMC does not make a recommendation to establish a mechanism to ensure the voices of consumers living in embedded networks are heard in policy and regulatory development.
The changes to the GEO and the new LES licensing regime will need to be phased in over time. (Recommendation 16)	The AEMC recommends a phased approach to implementation, which is similar to the Panel's recommended approach.

Appendix 7: Existing gaps in consumer protections for embedded network customers

The table below outlines the consumer protection obligations in the *Energy Retail Code*, the *Electricity Distribution Code* and the *Electricity Industry Act (2000)* that do not currently apply to exempt persons.

Consumer protections	Obligations that do not currently apply to exempt persons
<i>Energy Retail Code</i>⁷⁴	
Billing and payments	Exempt persons do not have the same billing content requirements as on market retailers. For example, exempt persons are not required to provide information on the average daily consumption during the billing period, the estimated date of the next meter read or bill benchmarking information. Exempt persons are not required to disclose greenhouse gas emissions connected with the generation of the electricity supplied to the customer. The payment method requirements for licenced energy retailers are more extensive than the obligations placed on exempt persons. For example, Centrepay is not available to embedded network customers. Shortened collection cycle obligations do not apply to most exempt persons. Exempt persons are not required to use their best endeavours to arrange for a meter read when a customer requests a final bill for their premises.
Bulk hot water charging	Bulk hot water charging obligations do not apply to exempt persons.
Centrepay	Exempt persons are not required to make Centrepay a payment option for their customers.
Complaint handling procedures	Although exempt persons are required to comply with the complaint handling procedures, they are not required to publish the procedures on their website.
Customer retail contracts	Exempt persons are not required to comply with Standard or Market retail contract general terms and conditions. Exempt persons are not required to publish their tariffs or energy fact sheets on the internet. Nor are they required to publish their offers on Victorian Energy Compare. Pre-contractual procedures for licenced retailers and the responsibilities of the designated retailer in response to the request for sale of energy are quite different to those placed on exempt persons. For example, there is no obligation to notify an embedded network customer

⁷⁴ Further information on the Energy Retail Code provisions that apply to exempt persons is available in the ESC's [Embedded electricity networks: Exempt providers' obligations in Victoria](#).

Consumer protections	Obligations that do not currently apply to exempt persons
	who their supplier is, nor are they required to inform customers about the availability of government funded rebates, concessions and relief schemes. Many obligations regarding the termination of contracts do not apply to exempt persons.
Customer transfer	Exempt persons are not required to comply with the customer transfer obligations.
Deemed customers	Exempt persons are not required to comply with all of the deemed customer retail arrangements obligations. For example, they are not required to provide customers with certain information as soon as they become aware that the customer is consuming energy under deemed customer retail arrangements.
Disconnections	Although most of the disconnection obligations apply to most exempt persons, some do not. For example, the disconnection of a dual fuel contract provisions do not apply to exempt persons.
Early termination charges	Exempt persons are not required to comply with the early termination charges and agreed damages terms obligations.
Energy marketing	The energy marketing and advertising of conditional discount obligations do not apply to exempt persons. ⁷⁵
Exempt market retail contracts	Exempt persons are not required to comply with the exempt market retail contract obligations.
Explicit informed consent	The defective explicit informed consent obligations do not apply to exempt persons.
Family violence	The family violence obligations in the <i>Energy Retail Code</i> do not apply to exempt persons.
Financial hardship	Exempt persons are not required to have a hardship policy.
Fixed term contracts	Exempt persons are required to comply with most of the obligations regarding the notice of the end of a fixed term retail contract. However, they are not required to comply with some of the obligations around notifying customers that the contract is about to end.
GST inclusive pricing	Exempt persons are not required to comply with GST inclusive pricing obligations.
Guaranteed Service Level (GSL) payments	Exempt persons are not required to comply with Guaranteed Service Level (GSL) payment obligations.
Life support equipment	Exempt persons are required to comply with a different set of life support equipment obligations to licenced retailers.

⁷⁵ Normally, exempt persons would not be marketing to customers within the embedded network. However, once customers are able to easily access an on-market retail offer, exempt persons may want to market to customers who have moved to an on-market retailer to win back their business.

Consumer protections	Obligations that do not currently apply to exempt persons
Market integrity	Exempt persons are not required to comply with the market integrity obligations, including the provisions regarding clear advice for customers, notification changes, best offer information and access to information on the features of energy plans.
Provision of information	Exempt persons are not required to comply with the provision of information obligations.
Retailer of last resort	Exempt persons are not required to comply with the obligations regarding the termination of a contract in a last resort event if it is a dual fuel contract.
Security deposit	The security deposit obligations in the ERC do not apply to most exempt persons.
Tailored assistance	While exempt persons are required to comply with some of the minimum tailored assistance measures provisions, they are not required to provide customers with specific advice about the likely cost of the future energy use and how this cost may be lowered. In addition, exempt persons are not required to provide practical assistance to help a customer lower their energy costs or allow a six-month period for the customer's arrears to be put on hold and the customer to pay less than the full cost of their ongoing energy use while working to lower that cost.
Tariffs and charges	While exempt persons are required to comply with many of the requirements for market retail contracts, some of the obligations do not apply. For example, an exempt person is not required to set out in the contract the notice the retailer must provide prior to tariffs and charges being varied. Exempt persons are not required to comply with the price certainty, pay-on-time discount cap, and fixed benefit period obligations. Exempt persons are not required to comply with the tariff changes obligations set out in the <i>Energy Retail Code</i>.
Electricity distribution code⁷⁶	
Additional distribution charges	Exempt persons are not required to comply with the additional distribution charges obligations.
Asset management	Although exempt persons are required to comply with most of the good asset management provisions, they are not required to develop, test or simulate and implement contingency plans to deal with events that have a low probability of occurring. Exempt persons are not required to comply with the provisions relating to customer's electrical installation and equipment, the distributor's equipment on customer premises or transmission connection and distribution system planning reports.

⁷⁶ Further information on the Electricity Distribution Code provisions that apply to exempt persons is available in the ESC's [Embedded electricity networks: Exempt providers' obligations in Victoria](#).

Consumer protections	Obligations that do not currently apply to exempt persons
Complaints and dispute resolution	Although exempt persons are required to comply with most of the complaints and dispute resolution obligations, they are not required to inform a customer they have the right to refer their complaint to EWOV if they are unsatisfied with the exempt person's response to a complaint.
Embedded generators	Exempt persons are not required to comply with the embedded generators' obligations.
Guaranteed Service Levels (GSL)	Exempt persons are not required to comply with GSL obligations.
Life support equipment	Exempt persons are required to comply with a different set of life support equipment obligations to licenced distributors.
Provision and treatment of information	Exempt persons are not required to comply with all provision and treatment of information obligations. For example, an exempt person is not required to provide a Customer Charter to each customer and the ESC or provide customer information relating to the quality and reliability of supply.
Quality of supply	Exempt persons are not required to compensate any person whose property is damaged by voltage variations beyond code limits. Exempt persons are not required to monitor the quality of supply.
Reliability of supply	Exempt persons are not required to use their best endeavours to meet reliability of supply targets and otherwise meet reasonable customer expectations of reliability of supply. Exempt persons are not required to make information regarding unplanned or emergency interruptions of supply available within 30 minutes of it being advised or to provide options for customers who call the service to be directly connected to a telephone operator if required.
<i>Electricity Industry Act</i>	
Exit fees	Exempt persons are not required to comply with the exit fees obligations.
Hardship policies	Exempt persons are not required to comply with the hardship policy obligations.
Prohibition on fees for late payment	Exempt persons are not prohibited from charging fees for late payment.
Publication of tariffs, terms and conditions of sale of electricity	Exempt persons are not required to publish tariff details and terms and conditions on their website or Victorian Energy Compare.
Supplier of last resort	Exempt persons are not required to comply with the supplier of last resort obligations.
Wrongful disconnection payments	Exempt persons are not required to comply with the wrongful disconnection payment obligations.

Appendix 8: Addressing the Terms of Reference and how the Panel proposes it will apply in legacy (existing) embedded networks and new local energy networks

Primary outputs	The Panel's proposed recommendations to achieve the outputs	Applying the recommendations to legacy (existing) embedded networks (registered before 1 January 2023)	Applying the recommendations to new local energy networks (registered on or after 1 January 2023)
How to implement a ban on embedded networks in new residential apartment blocks, including the appropriate exemptions to the ban for buildings that use renewable energy microgrids to deliver low-cost renewable energy to apartment blocks	The ban will be implemented initially via changes to the GEO, then further through the new LES licensing framework being introduced. Licensing conditions will require compliance with an on-site renewable energy target, with the benefits to be demonstrated to be passed on to customers. Anyone wanting to rely on the GEO to distribute, supply and sell electricity (until a new licensing framework is established and while GEO remains the primary regulatory instrument) will need to update their exemption registration (or in the case of new energy networks, apply for an exemption registration), declaring to the ESC they comply with a range of conditions and provide additional information to demonstrate their compliance with the new obligations or a plan to demonstrate how and when they will become compliant if they do not already meet the requirements. Changes extend to smaller residential exemption categories, like residential parks, retirement villages, social housing and legacy (existing) apartment buildings.	The GEO to be revised by 30 June 2022 and implemented from 1 January 2023. Anyone relying on the GEO for a site which is operational prior to the revised GEO coming into effect will need to update their registration with the ESC before 1 January 2023. Existing residential local energy networks (including apartment buildings, retirement villages, residential caravan parks and social housing) to be given a 3-year transition period to obtain a new licence once the framework is established.	Once the GEO is revised, new local energy networks (which are registered on or after 1 January 2023) will need to register with the ESC prior to supplying and selling electricity. New residential local energy networks (established on or after 1 January 2023) to be given a 6-month transition period to obtain a new licence once the framework is established. New sites that are operational after the licensing framework comes into effect will need to be operated by an LES licence holder from the date of operation.
How such a ban would intersect with legacy (existing) embedded networks in residential apartment blocks, including options for retrofitting or removing existing embedded	The Government should implement regulatory changes required to ensure ease of transfer, including: • NMI allocation • Single billing for both retail and network components (settlement processes, standards for network billing)	Metering and internal infrastructure should be upgraded to enable customers within legacy (existing) embedded networks to have ready access to the retail market. This upgrade should take place within either 10 years of the metering and	New local energy networks will be required to have compliant metering. Regulatory changes will apply as soon as they are established.

Primary outputs	The Panel's proposed recommendations to achieve the outputs	Applying the recommendations to legacy (existing) embedded networks (registered before 1 January 2023)	Applying the recommendations to new local energy networks (registered on or after 1 January 2023)
network infrastructure if appropriate	• Oversight of metering/infrastructure to ensure compliance with obligations • Information about metering/infrastructure and customer numbers to be provided to the ESC annually • Obligations regarding available offers from on-market retailers for embedded network customers • Relevant information for embedded network customers to enable comparison between what they're paying and current market offers	infrastructure being commissioned in the network, or three years from when the LES licensing regime comes into effect, whichever is earlier.	
How to ensure that, to the fullest extent practicable, Victorian consumers in residential embedded networks can access the same competitive retail offers and consumer protections as other consumers - including consideration of frameworks for electricity, gas and any other embedded networks	GEO categories and conditions should be strengthened to ensure all embedded network customers have access to equivalent benefits as on-market customers. The Panel is recommending regulating bundled services.	The GEO to be revised by 30 June 2022 and implemented from 1 January 2023. Legacy (existing) embedded network customers will have access to the retail market, although this will necessarily be phased due to complexities with updating/changing metering infrastructure.	Consumers in new local energy networks will have access to the retail market immediately once system and other necessary changes have been implemented.

Secondary outputs	The Panel's proposed recommendations to achieve the outputs	Applying the recommendations to legacy (existing) embedded networks (registered before 1 January 2023)	Applying the recommendations to new local energy networks (registered on or after 1 January 2023)
How exemptions to the ban may allow for innovative new technologies or new/existing applications and other appropriate uses of embedded electricity networks	The Panel recommends an open approach to “renewable or other clean energy technologies” to enable as wide a range of technologies or renewable options as possible, not just limited to microgrids. The Panel considers the renewable energy benchmark should be consistent with the Government’s approach to renewable energy policy. Therefore, in line with the 2030 VRET, residential local energy networks should only operate if they can demonstrate that 50% or more of electricity consumed at the site can be met by on-site renewable sources.	Legacy (existing) embedded network operators that have updated their registration with the ESC by 1 January 2023 will not be required to comply with the renewable energy obligations until after the LES licensing framework is in place. However, benefits of any existing renewable energy will need to be shared with customers once the revised GEO takes effect. Legacy (existing) local energy networks that have not updated their registration with the ESC by 1 January 2023, will need to meet the renewable energy requirement when the revised GEO comes into effect (similar to new local energy networks).	New sites will be required to meet the renewable energy benchmark immediately.
Recommended actions for regulators, particularly in relation to compliance and enforcement	The compliance, monitoring and enforcement framework for exempt entities and LES licence holders should be robust and proportionate. Any penalties that can be applied should not penalise local energy network customers.	Changes to the compliance, monitoring and enforcement obligations under the GEO will come into effect by 1 January 2023. Compliance, monitoring and enforcement obligations under the new licensing framework will come into effect once the site is operated by a licensed LES provider. Changes to the ESC’s powers will enable appropriate monitoring, compliance and enforcement for local energy networks once the recommendations take effect.	Compliance, monitoring and enforcement obligations will apply once the revised GEO, then LES licensing framework come into effect. Already expanded ESC powers will enable effective monitoring, compliance and enforcement.
Expected impacts of its recommendations and the expected impacts of any of its non-preferred options	The Panel understands that the move to a licensing framework will impose some costs to industry. However, the Panel considers it the simplest way to enable fair/equitable protections to consumers (as they would be covered by licensing protections under licensing framework), rather than separately under the exemptions framework.		

Secondary outputs	The Panel's proposed recommendations to achieve the outputs	Applying the recommendations to legacy (existing) embedded networks (registered before 1 January 2023)	Applying the recommendations to new local energy networks (registered on or after 1 January 2023)
Steps to implementation, including the timing and sequencing of recommended changes	The Panel is recommending a phased transition with the ban initially implemented via GEO changes, then extended via new LES licensing framework. The changes will be extended to other categories of embedded network (eg retirement villages, residential parks).	The GEO to be revised by 30 June 2022 and changes taking effect from 1 January 2023. Existing residential embedded networks (including apartment buildings, retirement villages, residential caravan parks and social housing) established before 1 January 2023 will be given a 3 year transition period to obtain a new licence once the framework is established, but will need to comply with new customer protection obligations straight away.	Once the GEO is implemented, new local energy networks will need to register with the ESC prior to supplying and selling electricity. New residential local energy networks (established on or after 1 January 2023) to be given a 6-month transition period to obtain a new licence once the framework is established. New sites will need to operate under the LES framework once the new licensing regime is established New local energy networks will need to ensure they comply with customer protection obligations.

Considerations	The Panel's response to the considerations
Where it recommends more than one potential option, to specify its preferred recommendation	The Panel's preference is to have all customers within local energy networks be sold and supplied electricity by an energy licence holder regulated and monitored by the ESC.
Any amendments necessary to ensure that Retailer of Last Resort arrangements extend to embedded network customers	Government should enable the ESC to nominate an appropriate provider to take over in the event a local energy network fails to ensure continuity of supply for customers. Providers should be required to provide information to the ESC, and disclose risk of insolvency in line with <i>Corporations Act 2001</i> (Cth) requirements.
Infrastructure and contractual barriers/opportunities to retrofit or remove legacy (existing) embedded networks	Customers within legacy (existing) local energy networks should have ready access to alternative on-market retail providers.
Current regulatory regimes and enforcement options and their effectiveness	The ESC should have appropriate investigative and enforcement powers, and a full suite of options to take appropriate and proportionate action against non-compliant entities. Changes to the ESC's powers in place from 1 December 2021 give effect to a number of the Panel's recommendations regarding monitoring, compliance and enforcement.
Outcomes of government reviews on embedded networks, including from DELWP, the Essential Services Commission and the Australian Energy Market Commission	The Panel has considered earlier reviews including the AEMC recommendations. Appendix 6 provides a comparison between the Panel's proposed recommendations and the AEMC's approach.
The interaction of its recommendations with the national energy framework and relevant building and planning legislation	The Panel has considered metering requirements/standards under national energy framework and how they apply within Victoria. Planning/building/strata requirements should be changed so that customer outcomes are considered at design/construction phases of new builds that use local energy networks. The Panel has also consulted with the Building System Review Expert Panel during this Review, and the Panel supports the work of that Expert Panel to improve outcomes for Victorian consumers.
The interaction of its recommendations with reforms related to the government's Energy Fairness Plan	The ESC has received strengthened compliance and enforcement powers under the Victorian Government's Energy Fairness Plan to enable it to take action against non-compliant local energy network operators.
Current embedded network retail offerings, in order to identify innovations, competitive pricing practices and the costs faced by embedded network customers, perhaps by using case studies	Existing embedded network customers and operators submitted evidence of their experiences and offerings throughout the consultation period. These were considered when developing the recommendations.

Appendix 9: Identified gaps in the GEO

The table below outlines a number of GEO drafting issues identified by the Panel which should be clarified to ensure consistent and accurate interpretation of the Order.

Issues identified in the General Exemption Order	
'Own, occupy, or operate a site'	The GEO refers to persons undertaking activities within 'a site that they own occupy or operate' to identify activities that qualify for an exemption. However, what amounts to a 'site' remains ambiguous and open to interpretation – i.e. whether it refers to the embedded network or the physical location of the embedded network. As a result, the nexus required with a site in order to qualify for an exemption should be clarified.
Relevance of General Exemption Order 2002	When the GEO was amended in 2017, the General Exemption Order 2002 (GEO 2002) was not revoked in its entirety. As a result, there are effectively two instruments regulating exemptions. This has caused confusion for some exempt persons as they are not aware that the GEO 2002 continues to apply.
Definition of 'large customer'	A 'large customer' in the GEO is defined as 'a business customer to whom peak demand of not less than 500kVa or consumption of not less than 160MWh per annum is distributed, supplied or sold for commercial or industrial purposes'. This is inconsistent with definitions used in other Orders made under the <i>Electricity Industry Act 2000</i> and <i>Gas Industry Act 2001</i> because it does not define a customer by reference to a 'supply point'. This has created some uncertainty around the definition of a 'large customer' as it is unclear whether it is referring to consumption at a particular supply point or whether the definition could be interpreted as a customer whose aggregate consumption across a number of supply points is more than 160MWh.
Scope of residential solar electricity exemption	Clause 13 of the GEO specifies that a generation exemption generally applies for residential solar electricity generation. However, the exempt activity is 'generation', not 'supply or sale' of electricity – which would be the intended outcome of generation by a residential solar electricity generator who sells that electricity back to a retailer or aggregator.
Condition of exemption that the exempt person must enter into a dispute resolution scheme	Clause 11 of the GEO requires all exempt persons to join an ESC approved customer dispute resolution scheme. EWOV is the only approved scheme. In practice, this means some exempt persons, such as caravan parks with no long-term residents, are required to join EWOV, despite their customers being unlikely to require access to the scheme.
No regulatory reach over third party service providers	If a person or business is operating an embedded network on behalf of an exempt person as a third-party service provider or agent, they are not required to register with the ESC and are therefore not subject to any regulatory oversight.
Clarification of cl 7(1)(c)	Clause 7(1)(c) of the GEO allows for a network activity registration exemption where "the electricity is supplied through facilities of the person after it leaves a supply facility owned or operated by a licensed distribution company and before it is supplied to the customer". However, it is unclear if the provision requires the electricity to pass directly from a supply facility of a licensed distribution company to the embedded network, or whether it would allow the electricity to first pass through a separate embedded network on its way to the original embedded network.