Government of **Western Australia**
Energy Policy WA

Tailoring customer protections for alternative electricity services - a registration framework

Final Recommendations Report

5 November 2020

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Executive summary

The Final Recommendations Report, *Tailoring customer protections for alternative electricity services – a registration framework* (the Final Report) presents Energy Policy WA's final recommendations arising from the Retail Electricity Licensing and Exemptions Review (the Review).

The purpose of the Review was to:

> *identify a preferred regulatory framework which facilitates businesses providing behind-the-meter electricity services, including generation and storage, while ensuring that adequate consumer protections are available for consumers of those services*[1].

The preferred regulatory framework (the registration framework) identified by Energy Policy WA delivers protections for small use customers that are relevant to the service being provided. This will be achieved by allowing for categories of alternative electricity service/s (AES) to be prescribed in regulation, supported by an enforceable tailorable code of practice. To enable the registration framework, new heads of power will be inserted in the *Electricity Industry Act 2004* (the Act). The Economic Regulation Authority (ERA) will be responsible for the administration of the registration framework, including reporting obligations, and monitoring adherence to and enforcing compliance with framework requirements.

It is proposed that behind-the-meter electricity generation and storage services will be the first prescribed AES.

The registration framework is flexible, designed to facilitate new and emerging alternative electricity service models as the need arises. The framework can also be applied to existing electricity services that operate under exemptions currently provided for under the Act[2], if a need to do so is identified. It is not intended that individual licence exemptions provided to projects or services unrelated to small use customers, for example exemptions provided to resources projects established under State Agreements, fall within the scope of the framework.

While the recommendations in the Final Report support the framework that was initially presented in the Directions Report, *Creating a dynamic customer protection framework for behind-the-meter electricity services*, the recommended final registration framework uses a single code of practice, rather than multiple tailored codes. This change is discussed in Chapter 3 and reflected in Recommendation 3.

The Final Report will be presented to the Minister for Energy for endorsement to proceed with implementation actions, including a request for Government approval to draft the legislative changes required to implement the registration framework.

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1 *Terms of Reference, Retail Electricity Licensing and Exemption Review, September 2019*.

2 Exemptions are currently provided for services under the Act through the Electricity Industry Exemption Order 2005 and the Electricity Industry (Caravan Park Operators) Exemption Order 2005.

Summary of recommendations

Recommendation 1:

That the *Electricity Industry Act 2004* (the Act) is amended to establish a registration framework for persons who propose to provide prescribed alternative electricity service/s (AES) to small use customers. The registration framework will:

- function alongside the existing licensing and exemption framework established by Part 2 of the Act;
- require a person who wishes to provide a prescribed AES to be registered with the ERA and comply with framework requirements; and
- confer responsibility on the ERA for the administration of the framework; including reporting obligations, monitoring adherence to, and enforcing compliance with, framework requirements.

Recommendation 2:

That the Act is amended to allow for categories of AES to be prescribed in regulation.

Recommendation 3:

That the Act is amended to establish that a code of practice is to be prepared and issued for AES.

Recommendation 4:

That the Act is amended to establish authorisation for AES Code related reporting and compliance monitoring processes.

Recommendation 5:

That the Act is amended to provide ERA the power to investigate breaches, or possible breaches, of the registration framework and enforce compliance with the registration framework.

Recommendation 6:

That the Act is amended to require that as a condition of every registration, the code participant must be a member of the Energy Ombudsman Scheme.

1. Introduction

1.1 Purpose

This Final Report sets out Energy Policy WA's (EPWA) recommendations on the preferred regulatory framework to facilitate businesses providing behind-the-meter electricity services, including generation and storage, while ensuring that effective consumer protections are available for consumers of those services.

1.2 Background

The licensing and exemption framework under the *Electricity Industry Act 2004* (the Act) was established at a time when electricity supplies were for the most part centrally generated and supplied to consumers via large transmission and distribution networks under supply contracts with retailers. Licences were applied to large operators, while exemptions from the licensing requirements recognised that not all arrangements would be practical to be licensed. Operators of caravan parks, for example, who are exempt from holding a retail electricity licence, differ from licensed retailers in that they do not sell electricity as their core business.

There is, however, now a growing range of innovative electricity retail services, including energy management products, financing arrangements and new business models, described hereafter as alternative electricity service/s (AES), that involve the selling and management of electricity under differing arrangements to those provided by 'typical' licensed electricity retailers. These AES arrangements could include, but are not limited to, solar power purchase agreements (SPPAs), peer to peer trading, embedded networks, electricity aggregation services and electric vehicle charging services. AES business models can incorporate the retailing, storage, aggregation, generation, and/or distribution of electricity, and may include a leasing or membership-based ownership arrangement.

This increase in AES options has led to a growing number of providers of these services seeking exemptions from licensing obligations, challenging the effectiveness of the current regulatory framework in delivering adequate customer protections. Deficiencies include an inability of the current exemption framework to provide effective dispute resolution arrangements and enforcement of protections for small use customers of AES.

In this context, the Minister for Energy requested that EPWA review the regulatory framework for electricity retail licensing and exemptions. The objective of the Review was to identify a regulatory framework which facilitates business providing behind-the-meter electricity services, including generation and storage, while ensuring that adequate consumer protections are available for consumers of those services.

1.3 Review process

Following consideration of the customer protections available to energy consumers under existing legislation, including dispute resolution services, the ability of the existing regulatory framework to respond to new and emerging business models, and features of the regulatory frameworks of other jurisdictions, EPWA identified a preferred regulatory framework, the registration framework, to achieve the objective of the Review. The registration framework was initially outlined in the Directions Report, *Creating a dynamic customer protection framework for behind-the-meter electricity services* (Directions Report)[3].

[3] The Directions Report was released on 16 January 2020 and is available on the EPWA website.

The preferred framework outlined in the Directions Report focused on the requirements for legislative amendments to allow a customised approach to regulate prescribed AES categories in the form of codes of practice, along with provisions for compliance and enforcement, and a mechanism for resolving disputes between AES providers and consumers. In the first instance, a code of practice was proposed to be developed for behind-the-meter generation and storage service providers (BTM Code) and a working group of stakeholders was subsequently convened to assist development of the draft BTM Code (further discussed in Chapter 1.4.1).

1.4 Consultation

EPWA representatives have also been available to meet with stakeholder representatives following release of the Directions Report and throughout the Review process. Stakeholders have also been able to register interest in receiving further updates by email.

Advice of release of the Directions Report was forwarded to an email list of approximately 60 stakeholders who expressed an interest in being kept in informed of the Review, along with over 500 contacts on the EPWA general stakeholder list.

No formal comments were received in response to the Directions Report.

The Economics and Industry Standing Committee's *Inquiry into Microgrids and Associated Technologies in Western Australia* (Microgrids Inquiry) (further discussed in Chapter 2.3), which also considered the effectiveness of the regulatory framework around microgrids and customer protections, was subject to extensive stakeholder consultation receiving 41 written submissions[4].

1.4.1 Behind-the-meter Code Working Group

A working group of stakeholders (BTM Code Working Group) was convened to assist development of the draft BTM Code. The development of the BTM Code is an example of the collaborative process between stakeholders and government to be undertaken when identifying obligations for AES providers.

The BTM Code Working Group provided technical, industry and consumer advice and included representation from industry and consumer groups. The Working Group functioned as an advisory body with members offering views that represented an industry perspective, rather than individual organisational interests.

EPWA conducted two BTM Code Working Group meetings and provided two updated versions of the draft BTM Code to Working Group members throughout the consultation process. EPWA received feedback on the draft BTM Code from several stakeholders to assist preparation of a finalised draft of the Code. EPWA also met with individual stakeholder representatives throughout the consultation process to discuss the draft BTM Code.

The BTM Working Group members generally acknowledged that the licensing and exemption framework is inadequate in regulating new and emerging electricity services and expressed support for the registration framework and use of a code of practice as outlined in the Directions Report.

[4] *Taking charge: Western Australia's transition to a distributed energy future, Final Report*, February 2020, page 156. Legislative Assembly, Economics and Industry Standing Committee.

The obligations contained in the draft BTM Code will form the basis for detailed stakeholder consultation following drafting of the amendments to the Act to support the registration framework (as discussed in Chapter 3.3). The draft BTM Code will be made available on the EPWA website for information purposes only.

1.4.2 Agency consultation

EPWA staff also provided information on the Directions Report and the proposed registration framework at several forums, including information sessions held by the Energy Transformation Implementation Unit and meetings of the Rule Change Panel's Market Advisory Committee. Regular stakeholder meetings in relation to licence exemptions, such as with providers of electric vehicle charging stations and embedded network services, have included discussion about the proposed framework. Discussions on proposed regulatory obligations were also held with the:

- Economic Regulation Authority (ERA);
- Office of the Energy and Water Ombudsman Western Australia (Energy Ombudsman);
- Building and Energy Division of the Department of Mines, Industry Regulation and Safety (Building and Energy); and
- Department of Treasury (Treasury).

Further consultation with stakeholders will occur during the drafting of the legislative changes to the Act.

1.5 Final Recommendations Report

The Final Report details EPWA's recommendations on the registration framework, informed by feedback received in response to the Directions Report and stakeholder comments received during development of the draft BTM Code.

The registration framework presented in this report reflects that presented in the Directions Report with one change related to the potential number of codes of practice. The framework outlined in the Directions Report provided for a tailored code of practice to be prepared for each prescribed AES, resulting in a series of codes being developed over time. This Final Report recommends the use of a single code of practice for all prescribed AES, to be known as the AES Code (see Chapter 3.1). The legislative arrangements required to give effect to this registration framework are described in Chapter 3.3.

Chapter 4 of the Final Report provides an assessment of the two policy options that were considered by EPWA when determining the preferred regulatory approach. Option One, the preferred framework, involves legislative change, while Option Two is the continued use of the existing regulatory framework.

It is not the purpose of the Final Report to assess the impact of prescribing an individual AES. Under the registration framework, a separate regulatory assessment process will be initiated each time an AES is proposed to be prescribed. It is anticipated that the first regulatory assessment of an AES under the registration framework will be for behind-the-meter generation and storage services.

1.6 Next steps

The Final Report will be presented to the Minister for Energy for consideration. Subject to government endorsement of the registration framework, EPWA will submit drafting instructions to the Parliamentary Counsel's Office for preparation of a draft Bill to achieve the outcomes of the Review. An indicative timeframe for the implementation of the registration framework is provided in Chapter 5.

1.7 Information requests

Requests for information relating to the Review will be treated in accordance with the *Freedom of Information Act 1992* (WA) and EPWA processes.

2. The case for change

2.1 Background

The energy licensing framework has limited scope for flexibility or customisation to, for example, apply a 'lighter' compliance regime for new and emerging electricity services. It is not possible to apply a portion of the compliance obligations to a licensee, such as obligations related to customer protections. Furthermore, the costs associated with holding a licence (including auditing requirements) may be prohibitive for a small to medium size enterprise supplying only a small number of customers.

Further use of the licensing exemptions framework to accommodate 'non-traditional' AES could also pose risks for small use customers of those services who may incorrectly assume continued enjoyment of protections generally available to customer relationships with the standard licensed retailers.

Action is required to effect regulatory change to address deficiencies of the licensing and exemption arrangements, in order to provide:

- a regulatory framework that is future-proofed and flexible to accommodate new and emerging technologies and business models;
- customer protections that are relevant to the product or service provided;
- appropriate and practical dispute resolution processes; and
- a robust and proportionate compliance and enforcement regime.

It is also noted that while the registration framework will include adequate safeguards for the delivery of appropriate protections for customers, the State Government and the ERA are continuing to acquire understanding of the scale and scope of AES in Western Australia.

- As the exemption framework does not provide a formal dispute resolution process, evidence of customer complaints is limited. However, anecdotal evidence based on approaches made to EPWA by customers from a variety of exempt businesses indicates that effective dispute resolution remains a critical shortcoming of the framework.
- The exemption framework does not support the establishment or maintenance of a database of businesses operating under general exemptions[5]. The number and type of businesses providing exempt services and the number of customers they service in Western Australia can only be estimated, but EPWA understands that depending on the type of service provided, these numbers can be substantial (see Appendix A for further details).

Since the Directions Report was released, two relevant processes have concluded reinforcing the need for action to address the above regulatory deficiencies.

- Release of the Energy Transformation Taskforce *Distributed Energy Resources Roadmap* (the DER Roadmap).
- The Western Australian Parliament Economics and Industry Standing Committee's release of its final report into microgrids titled *Taking Charge: Western Australia's Transition to a distributed energy future* (Microgrids Report).

[5] Other than exempt persons providing SPPAs under clause 4 of the Electricity Industry (Solar Power Purchase Agreements) Exemption Order 2016.

2.2 Distributed Energy Resources Roadmap

The DER Roadmap aims to facilitate the integration of growing levels of distributed energy resources (DER) into the electricity system in a safe and secure manner, and ensure that customers continue to benefit from small-scale solar photovoltaic (PV) systems and other new technologies.

The DER Roadmap acknowledges that as business models evolve and new entrants enter the DER services market, customers must continue to be adequately protected through frameworks that:

- provide safe, reliable and competitively priced electricity services;
- ensure customer privacy and data are protected;
- make available clear and comprehensive information to assist customer decision-making; and
- include customer protection obligations of third parties with innovative business models, requirements of parties holding customer data, and engagement and education to keep customers informed.

Actions 34 and 35 of the DER Roadmap were proposed in response to an identified need for a customer protection framework that can adapt to the continuing transformation of the energy sector and ensure existing protections are not eroded in a high-DER future.

> **DER Roadmap**
>
> Action 34
>
> By June 2020, commence a process to ensure new business models in the electricity sector, at a minimum, provide appropriate protections for consumers (medium priority).
>
> Action 35
>
> By March 2022, establish a regulatory framework for new energy service business models to ensure access to the Energy Ombudsman, and that hardship schemes and exemptions are appropriately applied.
>
> Source: Energy Transformation Taskforce, *Distributed Energy Resources Roadmap,* December 2019, p.69.

2.3 Microgrids inquiry

The Economics and Industry Standing Committee's *Inquiry into Microgrids and Associated Technologies in Western Australia* (Microgrids Inquiry) was established in February 2018, with the Committee releasing the Microgrids Report in February 2020. The Committee investigated and reported on the emergence and impact of electricity microgrids and associated technologies, including consumer protection matters specific to microgrids, and found that the current (licensing and exemption) framework is unsuitable. The Committee also acknowledged the work of the Retail Electricity Licensing and Exemptions Review.

Specifically, the Committee found that it was unacceptable that electricity consumers could be locked behind a microgrid and unable to secure power in the event of a supplier (microgrid operator) failure and that customers of microgrid operators are not provided with a minimum set of protections. Recommendations 15 and 16, reproduced below, were made in response to these findings.

Recommendation 17, in part, focuses on ensuring that any new regulatory regime established for the distribution of electricity to consumers through a microgrid is adequately captured within the *Electricity Regulations 1947* inspections framework[6]. EPWA will consult with the Director of Energy Safety to evaluate the appropriateness of the existing system of inspection guidelines and any potential modifications that may be required for microgrids.

Microgrid Report

Recommendation 15

The Minister for Energy ensure that appropriate Supplier of Last Resort provisions extend to relevant customers in new microgrid-based business models in the South West Interconnected System.

Recommendation 16

The Minister for Energy avoid an approach to electricity licensing based on exemptions for new business models and instead introduce a new class of licence, aimed at facilitating new business models, whilst achieving appropriate consumer protections, social and economic policy outcomes.

As a minimum, licensing arrangements for new business models should ensure that consumers in relevant classes retain access to:

- the Energy and Water Ombudsman;
- supply based on Economic Regulation Authority approved contracts;
- supply provided under regulated tariffs, fees and charges;
- concessions;
- coverage afforded under the *Code of Conduct for the Supply of Electricity to Small Customers 2018*;
- guaranteed access for life support customers; and
- the obligation for the retailer to supply electricity.

Recommendation 17

The Minister for Energy review the operation and funding of the energy safety inspection function to ensure:

- that consumers supplied through microgrids enjoy the same level of protection as traditionally supplied customers; and
- the cost of any alterations to inspection or safety regimes are appropriately recovered from 'causers' and not inappropriately cross-subsidised.

Source: Microgrids Report, February 2020, pp. 153 and 156. Legislative Assembly, Economics and Industry Standing Committee

[6] The default position under the *Electricity Regulations 1947* is that before electricity can be supplied to a consumer, in respect of a new or altered electrical installation, the relevant network operator must inspect the electrical installation and determine that it complies with all requisite technical and safety requirements.

2.4 Other jurisdictions

The challenge of ensuring that the regulatory framework for customer protections remains relevant and appropriate in response to the rise of AES is not only being faced by Western Australia. Governments and regulatory bodies across Australia are examining the way in which existing frameworks can be updated to respond to the changing nature of the electricity sector.

Market Review - Consumer protections in an evolving market

The Australian Energy Market Commission (AEMC), in response to the *2019 Retail energy competition review*, released two issues papers[7] seeking stakeholder views on the:

- need for changes to consumer protections in the National Energy Customer Framework (NECF)[8], the Australian Consumer Law and voluntary frameworks in response to new energy products and services; and
- impact of digitalisation of regulatory provisions related to information provision, cooling off periods and explicit informed consent requirements under the NECF for the traditional sale of energy.

Submissions on both papers closed in February 2020 and, in June 2020 the AEMC released its Final Report for the *2020 Retail energy competition review* that considered responses to the two papers. The AEMC analysis found that there was a variety of regulatory approaches, including a principles-based approach, that could be used to develop a fit-for-purpose consumer protection framework to accommodate new products and services. The AEMC stated that it would continue to look at opportunities to move to these different regulatory approaches[9].

Market Review - Updating the regulatory frameworks for embedded networks

In a 2017 review of the exemption arrangements for embedded networks, the AEMC found that the framework was no longer fit for purpose in the face of the growth in the number and scope of embedded networks and did not balance innovation, customer protections and consumer access to retail market competition. The review noted that the Australian Energy Regulator (AER) does not place reporting requirements on exempt parties and therefore has no visibility over their compliance with exemption conditions, and additionally that there were limited enforcement options available to the AER[10].

Subsequently, in 2019, the AEMC recommended that most embedded network providers be required to comply with the NECF under the terms of the retail authorisation (licence) framework[11]. The recommendations made by the AEMC in its 2019 embedded network review were again recommended for implementation in its *2020 Retail energy competition review*[12].

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7 AEMC, *Consumer Protections in an evolving market, Market review: completed.*.

8 The NECF is a suite of legal instruments that regulate the sale and supply of electricity and gas to retail customers. The NECF is applied in full in most eastern state jurisdictions, in a limited manner in Victoria and the Northern Territory, and does not apply in Western Australia.

9 AEMC, *Final Report - 2020 Retail energy competition review* 30 June 2020, p. 205.

10 AEMC, *Final Report - Review of regulatory frameworks for embedded networks* 28 November 2017, p.iv, 23.

11 AEMC, *Final Report - Updating the regulatory frameworks for embedded networks* 20 June 2019, p. vi.

12 AEMC, *Final Report - 2020 Retail energy competition review* 30 June 2020, p. 115.

3. The registration framework

The proposed registration framework reflects that presented in the Directions Report with one change related to the use of multiple codes of practice.

The framework outlined in the Directions Report proposed that a tailored code of practice should be prepared for each prescribed AES, resulting in a series of codes being developed over time.

The registration framework presented in this report recommends the use of a single code of practice, the AES Code. Customer protection obligations contained in the AES Code will be identified and applied to individual prescribed AES as required.

This change has been made in response to stakeholder feedback suggesting that administrative efficiency would be enhanced with the use of a single AES Code[13].

3.1 A single code of practice

The AES Code will be used the sole repository for all code obligations related to prescribed AES to ensure a simple registration framework.

This approach will avoid the need to repeat obligations in individual tailored codes of practice that may be common to several prescribed AES. If necessary, each time a new service is prescribed, the AES Code will be amended to include any additional customer protection obligations that are not already provided for in the Code.

The reduced administrative effort that would be associated with establishing, maintaining, amending and reviewing a single code of practice, as opposed to multiple codes, supports this approach which is consistent with that applied in other Australian jurisdictions. The Victorian Government applies specific Energy Retail Code Clause obligations to categories of exempt sellers and suppliers under the General Exemption Order 2017. The AER uses a similar approach in applying obligations for exempt retailers under the National Energy Retail Law[14].

As it is expected that behind-the-meter generation and storage services will be the first AES to be prescribed, customer protection obligations developed for the draft BTM Code will form the basis of foundation customer protection obligations in the initial AES Code.

3.2 Features of the registration framework

The registration framework requires:

- amendment of the Act to provide for the regulation of prescribed categories of AES;
  - The framework can also be applied to existing electricity services that operate under licence exemptions provided in accordance with the Act[15], if a need to improve protections for customers of these services is identified.
- a single code of practice (the AES Code) to be developed for prescribed AES categories; and
- that a person who wishes to provide a prescribed AES must:

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13 Informal feedback about the use of a single code instead of multiple codes was received through the BTM Code Working Group.

14 Australian Energy Regulator, *AER (Retail) Exempt Selling Guideline – Version 5 – March 2018.*

15 Exemptions are currently provided through the Electricity Industry Exemption Order 2005 and the Electricity Industry (Caravan Park Operators) Exemption Order 2005.

– register with the ERA as an AES Code participant (code participant) and pay any associated registration and/or annual fees;

– adhere to the requirements of the Act, regulations and specified AES Code obligations;

– provide specified information to the ERA as requested; and

– participate in the Energy Ombudsman Scheme[16]; and

– where a code participant is providing distribution services to a specified number of customers, pay an energy safety levy as determined by Building and Energy.

3.3 Supporting legislative arrangements

The legislative and regulatory arrangements recommended to support the registration framework are summarised in the following sections. A schematic representation of the key features of the registration framework is provided in Figure 3.1.

Outcome 1: A framework is established allowing a person to provide a prescribed alternative electricity service under a registration

Recommendation 1

That the Act is amended to establish a registration framework for persons who propose to provide prescribed AES to small use customers. The registration framework will:

- function alongside the existing licensing and exemption framework established by Part 2 of the Act;
- require a person who wishes to provide a prescribed AES to be registered with the ERA and comply with framework requirements; and
- confer responsibility on the ERA for the administration of the framework; including reporting obligations, monitoring adherence to, and enforcing compliance with, framework requirements.

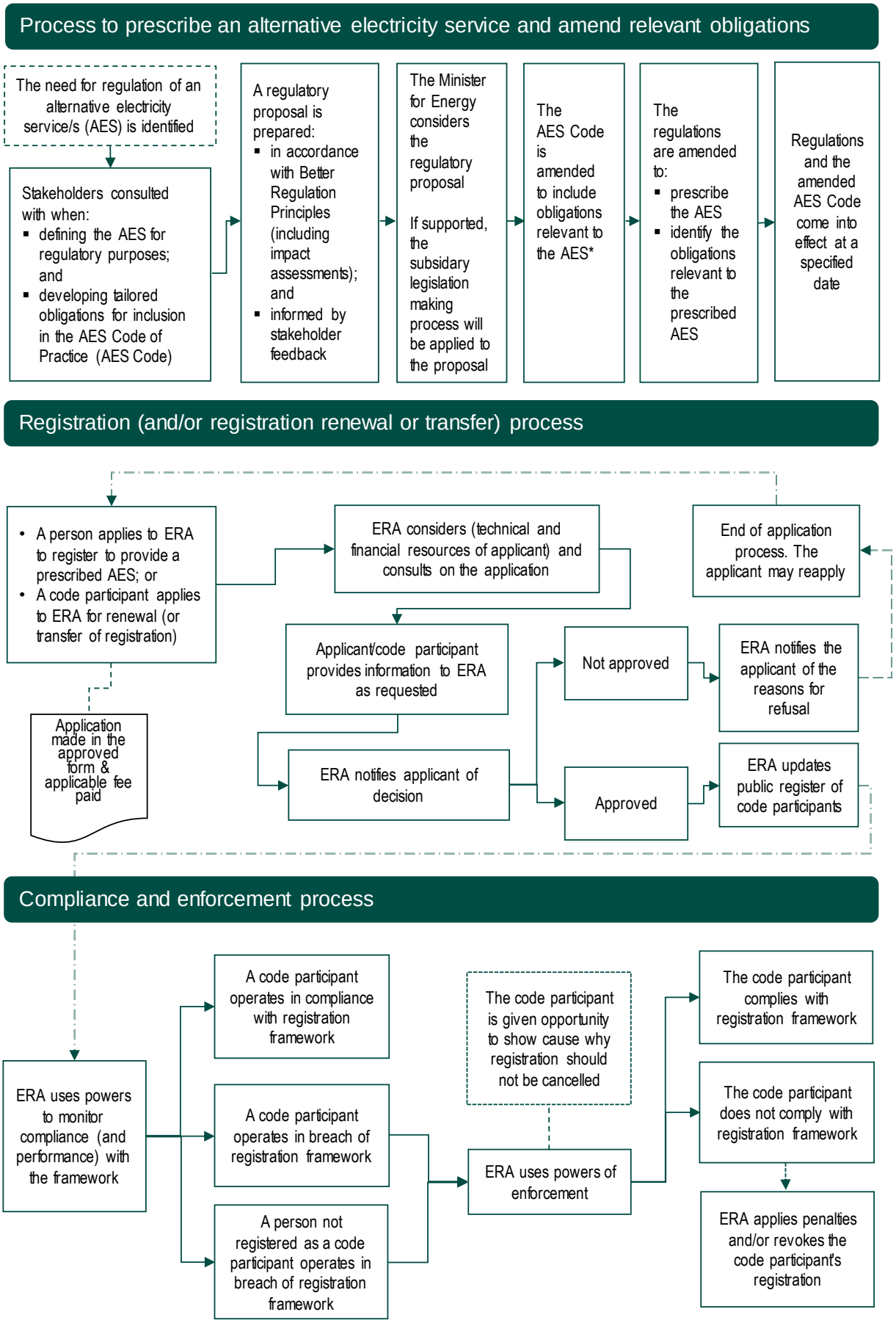
It is recommended that the Act is amended to establish a registration framework for a person who proposes to provide an AES to small use customers (i.e. customers who consume no more than 160 MWh of electricity per annum). Stakeholder feedback received following the release of the Directions Report supports EPWA's position that it is not appropriate to impose additional customer protection obligations on larger customers that may utilise these services.

The proposed registration framework would function alongside the existing licensing and exemption framework established by Part 2 of the Act. The provision of a prescribed AES will not be authorised under the authority of a licence granted under Part 2 of the Act.

It is intended that categories of AES will be prescribed as the need for regulation, or improved regulation of customer protections for that service type is identified. Obligations related to all prescribed AES will be complied in one enforceable code of practice, the AES Code. AES Code obligations that are to be applied to a prescribed service will be identified by regulation.

[16] The Energy Ombudsman receives and resolves complaints related to licenced electricity and gas retailers.

Figure 3.1: Schematic representation of the key features of the registration framework



* The initial AES will likely be prescribed when regulations are established for the framework and the first version of the code of practice is published. Thereafter the regulations and the AES Code will be amended as additional AES are prescribed.

Under the registration framework a person wishing to provide a prescribed AES will be required to be registered with the ERA and comply with applicable legislation/regulations, including any specified AES Code obligations. It is intended that each code participant will establish internal operating processes to ensure compliance with, and monitor and report on compliance with, the registration framework.

The ERA will be responsible for administering the registration framework, including monitoring adherence to, and enforcing compliance with, framework requirements (Outcomes 4 and 5 respectively). In deciding to grant a registration, the ERA will be required to take into account:

- the applicant's financial and technical resources to undertake the prescribed AES; and
- public interest considerations[17].

A code participant will be required to notify the ERA of any change in circumstances that may affect its ability to meet its obligations under the registration framework. This includes a change to a code participant's ownership or structure related to a registration.

Following assessment and subject to meeting the regulatory requirements, the registration is to be granted to the person (business) who sought registration and will be able to be transferred to another person (subject to compliance with the same assessment and regulatory requirements). It is intended that a registration will remain in force until transferred, cancelled or revoked.

The ERA will be able to charge fees associated with the administration of the registration framework including fees for a registration application and annual, renewal, transfer and cancellation fees.

The ERA will establish and maintain a public register of code participants that will offer customers the opportunity to verify that services they have been offered, or are receiving, are being provided by an entity or person registered with the ERA.

Outcome 2: Regulations will prescribe categories of alternative electricity services

> **Recommendation 2:**
>
> That the Act is amended to allow for categories of AES to be prescribed in regulation.

The purpose of prescribing a (category of) AES in regulation is to allow for tailored obligations to be developed for that category of service and contained in the AES Code (Outcome 3).

A prescribed category of AES is intended to relate to a service that is provided to a small use customer. A prescribed category of AES can include services that:

- would otherwise need a licence or an exemption to sell, generate or convey electricity; and/or
- involve the use of electricity under membership, financing, leasing or hire arrangements and/or on behalf of a third party, such as embedded networks; and/or
- involve aggregation of electricity from one or more sites; and/or
- relate to storage works, such as batteries, that currently do not require licensing; and/or
- involve demand management services; and/or
- involve the management and/or use of electricity data.

[17] It is intended that these requirements will be based on section 8(5) of the Act, which refers to the granting of exemption orders by the Governor. Section 9 of the Act also requires the ERA to take these factors into account when considering the granting of a licence.

A prescribed category of AES may apply only to certain customer class/es (e.g. customers who use less than 50 MWh of electricity per annum), may include electricity services that are provided behind a customer's meter (e.g. a service that provides a customer a secondary supply of electricity to that already provided by a licensed retailer), may be located partly or wholly within a microgrid or embedded network, and may include metered and unmetered services.

It is intended that the first AES to be prescribed by regulation will be behind-the-meter generation and storage services. Other AES that could be prescribed in the future include business models providing DER services, embedded network services, electric vehicle charging stations, community energy projects and peer-to-peer trading services.

The regulations will also describe terms and conditions applicable to all registrations of prescribed AES, such as reporting and auditing requirements, and membership of the Energy Ombudsman Scheme.

Outcome 3: A code of practice is established, applied to prescribed categories of alternative electricity services and administered by the ERA

> **Recommendation 3:**
>
> That the Act is amended to establish that a code of practice is to be prepared and issued for AES.

Regulations will prescribe each category of AES and identify the code (AES Code) obligations that a code participant providing a prescribed AES will be required to adhere to.

The AES Code will be subsidiary legislation and subject to regulatory development and approval processes, including stakeholder consultation and impact assessments. Obligations contained in the AES Code will benefit from being developed in consultation with stakeholders. Table 3.1 identifies subject matter that the AES Code may address.

The AES Code will be the main repository for prescribed AES obligations. A similar approach of using a single repository for obligations for multiple activities has been taken by the Victorian Government in applying specific obligations to categories of exempt sellers and suppliers under the General Exemption Order 2017. This approach is outlined in further detail in *Energy Retail Code (obligations for exempt sellers) Final decision, September 2018*. The AER uses a similar approach in applying obligations for exempt retailers under the National Energy Retail Law[18].

The AES Code will identify the minimum customer protection obligations that a code participant providing a prescribed AES will be required to adhere to. The AES Code will likely include some obligations modelled on the protections that licensed retailers must provide their customers under the Code of Conduct for the Supply of Electricity to Small Use Customers 2018. An overview of the types of obligations proposed for the AES Code is provided in Table 3.1.

The Minister for Energy will be responsible for preparing, amending and reviewing the AES Code (supported by EPWA). The AES Code will be reviewed at least every five years or earlier if deemed appropriate. Reviews will be informed by public consultation.

EPWA will prepare a model customer contract for each AES as it is prescribed to assist with Code compliance. Code participants will not be obligated to use a model contract.

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18 *AER (Retail) Exempt Selling Guideline – Version 5 – March 2018*, AER.

Obligations imposed on code participants under the registration framework will not affect a customer's rights, or the obligations of code participants, under the:

- Consumer Credit Code, administered by the Australian Securities and Investments Commission (ASIC), particularly where sellers are engaging in a 'hire purchase' arrangement; and
- Australian Consumer Law, set out in Schedule 2 of the *Competition and Consumer Act 2010*, which provides remedies for unfair contract terms, warranties, and product safety and where an AES provider engages in misleading and deceptive, unconscionable or third line forcing conduct.

Table 3.1: Examples of AES Code subject matter

AES CODE OF PRACTICE SUBJECT MATTER			
Information provision	**Service conduct**	**Billing obligations**	**Marketing conduct**
Information to be contained in service agreements (contracts)	Continuity of service in case of code participants failure	Principles to be applied by code participants in preparation of accounts/bills	Obtaining a customer's verifiable consent before entering into or amending an agreement (contract)
Information to be provided in bills, e.g. sufficient information for customers to understand how their bill is calculated	Supply standards e.g. • quality and reliability standard; and • requirements for supply of electricity to users of life support equipment	Requirements for payment of bills e.g. adequate time to pay a bill, exempt from late payment fees in certain circumstances	Ensuring customers are protected from inappropriate marketing and given sufficient information in plain English to make an informed decision before entering into an agreement (contract)
Information to ensure customers are aware of the available dispute resolution processes, such as the Energy Ombudsman Scheme	Disconnection, non-supply and interruption, and restoration of services	Arrangements and support for customers experiencing payment difficulties, e.g. alternative payment arrangements	Record keeping of complaints and information obtained from marketing agents
Ongoing information requirements e.g. how the customer may obtain a copy of the AES Code and the relevant telephone number for faults and emergencies	Metering requirements e.g. accuracy testing of meters upon a customer's request		
	Internal and external complaints handling and dispute resolution processes		
	Provision for asset management systems		

Outcome 4: Effective reporting and compliance monitoring processes are established

> **Recommendation 4:**
>
> That the Act is amended to establish authorisation for AES Code related reporting and compliance monitoring processes.

In order to ensure an effective registration framework, it is proposed that the ERA be provided adequate authorisation to monitor a code participant's performance and compliance against the framework, including the ability to require a code participant to report:

- regularly on performance; and
- compliance with regulatory obligations.

The ERA will also be able to initiate compliance audits should it have reason to believe that an audit is necessary to determine a code participant's compliance with the registration framework. Auditors will be independent, appointed by the ERA and audits will be paid for by the code participant.

Each code participant will be required to provide information and data to the ERA relating to its performance and compliance with the registration framework. The ERA will be able to request any information from code participants that it considers reasonable for it to carry out its responsibility to administer the registration framework. The ERA will also determine the frequency of reporting.

This approach will provide the ERA scope and flexibility to determine and prioritise the number and type of obligations code participants are to report on, in order to balance reporting requirements with the need for regulatory oversight.

The AER applies a similar risk-based approach to carrying out its compliance and enforcement responsibilities under the national energy laws[19]. The AER prioritises and focuses on matters that provide the greatest overall benefit to both consumers and the energy market[20].

There are several other avenues through which the ERA will access information, including from:

- stakeholders who have concerns about the behaviour of a person providing a prescribed AES (whether registered or not)[21];
- general surveillance of the AES sector;
- regular performance reporting by code participants;
- compliance reporting by code participants on specific regulatory obligations;
- ERA initiated compliance audits; and
- individual reporting following a specific information request to a code participant.

For transparency, procedures and guidance notes will be prepared by the ERA to assist code participants in meeting their compliance and reporting obligations, similar to the procedures and guidelines developed by the ERA for the licensing framework.

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19 National Gas Law, National Electricity Law and National Energy Retail Law.

20 *AER Compliance and Enforcement Policy*, July 2019, p. 4.

21 This could include information from the Energy Ombudsman.

The ERA will report annually to the Minister for Energy on the operation of the registration framework, including:

- the number of code participants, the AES that they provide and the number of customers they service;
- failure of a code participant to comply with the framework requirements; and
- identified opportunities to improve the registration framework.

Outcome 5: Compliance with the registration framework will be enforced

> **Recommendation 5:**
>
> That the Act is amended to provide the ERA with authorisation to investigate breaches, or possible breaches, of the registration framework and enforce compliance with the registration framework.

The ERA will be given powers to:

- investigate breaches or possible breaches of the registration framework, including identifying person/s who have not registered as a code participant and are operating in breach of the legislative requirements by offering a prescribed AES; and
- enforce compliance with the requirements of the registration framework by code participants, including the power to:
  - gather information;
  - serve a notice to rectify any breaches of the registration framework;
  - impose enforceable undertakings, a monetary penalty[22] and/or a requirement for a code participant to accept responsibility for their actions and place a public notice advising of the same; and
  - recover imposed financial penalties.

A code participant, in response to a direction from the ERA to rectify a contravention, will be provided reasonable opportunity to show cause why their registration should not be revoked. Circumstances where the ERA may consider revoking a registration include where a code participant has failed to:

- pay a registration application, registration renewal, or audit fee;
- notify the ERA of a material change in circumstance; or
- comply with an obligation under the registration framework where it inhibits the primary supply of electricity to a customer or is otherwise detrimental to a customer.

The ERA will be required to publish its decision to revoke a registration on its website.

[22] A civil penalty regime with a penalty not to exceed $100,000 (i.e. equivalent to section 32 of the Act).

Outcome 6: Practical dispute resolution processes are established

Recommendation 6

That the Act is amended to require that as a condition of every registration, the code participant must be a member of the Energy Ombudsman Scheme.

The registration framework is to provide customers of code participants a practical and robust dispute resolution process through the Energy Ombudsman Scheme.

The manner in which code participants are represented on the Energy Ombudsman Scheme's governing body will require review and amendment due to the increased diversity and number of the scheme members resulting from this recommendation.

The Energy Ombudsman will be able to investigate disputes or complaints between customers and code participants. The ERA will monitor and enforce compliance with any decisions made by the Energy Ombudsman under the registration framework[23].

Code participants will also be required to adhere to any internal dispute resolution process requirements that are established by the AES Code.

[23] Section 98 of the Act.

4. Assessment of policy options

To assist in identifying the preferred regulatory framework EPWA canvassed three models for regulating electricity services operating in other Australian jurisdictions and the United Kingdom.

The frameworks for exemptions operating under the NERL, in Victoria and the United Kingdom are similar to the framework operating in Western Australia, in that conditions are applied to exemptions, with the number and type of conditions varying according to the type of exemption. There is, however, a significant difference in how the exemption frameworks are administered and enforced.

In these jurisdictions, responsibility for the administration and enforcement of the exemption framework is placed on their respective regulators, the AER, the Victorian Essential Services Commission and Ofgem. This contrasts with the arrangements in Western Australia where there is no clear legislated responsibility for the administration or enforcement of the exemption framework, with the State regulator, the ERA, having no role in the exemption framework.

The United Kingdom also operates a Licence Lite model where new suppliers can partner with an existing licensed supplier who retains responsibility for the more costly and technical parts of a supply licence. EPWA did not consider this approach to be a viable option due to Western Australia's relatively small retail market in relation to the supply of small use customers[24].

Further information on these regulatory frameworks was provided in the Directions Report.

Although Western Australia could continue to utilise its existing exemption framework (Option Two) to provide for new and emerging AES, it would not address the significant deficiencies, including enforcement and dispute resolution. It would also not provide a framework that is flexible and future proofed in its capacity to regulate new and emerging AES.

Legislative and regulatory reform, as presented in the Directions Report (Option One), is considered the only fit-for-purpose and viable option to safeguard protections for customers of AES, while ensuring adequate regulation of new and emerging electricity services.

4.1 Option One: A registration framework (the preferred framework)

Option One involves introducing a new registration framework under which AES providers will be regulated and is EPWA's preferred regulatory framework. To bring this option into effect, the Minister for Energy would be required to propose amendments to the Act to create a registration framework for new and emerging electricity services.

The registration framework will have the flexibility to accommodate new and innovative electricity retail business models as the need arises by allowing categories of AES to be prescribed and regulated by an enforceable, customisable code of practice to safeguard consumer protections.

The costs associated with compliance, fees and charges and the services to be regulated by the registration framework will need to be determined when a regulatory assessment is carried out for an AES at the time it is proposed to be prescribed. Further context is provided in the following sections.

[24] Further information on Licence Lite is available at https://www.ofgem.gov.uk/publications-and-updates/licence-lite-slc-11-3-operating-guidance%20 .

4.1.1 Compliance costs

In order to provide a prescribed service, code participants will need to establish and maintain internal compliance systems, for example billing systems, complaints handling processes and record keeping, to ensure that they meet the obligations placed on them under the registration framework.

The costs of internal compliance systems will vary according to the prescribed service being delivered. Key variables that will affect a code participant's compliance costs include:

- the number and type of obligations required to be adhered to; and
- the number and type of customers being serviced.

These variables will remain unknown until the assessment process to regulate a category of alternative electricity service commences.

Existing providers of these services, if practising good customer and business processes, may already have similar systems, or the fundamental building blocks of those systems, in place to those that may be required to meet the obligations under the registration framework.

It is intended that registration framework compliance costs will be less onerous those associated with the licensing framework.

4.1.2 Fees and charges

The following estimates of the fees and charges associated with the registration framework have been based on discussions held with the ERA; Building and Energy; the Office of the Energy Ombudsman and Treasury; and are discussed below.

ERA fees and charges

The legislative changes to give effect to the registration framework are intended to allow for the imposition of fees and charges payable by code participants to the ERA. Code participants will incur several costs, including:

- a registration application fee;
- annual registration fee;
- renewal of registration charge;
- transfer of registration charge; and /or
- cancellation of registration charge.

It is anticipated that the ERA registration fees and charges will be less than those applied to licensees.

The types of fees payable to the ERA and how they are calculated will be prescribed by regulation and will be dependent on the type of AES that is prescribed. Registration charges may be determined based on one or more variables including, for example, the number and/or type of customers being serviced; installed generation or storage capacity; total electricity purchased, sold or aggregated; or the number of AES Code obligations to which a code participant must adhere.

Registration fees and charges will be discussed with stakeholders as part of the development of code obligations to be applied to each AES category.

It is anticipated that these fees and charges paid by code participants will generally cover the ERA's running costs of efficiently administering the registration framework, including compliance monitoring and enforcement activities. There may however be some AES categories for whom paying fees and charges to the ERA on a full cost recovery basis is prohibitive.

As an example, if caravan park operators were to be made subject to the AES Code, they may not be able to fully fund, by payment of fees and charges, the ERA's costs associated with administering the registration framework. This would likely mean that some other source of funding (e.g. State government funding) would be required to address funding shortfalls to enable the ERA to administer the framework and ensure that recipients of the service are able to access the consumer protection provisions and dispute resolution processes to which other customers are entitled. The need for supplementary funding would be considered when a regulatory assessment is carried out for an AES at the time it is proposed to be prescribed.

ERA licensing fees

Under the Economic Regulation Authority (Licensing Funding) Regulations 2014 (Licensing Funding Regulations), prospective licensees must contribute towards costs incurred by the ERA in assessing a licence application (the specific charge). These costs include the engagement of consultants by the ERA to perform technical and/or financial assessments of a licence application, production of licence maps, public consultation and gazettal costs. There is no publicly available information on the scale of these costs. However, in relation to a generation licence application, a conservative estimate is between $5,000 and $7,000, if technical and financial assessments are required[25].

The Licensing Funding Regulations require licensees to pay an annual licence charge. For electricity licensees, these range between $2,406 and $3,416 per year.

Licensees are also required to pay a quarterly standing charge. The standing charge is payable in connection with the costs incurred by the ERA in performing its licensing functions. The standing charge is calculated based on a licensee's market share within its licence type. The larger an individual licensee's market share, the larger the share of the standing charge within the licence type. Each licence type (generation, transmission, distribution and retail) is responsible for 25% of the ERA's total standing charge.

Source: Public Utilities Office, *Amendment to Electricity Industry Act 2004: Removal of electricity generation licensing, Consultation Paper, December 2015,* pp. 5-6.

Energy Ombudsman Scheme membership

Code participants will also be required to be a member of the Energy Ombudsman Scheme. The Energy Ombudsman's constitution specifies the membership levies. For licenced electricity retailers, the current levies are:

- a joining levy of $5,000 or other such reasonable amount determined by the Board of the Energy Ombudsman (the Board) [26]; and

[25] The ERA's total costs in administering electricity generation licences in 2017-18 was $212,168 which equates to $6,844 per licence, *2017 Inquiry into reform of business licensing in Western Australia*, page 97 of Final Report.

[26] Clause 20.4, *Constitution of the Energy Ombudsman*, November 2015.

- an annual levy that is based on the number of customers the member services and the number of complaints and disputes involving each member supplying electricity during the previous Financial Year[27].

The Office of the Energy Ombudsman has advised EPWA that the Board has flexibility in determining joining levies.

It is anticipated that Energy Ombudsman Scheme membership fees will, generally, be of a lower scale than those applied to electricity retail licensees.

Energy safety levy

The *Energy Safety Act 2006* requires a levy to be paid by certain energy industry participants to fund legislated energy safety activities carried out by Building and Energy, such as ensuring safety of consumer installations and administering safety regulations applicable to electricity networks.

The total industry levy to enable the full costs of energy safety operations to be met is calculated yearly and apportioned with a 67% share to the electrical industry and 33% to the gas industry. In 2020-21, the total levy contribution to be received from electricity industry participants was $4.841 million. A model based on the aggregate number of consumer sites serviced by each electricity network operator (subject to a minimum aggregate total of 500 sites), is used to allocate the levy across the electrical industry[28].

Similar to major electricity industry participants who currently pay the energy safety levy, code participants who provide certain prescribed AES may also be required to pay the energy safety levy to ensure legislated energy safety activities are provided for. In instances where a prescribed AES relates to a sizable number of customer sites it is reasonable to expect that the code participant/s providing that service contribute to the energy safety levy[29]. The issue was highlighted by Recommendation 17 of the Microgrid Inquiry.

When an AES category is being considered for regulation, separate consultation will occur with Building and Energy on the application of the energy safety levy to that service under the *Energy Safety Act 2006*.

Other fees and charges

A code participant will be required to pay any other legislated fees and charges applicable to the services they provide and operations they undertake, for example, fees associated with participation in the Wholesale Electricity Market.

4.1.3 Scope of the registration framework

The registration framework is intended to be sufficiently flexible to address the different types of new and emerging AES developed in response to customer demand by the variety of service providers, including sole traders who provide services to a small number of customers, such as SPPA providers, to large companies that service thousands of customers, such as embedded network operators. Emerging and existing AES and their likely market share in Western Australia are discussed in Appendix A.

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[27] Each Member will pay the costs for all complaints or disputes involving the Member. Clause 20.8, *Constitution of the Energy Ombudsman*, November 2015.

[28] Building and Energy, *Energy Safety Business Plan 2020-21*, pp. 35-36.

[29] Large microgrids, if prescribed as an AES, have the potential to affect many customers.

4.1.4 Cost and benefit analysis

The costs and benefits of Option One are described in Table 4.1.

Table 4.1: Costs and benefits of Option One: A registration framework

Affected party	Option One impacts
Industry	
Costs (negative impacts)	• New and on-going compliance costs including penalties for marketing agents and AES providers who contravene provisions of the AES Code. • Increased obligations placed on AES providers, such as developing and implementing policies and processes for handling complaints and resolving disputes. • Development and maintenance of external policies such as those outlining how the AES provider will assist a customer experiencing difficulties in meeting their financial obligations and responsibilities to the service provider. • Increased obligations on metering requirements, including that meters are to be pattern approved and meet the requirements of the *National Measurement Act 1960.* • Costs to amend the constitution and charter of the Energy Ombudsman Scheme and ongoing scheme costs.
Benefits	• In comparison to being required to hold a licence, enforceable obligations placed on prescribed AES are proportionate to the scope of that service. • In comparison to being required to hold a licence, administration and compliance costs are designed to be kept to a minimum. • Removes confusion regarding licensing and exemption eligibility and associated customer protections. • Consumer protections applied to an AES reflect the nature of the prescribed service and are developed in consultation with affected stakeholders. • Provides consistency in the way code participants meet the conditions of their registration. • Facilitates greater oversight and understanding of AES. • Provides clarity for AES providers in assessing whether their ability to operate under a licence, registration or exemption.
Government	
Costs (negative impacts)	• If cost recovery for a prescribed AES is not a full user-pays arrangement, there may be moderate cost imposts on the State Government to fund associated ERA compliance and monitoring activities. • Ongoing costs to review and update the AES Code as more AES are prescribed.

Affected party	Option One impacts
Benefits	• ERA compliance and monitoring costs (generally) recovered by fees payable by code participants. • Clear legislated responsibility for the administration, monitoring and enforcement of the registration framework. • Ability to target AES requiring regulation when a need to provide or improve customer protections is identified. • Legislative regime is future proofed by a built-in flexibility to respond to new and emerging technologies on an as needed basis. • Proposed reporting frameworks will provide a better understanding of the scale and scope of AES in Western Australia. • An established evaluation process will allow assessment of the effectiveness of the regulatory framework in achieving its objectives.
Community/Customer	
Costs (negative impacts)	• Potential for customers to experience small increased service costs from a code participant as it attempts to offset compliance costs.
Benefits	• Provides enforceable consumer protections that are reflective of the nature of the prescribed service. • Registration framework compliance and enforcement activities will be carried out by the independent regulator, the ERA. • Customers will have access to information that will allow informed decisions on the choices available • Customers will have access to more innovative and targeted services. • Ensures customers have access to internal complaints handling process established by the code participant. • Provides access to the Energy Ombudsman to resolve complaints that are not resolved via a code participant's internal complaint resolution process. • Provides opportunity for a customer to verify that the service they have been offered, or are receiving, is being provided by a person registered with the ERA.

4.2 Option Two: No Government intervention (maintain the existing regulatory framework)

Option Two involves maintenance of the existing regulatory arrangements and does not address the major deficiencies of the licensing and exemption framework, which include a lack of flexibility to accommodate new business models while providing adequate customer protections, dispute resolution and compliance and enforcement processes. Option Two is not considered to be a sustainable option and is viewed as a baseline to compare costs and benefits of Option One.

4.2.1 Cost and benefit analysis

Table 4.3 describes the costs and benefits of Option Two.

Table 4.2: Costs and benefits of Option Two: No Government intervention

Affected party	Option Two impacts
Industry	
Costs (negative impacts)	• In the absence of a registration framework, AES that are deemed to be unsuitable for exemption from the licensing framework will be required to apply for a licence.

Affected party	Option Two impacts
	– The financial and compliance costs associated with the licensing framework may be prohibitive to smaller AES providers establishing these services.
Benefits	• No additional regulation. • No registration compliance costs.
Government	
Costs (negative impacts)	• Legislative framework remains unfit for purpose. • Where AES are provided under an exemption, there continues to be no clear legislated responsibility for the administration or enforcement of the exemption framework. • Limited understanding of the number of exempt providers and the number of customers they service.
Benefits	• No disruption to existing regulatory obligations.
Community/Customer	
Costs (negative impacts)	• Inequality of customer protections between different groups in the community. • Customers of exempt service providers retain limited customer protections and may remain unaware that they do not enjoy the same protections that are generally available to customer relationships with traditional licensed retailers, including: – Limited protection from inappropriate marketing conduct from AES providers and marketing agents. – Late payment fees being charged to customers in certain circumstances. – Limited protections to maintain continuity of supply for a customer experiencing payment difficulties. – Limited access to complaints handling processes. – Absence of appropriate and practical dispute resolution processes for customers of exempt service providers. • Absence of a robust and proportionate compliance and enforcement regime for exempt service providers. • Number and type of AES made available to customers may be limited.
Benefits	• Where an AES is permitted to operate, the cost may be lower due to the lack of compliance activity required by the service provider.

5. Implementation and evaluation

Implementation of the registration framework will follow the sequence of actions detailed in the timeline at Table 5.1 (with indicative timing for these activities included for information purposes only).

No significant implementation risks have been identified. Stakeholders will be proactively engaged in the development or amendment of the AES Code as new service categories are identified. EPWA will also engage with stakeholders during the drafting of legislative changes required to give effect to the registration framework.

Table 5.1: Indicative implementation schedule for the registration framework

MILESTONE		Anticipated timing
1.	Final Report submitted to the Minister for Energy for consideration	November 2020
2.	Minister for Energy endorsement of the Final Report	November 2020
3.	Public release of Final Report on EPWA website	November 2020
4.	Government endorsement of drafting instructions for required legislative changes (the Bill)	December 2020
5.	Parliamentary Counsel's Office completes drafting of the Bill	April 2021
6.	Stakeholder consultation on the draft Bill	April – May 2021
7.	Passage of the Bill through Parliament	January 2022
8.	Proclamation and commencement of Act amendments	March 2022
9.	Release of draft regulations and draft AES Code for stakeholder comment	June-August 2022
10.	Stakeholder comments considered	September-October 2022
11.	Registration framework takes legal effect	November 2022

Transitional period

Transitional arrangements will allow for the cancellation of deemed or specific exemptions if the service becomes covered by the registration framework. The SPPA Order, for example, will need to be repealed when behind-the-meter generation and storage services are prescribed as an AES. A transitional period may be prescribed to allow service providers to move from the exemption regime to the registration framework when the particular category of AES is prescribed.

Evaluation

The effectiveness of the registration framework will be evaluated by the provision of reports complied by the ERA on code participant's compliance with the registration framework. These reports will be required to be submitted to the Minister for Energy for information and made publicly available on the ERA website.

The ERA will also be required to report to the Minister for Energy on the potential for improvements to the registration framework that could, for example, include obligations of the AES Code that appear unnecessary, duplicative, ineffective or excessively costly.

Appendix

Appendix A: Examples of services that could be prescribed as alternative electricity services in Western Australia

Behind-the-meter generation and storage services

In the first instance, it is proposed that that behind-the-meter generation and storage services will be prescribed as an AES and include SPPA arrangements currently exempted under the Electricity Industry (Solar Power Purchase) Exemption Order 2016 (SPPA Order) as well as leasing agreements for solar photovoltaic (PV) systems and/or batteries.

There are 20 suppliers of SPPA arrangements that are exempt from the requirement to hold a retail electricity licence. EPWA data shows that in the 2018-19 financial year 32 solar PV systems were installed under these arrangements, taking to 96 the number of systems installed or assigned under a SPPA since the Order was enacted in 2016[30]. It is understood that the earlier installations were larger scale commercial systems, however it appears that residential SPPA systems are now being installed by exempt providers under the Order. A recent example of these residential based arrangements is the SPPA arrangements that Infinite Energy is offering to residents at Amble Estate (see below).

There is an unknown number of lease agreements between providers and customers for behind-the-meter generation (e.g. solar PV systems) and/or storage systems in Western Australia.

Solar leases, Infinite Energy and Amble Estate

Under a 10-year agreement between the property developers and Infinite Energy, residents of Amble Estate are offered a 10-year SPPA with Infinite Energy, in which Infinite Energy retains full ownership and maintenance responsibilities for the solar PV system for the term of the SPPA.

The homeowner has access to discounted daytime solar power, generated from a solar PV system installed on their home, at a discounted rate of 40% below the regulated residential (A1) consumption tariff when they pay their bill in full by the due date. Any power consumed from the electricity grid is charged by Synergy at the A1 tariff rate. The customer also continues to pay the daily supply charge and any other Synergy fees, such as late payment fees.

At the end of the 10-year contract term, the solar PV system is either removed by Infinite Energy at the request of the homeowner or ownership of the system is transferred to the homeowner for $1.00, after which the homeowner will have full maintenance responsibilities.

As at July 2019, 37 of 43 buyers had opted to take up the offer.

Source: *Solar power at The Amble Estate* brochure and Perth Now website, *Solar power deal; appeals to Girrawheen home buyers*, 5 July 2019.

Embedded network business models

Embedded networks are dedicated power systems that are privately owned and wholly located on one site (e.g. a shopping complex, retirement village or apartment complex), which usually serve multiple customers. The on-supply of electricity in embedded networks to customers is currently exempted under the Electricity Industry Exemption Order 2005[31].

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30 EPWA analysis December 2019.

31 Caravan parks are also embedded networks. The on-supply of electricity in caravan parks is provided for in the Electricity Industry (Caravan Park Operators) Exemption Order 2005.

The number and type of embedded networks and customers supplied electricity by embedded network operators in Western Australia is unknown as there is no requirement to register. However, it is likely to be substantial, meaning that any improvements made to customer protections for these services will benefit a significant number of consumers, but also likely affect a large number of providers. EPWA estimates that there could be around 10,500 businesses, which use less than 50 MWh per annum, that are supplied electricity through an embedded network in Western Australia.

In comparison, similar types of exempt embedded networks in other jurisdictions are required to be registered under their regulatory frameworks[32].

- In Victoria over 1,110 exempt embedded networks supplying over 140,000 customers during 2018-19[33] were registered as being exempt.
- In New South Wales, South Australia, Tasmania, Queensland and the Australian Capital Territory there are around 4,500 embedded electricity networks registered as being exempt from registering as a Network Service Provider. As this number does not include smaller embedded networks deemed to be exempt, the total number of embedded networks is likely to be much higher[34].
  - Data is limited as to the number of embedded network customers being serviced; however, stakeholders have suggested to the AEMC that the amount could exceed half a million customers[35].

The total number of embedded networks in all these jurisdictions is likely to be much greater as exempt sellers who supply metered electricity to small embedded networks are not required to be registered.

Microgrids

A microgrid is generally considered to be a small-scale system consisting of DER that is linked to an intelligent communication and control system to supply power to distributed loads. A microgrid can also be operated autonomously to be part of a larger interconnected electricity network or switched to be 'islanded' depending on the system type and operational scenarios[36].

Western Australia has a number of established microgrids, typically serving remote townships and mine sites. Microgrids and associated DER technologies are also being trialled and applied within established grids throughout Western Australia.

- Horizon Power, as at April 2018, owned and operated 37 microgrids[37].
- In May 2020, EDL Energy completed Australia's largest hybrid renewable microgrid at the Agnew Gold Mine, which incorporates wind and solar generation into a hybrid renewable system to supply energy to the mine site.

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32 The NERL has been applied in New South Wales, Queensland, South Australia, Tasmania and the Australian Capital Territory. In Victoria, however, the *Electricity Industry Act 2000* (and *Gas Industry Act 2001*) contain similar provisions to the NERL

33 Victorian Essential Services Commission, *Victorian Energy Market Report 2018–19*, p. 15.

34 AEMC Information Sheet, *Updating the regulatory frameworks for embedded networks*, June 2019.

35 Ibid.

36 Economics and Industry Standing Committee, *Implications of a Distributed Energy Future Interim Report*, Submission No. 19 from Australian Energy Market Operator, 13 April 2018, p10.

37 Economics and Industry Standing Committee, *Implications of a Distributed Energy Future Interim Report*, Submission No. 30 from Horizon Power, 19 April 2018, p38.

- Western Power has been trialling microgrids and associated technologies as an alternative to traditional supply solutions for 'fringe-of-grid' areas. Western Power has designed and will manage a 5MW microgrid in Kalbarri that is due to be completed in 2020. The Kalbarri microgrid will include a utility-scale battery as its centrepiece charged from a combination of network, wind and solar sources[38].
- The Peel Business Park, an industrial and agri-business precinct being developed by DevelopmentWA 70km south of Perth, will be powered by one of the State's largest industrial renewable microgrids. The 1MW facility will be capable of operating independent of the grid and is expected to be fully operational in 2020[39].

Microgrids are presenting an opportunity to reconsider the way energy is retailed with innovative commercial structures being created. For instance, in 2015 Curtin University, in partnership with several other companies, commenced a research project located in White Gum Valley, near Fremantle. The project is developing governance models to allow the sharing of power from solar PV panels, the use of battery storage and monitoring systems to be utilised in medium density apartments[40].

Microgrids have the potential to be an important component of the State's future energy economy and offer opportunities for both private and public enterprises. Notably, a major finding of the Microgrids Inquiry was that microgrids demonstrate electricity can be provided to consumers in a more cost-effective and reliable manner than via traditional supply arrangements[41].

Electric vehicle charging stations

As at 31 March 2020, there were less than 1,110 small passenger and commercial electric vehicles registered for use on Western Australian roads[42]. In addition, there are a limited number of local programs using electric vehicles for other applications including the RAC Intellibus[43], four-wheel drive vehicles at mine sites[44] and heavy electric vehicles, such as trucks used for the collection of recycling materials[45].

As of July 2019, there were around 190 public charging stations located across the State, positioned along major transport routes and at shopping centres, petrol stations and automotive businesses[46].

While charging infrastructure is at an early stage of development in Western Australia and there has not been any evidence of reported consumer protection concerns, as the numbers of electric vehicles increase and more charging infrastructure is made available to owners of electric vehicles, appropriate consumer protections may be needed.

A review of the regulatory arrangements for electric vehicle charging stations will be completed before mid-2021, when the current exemption expires. Stakeholder consultation will form a significant part of this review.

The proposed timing for an EPWA review of the regulatory arrangements for electric vehicle charging stations review will allow for the consideration of alternative approaches to regulation informed by

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38 Economics and Industry Standing Committee, *Implications of a Distributed Energy Future Interim Report*, April 2019, p. 31.

39 Economics and Industry Standing Committee, *Implications of a Distributed Energy Future Interim Report*, April 2019, p. 40.

40 Economics and Industry Standing Committee, *Implications of a Distributed Energy Future Interim Report*, April 2019, p. 43.

41 Economics and Industry Standing Committee, *Implications of a Distributed Energy Future Interim Report*, April 2019, p. 44.

42 Department of Transport vehicle registration data.

43 RAC website, RAC Intellibus..

44 International Mining website, Safescape's battery-electric Bortana EV makes a splash in WA nickel country, 6 March 2020.

45 Perthnow website, Belmont charges up electric vehicle recycling truck, 18 March 2019.

46 Electric Vehicle Council, *State of Electric Vehicles, August 2019*, p. 19.

this Retail Electricity Licensing and Exemption Review, the Western Australian Government response to the Microgrids Inquiry and the implementation actions for the DER Roadmap.

Other forms of alternative electricity services

Trials of other emerging electricity services and business models that demonstrate the range of services being developed to meet needs and demands of consumers and developers are now underway in Western Australia.

The Western Power community energy project, the Mandarah PowerBank Trial, includes utility-scale batteries, owned and maintained by Western Power, integrated into an already-established major metropolitan electricity network providing an opportunity for up to 192 residents to virtually store the excess electricity that is generated from a solar PV system. Residents pay between $1 and $1.90 per day to store their excess energy[47].

A trial involving peer to peer trading of electricity is underway in a White Gum Valley residential complex near Fremantle, comprising solar PV panels, battery storage and blockchain technology. The system allows residents of around 80 buildings to share and trade electricity and balance their energy use between their local grid and the main electricity network[48].

[47] Western Power website, PowerBank community battery storage.

[48] Western Power website, Sharing energy in White Gum Valley.

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