

Review of the Northern Territory's Electricity Supply Licensing Regime

Draft Decision – scope and design

Draft decisions and reasoning for
proposed changes to the scope
and design of the electricity
supply licensing regime

April 2023

The Utilities Commission

The Utilities Commission (Commission) is an independent statutory body established by the *Utilities Commission Act 2000* (UC Act) with defined roles and functions for declared (regulated) industries in the Northern Territory including electricity, water supply and sewerage services industries, and ports. For the electricity supply industry, the Commission's powers and functions are set out in section 6 of the UC Act and section 6 of the *Electricity Reform Act 2000* and include performing licensing functions in that industry.

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Request for submissions

The Commission invites written submissions on this Draft Decision by **Friday, 16 June 2023**.

It is preferred that submissions are sent electronically to: utilities.commission@nt.gov.au.

All submissions will be made publicly available on the Commission's website (<https://utilicom.nt.gov.au/>), except where a submission contains confidential or commercially sensitive information provided on a confidential basis and appropriate notice has been given.

The Commission may also exercise its discretion not to publish any submission based on its content such as submissions containing material that is offensive or defamatory.

Enquiries

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Abbreviations and acronyms

AER	Australian Energy Regulator
Commission	Utilities Commission of the Northern Territory
DCMC	Department of the Chief Minister and Cabinet
DTFHC	Department of Territory Families, Housing and Communities
EDL	EDL NGD (NT) Pty Ltd
Eni	Eni Australia Limited
EPO	electricity pricing order
ERA	Energy Resources of Australia Ltd
ER Act	<i>Electricity Reform Act 2000</i>
ER Regulations	Electricity Reform (Administration) Regulations 2000
EV	electric vehicle
GEMCO	Groote Eylandt Mining Company Pty Ltd
GSLs	guaranteed service levels
GPS	generator performance standards
IES	Indigenous Essential Services
IPP	independent power producers
Jacana	Jacana Energy
Licensing regime	electricity supply licensing regime
kW	kilowatts
kWh	kilowatt hours
NECA	National Electrical and Communications Association
NETCC	New Energy Tech Consumer Code
MW	megawatts
PPA	power purchase agreement
PV	photovoltaic
PWC	Power and Water Corporation
Rimfire	Rimfire Energy
RTA Gove	Alcan Gove Pty Limited
SCTC	System Control Technical Code
SSG	small scale generation
SSRE	small scale renewable energy
Territory	Northern Territory
TGen	Territory Generation
UC Act	<i>Utilities Commission Act 2000</i>
VPP	virtual power plant

Executive summary

The Commission has reviewed the coverage, relevance and flexibility (scope and design) of the Northern Territory's (Territory's) electricity supply licensing regime (licensing regime) and made a Draft Decision on changes to the scope and design of the licensing regime. The Commission is seeking stakeholder responses to this Draft Decision by **Friday 16 June 2023**.

The Territory's licensing regime has not been subject to major review since its establishment in 2000. The Commission will ultimately be reviewing all aspects of the licensing regime to clarify and enhance its operation as part of the review. The review will be conducted in three stages given the broad range of issues to be considered. The first stage of the review focusses on the licensing regime's scope and design, reassessing the suitability of legacy licensing arrangements, how the licensing regime accommodates alternative electricity supply arrangements and whether the exemptions framework appropriately balances the administrative and financial costs of licensing for licensees, the Commission and government with the benefits to consumers and industry.

This Draft Decision sets out the changes the Commission proposes for the scope and design of the licensing regime and the associated reasoning for those changes. The proposed changes fall into three broad categories relating to licensing coverage and purpose; the application of licensing to emerging technologies and business models; and exemptions from the requirement to hold a licence.

Licensing coverage and purpose (Chapter 3)

The Commission reassessed the objectives that it seeks to achieve through the application and term of licensing and whether special (legacy) licensing arrangements for independent power producers and remote standalone power systems serving mining communities that existed prior to commencement of the *Electricity Reform Act 2000* (ER Act) remain fit-for-purpose. The Commission considers the process for granting a licence and the conditions attached to a licence remain the best means to assess a person's capability to operate in the Territory's electricity industry, promote appropriate market conduct, protect the interests of consumers and ensure safe, secure and reliable supply of electricity.

While legacy licensing arrangements will remain in place, the Commission proposes any person establishing new electricity operations will be required to hold all relevant licences (or obtain an exemption from the requirement to hold a licence) and those licences will include a standard set of conditions unless the person can demonstrate that those conditions are not appropriate for their electricity operations.

While the Commission publicly consults on licence applications, the Commission considers it would improve transparency and be informative for prospective and existing market participants to provide a summary of its decision to grant (or not) a new licence and the conditions included in that licence.

Licences will continue to be issued with an open term. This avoids the costs associated with renewal and the Commission considers any risks associated with no expiry date can be sufficiently managed through the monitoring and enforcement of compliance with licence conditions and, should it be necessary, the Commission may cancel or suspend a licence in accordance with section 36 of the ER Act.

More specifically, the Commission's preliminary decisions for changes in relation to the coverage and purpose of licensing are summarised below.

Legacy arrangements: independent power producers

Going forward, the Commission proposes to only issue a generation licence, that is, no new independent power producer (IPP) licences will be issued. Generation licences will include a standard set of conditions except where an applicant can demonstrate standard conditions are not appropriate for its electricity operations.

Legacy arrangements: standalone power systems – mining communities

Going forward, the Commission proposes new remote standalone power systems will be required to hold all relevant licences and the licences will include a standard set of conditions except where a licence applicant can demonstrate standard conditions are not appropriate for its electricity operations.

The Commission does not propose to make any changes to the (legacy) IPP licences for EDL NGD (NT) Pty Ltd and Energy Resources of Australia Ltd or the isolated system licence held by Groote Eylandt Mining Company Pty Ltd, but will review Alcan Gove Pty Limited's exemption in 2023 as currently scheduled.

Licensing objectives

The Commission is satisfied that the licensing regime is meeting its objectives; however, to improve transparency on licensing decisions, the Commission now issues a summary providing its decisions and associated reasoning when it approves (or not) a new licence for electricity supply operations.

Licensing duration

The Commission considers the current approach of granting licences with an open term (that is, no expiry date) appropriate and no changes to this approach are proposed.

Emerging technologies and business models (Chapter 4)

The application of licences (and exemptions) needs to facilitate entry of emerging technologies and business models (alternative supply models) while still ensuring customers (or prospective customers) of those services are sufficiently protected and power systems continue to operate safely, securely and reliably. The Commission examined energy storage systems, virtual power plants (VPPs), electric vehicle (EV) recharging and other alternative supply models to better understand the barriers to entry that licensing may create as well as the risks and protections needed by consumers that licensing should address.

While alternative supply models were not contemplated at the establishment of the ER Act, the Commission considers they are captured under the legislative framework and there are no exclusions specific to these operations (although some general exclusions under the Electricity Reform (Administration) Regulations 2000 (ER Regulations) or section 87 of the ER Act may apply in certain circumstances).

The Commission considers given the varying types and scale of alternative supply models, characteristics of the power systems in which they may operate and who they provide services to and the nature of those services, a case-by-case approach will generally be needed to balance the costs and benefits of licensing. Notwithstanding this, the Commission considers:

- consistent with current practice and the approach adopted in other state and territory licensing schemes, energy storage systems can be appropriately classified as generation. Standard generation licence conditions are suitable for those energy storage systems, noting in many cases energy storage will be part of a hybrid system including other forms of generation.
- the ER Act's reference to "generation of electricity" covers both ownership and operation of an electricity generator. Where different parties are responsible for ownership and operation of the generator, the Commission considers it will generally be most appropriate for a licence (or exemption) to be held by the owner of the generating asset(s).
- a generation licence (or exemption) is required for a VPP (or other aggregation model) given the risk the centralised and collective operation of small distributed generation units poses to the safe, secure and reliable operation of a power system.
- a class exemption should cover the distribution (network) and selling of electricity by EV recharging stations. The Commission considers the costs of licensing are likely to outweigh the benefits and may create a barrier to the continued provision or expansion of these services. EV recharging differs from traditional electricity supply for domestic purposes being short-term in nature, there is choice in where

to recharge (including at consumers' own premises), the time to recharge has value for which customers will pay extra and there are alternative options for transport.

More specifically, the Commission's preliminary decisions for changes in relation to alternative supply models are summarised below.

Energy storage systems

The Commission proposes that energy storage systems continue to be classified as generation. Standard generation licence conditions will apply to licences for energy storage systems except where a licence applicant can demonstrate that particular conditions are not appropriate or relevant for its electricity operations.

Owners and operators of generation

The Commission considers the ER Act's reference to "generation of electricity" covers both ownership and operation of an electricity generator. Going forward, where different parties are responsible for ownership and operation of a generation asset(s), the Commission proposes to take the following approach:

- the licence (or exemption) application should be made by the owner of the assets
- the application should provide details of the proposed operator and the contractual arrangements between the owner and operator
- when assessing whether the licence applicant (that is, the owner) is a suitable person to hold a licence the Commission will also consider the details of the proposed operator, including its technical resources and expertise
- licence conditions will require the licence holder (that is, the owner) to notify the Commission of any material changes that affect the operator
- the owner will remain responsible for meeting the requirements of the ER Act and their licence (or exemption) in relation to the generating assets and cannot contract out these obligations to the operator.

The Commission proposes VPPs or other business models that aggregate and control the operation of distributed generation assets be classified as generation and the operator will be required to hold a generation licence or individual exemption for these operations.

EV recharging

The Commission proposes to write to the minister recommending the Territory Government consider excluding EV recharging stations (through regulations) from the requirement to hold a retail or network licence, subject to relevant conditions, and from complying with the Electricity Pricing Order (EPO).

In the meantime, the Commission proposes to grant (subject to ministerial approval) an interim exemption under section 87 of the ER Act from the requirement to hold a retail or network licence. The exemption will include conditions relating to the provision of information to the Commission on request and that an EV recharging station must comply with relevant safety and technical requirements under the *Electrical Safety Act 2022*.

Other alternative supply models

No changes are proposed to the licensing regime specifically in relation to other alternative supply models with the licensing requirements for those operations to be considered on a case-by-case basis.

Exemptions from the requirement to hold a licence (Chapter 5)

The Commission recognises that the cost of licensing through fees and resources associated with achieving and maintaining compliance with licence conditions can be disproportionate relative to the potential risks to

customers and/or the operation of the power system. Exemptions are a means of lessening the cost of regulation and achieving desired outcomes such as facilitating entry to markets and allowing consumers to benefit from competition and efficiency (through more choice or lower cost providers).

While the Commission is guided by the objects of the ER Act and UC Act in making its licensing decisions, these do not provide guidance for determining whether a licence or an exemption is the most appropriate outcome. The Commission has developed a set of principles to guide this decision and demonstrate how it applies the objects of the ER and UC Acts in order to improve transparency for potential applicants and lessen the risk of inconsistency across assessments.

The Commission's small scale renewable energy (SSRE) operations exemption, established in 2007, exempts SSRE operations from the need to hold a generation or retail licence subject to meeting eligibility criteria and complying with conditions of the exemption, which relate to the provision of information to the Commission, compliance with relevant safety and technical requirements and the requirement to contract with a licensed retailer for the sale of exported electricity. The Commission has identified shortcomings and uncertainties regarding the coverage of the exemption and proposes to amend the exemption to clarify whether or not the operations of small generators, third party owners and aggregators of small generation are covered and where eligible, the conditions they must meet in order to remain covered by the exemption. The Commission does not propose to require parties covered by the exemption to register their operations, noting relevant information is already collected through the network connection process.

Part 4 of the ER Regulations exempts on-suppliers from requirements to hold licences and associated licence conditions for the supply and selling of electricity. The exemption covers what are commonly known as embedded networks, which are privately owned electricity networks that serve multiple premises in a building or self-contained site such as apartment buildings, shopping centres, industrial precincts and caravan parks. The conditions of the on-supplier exemption are less extensive as those applied to licensed retailers, meaning consumers in embedded networks do not have the same access to protections as consumers of licensed retailers.

The Commission notes regulatory oversight of embedded networks has increased elsewhere in Australia with Victoria and the Australian Energy Regulator (AER) establishing registers of embedded networks and requiring compliance with obligations comparable to those of licensed retailers. Further reforms are intended with new embedded networks in Victoria to be licenced and recommendations for other jurisdictions participating in the National Electricity Market to only grant exemptions for embedded networks in very limited circumstances.

The Commission has received complaints relating to the conduct of some on-suppliers; however, it is not within the Commission's power to address issues associated with the operation of the on-supplier exemption. The exemption is a policy decision of the Territory Government, implemented through the ER Regulations. The Commission considers there is merit in the Government reviewing the operation of the exemption to better align with requirements being placed on embedded networks in other jurisdictions.

The Commission's preliminary decisions for specific changes in relation to the exemptions framework and standing exemptions are summarised below.

Guiding principles for assessing exemptions

The Commission proposes to apply the following principles to guide its decision-making on when an exemption may be appropriate for a person applying to operate in the Territory's electricity supply industry:

- any person who is granted an exemption must be a suitable person having regard to equivalent considerations to those that apply under section 16(3) of the ER Act
- an exemption will only be granted where the applicant can demonstrate that the costs of licensing outweigh the benefits associated with licensing and that any potential detriment of the applicant operating under an exemption (instead of a licence) for consumers of electricity is low
- an exemption for operations that affect small customers will only be appropriate where small customers are sufficiently protected, including where the exemption conditions or market conditions are likely to ensure that small customers are supplied on fair and reasonable terms and prices

- an exemption may be appropriate where the proposed operations do not involve any material risks to the safe, secure and reliable operation of the power system, or any risks can be appropriately mitigated by conditions
- an exemption may be appropriate where the operations do not relate to an essential service and alternative regulated sources of electricity supply or other appropriate substitutes for the product or service are available to customers
- a risk-based approach will be applied to determining conditions for an exemption.

SSRE operations exemption and third party ownership of SSRE operations

The Commission proposes to vary (subject to ministerial approval) the SSRE operations exemption to:

- change the name of the exemption to the Small Scale Generation (SSG) exemption
- remove the specification that generation is to be from a renewable source
- amend the specification relating to on-site supply to capture zero export systems, that is, the specification will be ***the electricity is generated solely or primarily for on-site supply***
- clarify that the exemption covers energy storage systems
- retain the 2 megawatt (MW) threshold and clarify that this applies to total capacity of on-site generation (not individual on-site generators or energy storage systems)
- clarify that the exemption does not apply to operators of VPPs
- clarify that the exemption does not cover third party ownership of SSG operations
- update the condition relating to safety and technical requirements to reference the *Electrical Safety Act 2022*
- clarify that a failure to comply with the conditions of the exemption means that a person and their operations are not covered by the exemption.

Visibility of small scale generation (SSG) operations

The Commission does not propose to require persons using the SSG exemption to register their operations with the Commission or establish a register of SSG operations.

On-supplier exemption

The Commission proposes to write to the minister recommending that the Territory Government review the operation of the on-supplier exemption to ensure that it provides sufficient protection for customers and to give greater visibility of who is utilising the exemption.

1 | Introduction

This Draft Decision explains proposed changes to the Commission's framework for considering and granting licences (or exemptions from the requirement to hold a licence) for operations in the electricity supply industry in the Territory.

Context to the Draft Decision

The Commission has responsibility for performing licensing functions in the Territory's electricity supply industry under the ER Act and ER Regulations. These functions include the power to: grant, amend, transfer and revoke licenses; grant (subject to ministerial approval) an exemption from the requirement to hold a licence; determine the conditions to be included or excluded from a licence; and monitor and enforce compliance against licence conditions.

In 2022, the Commission commenced a review of the Territory's licensing regime, the first since the licensing regime was established in 2000. The review aims to clarify and enhance the operation of the licensing regime given the emergence of alternative electricity supply arrangements, and the Commission will reassess the balance between the administrative and financial cost of licensing for licensees and government and the benefits to consumers and industry. While the Commission will ultimately reassess all aspects of the operation of the licensing regime, its review will be undertaken in three separate components:

- a review of the coverage, relevance and flexibility (scope and design) of the licensing regime
- a review of the consistency, efficiency and effectiveness of the form and content of licences
- a review of the efficiency and effectiveness of the Commission's licensing and related reporting and compliance processes.

This Draft Decision focusses on the first component, that is, the review of the scope and design of the licensing regime and addresses matters raised in the Commission's Issues Paper¹ released on 4 April 2022.

Issues paper

The Issues Paper sought feedback on matters including:

- legacy licensing arrangements established at the commencement of the regime
- whether the licensing regime is achieving its objectives
- the application of licensing to emerging technologies and business models
- the framework for determining when an exemption may be more appropriate than a licence and
- the operation of the SSRE operations exemption.

The purpose of the Issues Paper was to seek stakeholder views with 27 questions posed to help guide feedback. Stakeholders were also invited to provide feedback on any other matters relating to the scope and design of the licensing regime.

The Issues Paper was open for submissions for an eight week period ending on 3 June 2022. A total of nine submissions were received and are available on the Commission's website <https://utilicom.nt.gov.au/>. Respondents to the Issues Paper were:

Department of Chief Minister and Cabinet
(DCMC)

EDL NGD (NT) Pty Ltd (EDL)

Jacana Energy (Jacana)

Department of Territory Families, Housing and Communities
(DTFHC)

Eni Australia Limited (Eni)

National Electrical and Communications Association (NECA)

¹ Available at <https://utilicom.nt.gov.au/projects/projects/review-of-the-northern-territory-electricity-licensing-regime-scope-and-design>

Power and Water Corporation (PWC)
Territory Generation (TGen)

Rimfire Energy (Rimfire)

Structure of this paper

The Draft Decision sets out the issues, stakeholders' views, and the Commission's reasoning and draft decisions on matters raised in the Issues Paper. Accordingly, the Draft Decision follows the structure of the Issues Paper and is arranged as follows:

- Chapter 2 describes the licensing regime
- Chapter 3 addresses matters relating to legacy licensing arrangements and the coverage and purpose of the licensing regime
- Chapter 4 considers the application of licensing to emerging technologies and business models
- Chapter 5 focusses on the exemptions framework including standing exemptions
- Chapter 6 provides information on the next steps of the Commission's review of the licensing regime.

How to make a submission on the Draft Decision

All interested parties (stakeholders) are invited to make submissions on matters raised in the Draft Decision by **Friday 16 June 2023**.

To facilitate publication, submissions should be provided electronically by email tutilities.commission@nt.gov.au in Adobe Acrobat or Microsoft Word format.

Stakeholders need only respond to matters relevant to their areas of expertise or interest. The Commission encourages stakeholders to include sufficient explanatory detail in their responses to any matters discussed in the Draft Decision.

Any questions regarding the Draft Decision or the review should be directed to the Commission by email to tutilities.commission@nt.gov.au.

Confidentiality

In the interests of transparency, the Commission will make all submissions publicly available on its website, with the exclusion of confidential information. Confidential information may include:

- information that could affect the competitive position of an entity or other person
- or information that is commercially sensitive for some other reason.

Submissions must clearly specify any information that a respondent considers confidential and advise the Commission why they would like the information to be treated as confidential. A version of the submission suitable for publication (that is, with any confidential information removed) should also be submitted to the Commission.

The Commission may also exercise its discretion not to publish any submission based on its content such as submissions containing material that is offensive or defamatory.

2 | The Territory's electricity supply licensing regime

Under the ER Act and ER Regulations, the following operations require a licence:

- generation of electricity
- owning or operating an electricity network or a dedicated connection asset
- selling electricity
- system control over a power system
- operating a wholesale market.

However, the ER Act and ER Regulations provide for certain exclusions and exemptions from the requirement to hold a licence. The following exclusions and exemptions are in place:

- exclusion of certain types of generation where it is not connected to electricity infrastructure owned or operated by an electricity entity and it is generated for the person's own use.
- exclusion of the sale of electricity from a person to a customer where electricity is not available for supply to the customer by an electricity entity (for example, a customer located in a remote area where there is no existing electricity network) and the total amount supplied is not more than 160 megawatt hours per year.
- an exemption for the system control licensee for the Darwin-Katherine power system to operate a wholesale market for that power system without being required to also hold a wholesale market licence.
- an exemption for the on-supply of electricity, that is, where an owner or occupier of premises, or a person who has the right to use premises, supplies or sells electricity to other users on the premises.

Section 87 of the ER Act also provides for the Commission, with the approval of the minister, to grant an exemption from the requirement to hold a licence from any operation, on terms and conditions the Commission considers appropriate. The Commission has issued the following exemptions:

- SSRE operations with a maximum generation capacity of 2 MW.
- three individual exemptions for specific entities and their operations.

Section 87A of the ER Act provides the Commission with a specific power to issue exemptions relating to owning and operating a dedicated connection asset. The Commission has not issued any exemptions under this provision.

The Commission is required to keep a register of the licences and exemptions it grants under the ER Act, which can be inspected at no cost. The Commission maintains a register on its website for this purpose, which provides viewers with access to a copy of each licence or exemption. Each individual licence or exemption shows the entity licensed or exempted, the activities covered including their location, and terms and conditions attached to the licence or exemption.

In considering whether (or not) to grant a licence (or exemption), section 16(2) of the ER Act requires the Commission to have regard to factors under section 6(2) of the UC Act, which relate to promoting competition, efficiency and the interests of customers with respect to reliability and quality of services and supply while ensuring the financial viability of industry. The Commission also considers the objects of the ER Act, which are similar, but tailored to the electricity supply industry. In granting a licence, the Commission must also be satisfied that the applicant is a suitable person to hold a licence and their operations are able to perform to the necessary standard for that type of operation with the matters to be considered in assessing suitability set out in section 16(3) of the ER Act. These include the honesty and integrity of the dealings of an applicant and the financial, technical and human resources available to the applicant to carry out their operations.

Sections 15(2) and 19(2) of the ER Act require licence applicants and licensees to pay application fees and annual fees, which are set by the Treasurer. There are no fees associated with exemptions.

3 | Licensing coverage and purpose

Legacy arrangements: independent power producers

Background

The Commission has issued five IPP licences.² Two of the IPP licences cover privately owned generation serving mining operations and the operations pre-date the introduction of the ER Act. Those licences are discussed in the next section, which reviews licensing for standalone power systems for mining communities.

The remaining three IPP licences are the focus of this section and relate to privately-owned generators whose electricity is sold under contract to another licensed generator, that is, the licence does not permit sales to retailers or end consumers. The IPP licences are held by LMS Energy Pty Ltd for generation at the Shoal Bay renewable energy facility in Darwin; TKLN Solar Pty Ltd for solar generation at the communities of Ti Tree, Kalkarindji and Alpuururulam; and Uterne Power Plant Pty Ltd for solar generation at Alice Springs. These IPP licences contain fewer conditions than a 'standard' generation licence, typically omitting conditions relating to:

- evidencing of financial, technical and other capacity to continue operations (when required by the Commission)
- establishing and maintaining a compliance process to ensure the licensee complies with its obligations under the licence and all applicable laws, codes, rules or standards
- reporting on compliance to the Commission and conducting external audits of compliance as required by the Commission
- notifying of changes in officers or major shareholders
- compliance with requirements of community service obligations approved and funded by the government
- providing ancillary services on request by the power system controller
- preparing and submitting a safety management and mitigation plan to the Commission for approval as well as compliance with, and annual review of, these plans³
- requirements if an operator is appointed under section 41 of the ER Act
- entry into coordination agreements with retail or network licensees.

The Issues Paper asked whether there are risks that arise as a result of the omission of certain conditions from licences for IPPs, and noting the long-standing nature of IPP arrangements, whether the benefits would outweigh the costs of imposing additional obligations on IPPs through licence conditions. The Issues Paper advised the Commission does not expect to issue IPP licences for new operations.

Submissions

Responses to the questions in the Issues Paper were received from DTFHC, EDL, Jacana, NECA, PWC, and TGen.

DTFHC advised it has functional responsibility for the Indigenous Essential Services (IES) Program, which provides electricity (and other utilities) services to remote communities and outstations through a service

² Refer the Commission's register of electricity licences and exemptions at <https://utilicom.nt.gov.au/electricity/licensing/register-of-electricity-licences-and-exemptions>

³ Responsibility for safety management and mitigation plans is to transfer to NT WorkSafe in late 2023 consistent with new arrangements under the *Electrical Safety Act 2022*.

provider arrangement with a not-for-profit subsidiary of PWC.⁴ DTFHC suggested consideration was needed of how IPPs can be involved in supporting the roll out of the Remote Power System Strategy⁵ to communities under the IES Program including community provided power options. DTFHC noted that power systems in remote communities were small and the impact of small producers (including rooftop solar photovoltaic (PV) systems) could have significant impacts on the stability and reliability of these power systems. DTFHC advised consideration needs to be made of licence conditions to ensure continued reliability in IES communities while balancing the introduction of other participants.

EDL did not consider there were risks arising from conditions omitted from IPP licences. EDL advised risks such as power system integrity, quality, reliability and cost are managed under a power purchase agreement and typically tailored to the specific needs of the customer with mechanisms in place to incentivise good performance. EDL stated imposing additional obligations would be more burdensome for the Commission and licensees with little value as the electricity arrangement does not impact the general public.

Jacana considers IPPs should only be permitted for operations that existed prior to introduction of the ER Act and where power is required in a remote area and connection to PWC's network is not possible or financially feasible. While in these cases, Jacana believes it is sensible for limited conditions to be tailored to each IPP, but where a retailer is required to contract with an IPP for the sale of electricity, Jacana considers additional licence conditions (such as requiring a coordination agreement) are needed to give protection to the retailer. Jacana also observed that there were new rules in the National Electricity Market for standalone power systems. The new rules referred to by Jacana ensure customers of these systems have the same consumer protections as grid connected customers including access to retail competition and standards of reliability and safety.⁶

NECA considers it important to limit the number of exceptions and to ensure that basic safety and reliability standards are maintained for all power producers. NECA considers there must be rules in place to ensure IPPs are installed and maintained by licensed electrical contractors and rules in place to show they are compliant with electrical contractor licensing rules.

PWC advised that of the five IPP licensees, two are connected to power systems managed by PWC's System Control.⁷ For these licensees, PWC considers IPP and generation licences should contain the same wording regarding the obligation to provide ancillary (essential system) services at the request of System Control to avoid any misconception that IPPs are not subject to the same requirements as other licensed generators. PWC noted that inclusion of the provision regarding essential system services should have no cost implications. More widely, PWC noted that while it was not in the position to comment on the cost to IPPs of additional obligations, PWC was of the view there was benefit in conditions, particularly in relation to compliance reporting, audit processes and safety management, being upheld in all special licences.

TGen advised omission of conditions from IPP licences is contrary to the Commission's intention to create a level playing field and the impact of small producers in the Territory's power systems are high. TGen highlighted that it is called upon to provide essential system services by System Control almost exclusively without suitable compensation and this distorts energy pricing to customers.

Commission's position and reasons

The Commission confirms that going forward, it will not issue any new IPP licences. Any new privately owned generation plant will be authorised through a generation licence containing standard conditions unless the licence applicant can demonstrate that some of those conditions are not appropriate. This

⁴ PWC's retail, network and generation licences cover the provision of electricity services for communities in the IES Program.

⁵ The Remote Power System Strategy aims to deliver 70% renewable energy penetration to communities in the IES Program (refer <https://territoryrenewableenergy.nt.gov.au/strategies-and-plans/electricity-system-plans#Remote-power-system-strategy>.)

⁶ Australian Energy Market Commission. Updating the regulatory frameworks for distributor-led stand-alone power system. Market Reviews Advice website, accessed at <https://www.aemc.gov.au/market-reviews-advice/updating-regulatory-frameworks-distributor-led-stand-alone-power-systems> on 25 January 2023.

⁷ LMS Energy Pty Ltd and Uterne Power Plant Pty Ltd.

provides clarity to prospective market entrants on the obligations associated with operating in the Territory's power systems and upholds secure and reliable supply of electricity to customers.

The Commission notes advice from DTFHC that there is community and industry led interest in supplying electricity in remote communities. These parties will need to comply with licensing requirements under the ER Act and ER Regulations. The Commission notes some smaller generation plants may be exempt from the requirement to hold a licence; however, prospective entrants should seek independent legal advice on the application of any existing exemptions to their specific circumstances. The exemption framework is discussed under Chapter 5.

Matters raised by TGen regarding System Control's choice of generator to provide essential system services and remuneration for those services is beyond the scope of the Commission's licensing review. The Commission notes the Office of Sustainable Energy in the Department of Industry, Tourism and Trade has responsibility for progressing the Northern Territory Electricity Market Priority Reform Program, which includes a review of the provision of essential system services.⁸ It is expected that matters raised by TGen will be addressed through that review.

The Commission notes several issues with IPP licences can be considered as part of the next stage of the licensing review, which will examine the form and content of licences. The Commission notes PWC's advice that the licences for LMS Energy Pty Ltd, and Uterne Power Plant Pty Ltd should contain the same wording as standard licences in relation to the provision of essential system services at the request of System Control. The Commission may also reconsider the omission of conditions relating to the provision of information as it regularly requests confirmation (through its Annual Returns process) from IPP licensees (and holders of other special licences) that there have been no material changes in the licensee's ability to continue operations or material breaches of regulatory instruments; advice on whether there have been changes in major shareholders or parent companies; and the details of key officers carrying out the licensed operations. Varying the IPP licences to explicitly require provision of this information would have little impact on licensees, but improve transparency on requirements and better align the IPP licences with standard generation licences. The Commission also notes changes may be needed to reflect any new requirements under the *Electrical Safety Act 2022*. Work has commenced for this second stage of the licensing review and the Commission anticipates consulting with licensees and the broader public on proposed changes in the second half of 2023.

Proposal to implement

Going forward, the Commission proposes to only issue a generation licence, that is, no new IPP licences will be issued. Generation licences will include a standard set of conditions except where an applicant can demonstrate standard conditions are not appropriate for its electricity operations.

Legacy arrangements: standalone power systems – mining communities

Background

As noted in the previous section, there are two IPP licensees for remote standalone power systems that supply mining sites: EDL for generation at the McArthur River Mine site and Energy Resources of Australia (ERA) for generation at the Ranger Uranium Mine site. These electricity supply arrangements predate the establishment of the ER Act. As with other IPP licences, the licences for EDL and ERA impose a lesser number of conditions than a standard generation licence.

EDL's IPP licence covers generation of electricity for own use and sale to McArthur River Mining Pty Ltd and other licensed generators. ERA's licence covers the generation of electricity for its own use and sales of electricity to specific customers and other licensed generators. While ERA has historically supplied electricity for use in the township of Jabiru, supply for the township has recently transitioned to the Jabiru Hybrid Renewable Power Station, operated under licence by EDL Jabiru Pty Ltd. Consistent with the Commission's

⁸ Refer <https://industry.nt.gov.au/reforms/northern-territory-electricity-market-priority-reform-program>

intent not to issue any new IPP licences, supply by EDL Jabiru Pty Ltd is authorised under a standard generation licence.

In addition to the two IPP licensees, there are two other private providers that supply electricity to mine sites and nearby communities: Alcan Gove Pty Limited (RTA Gove) and surrounding areas and Groote Eylandt Mining Company Pty Ltd (GEMCO).

RTA Gove is exempt from the requirement to hold a licence through an ER Act section 87 exemption document issued by the Commission in 2005. The exemption was reviewed in 2019 and is subject to further review every three years. The exemption contains conditions relating to the provision of information to the Commission; compliance with life support requirements under the Electricity Retail Supply Code and requirements regarding guaranteed service levels (GSLs) for interruptions, connections and appointments and associated reporting. There is not a condition relating to pricing, but RTA Gove has subsidised electricity charging tariffs to customers that are below the cost of generation and the tariff set in the EPO. In early 2023, RTA Gove advised customers that it would be transitioning its tariffs to the regulated rate by April 2024. While the township of Nhulunbuy was initially established as a mining town and RTA Gove's customers would have primarily been its own operations, workforce and supporting businesses, the township is now evolving to be a regional service hub as a result of the shutdown of the alumina refinery in 2017 and the transition of bauxite mining operations toward closure in 2030.

GEMCO conducts its electricity operations under an isolated system licence, which permits GEMCO to undertake network, generation and sales operations for Alyangula and connect with PWC's electricity network at Angurugu for supply of electricity to that community. GEMCO's licence contains conditions mandated by the ER Act relating to compliance with laws, regulatory instruments and the Territory Government's EPO and development and compliance with customer related standards and procedures. GEMCO's licence also includes obligations relating to the quality, safety and security of supply; disconnections and the provision of information. The licence omits obligations relating to audits of operations, evidencing financial or other capacity to continue operations under the licence and notifying the Commission of changes to officers and major shareholders.

The Issues Paper advised the Commission does not expect to issue any new isolated system licences. This type of licence is not specified in the ER Act and the likelihood of establishing a new mining township (and need for a licence for a single entity providing all electricity operations) is low. Should, however, such a circumstance arise or electricity supply arrangements change (as occurred in Jabiru), the Issues Paper advised the Commission will consider licensing requirements on a case-by-case basis.

The Issues Paper asked whether there are risks or negative impacts to customers in remote mining communities where there are legacy arrangements to provide electricity supply by private providers operating under special licences or exemptions.

Submissions

Responses to the question in the Issues Paper were received from DTFHC, DCMC, EDL, Jacana and PWC.

DTFHC noted that a number of IES and other Aboriginal communities are supplied electricity through these power providers either directly or indirectly through PWC. While DTFHC did not specify any particular risks or negative impacts, it suggested that the Commission consider the changing nature of legacy arrangements, particularly for non-mining related activities.

DCMC suggested that the Commission reconsider the appropriateness of legacy arrangements for Nhulunbuy and Alyangula. DCMC advised it was aware of community concerns regarding the reliability of these standalone networks and that the frequency of power outages and fluctuations in supply have been cited as a contributing factor to premature failure of domestic and commercial appliances. DCMC suggested that self-reported service metrics are insufficient to achieve the desired level of accountability. DCMC also advised exemptions from the Electricity Industry Performance Code are not understood by local customers, leading to a disconnect between community expectations and service level agreements that reflect government's values of equitable service provision.

EDL noted that where there is a single generator providing electricity supply, the risks are mitigated due to the power purchase agreements in place. EDL considers there is a negative perception from only granting

special licences or exemptions for remote mining communities as it implies the energy consumers have a lower priority than larger network connected energy consumers.

Jacana expressed concern that where it is needed as the retailer for standalone power systems, there needs to be arrangements in place so that its ability to sell to customers is not impacted in a manner that could negatively impact customers. Jacana noted that it has licence obligations to customers and as the interface point with customers, dealing with any issues arising from legacy arrangements will have a cost impact due to the need to manage and resolve those issues.

PWC advised risks are related more to incoming participants who take over after the legacy agreements expire. In these cases, PWC suggested complaints are likely to arise where customers have historically received lower or discounted rates, but noted that this issue could apply in any part of the supply chain.

Commission's position and reasons

The Commission reconfirms its intention not to issue any further isolated system licences and should there be a situation where a new remote standalone power system is to be established, the Commission proposes that the owners and operators of that system will be required to hold all relevant licences. That is, the Commission does not intend to grant exemptions from the requirement to hold relevant licences. The Commission notes, however, that regulations 3A and 3B of the ER Regulations provide standing exemptions from the requirement to hold a licence for certain types of electricity generation and sales where other supply is not available, and may be relevant to some remote standalone power systems.

Any licences for remote standalone power systems will be subject to standard conditions unless the licence applicant can demonstrate that particular conditions are not relevant or appropriate to their operations. This will ensure there is transparency in requirements and that licensees can be held to account for performance against those obligations.

The Commission notes Jacana's observation that there may be costs associated with new entrants managing and resolving issues that arise when legacy arrangements end. While this may be the case, there are limited instances where these issues may arise and they are commercial matters beyond the scope of the licensing regime.

The Commission does not propose to make changes to the IPP licences for EDL and ERA. As noted by EDL, risks associated with its supply of electricity should be dealt with under its power purchase agreement with McArthur River Mining Pty Ltd and any other licensed generators that it contracts with to supply electricity. No issues were raised in relation to ERA or its operations and the Commission notes ERA is no longer supplying electricity to the township of Jabiru. This means risks associated with the quality and reliability of supply have narrowed to a small number of commercial and government customers that continue to be supplied by ERA.

The Commission is due to review RTA Gove's exemption during 2023. DCMC, DTFHC and other stakeholders will be invited as part of the review of RTA Gove's exemption to provide views on the extent, nature and impact of outages and fluctuations in supply and whether there has been any improvement in performance since 2020-21 when the Commission placed requirements on RTA Gove to establish GSLs and to comply with those standards of service (there are financial penalties associated with failing to meet the GSLs). The GSLs approved for RTA Gove include targets relating to the frequency, duration and cumulative duration of interruptions to supply as well as notification periods for planned interruptions.⁹ The Commission will consider whether the GSL framework and associated monitoring and reporting¹⁰ has incentivised RTA Gove to improve its performance. The Commission will review RTA Gove's GSL targets on a five yearly basis with the next review due by 2024-25.

The Commission does not propose to make changes to GEMCO's isolated system licence, noting that it includes obligations relating to the quality of electricity provided. Although DCMC alluded to issues with supply, it did not provide evidence that the quality of supply was below that required by GEMCO's licence

⁹ Refer https://utilicom.nt.gov.au/_data/assets/pdf_file/0010/936667/Approved-Guaranteed-Service-Levels-Alcan-Gove-Pty-Ltd.pdf

¹⁰ Refer <https://utilicom.nt.gov.au/electricity/reporting/township-of-nhulunbuy-guaranteed-service-level-performance-report>

(that is, below the quality of electricity produced by the same type of generation plant operating in a remote location) nor did PWC's submission raise issues with the quality of supply to its network at Angurugu. The Commission monitors GEMCO's compliance with the conditions of its licence through its annual reporting process and should there be non-compliance with requirements regarding quality and adequacy of supply, a change in GEMCO's circumstances or performance or supply arrangements for Alyangula or Angurugu then the Commission may reassess the adequacy of current licensing arrangements for GEMCO's operations.

Proposal to implement

Going forward, the Commission proposes new remote standalone power systems will be required to hold all relevant licences (no further isolated system licences or IPP licences will be issued) and the licences will include a standard set of conditions except where a licence applicant can demonstrate standard conditions are not appropriate for its electricity operations.

The Commission does not propose to make any changes to the (legacy) IPP licences for EDL and ERA or the isolated system licence held by GEMCO, but will review RTA Gove's exemption in 2023 as currently scheduled.

Licensing objectives

Background

The Commission considers licensing promotes appropriate consumer protections and market conduct and moderates the monopoly power of electricity entities. There are also licence conditions that influence behaviour between industry participants, for example, retail and network licensees are required to enter into an agreement to coordinate service provision to their customers and generators are required to comply with directions from the power system controller. Other conditions require licensees to ensure reliability, safety and quality of supply including complying with technical and other codes.

Licences are published on the Commission's website providing transparency on licensees' obligations and signalling to potential market participants the conditions for operating in the Territory's power systems. The Commission reports on the performance of licensees in complying with the conditions of their licence and other legislative obligations through its annual compliance monitoring report.

Prior to granting a licence, the Commission must ascertain that an applicant is a suitable person to hold a licence and the suitability of their proposed operation. The Commission consults on licence applications, which provides the opportunity for other system participants and stakeholders to provide input into its assessment of the application. This assists with identifying potential technical, financial and other issues that may adversely affect the operation of the power system or viability of industry participants. Noting the circumstances of a licensee may change over time, it is a condition of a licence that the licensee notifies the Commission of changes in officers and major shareholders and, if requested by the Commission, provide details on its financial, technical and other capacity to continue operations under the licence.

The Issues Paper sought feedback on whether the licensing regime was effective at controlling market power, facilitating competition, promoting investment and managing risk including ensuring licensees have the necessary technical competence, financial strength and honesty to operate in the industry. Suggestions for improvements were sought where deficiencies were identified or licence conditions could be removed if they were more than was needed to achieve these outcomes.

Submissions

Responses to the questions in the Issues Paper on the objectives of licensing were received from DTFHC, EDL, Eni, NECA, Jacana and PWC, Rimfire and TGen.

DTFHC advised existing arrangements for IES communities have been fit for purpose and served remote communities well, but consideration needs to be given of other parties who are interested and capable of providing services. If current licensing conditions are more than what is required to achieve desired

outcomes, DTFHC considers the reasons for, and benefits of, removing these requirements should be explored.

EDL considered that licensing requirements are more burdensome in the Territory than in other jurisdictions and this may act as a barrier to competition. EDL stated the licence application process is rigorous, but advised its effectiveness was unclear without visibility of rejected applications and associated reasoning. EDL considers the regime is effective at managing risk on an ongoing basis through audits, reporting of changes and Board sign off on reporting.

Eni suggested a variable licence fee structure for generators based on electricity output was needed to facilitate competition and promote investment given the inevitable curtailment of solar generators. Eni considers the information requested for a licence and the associated due diligence process is effective.

Jacana advised the licensing regime should not be used to influence market power, competition and investment, but by being clear, understood and consistently applied, licensing will positively impact on them. Jacana expressed its support for the continuation of the retail restriction on TGen. Jacana considers licence conditions and obligations should be the same (or equal) for all retailers, in particular, in relation to credit support even though this has an impact on the prudential requirements that apply to a retailer. While Jacana considered there are no conditions or requirements to be removed, it advised that in considering the appropriateness of licence conditions, the AER's Retailer Authorisation Guideline would be a good starting point. Jacana noted there were redundant classifications (references to non-contestable customers) in sections of the ER Act relating to licence conditions.

Jacana noted that a licensee's financial strength was only assessed at the licence application stage. Jacana was of the view that it would be better if the licensing regime regularly assessed the financial viability of licensees (noting Jacana is the Retailer of Last Resort) although Jacana acknowledged it is something that can be managed by the prudential requirements applying to a retailer.

Similarly, PWC noted that historical performance in terms of technical competence and financial strength are not necessarily predictive of future behaviours. PWC considers that while technical competence continues to be assessed through compliance monitoring functions of System Control and PWC as network operator, there is not ongoing monitoring and risk management of financial strength and certain matters relating to financial strength require better management to complement licensing arrangements.

NECA provided feedback that licensing is important for maintaining safe and reliable electricity supply while promoting a competitive and fair marketplace for new entrants. NECA expressed its support for amendments to the administration of legislation for safety and licensing introduced as part of the *Electrical Safety Bill 2021*.

Rimfire pointed to observations in the 2020-21 Northern Territory Electricity Retail Review that there remains limited retail competition in the Territory and the decrease in the market share of retailers other than Jacana of large customers (consuming more than 750 megawatt hours per annum) is evidence that the licensing regime may not be effective in dealing with matters of controlling market power and facilitating competition.

TGen considers an intention for licensing to create and maintain a 'level playing field' implies the 'playing field' is tipped toward itself. TGen advised, however, that it has to provide essential system services without suitable compensation while other generators do not have to provide these services or do so in a very limited way. TGen supports a level playing field for all system participants and recognition of the additional services it provides in support of the Territory's electricity system

TGen noted the disruptive effect a single proponent can have in the Territory's small scale power systems (including failure of a proponent to enter the market as forecast thereby leading to insufficient generation). TGen considers the licensing regime needs to create certainty for current and future investors with sufficient notice to the market of any new entrants and the commitment of the entrant to deliver their projects.

Commission's position and reasons

As exemplified previously, the Commission considers the licensing regime can positively influence the participation and behaviour of existing or prospective market participants, but agrees it cannot address the root causes of market power or that retail competition continues to be limited in the Territory.

The Commission notes EDL's observations about the absence of information on rejected applications and while such instances are rare, the Commission acknowledges that it has not typically provided information on its decisions regarding new licences and the conditions included in those licences. To improve transparency, the Commission is now issuing a summary providing its decisions and a summary of its associated reasoning for approvals (or not) of applications for electricity supply licences. The first statement issued was in relation to approval of Darwin International Airport Pty Limited's generation licence issued in March 2023.¹¹

The Commission notes Jacana's advice to consider the AER's Retailer Authorisation Guideline. In the next stage of the licensing review, the Commission will consider the consistency, efficiency and effectiveness of licence conditions. While the inclusion of some conditions is mandated by the ER Act, the inclusion of other conditions will be reassessed with regard to the objectives and costs and benefits of licensing.

The Commission notes PWC's observation that there could be certain matters relating to financial strength that are better managed to complement licensing arrangements. These measures are beyond the scope of the licensing review. Under the licensing regime, the Commission monitors and manages risks associated with financial strength by requiring licensees to report on changes in their financial circumstances each year as part of their annual returns. The Commission also monitors other sources of information on changes in licensees' circumstances including complaints and information from the media, stakeholders or other regulators. Where issues are apparent with commercial and other dealings (such as an inability to make payments) or the sufficiency of a licensee's financial resources, the Commission can seek further information under section 25 of the UC Act. Where matters are of sufficient seriousness, the Commission could consider suspending or cancelling a licence under section 36 of the ER Act. The Commission will review its processes for ensuring ongoing financial (and technical) capability as part of the final (third) stage of its licensing review.

Stakeholders raised the following matters which are beyond the scope of the licensing review and are policy matters for the Territory Government: the variable licence fee structure for generators (raised by Eni); the retail restriction on TGen (raised by Jacana); and provision of essential system services (raised by TGen). In relation to entry notification and commitment of new generators (raised by TGen), the Commission notes a new entrant must hold all relevant licences and meet any relevant conditions of the licence prior to commencing operations, but beyond this the Commission plays no role in when operations will commence. The Commission does, however, monitor the intentions of new entrants and lists committed projects and their expected start date in its annual Northern Territory Electricity Outlook Report.

Proposal to implement

The Commission is satisfied that the licensing regime is meeting its objectives; however, to improve transparency on licensing decisions, the Commission now issues a summary providing its decisions and associated reasoning when it approves (or not) a new licence for electricity supply operations.

Licence duration

Background

Typically, the Commission does not set an expiry date for a licence. Instead, a licence continues until it is surrendered by the licensee or the Commission cancels (or suspends) the licence in accordance with section 36 of the ER Act. This approach avoids the costs associated with renewal for both licensees and the

¹¹ Refer <https://utilicom.nt.gov.au/news/2023/generation-licence-issued-darwin-international-airport-pty-limited>

Commission (for example, fees and resources required to prepare documentation and administer the process); however, the Commission can still cancel or suspend the licence where appropriate, if needed.

The Commission monitors licensees' performance primarily through information reported by licensees, audits and complaints by stakeholders. As part of reporting requirements, licensees submit an annual compliance report to the Commission, which declares, among other matters, instances of non-compliance against conditions of their licence. While annual reporting requirements are the Commission's standard approach to monitoring compliance, the Commission does adopt an approach that applies more (or less) reporting or auditing requirements for licensees who consistently demonstrate poor (or good) performance and governance.

The Issues Paper sought feedback on whether the Commission's approach for the term of a licence appropriately balances any risks that may arise from no expiry date and costs associated with requiring regular renewal.

Submissions

EDL, Eni, Jacana, NECA, PWC and Rimfire responded to the question in the Issues Paper with all considering the current approach to be appropriate. Respondents' feedback included advice that regular renewal would introduce unnecessary administrative obligations without adding any real value to the ongoing compliance and auditing procedures, increase costs without fixing competency issues and create complexity in the final year of contracted supply where extension options would need to be managed along with licence extensions. EDL also noted that the lack of an expiry date reflects the long-term nature of arrangements for electricity supply and that licence fees would discourage entities from holding licences unnecessarily.

Respondents acknowledged the importance of compliance monitoring and enforcement to balance the risk of having no expiry date on licences. Jacana supported the imposition of additional obligations on consistently non-complying licensees. Rimfire was supportive of an approach that applied less reporting or auditing requirements for licensees who demonstrate good and consistent performance, but considered increasing licensing obligations or reporting was counter-productive to promoting competition and economic efficiency.

Commission's position and reasons

The Commission considers the current approach of granting licences with an open term (that is, no expiry date) to be appropriate. Notwithstanding this, there may occasionally be circumstances where uncertainty or potential risks outweigh the additional administrative and cost burden on the licensee and the Commission chooses to grant a licence for a specific period. Prior to expiry, the licensee can apply for their licence to be renewed and the Commission will then conduct a full reassessment of their circumstances including performance over the term of the licence before determining whether a new licence should be granted.

The Commission does not propose to lessen compliance reporting or oversight of any licensees, but has, in recent years, placed additional requirements on, and increased its oversight of, some licensees in order to be further assured of the robustness of their compliance processes. The increased oversight will be temporary, provided that the Commission observes a suitable improvement in compliance performance.

Noting that increased oversight is targeted and does not affect all industry participants, the Commission does not consider it will have a negative impact on competition. The Commission also believes that businesses with effective compliance systems will be more capable and efficient than those with poor systems and deliver better outcomes for customers.

Proposal to implement

The Commission considers the current approach of granting licences with an open term (that is, no expiry date) appropriate and no changes to this approach are proposed.

4 | Emerging technologies and business models

Emerging technologies and business models are transforming the electricity supply industry. The application of licences and exemptions needs to be adaptable and flexible to facilitate entry of these alternative supply models while still ensuring customers (or prospective customers) of those services are sufficiently protected and power systems continue to operate safely, securely and reliably.

The Issues Paper focussed on energy storage systems, alternative supply models and EV recharging, seeking to better understand the barriers to entry that licensing may create as well as the risks and protections needed by consumers that licensing should address.

Energy storage systems

Background

The Commission considers the definition of generation of electricity in the ER Act – “operation of any kind of electricity generating plant and all incidental and related operations, but does not include anything declared by Regulations not to be generation” – would encompass battery and other energy storage technologies (energy storage systems), noting the ER Regulations contain no exclusions specific to these systems. The Commission notes energy storage systems provide the same services as those provided by, or inherent to, traditional forms of thermal generation.

To date, larger scale commercial energy storage systems in the Territory have been installed by incumbent generators or form part of new hybrid generation systems. However, in the future there may be other proponents who seek to operate energy storage systems to meet localised energy needs or to provide essential system services.

Smaller scale energy storage systems installed by households and businesses may be exempt from licensing under the Commission's SSRE operations exemption provided the total system size including battery capacity remains below the exemption threshold, which is currently 2 MW. The SSRE operations exemption is discussed further in the next chapter.

The Issues Paper sought feedback from stakeholders in order to better understand the implications and costs and benefits of licensing for energy storage systems. More specifically, the Issues Paper asked:

- whether there were barriers to entry or other issues with classifying energy storage systems as generation or merit in prescribing energy storage systems as a separate operation
- what key risks to electricity supply (if any) that need to be addressed through licensing (or exemptions)
- and the conditions that should be included or omitted in a licence (or exemption) for an energy storage system.

Submissions

Responses to the questions in the Issues Paper were received from DTFHC, Eni, Jacana, NECA, PWC, Rimfire and TGen.

Eni advised an energy storage system that is integrated in a generation site should not be treated separately, but be considered part of the new proposed generator. In these cases, separate licensing requirements may introduce misalignment issues such as conflicting conditions and procedures or timing for each licence to be issued.

PWC advised the Commission to avoid classifying new technology assets on the basis of one of the many purposes they could provide and considered it suitable for energy storage systems to be classified as generators for licensing purposes with these systems operating as a generator when discharging. PWC advised it was necessary for System Control and the Market Operator to have visibility of systems and be able to manage and settle the market. This could be achieved through 'registration' up to a particular market size then licensing for larger operations.

Jacana and TGen supported separate classification of energy storage systems (that is, they not be licensed as generation). Jacana considered separate classification would allow the Commission to be more specific in regulating these systems and to tailor the licences for particular energy storage systems based on their intended operation. Jacana noted a key risk was not having adequate obligations relating to frequency control services, but these could be included in a code that the licensee must comply with rather than licence conditions.

TGen recommended a new licence class of essential system service provider, which would include energy storage systems, to enable the tailoring of technical and regulatory requirements to suit the technology and the purpose for which it is connecting to the network. TGen also advised clarity was needed on whether an energy storage system providing power or essential system services directly to customers via a private transmission line would require a generator, network or both licences.

TGen pointed to particular clauses in the Generator Performance Standards (GPS) under the Network Technical Code, which present barriers to the connection and operation of an energy storage system. It considers if matters relating to connection are not addressed it will act as a disincentive for other participants. TGen also raised issues relating to the interim Northern Territory Electricity Market rules that do not allow for a battery energy storage system to be operated in a manner to optimise operation of its generation fleet.

In terms of risks, Eni, Jacana and NECA advised energy storage systems could have a negative impact on the network and reliability; however, PWC advised there are no risks or requirements for additional licence conditions for energy storage systems that cannot be managed through obligations in the System Control Technical Code (SCTC). PWC did, however, observe that an energy storage system of +/-1 MW discharging/charging rating should be considered equivalent to a 2 MW capacity generating source as this reflects the impact on generation dispatch when it changes from charging to discharging.

Rimfire expressed support for exemption of small energy storage systems to facilitate uptake. NECA considers smaller energy storage systems should not be subject to the same rigour as larger VPPs and generators. NECA also advised administrative red tape including approval processes present barriers and should be looked at for ways to encourage new technologies. DTFHC noted the introduction of further storage in remote communities would be beneficial and consideration needs to be made to encourage uptake.

Commission's position and reasons

The Commission proposes that energy storage systems be classified as generation and unless an existing exemption applies, a generation licence (or exemption under section 87 of the ER Act) will be required for the operations of an energy storage system.

This approach is consistent with the Commission's current practice and the approach adopted in other state and territory electricity supply licensing regimes. This approach will reduce administrative burden for the Commission and licensees compared with creating a new licence category for energy storage systems. A separate licence category would not have material benefits that would outweigh the costs given that the current standard generation licence conditions are also suitable for storage systems and many storage systems will be part of a hybrid unit comprising both storage systems and other generating units.

The Commission proposes that standard generation licence conditions will apply except where the licence applicant can demonstrate that some of those conditions are not relevant or appropriate. This will ensure risks, particularly those associated with the safe and secure operation of the power system are mitigated, for example, by requiring compliance with relevant codes and directions from the power system controller. However, it also allows a nuanced approach to the licensing of certain operations where some conditions may be unduly burdensome relative to the benefits from complying with those requirements.

The Commission notes PWC's advice that no additional licence conditions are required for energy storage systems with risks to the power system able to be managed through the SCTC. Compliance with applicable provisions in the SCTC (and other codes) is a standard condition in a generation licence. Compliance with the directions of the power system controller is also a standard condition in a generation licence.

In relation to difficulties for energy storage systems in complying with GPS framework (raised by TGen), the Commission notes the GPS framework includes a process for negotiated access standards where a generator is able to negotiate alternatives if they can demonstrate that the alternative does not adversely affect power system security or the quality of supply to Territory electricity consumers. This should enable a licensee to negotiate with PWC on the application of the GPS framework. Equally, the Commission would expect PWC to review the GPS to address issues that arise relating to new technologies to ensure that the GPS provisions do not erroneously create barriers to entry, particularly for large scale energy storage systems given these are intended to address some of the challenges associated with the Territory's transition toward greater levels of renewable generation. Similarly, the Commission expects that TGen will raise issues relating to the operation of the interim Northern Territory Electricity Market with the Office of Sustainable Energy, which is responsible for reforms to the market, and PWC System Control as the market operator.

The Commission notes Jacana's request for clarity regarding application of the SSRE operations exemption and licensing requirements for VPPs. This reflects a broader issue relating to whether the owner or the operator of generation is required to be licensed and is discussed in the section to follow. The application of the SSRE operations exemption is discussed in the next chapter.

The Commission notes PWC's observation that the combined impact of an energy storage system changing from charging to discharging means its impact on a power system can be twice that of its rated capacity. This matter along with issues relating to the visibility of systems is examined further in the next chapter in relation to the SSRE operations exemption.

Proposal to implement

The Commission proposes that energy storage systems continue to be classified as generation. Standard generation licence conditions will apply to licences for energy storage systems except where a licence applicant can demonstrate that particular conditions are not appropriate or relevant for its electricity operations.

Owners and operators of generation and VPPs

Background

The ER Act states the "generation of electricity" is an operation in the electricity supply industry for which a licence is required. It does not distinguish between owning and operating of generation as occurs for an electricity network and a dedicated connection asset. In those cases, the ER Act requires both the owner and operator of a network or dedicated connection asset to hold a licence.

This wording potentially creates uncertainty regarding licensing requirements where the owner of generation plant has contracted out the operation of that plant to a third party and for aggregators of small generation units such as VPPs where the party controlling or operating a group of generation assets is not necessarily the owner of those assets.

While owners and operators can be individually licensed, the ER Act also allows for joint arrangements. Section 16(4) of the ER Act provides for a person (agent) who will undertake operations on behalf of another person (principal) to apply for a licence on the agent's own behalf and on behalf of the principal and section 17 provides for a licence to be held jointly by two or more persons.

Submissions

The issue of licensing arrangements for owning and operating of generation was not specifically raised in the Issues Paper. However, Jacana noted that there was a lack of clarity regarding the application of the SSRE operations exemption in relation to the aggregation of rooftop solar PV, for example, whether a VPP consisting of 2.2 MW of rooftop solar PV would require a generation licence.

Commission's position and reasons

The Commission considers the ER Act's reference to "generation of electricity" covers both ownership and operation of an electricity generator.

Where different parties are responsible for ownership and operation of the generator, the Commission considers it will generally be most appropriate for a licence (or exemption) to be held by the owner of the generating assets. In such a scenario, the licence would cover both ownership and operation of the generating assets and the Commission would propose to take the following approach:

- the licence (or exemption) application should be made by the owner of the assets
- the application should provide details of the proposed operator and the contractual arrangements between the owner and operator
- when assessing whether the licence applicant (i.e. the owner) is a suitable person to hold a licence the Commission will consider the details of the proposed operator, including its technical resources and expertise
- licence conditions will require the licence holder to notify the Commission of any material changes that affect the operator
- the owner will remain responsible for meeting the requirements of the ER Act and their licence (or exemption) in relation to the generating assets and cannot contract out these obligations to the operator.

Alternatively, the owner and operator can elect to each apply for separate licences or exemptions, or apply to hold a licence jointly under section 17 of the ER Act. The Commission has no objection to owners and operators being jointly licensed, if they so choose.

In the case of VPPs (and other aggregation models), the Commission considers the operator of the VPP should hold a generation licence or individual exemption. Small generation assets under the control of a VPP may be individually covered by the SSRE operations exemption, but the operation of a VPP should not be covered by the exemption.

The requirement for a licence (or individual exemption) reflects the nature of the relationship, namely, the operator acts on behalf of multiple owners (rather than responding to direction from a single owner) and the operator's choices regarding the collective operation of multiple small-scale generation assets poses a substantial risk to power system security and reliability.

The Commission proposes the operations of a VPP be authorised under a generation licence given the action of a VPP (ramping up or down of generation, and/or charging or discharging an energy storage system) and the risk it poses to the safe, secure and reliable operation of the power system is largely the same as that of traditional generation. The licence for a VPP will be subject to standard terms and conditions except where a licence applicant can demonstrate that particular conditions are not appropriate or relevant for its electricity operations.

As such, the Commission considers the operator of a VPP requires a generation licence or individual exemption for its operations where the operator has the ability to control the operation of the generating units. The current SSRE exemption does not clearly address whether it applies to VPPs. The Commission considers it is unlikely to apply to a VPP that has an aggregate generation capacity of more than 2 MW, but recommends the exemption is clarified to expressly exclude VPPs.

The Commission notes there may be cases, such as small scale, localised VPPs, where the financial cost of licensing may present a barrier to entry and the operation of those units may not create any material risks to the safe, secure and reliable operation of the power system. In these cases, the Commission may consider granting (with ministerial approval) an exemption from the requirement to hold a licence. The applicant would still be required to be found to be a suitable person and obligations will be placed on the exempt party. Relevant conditions are likely to be requirements to comply with directions from the power system controller and relevant codes, ensure the quality of supply and provide information to the Commission.

Proposal to implement

The Commission considers the ER Act's reference to "generation of electricity" covers both ownership and operation of an electricity generator. Going forward, where different parties are responsible for ownership and operation of a generation asset(s), the Commission proposes to take the following approach:

- the licence (or exemption) application should be made by the owner of the assets
- the application should provide details of the proposed operator and the contractual arrangements between the owner and operator
- when assessing whether the licence applicant (that is, the owner) is a suitable person to hold a licence the Commission will also consider the details of the proposed operator, including its technical resources and expertise
- licence conditions will require the licence holder (that is, the owner) to notify the Commission of any material changes that affect the operator
- the owner will remain responsible for meeting the requirements of the ER Act and their licence (or exemption) in relation to the generating assets and cannot contract out these obligations to the operator.

The Commission proposes VPPs or other business models that aggregate and control the operation of distributed generation assets are classified as generation and the operator will be required to hold a generation licence or individual exemption for these operations.

EV recharging

Background

EV recharging services are likely to give rise to a range of business models and be offered by a range of businesses including entities whose primary business activity is the recharging of EVs (akin to a petrol station) and entities where EV recharging is an at-cost or complementary service additional to core business such as recharging stations at shopping centres or hotels. In the future, vehicle manufacturers may also offer bundled car sales and electricity supply offers or partner with EV recharging providers.

The ER Act and associated legislative instruments (including on-supplier exemption provisions in the ER Regulations) do not expressly contemplate EV recharging stations and there is no specific exemption for EV recharging infrastructure.

The ER Act provides that a licence (or exemption) is required by any person who engages in the activity of "selling" electricity. The Commission considers where a charge is made for the service of providing electricity to charge an EV (including a charge that is based on cost recovery with no profit) it would fall within the ER Act's definition of "selling" electricity. This definition covers "trading in electricity (including the selling of electricity to customers)."

Where EV recharging is provided to the owners or occupiers at a premise, the charging infrastructure may fall under the on-supplier exemption. In this case, where a charge is made for the consumption of electricity used in recharging, as measured by a meter, the charge can be no more than the regulated tariff as prescribed by the EPO (that is, either the commercial or residential tariff). This may apply in a small number of circumstances, for example, EV charging services in residential apartment buildings.

Where, however, electricity is sold through EV recharging equipment to a person other than the owner or occupier of the premises, a retail licence or an exemption from the requirement for a licence would appear to be needed, otherwise the business could be operating in breach of the ER Act.

It is also possible that some EV recharging business models could involve owning or operating infrastructure that falls within the ER Act's requirement for a network licence. The ER Act defines an electricity network as the "assets that together are operated by the network provider for the purpose of transporting electricity from generators of electricity to a transfer point with another network or to consumers of electricity". For

example, an EV recharging station could constitute a network where the business model involves generation of electricity from rooftop solar PV for recharging purposes.

The Issues Paper sought feedback from stakeholders in order to better understand the implications and costs and benefits of licensing for EV recharging points. More specifically, the Issues Paper asked:

- what protections in terms of price, access, quality and continuity of supply are needed for users of commercial EV recharging services
- what major risks (such as financial, security, quality or information) associated with EV charging services the Commission should take into account in its licensing decisions and if the Commission were to grant an exemption to an EV charging station, what type of conditions should apply to address these risks.

Submissions

Responses to the questions in the Issues Paper were received from DTFHC, Jacana, NECA and PWC.

DTFHC suggested it was appropriate to assess the introduction of EV services in major centres and then adopt a suitable approach for remote communities if and where EV take up occurs.

Jacana's submission raised risks in terms of end users of EV recharging services and from the perspective of a seller of electricity to an EV recharging station. Jacana advised pricing protections will depend on what basis is used for calculating the price for EV recharging services (noting the traditional model of electricity pricing is based on a retail and a network component) and there may be the need for price regulation for the pass through of network charges in some circumstances. More generally, Jacana highlighted that risks may be different where the owner/operator of an EV charging station is different to the owner/operator of the premises where the station is located and where EV charging stations form part of an embedded network. Jacana raised a number of issues about the expectation of supply to EV recharging stations and what obligations would be placed on EV recharging stations if EVs are used to provide essential services. Jacana noted (from a retailer's perspective) supply to an EV charging station would not be dissimilar to any other customer. In relation to granting an exemption, Jacana advised exemption conditions would differ depending on ownership of the EV charging station, the basis for charging customers (if a price is charged), the location of the EV charging station and who the EV charging station purchases electricity from, for example, a retailer directly or a landlord.

NECA considers EV's will play a vital role in the future and expressed concern about barriers to EV charging that may occur if captured under the licensing regime and that large EV charging stations may face unreasonable requests for network infrastructure upgrades. NECA considers it important that any EV installations are carried out by qualified and knowledgeable electricians and, particularly for domestic EV charging stations, customers manage their own supply arrangements and capacity restraints (through upgrades or limits on the amount of electricity than can be drawn) to avoid overload situations.

PWC advised there to be benefit in the Territory Government developing a specific policy in relation to embedded networks, distributed energy resources, VPP, EV and microgrids to provide clear direction on the regulatory pathway to effectively integrate these technologies. PWC considers such a policy would be complimentary to the final Northern Territory Electricity Market design by establishing the inputs required for the establishment of dispatch and settlement rules.

Specifically in relation to EV recharging, PWC considers charging stations in shopping centres or other commercial locations should be separately metered and individually invoiced otherwise the electricity would be included as part of the site's power requirements and may push medium sized businesses over the threshold for the EPO. PWC also considers charging stations (those similar to petrol stations) should require licensing, but be exempt from the EPO. PWC noted there are a range of models for EV charging stations and how they are established will affect how they are classified for licensing, for example, as a retailer or an embedded network.

Commission's position and reasons

The Commission proposes to write to the minister recommending that the Territory Government consider excluding EV charging operations (through regulations) from the requirement to hold a retail or network

licence, subject to relevant conditions. In the interim, the Commission proposes to grant (subject to ministerial approval) a temporary exemption under section 87 of the ER Act from the requirement to hold a retail or network licence. The exemption would cover EV recharging stations in urban and remote locations ensuring that existing EV recharging stations in the Territory are covered, noting that current stations are small in scale.

The Commission proposes the exemption should not require compliance with the EPO, but include conditions relating to the provision of information to the Commission on request and that (for the purposes of clarity) an EV recharging station must comply with relevant safety and technical requirements under the *Electrical Safety Act 2022*.

The Commission's proposal is consistent with the approach taken by Essential Services Commission of South Australia where an exemption for EV recharging stations is in place until November 2023 while the South Australian Department of Energy and Mining reviews the electricity supply licensing regime including its application to EVs.¹² The Victorian Government's General Exemption Order 2022 also exempts persons that sell or supply electricity for the purpose of EV recharging from having to obtain a licence.¹³

The Commission considers there are inconsistencies and a lack of clarity in the application of the licensing regime to EV recharging. These services were not envisaged when the ER Act commenced over 20 years ago and involve electricity being used for a very different purpose to other sales of electricity.

Having considered the objects of the ER Act and UC Act, the Commission's view is that the costs of licensing are likely to outweigh the benefits. The costs include direct costs to EV charging operators and the Commission, as well as potential indirect costs to consumers including the risk of reduced access to EV charging services if compliance with the licensing requirements created a barrier to the continued provision or expansion of these services. For the licensing of the selling of electricity, the Territory's regulatory framework seeks to address risks associated with the pricing, adequacy of supply, protection of vulnerable customers (such as life support customers), provision of information to customers and dispute resolution, disconnection and the interactions between retailers and other market participants (notably network providers). This reflects the necessity of electricity supply for domestic purposes or commercial activities.

It is unclear, however, how many of these requirements would be relevant to EV recharging stations given the short-term nature of recharging, EV owners' ability to choose where they recharge (including at their own premises) and the existence of alternative options for transport. Furthermore, the Territory's *Essential Goods and Services Act 1981* specifies public transportation of persons or freight other than taxi-cab services as an essential service. It does not define personal transport as an essential service.

Some EV charging stations may be covered by the on-supplier exemption in the ER Regulations, but other business models could potentially be required to hold retail and/or network licences, an inconsistency noted by PWC and Jacana. The Commission considers this creates uncertainty for existing and potential owners of EV recharging stations and has the potential to incentivise the structuring of businesses in a manner that avoids the requirement to apply for a licence.

EV charging maps available on plugshare.com show, as at 10 February 2023, 58 EV charging locations across the Territory.¹⁴ The majority of charging stations were at accommodation venues (hotels, roadhouses, caravan parks) and charging infrastructure ranged from wall outlets to high power charging stations (only available in Darwin and Alice Springs) and the number of outlets at a station ranged from one to six. The

¹² Essential Services Commission of South Australia. Electricity generation licence exemption – Virtual Power Plant Operations, Electric Vehicle Charging Operators, and Sub 5MW Operators project page, accessed on 10 February 2023 at <https://www.escosa.sa.gov.au/projects-and-publications/projects/electricity/licence-generation-exemption-virtual-pp-operations-ev-charging-and-sub-5mw-operators>.

¹³ Essential Services Commission. Information on electricity licence exemptions for sellers and suppliers website accessed on 10 February 2023 at <https://www.esc.vic.gov.au/electricity-and-gas/licences-exemptions-and-trial-waivers/information-electricity-licence-exemptions-sellers-and-suppliers>.

¹⁴ Available at <https://www.plugshare.com/>

largest charging station (six charging bays) is at Charles Darwin University's Casuarina campus. It provides free charging to the public, staff and students and is powered by a solar PV system.¹⁵

Many charging stations in the Territory offer power free or as part of the accommodation fee and where charges were levied or suggested (honour systems), the charge was typically \$0.50/kilowatt hours (kWh). The highest charge was \$1.30/kWh; however, an EV owner staying overnight at that premise would only have to pay the site fee (no extra fee for recharging). These rates are higher than the commercial standard tariff of \$0.318557/kWh (plus fixed daily charges) and the caravan park resident tariff of \$0.365391/kWh (no fixed daily fee) under the EPO and could constitute a breach of the on-supplier exemption.

An online article in 2022 indicates average price of public EV charging in Australia to be around \$0.40/kWh for rapid DC charging and \$0.60/kWh for ultra-fast or superchargers.¹⁶ This indicates that EV recharging is not simply about access to, and selling of, electricity. Instead there are other aspects to the service, notably the time to recharge, that have value for EV owners. Equally, owners of EV recharging stations will not invest in fast charge infrastructure if they are unable to earn a return on their investment because the price they can charge is limited to the EPO tariff.

The Commission has not received any complaints regarding the price of EV charging and notes variation in charging practices and prices is also evident in other jurisdictions on the plugshare.com website. The Commission also notes many of the EV recharging stations in the Territory shown on the website appear targeted toward travellers rather than local EV owners who may charge at home rather than through public charging stations.¹⁷ Home charging means many EV owners are covered by protections provided under traditional retail arrangements. However, the Commission notes where EV owners are supplied through an embedded network, they may lack protections and choice in electricity supplier. This matter is discussed further in the next chapter in relation to the on-supplier exemption.

The Commission notes NECA's concerns regarding unreasonable requests to upgrade network infrastructure and advises that there are dispute resolution provisions under the National Electricity Rules including that such matters can be referred to the AER for determination. The Commission also notes that while an EV recharging station would not be classified as generation, where an EV recharging station produces its own electricity (for example through rooftop solar PV), a licence or exemption could be needed for the operations of that generation plant.

PWC's observation regarding the impact of an EV recharging station on the consumption for a site is important for the owner or occupier of that site(s). Metering of sites and their treatment as single or multiple sites appears to reside with the customer as provided for under regulation 3 of the ER Regulations and is beyond the scope of the licensing review.

Proposal to implement

The Commission proposes to write to the minister recommending the Territory Government consider excluding EV recharging stations (through regulations) from the requirement to hold a retail or network licence, subject to relevant conditions, and from complying with the EPO.

In the meantime, the Commission proposes to grant (subject to ministerial approval) an interim exemption under section 87 of the ER Act from the requirement to hold a retail or network licence. The exemption will include conditions relating to the provision of information to the Commission on request and that an EV recharging station must comply with relevant safety and technical requirements under the *Electrical Safety Act 2022*.

¹⁵ Charles Darwin University. NT's first public car charging station opens at CDU. News article on 3 June 2013. Accessed on 28 March 2023 at <https://www.cdu.edu.au/newsroom/NTs-first-public-car-charging-station-opens-at-CDU>.

¹⁶ Guthrie S. How much does it cost to charge an electric car in Australia? Online article accessed on 10 February 2023 at <https://www.drive.com.au/caradvice/how-much-does-it-cost-to-charge-an-electric-car-in-australia/>.

¹⁷ Ibid

Other alternative supply models

Background

Alternative supply models covers a range of possible future business models and products such as aggregators, microgrids and alternative energy sellers that could arise as a result of developments in technology (for example, smart meters and communications infrastructure), SSRE operations and competitive markets. They provide supplementary or independent supply of electricity and the ability for new players to engage in providing wholesale electricity, essential system services and selling of electricity.

The licensing requirements for alternative supply models in the Territory are considered on a case-by-case basis. For clarity, these models cannot be assumed to fall under the SSRE operations or on-supplier exemptions as the nature of these activities may not fit within those exemptions.

Furthermore, there is a risk that consumers may assume the protections provided under traditional arrangements extend to alternative models of electricity supply, even where these operate under relatively limited regulatory oversight (that is, an exemption). Equally, the uncertainty regarding the need for a licence and associated costs of compliance could be deterring the entry of businesses offering alternative supply models (and therefore the availability of such services to consumers).

The Issues Paper sought feedback from stakeholders in order to better understand the implications and costs and benefits of licensing for alternative supply models. More specifically, the Issues Paper asked:

- whether there were barriers to entry or other issues with the Territory's current licensing regime for new entrants offering alternative supply models and the characteristics or activities of these models that might justify a more 'light-handed' regulatory approach
- what major risks (such as financial, security, quality or information) are associated with alternative supply models that the Commission should take into account in its licensing decisions and if the Commission were to grant an exemption to operate an alternative supply model, what type of conditions should apply to address those risks.

Submissions

Responses to the questions in the Issues Paper were received from DTFHC, Jacana, PWC and Rimfire.

DTFHC advised licensing of alternative supply models needs to be sufficient to maintain customer protections and reliability, particularly in remote locations where it is challenging to provide these services and response times to faults can be extended due to the need to fly in special personnel. DTFHC considers this needs to be balanced with allowing new entrants to provide services and demonstrate capability.

Jacana considers there are barriers to entry with the main issue being uncertainty on how a model fits in the licensing (or exemption) regime. Jacana stated a policy or framework about when an exemption may be required would provide guidance. Jacana was also of the view that for private networks and retailers behind the meter, regulation and viability of these activities is still required, but full distributor or retailer obligations would not be appropriate.

Jacana pointed to the National Energy Customer Framework for considering the conditions relevant to a licence (or exemption) for an alternative supply model, but acknowledged the Framework is under review. Jacana advised conditions will depend on the model and customers to be serviced (for example, whether they are residential or commercial customers). Jacana considers a framework where licence conditions relate to high level principles and issues and are linked with more detailed instruments (for example, codes and guidelines) setting out the overarching compliance regime and the specific obligations for particular activities would facilitate the emerging and developing nature of alternative supply models.

Jacana raised concerns about the impact of alternative supply models on itself as a point of contact. Commission staff engaged with Jacana to further understand these concerns with Jacana advising it was supportive of alternative supply models where they have the potential to provide benefits to customers; however, it believes there is a lack of information for potential providers on the existing or future market and regulatory environment. Jacana also considers the level of awareness from customers about the benefits and

potential impacts of alternative supply models is low. As a result, Jacana and other participants become a point of contact for information sought by proponents and prospective customers of alternative supply models, but there is a lack of recognition of the costs associated with the pass through of information. Jacana suggested a centralised repository of information on how alternative supply models are treated from a market, energy policy and consumer protections perspective is needed. Jacana also considers there should be clear parameters around financial expectations of alternative supply models (particularly long term arrangements) as well as the pricing models and their impacts on customers.

PWC advised any alternative supply model should be able to demonstrate that it is in the long term interest of customers in order to proceed. PWC also asserted that System Control should be granted full access and control of alternative supply systems including the ability to turn them on and off. Depending on the type and size of the system, PWC considers they should require, at a minimum, to be registered.

Rimfire considers the current approach for behind-the-meter supply models is appropriate to apply to alternative supply models. Rimfire suggested, however, where more than 25% of generation capacity was envisaged for export, this would indicate the key intended purpose was export and compliance with the current licensing regime should be required.

Commission's position and reasons

The Commission will continue to consider the licensing requirements for potential alternative supply models on a case-by-case basis balancing the costs and benefits of licensing and having regard to the objects of the ER Act and UC Act and the required considerations under section 16 of the ER Act.

This approach reflects the difficulty in outlining a definitive approach to licensing for alternative supply models given the varying types and scale of such operations, the characteristics of the power system in which they would operate and who they provide services to and the nature of those services. The risks associated with alternative supply models are common to other electricity operations, for example, the need for customer protections and to be subject to direction by the power system controller.

The Commission notes Jacana's concern that itself and other market participants are assisting in providing information to proponents and potential customers of alternative supply models. While the licensing review should assist in clarifying regulatory requirements, providing broader policy information and guidance on these models may be better addressed by government. The Commission notes there are basic customer protections in its Electricity Retail Supply Code and it would consider the applicability of these to any alternative supply model in making its licensing decision.

The Commission is seeking to make the decision framework for exemptions more transparent with the next chapter discussing the principles the Commission will use to guide its decisions in determining whether a licence or exemption is the appropriate pathway. The chapter also discusses concerns about the visibility and regulation of alternative supply models as a result of the SSRE operations and on-supplier exemptions. Rimfire's suggestion of a threshold for generation capacity envisaged for export is also considered in the next chapter.

Proposal to implement

No changes are proposed to the licensing regime specifically in relation to other alternative supply models with the licensing requirements for those operations to be considered on a case-by-case basis.

5 | Licensing coverage - exemptions

Background

The Commission recognises licensing imposes costs on licensees through fees and resources associated with achieving and maintaining compliance with licence conditions. Exemptions are a means by which certain types of operations can be less burdened by licensing costs and obligations when they would be disproportionate relative to the potential risks to customers and/or the operation of the power system. Lessening the cost of regulation can assist in achieving desired outcomes such as facilitating entry to markets and allowing consumers to benefit from competition and efficiency (through more choice or lower cost providers).

It is important to note, however, that while an exemption frees a person from the requirement to hold a licence, an exemption is not unconditional. Typically, there are criteria (definitions) that establish what operations are covered by the exemption and there may be conditions exempted entities must comply with. If an entity does not fall within these criteria or comply with the conditions of exemption, then they are effectively operating without a licence and potentially subject to a penalty under the ER Act.

Exemptions established by the Commission take one of two forms:

- an individual exemption, which must be applied for and is tailored to an entity's specific activities and situation including any appropriate conditions
- a class exemption where if an entity's activities fall within a particular defined type (class) of activities, there is no need to apply to the Commission for an exemption, but the person must abide by any conditions attached to that exemption (the SSRE operations exemption is an example of a class exemption). It is up to a person to satisfy themselves that they fall within the activities covered by a class exemption including obtaining their own legal advice, if necessary.

In other jurisdictions, there is also a 'registrable' exemption where if a person's activities fall within a particular class of activities there is no requirement for a licence, but the person must register their activity and abide by any conditions attached to the exemption. The Commission has not used such an approach to date, but it could be appropriate for some emerging technologies where potential risks to power system security or customers justify identification of operations and the capacity for more monitoring than might otherwise be possible under a class exemption. Registration would also provide information should there be a need for the Commission to investigate a complaint and assist the Commission to effectively undertake its compliance and enforcement obligations.

Guiding principles for assessing exemptions

Background

While the ER Act specifies considerations for assessing licence applications, this is in terms of granting or refusing the licence. These considerations do not provide guidance for determining whether a licence or an exemption is the most appropriate outcome or whether an exemption should be considered. The lack of principles or factors to guide this decision reduces transparency for potential applicants and increases the risk of inconsistency across assessments.

To address this, the Issues Paper proposed a set of principles or factors to guide the Commission's decision-making on when an exemption might be a preferred approach to authorising an electricity entity or class of operations. The proposed principles or factors were:

- exemptions must be in the public interest (individual and broader benefits outweigh any detriment associated with exemption)
- the residual risk of detriment is low (as a result of application of any conditions)
- electricity is bundled with other products and forms an insignificant part of the service
- vulnerable consumers are sufficiently protected

- customers are well-informed to be able to benefit from the activity and its competitive market impact
- market conditions will ensure customers are supplied on fair and reasonable terms
- market conditions will ensure customers are supplied at a fair price
- the costs of regulation would outweigh the benefit of regulation
- if needed, registration (rather than licensing) could provide sufficient visibility of operations
- a risk-based approach will be applied to determining conditions for an exemption (a standard set of conditions for all exemptions would not be sufficiently adaptable or flexible).

The Issues Paper sought feedback on the appropriateness of the principles and suggestions for further guiding factors. The Issues Paper also asked whether there should be a scale (for example, size of customer or operation) for an electricity supply activity including whether scale is dependent on the type of activity, where an exemption may be appropriate.

Submissions

Responses to the questions in the Issues Paper were received from DTFHC, EDL, Jacana, NECA, PWC and TGen.

DTFHC and NECA advised the principles appeared reasonable.

EDL agreed with the principles and suggested a further principle should be demonstrated experience and reputation of the requesting electricity entity, noting granting an established IPP an exemption would present a lower risk overall. EDL suggested an exemption is appropriate where electricity generation is solely supplied to a large scale customer as adopted in Western Australia. EDL noted that in Western Australia, generation licences are only required for larger scale generation (previously 30 MW, now being increased to 100 MW), but acknowledged that the Western Australian energy market is larger and has more non-grid connected operations than the Territory.

Jacana suggested a further principle of customers having access to a choice of retailer, where this is technically feasible. Jacana queried whether principles relating to market conditions (ensuring customers are supplied on fair and reasonable terms and at a fair price) and costs outweighing the benefits of regulation should be conditions associated with exemptions rather than principles assessing the appropriateness of an exemption. Jacana was also of the view that in relation to the last principle (a risk-based approach), there should be a 'base' level of conditions, for example, pricing, provision of information and dispute resolution, or at the very least standard topics of conditions.

Jacana considers there needs to be visibility of licence exemptions and the Commission cannot actively monitor compliance with exemption conditions or reassess the appropriateness of exemptions without having visibility over who is operating under such exemptions. At a minimum, Jacana stated there should be a registration process (if an application process is not appropriate or financially viable) and limited (if any) use of deemed exemptions. Jacana was not supportive of scale based thresholds for exemptions and stated that the particular activity and the customers impacted by the activity is what should be considered.

PWC advised the principles are sensible. PWC also advised that in determining whether an exemption may be appropriate, consideration needs to be given to various customer classes and consumption levels. This includes requirements for participants to register embedded generation located in embedded networks and who on-sell to customers.

TGen stated that exemptions need to lead towards lower cost electricity to the consumer. Given reduced compliance obligations should reflect reduced production costs and should result in reduced cost of electricity, TGen considers the principles should capture this element.

Commission's position and reasons

The Commission is guided by the objects of the ER Act and UC Act in making its licensing decisions. However, in deciding whether an exemption is appropriate (rather than a licence), the Commission considers

it would assist stakeholders and improve transparency to publish a set of principles that demonstrate how it will apply the objects of the ER Act and UC Act when making these decisions.

The Commission confirms it intends to apply fit and proper person requirements consistent with those in section 16 of the ER Act to applicants for an exemption. These requirements provide basic protections for consumers to ensure that any person who is providing electricity retail, networks or generation services is a suitable person to provide those services.

The Commission notes there is an absence of an assessment of the suitability of a person's character and operations in the case of a class exemption. This is considered acceptable where the risk of not assessing these is relatively low, for example, in the case of the SSRE operations exemption, these operations are small in scale (under 2 MW) and electricity must be generated primarily for on-site supply meaning the primary person affected by a failure to generate is expected to be the owner of those operations.

The Commission does not propose to include a principle regarding demonstrated experience and reputation, as suggested by EDL. This is already addressed by the requirement (under section 16 of the ER Act) for the Commission to assess that an applicant is a 'fit and proper' person and that the person's operations are suitable for their intended purpose. Once a positive assessment is made, the Commission then decides whether a licence or an exemption should be granted followed by a decision on the appropriate conditions to attach to the licence or exemption.

The Commission considers principles relating to costs outweighing the benefits of regulation and market conditions are relevant to matters it must consider in granting a licence under section 6(2) of the UC Act and proposes to include these as principles. The Commission does not consider they are suitable as conditions of an exemption, which need to be specific activities or obligations against which a licensee or exemption holder can evidence compliance.

The Commission proposes to expand the principle relating to vulnerable consumers to include small customers, that is, the principle becomes "small and vulnerable customers are sufficiently protected". The Commission agrees with Jacana and PWC that the type of customers and their consumption levels are relevant considerations in relation to retail licensing. While all customers are important, in terms of determining whether a licence or exemption is appropriate, the Commission's focus is on protecting small customers, which the Commission defines under the Electricity Industry Performance Code as a customer consuming less than 160 megawatt hours per annum.

The Commission considers its licensing decisions and the conditions it applies to licensees or exempt parties (and thus, costs imposed) need to be flexible in order to include new business models and enhance competition. However, facilitating the entry of innovative and new business models cannot be traded off against basic consumer protections and the secure operation of power systems is reflected in the Commission's principles.

Beyond this, the Commission will not include a principle relating to scale of operations or the level of impact on the power system or customers. This will be a factor in the Commission's decision regarding whether a licence or exemption is appropriate, but falls under principles regarding protection of customers, impacts on the power system and residual risk. In regard to the scale of generation that should be exempt (raised by EDL), this matter is discussed in the next section on the SSRE operations exemption.

The Commission proposes to include a principle that takes into account the necessity of a proposed operation for consumers. As discussed in relation to EVs, there may be substitutes for the product or service or alternative regulated sources of electricity supply that mean an operation may not be considered essential. In these cases, the need for licensing and the application of standard conditions may be less relevant and potentially unduly burdensome and restrictive.

There will be some conditions that will apply regardless of whether an applicant is licensed or exempted from the requirement to hold a licence. These will typically relate to the impact on the network and customers, safety, and information required by the Commission to conduct its functions. The Commission also notes Jacana's prioritising of pricing, provision of information and dispute resolution, as matters to consider in determining conditions for exemptions relating to the sale of electricity.

The principles are intended to have broad application rather than be specific to a type of electricity operation. As such, the Commission does not propose to add principles relating to choice of retailer (raised

by Jacana), but this could be relevant to the conditions to be applied to an exemption. The Commission also does not intend to include a principle that costs of electricity should be lower as it would be expected that a new product would need to be competitively priced to attract market share from incumbent providers.

Proposal to implement

In line with its reasoning above, the Commission has refined the principles presented in the Issues Paper and now proposes to apply the following principles to guide its decision-making on when an exemption may be appropriate for a person applying to operate in the Territory's electricity supply industry:

- any person who is granted an exemption must be a suitable person having regard to equivalent considerations to those that apply under section 16(3) of the ER Act
- an exemption will only be granted where the applicant can demonstrate that the costs of licensing outweigh the benefits associated with licensing and that any potential detriment of the applicant operating under an exemption (instead of a licence) for consumers of electricity is low
- an exemption for operations that affect small customers will only be appropriate where small customers are sufficiently protected, including where the exemption conditions or market conditions are likely to ensure that small customers are supplied on fair and reasonable terms and prices
- an exemption may be appropriate where the proposed operations do not involve any material risks to the safe, secure and reliable operation of the power system, or any risks can be appropriately mitigated by conditions
- an exemption may be appropriate where the operations do not relate to an essential service and alternative regulated sources of electricity supply or other appropriate substitutes for the product or service are available to customers
- a risk-based approach will be applied to determining conditions for an exemption.

SSRE operations exemption

Background

The Commission's SSRE operations exemption, established in 2007, exempts small scale renewable energy operations from the need to hold a generation or retail licence. At the time the exemption was established, uptake of rooftop solar PV systems was relatively low and the exemption was intended to reduce barriers to uptake of and access to feed-in tariffs for the sale of excess electricity from these systems. The exempt activities are defined as follows:

the generation of electricity where:

- the maximum generating capacity is 2 MW; and
- the electricity is generated from a renewable source; and
- the electricity is generated primarily for on-site supply; and
- the generator is connected to the distribution network;

and the associated sale of excess electricity generated that is exported to the distribution network, when electricity is generated in excess of on-site supply requirements.

The exemption is subject to three conditions. The first condition requires an exempt person to provide the Commission with any information requested in the performance of the Commission's functions under any applicable laws. The second condition requires the exempted person to have a contract with a licensed electricity retailer for the sale of electricity exported to the distribution network. The final condition requires the exempted person to comply with all relevant safety and technical requirements of the ER Act and ER Regulations. Safety and technical matters are overseen by the Electricity Safety Regulator (NT Worksafe).

The Issues Paper identified two potential amendments to the SSRE operations exemption. First, the exemption only applies to renewable generation that is exporting excess electricity to the distribution

network (grid). It does not account for circumstances where there is no export and it should be extended to cover those circumstances (otherwise a licence or individual exemption may be required). Second, the existence of aggregators was not contemplated when the exemption was established. The Commission intends to provide clarity about the coverage of such operations under the exemption.

Although not identified in the Issues Paper, the Commission also considers there is a gap with small generators powered by non-renewable fuel sources and used primarily for on-site supply potentially not covered by an exemption.

A final matter identified in the Issues Paper was whether the 2 MW threshold for the SSRE operations exemption should be lowered. The substantial uptake of rooftop solar PV and associated decline in minimum system demand during daylight hours means additional SSRE operations, particularly larger scale operations, could have substantial implications for the stability of a power system. Furthermore, there is no requirement under the exemption for owners of SSRE operations to comply with directions from power system controllers (as is the case for licensed generators) or provision made for other mechanisms to influence the output of these systems in order to manage risks to power system security.

There are, however, some limitations on site exports through PWC's network connections process. PWC provides for systems less than 10 kilowatt (kW) single-phase or 30 kW three-phase to be pre-approved for connection to the Alice Springs, Darwin-Katherine and Tennant Creek power systems (with specified site export limits), while eligibility for connection of generation above 10 kW single-phase or 30 kW three-phase in size must be negotiated (with site export limits determined by assessment). In other power systems in the Territory, different arrangements are in place including a zero export limitation or a total limit on solar PV systems in some cases because of the potential impact on the stability of the power system.

The Issues Paper sought feedback from stakeholders on what would be an appropriate level if the 2 MW threshold for the SSRE operations exemption were lowered and the costs and benefits of such a change

Submissions

Responses on issues relating to the SSRE operations exemption were received from DTFHC, Jacana, NECA, PWC and Rimfire.

DTFHC advised it would be beneficial to encourage SSRE operations in IES communities, but the small scale of these networks and reliability of supply to consumers needed to be considered.

Jacana and Rimfire did not support lowering the threshold. Jacana considered the threshold was very low already and a further reduction would increase costs and administration without much benefit while Rimfire considered it would dampen investment in commercial-scale renewable energy systems.

NECA advised it had no feedback to suggest that the limit required lowering, but if it were, NECA advised there needed to be an assurance that customer application and approval times were not adversely affected.

PWC noted the impact of the size of an operation differs according to the system load profiles and limits of operation of existing plant in each power system. PWC noted that at present anything below 2 MW does not have an impact on the Darwin-Katherine power system material enough to necessitate centralised dispatch. However, in Alice Springs and Tennant Creek, generation of 800 kW to 1.2 MW and 400 kW, respectively, would likely require centralised dispatch to manage the impact on the power system and/or increase essential system service requirements to operate in the majority of conditions. PWC noted that as behind-the-meter solar PV uptake continues, the level at which each individual generation starts to have a material impact will become more conservative.

PWC advised all licensing and registration conditions (depending on the size of the SSRE operation) should clearly state that System Control must be provided access and control of the system to maintain system stability including the ability to turn off the SSRE operation. PWC advised while provisions exist through the SCTC to isolate the system from the grid, the ability to turn the system on and off will provide better outcomes for system stability.

PWC raised a number of additional issues with the SSRE operations exemption. PWC advised an exemption limit should be in place for all generation technologies, not just those from renewable sources to provide clarity to potential investors. Furthermore, PWC advised the current requirement for the generation to be

primarily for on-site supply needs better quantification to remove doubt. PWC also noted the current exemption excludes SSRE operations from the SCTC obligation to make payments to TGen for the provision of essential system services. PWC advised this presents an equity issue with neither the definition relating to generation source or on-site load being indicators of the impact the operations have on essential system service requirements.

Commission's position and reasons

The Commission proposes to vary (subject to ministerial approval) the SSRE operations exemption, renaming it the Small Scale Generation (SSG) exemption and modifying definitions to incorporate energy storage systems, generation from non-renewable sources and generation that does not export to the distribution network. The Commission also proposes the exemption be updated to reflect recent changes to electrical safety legislation and clarify that it does not cover third party ownership of SSG (discussed below) and VPPs (as discussed in Chapter 4).

The proposed changes would provide certainty for small generators and aggregators of small generation on whether their operations are exempt (or not) from the requirement to hold a generation licence and where eligible, the conditions they must meet in order to remain covered by the exemption. For the avoidance of doubt, the exemption will make clear that a failure to comply with the conditions of the exemption will mean that a person and their operations are automatically excluded from its coverage (that is, the Commission is not required to write to the person to revoke application of the exemption).

The Commission proposes to retain the 2 MW threshold for the SSG exemption and clarify that this applies to the total capacity of on-site generation (not individual on-site generators or energy storage systems).

The Commission observes that 2 MW is a very large rooftop PV system, and is more than 200 times larger than the average sized household solar PV system. There could be some benefits to the reliable and secure operation of the power system from reducing this threshold so that it covers systems that are a smaller size, but still larger than is needed for a household or small business.

A number of stakeholders expressed concern about lowering the 2 MW threshold citing cost impositions and the potential to negatively impact investment. The Commission notes lowering the threshold would impose costs on businesses with an annual cost of licensing of a minimum of \$8000 unless a specific fixed fee for small systems were introduced¹⁸. Furthermore, compliance with standard conditions of a generation licence would impose further costs on an owner of a SSG operation and there would be a substantial increase in the cost to the Commission of administering the licensing regime. The Commission considers for an individual SSG, these costs exceed the benefits from licensing (which relate largely to ensuring power system security and quality of supply).

The Commission notes PWC's advice that the size of SSG that requires centralised dispatch (for the purpose of managing power system security) is declining and in smaller systems is already below the threshold of the SSRE operations exemption. Further discussion between PWC and Commission staff indicated that the controllability of SSG greater than 10 kW single-phase or 30 kW three-phase is negotiated as part of the negotiated connection agreement process. For small systems (below 30 kW), however, there is no such negotiation but, in aggregate, these systems present an increasing operational risk for power system controllers and in the future there may be times when it is necessary to disconnect all SSG (including these small systems) to ensure power system security and avoid major events.

While the Commission could make it a condition of the SSG exemption that all systems must comply with directions from the power system controller to mitigate this risk, the practical means to do this, particularly for existing SSG, are unclear as the majority of rooftop PV likely does not have the capability to be actively managed. Further, such a condition would need to be limited so as to not provide for the unreasonable imposition of requirements (and the costs) on owners of SSG by the power system controller.

¹⁸ Licensing fees are set by the Treasurer and are beyond the scope of the electricity supply licensing review.

The Commission does not consider a condition in the SSG exemption is the most appropriate mechanism to address these issues. Rather, a more comprehensive package of technical standards and other requirements as introduced in South Australia in 2020 is required to deal with the risks small scale solar generation poses to system security.¹⁹ Other states such as Western Australia and Queensland have also introduced specific mechanisms for this purpose.^{20,21} The Commission considers this to be a policy matter beyond the scope of the electricity supply licensing review and should be dealt with as part of the Territory Government's plan to reach its 50% renewable energy target and associated system and market reforms.

The Commission notes PWC's advice regarding the impact of a battery, which means a battery of about 2 MW could have an impact of nearly 4 MW on the power system if it moves from drawing electricity from the grid to discharging electricity to the grid (or vice versa). Noting that a battery covered by the SSG exemption would be primarily serving on-site supply, it is not clear why it would be operated in a manner that would mean it may regularly shift from drawing to discharging electricity from the network (or vice-versa) unless for a specific purpose, for example, the provision of essential system services. In this case, it is likely to be under the control of another party (for example, a VPP) and is being used for commercial gain. Operations that are commercial in nature including VPPs are not intended to be covered by the SSG exemption.

The Commission does not propose to amend the SSRE operations exemption to specify a level for on-site supply. The Commission considers the current wording of the exemption (the electricity is generated primarily for on-site supply) implies at least 50% of the electricity generated should be used on-site. The Commission notes the Territory's 1-for-1 feed-in tariff may have incentivised the installation of overly large systems and shifted demand in order to maximise the amount exported to the electricity network (and thus, the amount used on-site could be less than 50%). However, with the phase out of the 1-for-1 feed-in tariff, there is now more incentive for electricity to be used on-site rather than export. While the Commission believes flexibility is needed given these circumstances, the criterion should remain as the exemption is not intended to cover generation that is purposely installed well in excess of needs and therefore, more commercial in its nature.

The Commission notes PWC's advice on inequities in relation to payment for essential system services, but the market arrangements for essential system services and how those services are paid for and by whom are matters beyond the scope of the licensing review. Ideally, these should be addressed as part of the Territory Government's Northern Territory Electricity Market Priority Reform Program.

The Commission considers the exemption should apply to all SSG that meets the other requirements of the exemption and not be limited to renewable generation. Many households and businesses have small back-up diesel generators that are potentially covered by the requirement in the ER Act to hold a generation licence. The costs of a licence or individual exemption would far outweigh the benefits in these circumstances. Extending the exemption to cover small scale non-renewable generators would provide clarity that those generators do not require a licence or individual exemption.

Proposal to implement

The Commission proposes to vary (subject to ministerial approval) the SSRE operations exemption to:

- change the name of the exemption to the Small Scale Generation (SSG) exemption
- remove the specification that generation is to be from a renewable source
- amend the specification relating to on-site supply to capture zero export systems, that is, the specification will be ***the electricity is generated solely or primarily for on-site supply***

¹⁹ Government of South Australia. Regulatory charges for smarter homes website, accessed on 29 March 2023 at <https://www.energymining.sa.gov.au/industry/modern-energy/solar-batteries-and-smarter-homes/regulatory-changes-for-smarter-homes>.

²⁰ Government of Western Australia. Emergency solar management website accessed on 29 March 2023 at <https://www.wa.gov.au/organisation/energy-policy-wa/emergency-solar-management>.

²¹ Queensland Government Department of Energy and Public Works. Emergency backstop mechanism website accessed on 29 March 2023 at <https://www.epw.qld.gov.au/about/initiatives/emergency-backstop-mechanism>.

- clarify that the exemption covers energy storage systems
- retain the 2 MW threshold and clarify that this applies to total capacity of on-site generation (not individual on-site generators or energy storage systems)
- clarify that the exemption does not apply to operators of VPPs
- clarify that the exemption does not cover third party ownership of SSG operations
- update the condition relating to safety and technical requirements to reference the *Electrical Safety Act 2022*
- clarify that a failure to comply with the conditions of the exemption means that a person and their operations are not covered by the exemption.

Third-party ownership of SSRE operations

Background

Circumstances where third parties install and operate rooftop solar PV on private premises (rather than the owner of the premises) and sell the output to the owner(s) or occupier(s), are often referred to as solar power purchase agreements (PPAs). Solar PPAs were not considered at the time the SSRE operations exemption was established. The absence of either an explicit inclusion or exclusion of solar PPAs creates uncertainty for potential market participants about licensing requirements.

Were solar PPAs to be exempted from the requirement to hold a licence, their customers would not have protections relating to billing, disconnection and reconnection, payment and dispute resolution arrangements that are applicable to licensed retailers. There would also be no process to scrutinise whether business operators have suitable expertise, integrity and financial resources to conduct operations nor would there be ongoing regulatory oversight of their activities.

The Commission notes, however, that this does not imply consumers are without protections and avenues for recourse. The services provided by solar PPAs are subject to Australian Consumer Law, which provides generic protections for consumers. Compliance and enforcement activities associated with the legislation are undertaken by Northern Territory Consumer Affairs including provision of conciliation services in the case of disputes. The Commission also notes the industry has drafted the New Energy Tech Consumer Code (NETCC), which sets voluntary minimum standards of good practice and consumer protection for the sale of behind-the-meter products and services. The NETCC program commenced in February 2023 with Approved Sellers having demonstrated to the Clean Energy Council, as administrator of the Code, that they have the processes and procedures in place to ensure ongoing compliance with the standards outlined by the NETCC.

The Commission notes a solar PPA will provide an alternative avenue of electricity supply to owners of premises, but it is likely that the premises will also typically have supply provided (or the ability to be supplied) through a licensed retailer from the distribution network. Hence, electricity supply remains accessible even if supply under the solar PPA is curtailed. The Commission also notes the prices charged under solar PPAs will likely be lower than for electricity supplied through traditional sources (where tariffs are capped under the Territory Government's EPO) in order to be an attractive alternative source of supply.

Noting the safeguards above, the Issues Paper asked stakeholders what substantive risks to consumers (if any) arising from solar PPAs would need to be addressed through licensing. The Issues Paper advised a substantive residual risk would be one where the detriment to consumers is likely to be high, the ability to remedy the detriment poor or the industry is unlikely to provide a response (such as changes to conduct) of its own accord.

Submissions

Responses on SSRE PPAs were received from Jacana, NECA and PWC.

Jacana was of the view that neither licences nor a voluntary code of conduct were an appropriate way to deal with these issues, but considers the Commission could impose obligations with other instruments (including a code of conduct).

NECA noted the potential for third party ownership to create confusion and legal issues for both the property owner and the third party owner of SSRE operations and stated that in its experience, leasing arrangements and other easement style requirements are not easily established, are costly and ultimately the burden outweighs the benefit.

PWC advised that from a system security perspective, the percentage of generation consumed behind the meter does not have an impact. PWC considered, however, that embedded networks should be licensed if they are over a certain generation capacity threshold.

Commission's position and reasons

As noted previously, the Commission proposes to clarify that the SSG operations exemption does not cover solar PPAs and the sale of electricity from those operations to end-users. Instead, solar PPAs will need to be authorised under relevant licences or individual exemptions.

Other than NECA, stakeholders did not point to any residual risks associated with solar PPAs. The matters raised by NECA appear to go beyond the scope of the licensing review, but may be addressed by the NETCC. Matters relating to embedded networks are discussed in the next section in relation to the on-supplier exemption.

The Commission notes Victoria and the AER have exemptions relating to solar PPAs.²² It is a requirement that the person carrying out these activities be registered and in the case of Victoria, there are a number of other conditions and restrictions relating to pricing, capacity, market participation and information provision. While the Commission could take a similar path of granting a registrable exemption, the broad nature of such an exemption seems premature with, to the Commission's knowledge, there being no such operations in the Territory. Rather, the Commission considers it prudent to consider the licensing requirements of solar PPAs on an individual basis thereby enabling assessment of residual risks and the appropriate level of regulation (licence or individual exemption).

Proposal to implement

The Commission proposes to clarify that the SSG operations exemption does not cover third-party ownership of SSG operations and the sale of electricity from those operations to end-users. Instead, these operations will need to be authorised under relevant licences (or individual exemptions).

Visibility of SSG operations

Background

The SSRE operations exemption means owners of these operations have no need for contact with the Commission and as a result, the Commission has little information on who is relying on the exemption. There is also limited public visibility of the extent, location and size of behind-the-meter operations.

PWC has information on rooftop solar PV systems through its connection agreement process, but there is no publicly available information on these systems other than PWC's Register of Completed Embedded Generation Projects Greater than 200 kW²³, which captures larger SSRE and other generation operations. Elsewhere in Australia, there are registers for distributed energy resources in the National Electricity Market and Western Australia's South West Interconnected System²⁴.

The Issues Paper sought the views of stakeholders on the benefits and costs of establishing a SSRE operations register for the Darwin-Katherine, Alice Springs and Tennant Creek power systems and input on

²² Refer clause 18 of Victoria's General Exemption Order 2022 (available at <https://www.esc.vic.gov.au/electricity-and-gas/licences-exemptions-and-trial-waivers/information-electricity-licence-exemptions-sellers-and-suppliers>) and p. 35 of AER's Retail Exempt Selling Guideline (available at <https://www.aer.gov.au/system/files/AER%20-%20Final%20Retail%20Exempt%20Selling%20Guideline%20%28version%206%29.pdf>)

²³ Available on the PWC website at <https://www.powerwater.com.au>.

²⁴ Refer <https://aemo.com.au/en/energy-systems/electricity/der-register>

what existing processes and information that could be used to populate a register and what summary information drawn from a register would be useful for publication.

Submissions

Responses on registration of small scale generation were received from DTFHC, Jacana, NECA and PWC.

DTFHC advised a register of SSRE operations providers in remote locations would be beneficial.

Jacana was of the view that there would be significant benefits in establishing a SSRE operations register from a network security, stability and safety perspective and it would be a pragmatic way to provide better visibility of these systems. Jacana also suggested a register of curtailed customer demand and solar generation would be of value.

NECA suggested a whole of system view of what is connected to the network may be beneficial to demonstrate how SSRE operations can work on a geographically dispersed customer base, but the cost of any supporting information technology system or upgrade would be a factor. NECA suggested the Commission could obtain an understanding on the costs and benefits of a register from network operators who have implemented similar systems.

Jacana considers PWC is best placed to populate a register as they have all details through the connection process. Further, under the National Electricity Rules the distributor is responsible for populating a register of SSRE operations.

PWC agreed with the intent of improving data accuracy and granularity by adopting a register similar to the NEM. PWC also considers VPPs and community batteries should be registered to enable the system controller to control them as a means of maintaining system stability. More generally, however, PWC was of the view that batteries under a certain threshold (personal/domestic use) should be exempt, but beyond the threshold, or if a battery is located on commercial premises, it should require registration.

Commission's position and reasons

The Commission does not propose to require parties using the SSG exemption to register their operations.

The Commission considers there is limited benefit to justify the cost of establishing and maintaining a SSG register, which would duplicate information already held by PWC (noting the Territory only has a single electricity network provider).

For the Commission's purposes, it may be informative to have visibility of who is using the SSG exemption, but should the Commission need this information, it may be possible to request relevant information from PWC under section 25 of the UC Act. The Commission notes it already receives technical and high level locational information on SSRE operations from PWC under section 45(2) of the ER Act for the Commission's annual Northern Territory Electricity Outlook Report. In the case of complaints or matters of compliance, the Commission can engage with relevant parties directly, noting that a condition of the SSRE operations exemption is that the exempt person must from time to time provide the Commission with information it may request in performing its functions under any applicable laws.

While the Commission considers it may be of value for planning and investment to have greater visibility on the number and location of SSG operations, further discussions with PWC indicated sensitivities around privacy and the critical nature of electricity infrastructure that may limit information that could be published. Elsewhere in Australia, only data on total numbers, annual additions and cumulative numbers of distributed energy resources by state is published using information from the National Electricity Market and Western Australian distributed energy resources registers.²⁵ PWC publishes actual and forecast numbers of residential customers with solar PV installed (and other information about solar PV) in the Territory's three major power systems (Darwin-Katherine, Alice Springs and Tennant Creek power systems) in its Transmission and Distribution Annual Planning Reports.²⁶ While this provides some publicly available

²⁵ Available at <https://www.aemo.com.au/energy-systems/electricity/der-register/data-der>

²⁶ Available at <https://www.powerwater.com.au/about/what-we-do/our-plans-and-values/reports#tdapr>

information, the Commission notes it is more limited than interstate information, in particular, omitting data on the extent of commercial solar PV.

While the Commission notes PWC System Control was of the view that there is value in a register for the purposes of controllability, the Commission does not consider this to be a purpose of a register in isolation of other arrangements (as discussed earlier in this chapter). The Commission notes clause 5.2.3(d)(9) of the National Electricity Rules – Northern Territory may permit System Control (as the Northern Territory Electricity System and Market Operator) to obtain relevant information on SSG for the purpose of modelling the static and dynamic performance of the three major power systems. Where System Control may wish to use this information or seek more information for other purposes including any additional functions under the Territory Government's Market Priority Reform Program Reform, it will be necessary to ensure there are appropriate legislated powers for it to obtain and use that information and a condition in the SSG exemption is not sufficient for this purpose.

The Commission notes Jacana's suggestion for a register of curtailed customer demand and solar generation. The Commission receives advice on interruptions to supply and publishes information on this in its annual Power System Performance Review reports. The Commission does not, however, receive information on curtailment of solar generation that arises when system security is at risk due to high solar generation and low system demand. Commission staff have brought this matter to the attention of PWC. Visibility on this issue is likely to be desirable and of increasing importance as minimum demand declines with the continued increase in behind-the-meter rooftop solar PV and as more commercial scale solar generation comes online.

Proposal to implement

The Commission does not propose to require persons using the SSG exemption to register their operations with the Commission or establish a register of SSG operations.

On-supplier exemption

Background

Part 4 of the ER Regulations exempts on-suppliers from requirements to hold licences and associated licence conditions for the supply and selling of electricity. In the absence of a specific exclusion, the on-supplier exemption appears to cover generation, network and selling operations although the conditions associated with the exemption are targeted at the selling of electricity, limiting the price an on-supplier can charge for electricity supplied or sold to a receiver where the receiver's consumption of electricity is measured by a meter.

The on-supplier exemption covers what are commonly known as embedded networks. These are privately owned electricity networks that serve multiple premises in a building or self-contained site including apartment buildings, shopping centres, industrial precincts and caravan parks. The Commission has no information on the entities relying on the exemption as they have no need for contact with the Commission.

The Commission has received complaints relating to the conduct of some on-suppliers. The Commission can seek to ensure an on-supplier is charging in accordance with the conditions of the statutory exemption and does its best to assist by providing information on options, including the contact details for Consumer Affairs. Beyond this, however, the Commission has no power to investigate matters (as provided for under Division 8 of part 3 of the ER Act) as an on-supplier is not an electricity entity as defined under the ER Act (that is, a person who holds a licence or whose licence has been suspended, cancelled or has expired).

The Issues Paper advised it is not within the Commission's power to address issues associated with the operation of the on-supplier exemption (the exemption is a policy decision of government and implemented through the ER Regulations), but the Commission considers there may be merit in the Territory Government reviewing the operation of the exemption. No questions were asked of stakeholders regarding the on-supplier exemption.

Submissions

No submissions were received relating to the on-supplier exemption although as reported in the previous section, PWC expressed the view that embedded networks should be licensed if they are over a certain generation capacity threshold.

Commission's position and reasons

The Commission proposes to write to the minister recommending that the Territory Government review the operation of the on-supplier exemption to ensure that it provides sufficient protection for customers and to give greater visibility of who is utilising the exemption.

The number of four or more storey apartment blocks in the Greater Darwin area increased from 4450 in the 2016 Census to 5845 in the 2021 Census.²⁷ This demonstrates the potentially large and increasing number of embedded networks, and thus, consumers who may be supplied through those networks. The conditions of the on-supplier exemption are not as extensive as those applicable to licensed retailers, meaning consumers in embedded networks do not have the same access to protections as consumers of licensed retailers, an inequity that the Commission considers the Territory Government needs to address as a matter of priority.

The Commission notes in recent years, regulatory oversight of embedded networks has increased with Victoria and the AER establishing registers of embedded networks and requiring compliance with obligations comparable to those of licensed retailers. Both Victoria and the AER currently provide a deemed exemption for embedded networks with less than 10 customers which requires no contact with the regulatory body while an embedded network with 10 or more customers is required to be registered in order to be covered by the exemption. Registration provides greater visibility of these operations while lessening the requirements on smaller embedded networks, noting that the supply and sale of electricity to residents or tenants is typically not the main relationship the on-supplier has with its customers. The Commission notes there are also additional obligations where an existing site is converted to an embedded network (retrofitting) relating to explicit informed consent to the proposed retrofit and proposed energy agreement.

The Victorian Government recently announced that new embedded networks will no longer be eligible for exemptions and will need to be licenced under a new licence category.²⁸ The Australian Energy Market Commission has made similar recommendations for reforms in other states and territories in the National Electricity Market, recommending that exemptions for embedded networks should only be available in very limited circumstances and all exemptions should be registered.²⁹

In its recommendations to the Territory Government, the Commission will suggest that similar arrangements be considered and that consideration is given to arrangements to transition existing embedded networks to the new requirements.

Proposal to implement

The Commission proposes to write to the minister recommending that the Territory Government review the operation of the on-supplier exemption to ensure that it provides sufficient protection for customers and to give greater visibility of who is utilising the exemption.

²⁷ Australian Bureau of Statistics. Census community profiles accessed on 15 February 2023 at <https://www.abs.gov.au/census/find-census-data/search-by-area>.

²⁸ Refer <https://engage.vic.gov.au/embedded-networks-review>.

²⁹ Refer <https://www.aemc.gov.au/market-reviews-advice/updating-regulatory-frameworks-embedded-networks>.

6 | Next steps

Process for reaching a final decision

Following consultation on the Draft Decision, the Commission will consider whether changes are needed in relation to its proposed decisions on the scope and design of the licensing regime. The Commission's Final Decision is expected to be published in late 2023.

The expected timetable is outlined below.

Key actions	Expected timing
Draft Decision on changes to scope and design of the licensing regime	April 2023
Consultation period ends/submissions due	16 June 2023
Final Decision for change to scope and design of the licensing regime	August 2023

Other components of the review

There are two further components of the Commission's review, which will be undertaken separately to this review of the scope and design of the licensing regime. The second stage will assess the consistency, efficiency and effectiveness of the form and content of existing licences (a review of licence conditions). The final stage will review the Commission's licensing and related reporting and compliance processes (a review of licence administration).

As the design and scope component of the Commission's review of the Territory's licensing regime nears completion, the other stages of the Commission's review will follow sequentially. Accordingly, the second stage, a review of licence conditions, is expected to commence by mid-2023.



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