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Mr James Richards
A/Director Utilities Commission
Utilities Commission

Dear Mr Richards

RE: Utilities Commission's NT Electricity Licensing Review (Generation and Network licence holders)

Power and Water Corporation (**Power and Water**) is pleased to provide feedback and comments in response to the Utilities Commission's (**Commission's**) review of the Northern Territory's electricity licensing regime issue paper. We are supportive of the Commission's efforts to improve the consistency, efficiency and effectiveness of the form and content of licenses and licensing administration and related reporting and compliance processes.

Our review has considered the perspectives of the various licences we hold, including our role as the System Controller and Market Operator and presents a consolidated response to issues paper questions in Attachment A. Overall, we believe there is an opportunity for this review to align with generator connection requirements that exist within Chapter 5 of the Northern Territory National Electricity Rules, Generator Performance Standards, the Network Technical Code, the Northern Territory Electricity Market generator registration requirements and the licensing framework. We understand work has not yet started in Battery Energy Storage Systems and other technical connection requirements, and these may impact on the licensing framework. While our network business is licenced under the Commission, it also operates under the National Electricity Law and is subject to the regulation of the AER. The very nature of this dual regulatory approach to Power and Water's network business has over lapping and possibly uncertain compliance reporting obligations. This review presents an opportunity to improve alignment and remove duplication.

If you have any questions or require further information please contact Christopher Hanlon, Risk and Resilience Principal (Compliance) on 08 8923 4688 or by email at Christopher.Hanlon@powerwater.com.au

Yours sincerely

Djuna Pollard
Chief Executive Officer

3 June 2022

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Attachment A – PWC response to consultation questions

May 2022

Response to consultation questions

2 | Licensing coverage and purpose

Q1 Are there risks or other issues that arise as a result of the omission of certain conditions from licences for independent power producers? If so, what are they?

Of the five current licensees that are licenced to generate power under special licence conditions as Independent Power Producers, only two are connected to the regulated power systems that System Control manages. Uterne Power Plant Pty Ltd operating a 4MW photovoltaic generating system in Alice Springs, and LMS Energy Pty Ltd operating a 1.1MW landfill gas filled generating system.

The omission of the condition relating to providing ancillary services on request by the power system controller is misleading given clause 9.1 requires the generator to comply with all relevant requirements in the Network Technical Code, System Control Technical Code, and Regulations. System Control is authorised to operate plant within the full range of technical capabilities, and in accordance with the dispatch principles outlined in section 4.3 of the SCTC. In order to remove ambiguity, it would be preferable for IPP licences and generation licences to contain the same wording related to ancillary service provision.

Q2 Noting the long-standing nature of IPP arrangements, would the benefits outweigh the costs of imposing additional obligations on independent power producers through licence conditions?

Whilst not in a position to comment on the costs to independent power producers, we acknowledge the benefit of having these conditions being upheld in all special licences, particularly in the areas of compliance reporting and auditing processes, as well as safety management. There would be no cost envisaged for including the condition related to ancillary service provision for the reasoning provided above (Q1 comments).

Q3 Are there 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? If so, what are they?

The risks associated with legacy agreements relate more to the incoming participants who are taking over after the legacy agreements expire. Potentially issues relating to increased number of complaints from customers who historically received lower or discounted rates under the legacy agreement, than can be provided by the new participants. This could occur in any part of the supply chain, regardless of whether it is the generation, network or retail aspect.

Q4 How effective is the licensing regime at controlling market power, facilitating competition and promoting investment?

The current licensing regime is considered to be fit for purpose for the Northern Territory regulated power systems, noting that it serves to mitigate the exertion of market power, but cannot remove the root causes of market power.

Q5 How effective is licensing at managing risk including ensuring licensees have the necessary technical competence, financial strength and honesty to operate in the industry?

See response to question 6.

Q6 If not effective, what else is needed to address the problem(s) you have identified?

Alternatively, if current licence conditions are more than what is needed to achieve these outcomes, what requirements could be removed and why?

The licensing arrangements provide a valuable qualifier to establish the historical performance of the licensee in terms of technical competence and financial strength, but these are not necessarily predictive of future behaviours that vary over time.

The risks associated with technical competence of participants are complemented by the ongoing compliance monitoring functions of the System Controller and Network Operator.

In terms of financial risk management, the licensing arrangements are not complemented by ongoing monitoring and risk management. Historical financial strength although important to minimise likelihood of financial risks, does little to manage the consequences of financial risk to the industry in real time. Even entities with very high credit ratings could make administrative errors (or even be systemically late or, in the extreme, dishonest) and fail to pay the right amounts by the due dates and times. There are a few areas of financial risk that could be better managed to complement the licensing arrangement:

- With the emergence of the NTEM Priority Reform Program moving to a centrally settled market through the Market Operator, there is an opportunity to introduce fit for purpose financial risk management processes. The proposed approach to managing this risk in the NTEM is to socialise the risk management with the Market Operator providing the credit support for market participation. This arrangement is administratively complex and may not be the most efficient way of managing the risk for market transactions.
- The retail supply code's retailer of last resort provisions manage the financial risk in the event of a default event. The speed of enacting these arrangements should be considered as any delay in enacting the retailer of last resort provisions directly increases financial risk.
- The bilateral contracting between participants (generators and retailers) may or may not be managed via those contracts directly, but the consequences of contractual defaults can have similar consequences to market default.

3 | Emerging technologies and business models

Q7 Do the benefits of the Commission's approach for the term of a licence appropriately balance any risks that may arise from no expiry date and costs associated with requiring regular renewal?

Provided there is an adequate performance/compliance monitoring and reporting processes in place to trigger review of the licence for non-performance, there may not be a need to introduce fixed term licencing arrangements.

Q8 Are there barriers to entry or other issues with classifying energy storage systems as generation for potential participants? If so, what are they?

In relation to questions 8 through to 12, we provide the following general comment:

The advancement of new technologies has the potential to provide a range of benefits for customers, either directly through their own use of customer energy resources, or indirectly through network, market and wholesale benefits which provide more efficient options compared to traditional investment. On this basis, the UC should avoid classifying new technology assets for one of the many purposes they could provide.

Under national arrangements, the Australian Energy Regulator is recognising the network benefits from temporary or regulated stand-alone power systems as efficient alternatives to traditional network operation. Similarly, energy storage systems have much broader uses that dispatch for settlement purposes.

Network owned grid-scale and community batteries provide networks with options to manage and operate the network more efficiently than traditional network augmentation approaches. Trials in other states have demonstrated that customers can benefit from the use of the network service from the battery, with the leasing out of the battery to market participants for non-network services the battery might provide.

At a customer level, the ownership of batteries whether connected to the solar PV inverter or as part of an electric vehicle will provide significant future benefits for customers. We don't expect that customers, by virtue of owning a vehicle with a battery will wish to be licenced as a generator.

In some market design scenarios, retailers (and possibly other entrants) may contract with a group of customers to manage the export customer owned energy storage systems for wholesale, network and market purposes. Under such arrangements it may be useful to review the licencing arrangements for such operation, but at the service (not asset) level.

We don't see benefit in batteries or other ESS being subject to licensing requirements. Rather, the export service for future markets, either directly, or through a retailer/aggregator operating as part of the Virtual Power Plant (VPP) should be subject to a license to ensure that the System Controller and Market Operator have visibility of the system and are able to easily manage and properly settle the market in which they are connected. This could be done as a 'registration' up to a particular market size, which then requires the VPP to be licensed.

Battery devices connected to a commercial premises, including large scale apartment building (Body Corps) should be required to register the ESS's up to a certain size. Large scale batteries may need to be licenced if they meet certain criteria (such as participating in the market) and thresholds.

Q9 Are there any benefits to prescribing energy storage systems as a separate operation in the electricity supply industry requiring a licence (or exemption)? If so, what are they?

Given an energy storage system will be operated as a generator when discharging its storage it is essential that participants require licencing to ensure relevant SCTC obligations are applied. NTESMO consider it suitable for the Commission to classify energy storage systems as generators for licencing purposes.

When assessing the licence threshold of such storage devices (and criteria for an exemption) sizing should not be considered on a like for like basis. For example, an energy storage device of +/-1MW discharging/charging rating should be considered to have a 2MW impact on generation dispatch when it changes from charging to discharging and therefore be considered the equivalent of a 2MW capacity generating source for licencing purposes.

Q10 What are the key risks to electricity supply (if any) that need to be addressed through licensing (or exemptions) of energy storage systems?

Q11 Would any of the general or specific conditions for generation be not relevant or difficult to comply with by an operator of a standalone energy storage system? Why?

Q12 Beyond those already specified in legislation, are there any other conditions the Commission should consider including in a licence (or exemption) for an energy storage system? What risks do these address?

No risks or requirements for any additional licence conditions to note regarding the licencing of energy storage systems that cannot be managed outside of the SCTC and other Codes.

Q13 Are there barriers to entry or other issues the Territory's current licensing regime presents for new entrants offering alternative supply models?

The following general comments are provided for questions 13 through to 16:

It is important for any arrangement to be able to demonstrate that it is in the long term interest of customers to proceed with the alternative.

The System Controller should be granted full access and control of these alternate systems to ensure system stability, this includes the ability to turn them on or off. Depending on the type and size of system, they should require at a minimum to be registered.

Q14 What characteristics or activities of alternative supply models might mean a more 'light-handed' regulatory approach is needed? Why?

Q15 What are the major risks (such as financial, security, quality or information) associated with alternative supply models that the Commission should take into account in its licensing decisions?

Q16 If the Commission were to grant an exemption to operate an alternative supply model, what type of conditions should apply (please relate this to major risks)?

Q17 What protections in terms of price, access, quality and continuity of supply are needed for users of commercial EV recharging services?

Charging stations located in shopping centres or other commercial locations should be separately metered and individually invoiced, otherwise this electricity will be included as part of the sites power requirements and likely push medium sized businesses into the contestable market.

Q18 What are the major risks (such as financial, security, quality or information) associated with EV charging stations that the Commission should take into account in its licensing decisions?

Specific to question 18 and 19, in terms of pricing for charging stations (those similar to petrol stations) should require licensing and be exempt from the Electricity Pricing Order. There are a range of models which address EV Charging stations which need to be considered further, from classifying them as retailers

and requiring them to be licenced, through to treating them as embedded network. The approach will depend on how the charging station is established.

Q19 If the Commission were to grant an exemption to an EV charging station, what type of conditions should apply (please relate this to major risks)?

For Q13-Q19 there would be benefit in the Territory developing specific policy in relation to embedded networks, DER, VPP, EV, and micro grids. A clear framework is required to effectively integrate these emerging areas and provide clear direction on the regulatory pathway to effectively integrate these technologies. Such policy would be complimentary to the NTEM design by establishing the inputs required for the establishment of dispatch and settlement rules.

4 | Licensing coverage - exemptions

Q20 Are the principles listed above appropriate for determining whether an exemption is an appropriate outcome (rather than a licence)?

Yes, the principles listed in the paper are sensible.

Q21 What other factors could guide the Commission's considerations?

It would be beneficial for the Commission to establish a set of assessment principles for determining whether an exemption is an appropriate outcome.

Q22 Is there a scale (for example, size of customer or operation) for an electricity supply activity, where an exemption may be appropriate? Please explain your answer including whether scale is dependent on the type of activity.

Yes, considerations should be given to the 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, e.g. Darwin Airports, Zen & Zest residential towers. Secondly all Virtual Power Plants (VPP's) and community batteries (other than those owned by the network should be registered to enable the system controller to control them as a means of maintaining system stability. Batteries under a certain threshold should be exempt (personal/domestic use), however provision that once a threshold for battery capacity is breached or if it is located on commercial premises, it should require registration.

Q23 If the 2 MW threshold of the SSRE operations exemption were lowered, what would be an appropriate revised threshold?

Q24 What would be the costs and benefits of such a change?

In regards to operation, establishing an exemption limit for all generation technologies, not just generation from renewable sources, would provide clarity to potential investors. The current SSRE operation exemption includes a requirement that the generation is primarily for onsite supply. This definition may be interpreted differently by interested parties and would be better quantified to remove doubt. Furthermore, given that a licence exemption currently allows generators to be excluded from the SCTC obligation on system participants to make ancillary service payments to Territory Generation, this may present an equity

issue for generators. Neither definition relating to generation source or on-site load in the existing SSRE exemption are indicators of the impact the operations have on ancillary service requirements.

In regards to sizing of operation, the impact to system security differs according to the system load profiles and limits of operation of the existing plant across the three regulated power systems. In Darwin Katherine anything below 2MW of generation does not currently have an impact on the power system material enough to necessitate centralised dispatch. However in Alice Springs and Tennant Creek, generation 800 kW - 1.2 MW and 400 kW respectively, would currently likely require centralised dispatch arrangements to manage the impact on the power system and/or increase ancillary service requirements to operate in the majority of conditions. As the system load and ancillary service requirements change with continued uptake of behind the meter solar, the level at which each individual generation starts to have a material impact on the power system will become even more conservative, until such time as alternative ancillary service providing plant is connected to the Territory's regulated power systems and policy for small scale renewable integration is established and implemented.

Q25 What benefits and costs would there be to establishing a SSRE operations register in the Territory to provide better visibility of the extent, location and nature of these systems?

Depending on the size of the SSRE operation, all licensing and registration conditions should clearly state that the system controller must be provided access and control of the system in order to maintain system stability. This includes the ability to actually turn off the SSRE. 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.

Q26 What existing processes and information could be used to populate a register?

Agree with the intent of improving data accuracy and granularity via adopting a register similar to the NEM.

Q27 What risks to consumers (if any) would licensing of third-party ownership arrangements for SSRE operations need to address in addition to generic protections and voluntary codes of conduct?

Where possible, please provide examples or evidence of specific risks and their consequences.

From a system security perspective, the percentage of generation consumed behind the meter does not have an impact. Embedded networks should be licenced if they are over a certain generation capacity threshold.

Contact

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