



Record number: D2020/147650

Container number: F2020/659

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Dear Mr Rowe

Rimfire Energy Generation Licence Application Consultation

Power and Water Corporation thanks the Utilities Commission (the Commission) for the opportunity to provide a submission on the consultation of Rimfire Energy's generator licence application. Power and Water is both the Network Provider and System Controller for the Alice Springs system and this submission represents both functions.

Although the proposed size of the Virtual Power Plant (VPP) is only just over 2MW, the Alice Springs system is small and 2MW represents up to 20% of the lunchtime winter load. The VPP is also unique in that it connects to the Low Voltage network. This introduces possible system security challenges and opportunities.

The level of existing solar penetration on the Alice Springs system is significant from both the utility scale solar farm and behind the meter rooftop solar. The existing solar already introduces significant variability on both system demand and supply. The existing battery provided by Territory Generation provides a smoothing response to these fluctuations, however to maintain system security additional measures have been introduced.

Given the proposed size of the VPP and its system impact it will need to comply with the generator performance standards now included within the Network Technical Code. Given the innovative approach, it is likely a negotiated access arrangement will be the most suitable. Fundamentally this will require the VPP to address system security challenges that they introduce to the system.

Power and Water supports innovative approaches to generation, however notes that the proposed VPP represents a significant change for the Alice Springs system. There is currently no market framework in place for the Alice Springs system, with all generation being sourced from Territory Generation and their power purchase providers. As such a number of regulatory and operating changes will need to be made to ensure efficient and equitable outcomes are achieved. A summary of these is provided below:

Out of Balance settlement services

Although the Alice Springs system operates under an open access framework, there is currently no competition. With the introduction of a licenced generator who is not directly contracted to Territory Generation or have a whole of meter contract with Jacana Energy, a number of new commercial and technical mechanisms will need to be introduced.

The System Control Technical Code (SCTC) incorporates provisions for the settlement of out of balance, but requires the Power System Controller to develop and consult on guidelines which subsequently require the Commission's approval. The mechanisms outlined in the SCTC rely on the Power System Controller to set both imbalance energy and imbalance capacity prices. This is likely to be highly controversial and Power and Water's

ability to access the required cost information is limited. Power and Water would recommend that prior to the commercial operation of the VPP that the SCTC be reviewed to ensure the appropriateness of the settlement arrangements with the commercial contracting arrangements of the applicant.

Ancillary Service Provision and Pricing

A mechanism does not currently exist to ensure that all generators contribute to ancillary service provision. On the Darwin Katherine System, Territory Generation is the designated provider and subsequently compensated by other generators. A similar or alternate arrangement could be introduced on the Alice Springs system, however this will take time and is likely to require SCTC amendments.

System Control Costs

The connection of the VPP will increase both the technical and commercial complexity of operating the Alice Springs system. This will require additional System Control resource allocation, which will eventually be borne by customers. These costs may be justified and result in lower costs overall to the customer, but should be acknowledged during this process.

Compliance Timeframes

The uniqueness of the connection described above poses challenges for Power and Water in meeting the timeframe obligations described in Chapter 5.3A of the NER and the Network Technical Code. This is mainly due to the development of communications specifications and power system models which are required to ensure the security, reliability and stability of the network. These tasks will compromise nonnegotiable timeframes specified under Chapter 5.3A and the Network Technical Code.

The items highlighted above are not insurmountable, but will take time, industry consultation and require significant development work within Power and Water as this is the first time this has been undertaken in the NT. It is recommended that the licence be subject to the above issues being resolved.

Should you require any clarification or further information on this matter, please contact Jodi Triggs, Senior Manager Electricity Market & Reform, on jodi.triggs@powerwater.com.au.

Yours sincerely



John Langoulant
Chairman of the Board
Power and Water Corporation

2 April 2020