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Repower Alice Springs

DTF's Utilities Reform unit
DTF.UtilitiesReform@nt.gov.au

RE: Submission for Consultation on the Form of Reliability Standards for the Northern Territory's Regulated Power Systems

To whom it may concern,

Thank you for the opportunity to comment on the Reliability Standard consultation paper.

Repower Alice Springs is an independent community group, working on behalf of the Alice Springs community towards 100% solar power for our town by 2030, through advocacy; building community capacity; and community power projects and partnerships. As such we will exclusively discuss the Alice Springs network, however, some discussion points apply throughout the Northern Territory.

It must be mentioned that any standard applied to the Alice Springs Electricity Network will have serious limitations due to very poor electricity network infrastructure and inability of Network Management to provide customer focused demand management infrastructure. As a means to highlight this fact, there is no ability within the Alice Springs Network to determine in real time or near real time the total amount of power consumption, as there is no way of measuring any output of any household solar PV system on the network, the first of which were installed more than 20 years ago, this now accounts for more than 10% of all power produced.

This will limit what can be implemented in the short and medium term.

The cost of implementing and managing a reliability standard and how this will be recovered from consumers and taxpayers is also of concern. Electricity consumption in the Northern Territory is subsidised to an undisclosed amount, however, published amounts from Western Power and PowerWater Balance Sheet would suggest this amount is roughly half of the cost of electricity. This is a regressive practice as electricity use increases with wealth, so government is effectively supporting wealthy community members. Implementation of a reliability standard will need to be transparent with expected long-term cost saving.

A customer focused benchmark on electricity pricing can be determined by comparing the customer price with two competitive metrics. The first is the wholesale price of electricity in the NEM. Should the Alice Springs wholesale price increase above the NEM wholesale price, business investment will reduce. Secondly, we have started to see Alice Springs residents choose to leave the electricity grid for self-managed power systems where the Internal Rate of Return is currently exceeding 15%.

It is important to discuss future electricity demand and types of usage, as the Alice Springs electricity network is so small, by describing changes in electricity usage over the past decades and what is likely to change in the future. The type of power demand has

dramatically changed in recent years from a mostly commercial load with significant loads like welders with high harmonic distortion and high demand fluctuations to high computer, fridge and split system loads with lower harmonic distortion, low power factor and more regular load fluctuations. This has resulted in demand response management and reliability management to be much easier per kWh. Together with this is the potential load increase from electric cars and the generation increase from solar PV and network profile management of distributed batteries. This will likely increase power usage some 10-50%, however, an increasing ability to manage the load profile across the day and increase available power through power factor management. These are positives for the electricity network, but only if they are managed with customer focused management.

Repower Alice Springs strongly advocates for a customer centred approach to the management of electricity networks. This means that the focus must be on the customer experience and minimising loss of business due to loss of electricity. Together with this and the recent IPCC report suggesting that the number of days across the Northern Territory that will exceed 40 degrees will increase drastically with upto 112 days above 40 degrees each year by 2050.

Hence reliability standards should be established for a minimum number of hours per year with access to electricity and a higher standard for temperatures above 35 degrees. Further, reliability standards often exempt electricity network operation, such as scheduled outages, from the standard, however, to focus on the customer experience we believe there should be no exemption to this standard

We understand that the cost to the network and the taxpayer for this kind of drastic change to customer focused may be beyond the ability of the current Network Operators, however, by including

- the customers into the functionality of the network through realtime solar inverter data
- smartmeters capable of realtime network data
- actively focusing on reducing peak demand through demand management practices, distributed private batteries, increasing building energy efficiency standards
- reducing daily demand fluctuations through increasing building energy efficiency standards and allowing electric cars owners to play a part

Should you wish to discuss any part of this submission please do not hesitate to contact Tim Brand on repoweralicesprings@gmail.com

Tim Brand