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Dr Patrick Walsh
Utilities Commissioner
Utilities Commission
GPO Box 915
Darwin NT 0801
By email: utilities.commission@nt.gov.au

Dear Dr Walsh

SUBMISSION: Standard Generation Licence Application by Batchelor Solar Farm Pty Ltd

Territory Generation (**T-Gen**) welcomes the opportunity to provide a submission in relation to Batchelor Solar Farm Pty Ltd (**Applicant**) application for standard Generation Licence for a 10MW solar facility located in Batchelor, Northern Territory and connecting to the Darwin-Katherine electricity network.

T-Gen has no objections to the Applicant's standard generation licence application for a 10MW solar PV powered generation facility (**Solar Farm**). However, it must be noted that the intermittent nature of the Applicant's proposed generation facility will have a direct impact on T-Gen's operations, particularly on Channel Island Power Station (**CIPS**) as it will feed in directly to the 132 kV Darwin-Katherine transmission line.

The following matters should be considered by the Utilities Commission prior to the granting of a standard generation licence:

(1) Location of Solar Farms

The Applicant proposes the Solar Farm will connect to the Darwin-Katherine network at Batchelor. With each new generation facility connected to the CIPS – Katherine 132kV line the inherent risks are ever increasing, particularly where the generation will be intermittent in nature. This risk affects network security and will undoubtedly lead to an increase in forced outages. It will be left to T-Gen's CIPS and Katherine Power Station to restore power and frequency in every such instance.

(2) Quality and reliability of supply

Although the Applicant makes reference to the possibility of contracting with independent power producers and new generation facilities, T-Gen notes that the Applicant's proposal does not make any firm commitment in relation to the Darwin-Katherine power system security so that reliability and network stability is not compromised.

Control and protection settings need to be put in place in respect of the Applicant's proposal to help ensure and maintain the integrity of the power system.

(3) Ancillary Services

Currently T-Gen supplies virtually all ancillary services in the Northern Territory, with those services maintaining reliability and continuity of the supply of electricity. T-Gen considers current arrangements do not adequately compensate T-Gen for these services, which is not conducive to a genuinely competitive electricity generation market. All generators, including renewable energy generators, should be required to contribute to the required system support ancillary services to maintain electricity system security and reliability.

The Northern Territory regulatory framework, including the technical codes, should ensure a level playing field between all generators to promote fair competition within the Northern Territory electricity sector. This position was supported in the "Roadmap to Renewables" report commissioned by the Northern Territory Government which states that: *"It is concluded that all generators, including renewable energy generators, should be required to supply, or contract third parties to supply, the required network support (ancillary services) to maintain electricity network security and reliability."*

It does not appear that the Applicant has made provision for energy storage or other contingencies to cover loss of supply in the event of cloud cover, which would affect the power output of the Solar Farm. The Applicant's proposal should make provision in relation to ancillary services for the Darwin-Katherine power system. Failure to do so will require T-Gen, as the main provider of ancillary services on the Darwin-Katherine power system, to compensate for this shortfall in the provision of ancillary services by the Applicant to maintain system security.

(4) Concerns relating to successful integration of renewable and thermal generation

T-Gen recommends collaboration between key stakeholders, including new generation licence applicants, in relation to integrating renewable and thermal sources of generation for optimal reliability and security of the NT electricity industry. Such collaboration may include:

- developing forecasting tools in relation to renewables to more accurately predict weather in a sub-hourly timescale;
- management of the penetration of renewables in the Northern Territory, including how best to deal with distributed systems rather than just the base load generation plants; and
- integration of large-scale renewable plants with existing thermal power stations to ensure network security.

(5) Gentailer

T-Gen notes that the Applicant is a related body corporate to Rimfire Energy Pty Ltd, which is a licensed Retailer in the Darwin-Katherine network. As such, the grant of a generation licence to the Applicant will mark the first active 'Gentailer' entrant to the Darwin Katherine power system in the Northern Territory. It is unclear how the market rules in the Northern Territory electricity market will deal with pricing that may lessen competition which would inevitably result in increased electricity prices for consumers.

T-Gen appreciates the opportunity to provide this submission. If you have any queries or require further information please do not hesitate to contact Hieu Nguyen, General Counsel & Company Secretary, at hieu.nguyen@territorygeneration.com.au

Yours sincerely

A handwritten signature in black ink, consisting of a large, stylized 'T' followed by a long horizontal stroke that curves upwards at the end.

Tim Duignan
Chief Executive Officer

6 July 2018