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26 October 2020

Dear Sir/ Madam,

PSCR - Improving stability in south-western NSW

Reach Solar energy ('Reach') is very pleased to provide its response to the Regulatory Investment Test for Transmission (RIT-T) issued by TransGrid on 31 July 2020 and titled "**Improving stability in south-western NSW, RIT-T Project Specification consultation report**".

By way of background, Reach is a developer of large-scale solar photovoltaic (PV) and energy storage in Australia. Reach developed the 300MWac Bungala solar project near Port Augusta in mid 2017. The first two phases (2 x 110MWac) raised \$500 million of project finance debt and equity without any government grants or funding.

Reach remains focused on structuring solar PV projects such that they can compete with wind, gas and black coal-fired generation and provide renewable electricity to consumers on a least cost basis.

Reach management (see www.reachsolarenergy.com.au) have a proven track record with operations, development and raising capital for large-scale energy and infrastructure projects in Australia and internationally.

Reach is developing a 900MWac solar PV project site in NSW called Yarrabee solar. The first stage is 450MW (2 x 225MWac) and is located circa 40km East of Darlington Point ("**DP**") and will connect to the existing 330kV called Line 63. The first stage (450MW) secured conditional approval from the TransGrid Board in early March 2020, and a 5.3.4 A and B letter dated 25 August 2020.

Reach is pleased to provide the following comments on the RIT-T identified above:

1. A renewable energy zone was announced in 2017/18 for the Riverina Region with endorsement from TransGrid, AEMO (in its integrated system plan or "**ISP**") and the NSW Government. Large-scale investment has been attracted to the region (particularly for wind and solar PV generation) and by the prospect of Project EnergyConnect ("**PEC**"). Until June 2020 the indicated route for PEC was largely following existing transmission line easements including via Darlington Point and Wagga Wagga;

2. Multiple new renewable power plants (over 1000MW) have been constructed in the Riverina (predominately solar PV) and are now connected, in commissioning and/ or finalising registration with AEMO.
3. An operational “pre-contingent” constraint was enforced by AEMO/ TG in July 2020 which limited the flow through Line 63 to one third of its normal line capacity i.e. 300MVA in lieu of 900MVA in order to avoid voltage instability in the event of a loss of Line 63.

Reach agree this constraint is likely to cause very material constraints on new renewable generation power plant until the RIT-T solution is implemented. Reach therefore strongly urge this matter be addressed on an urgent basis.

Reach consider OPTION 2 is already “actionable” in accordance with the Energy Security Board ruling on 27 March 2020, because the PEC route via Darlington Point and Wagga Wagga was included in the past two ISP’s as a Group 1 priority.

4. Reach agree with the “identified need” that TransGrid has described in the RIT-T. If OPTIONS 1A/ B or OPTION 2 are not approved promptly by the Australian Energy Regulator (AER) then there is a real prospect of multiple renewable energy power plants having their generation constrained or not been able to evacuate power at all for long periods and potentially leave NSW short of energy. This event would dwarf the impact incurred by the well-reported, five (5) solar PV projects operating at 50% for 6-9 months in western NSW and in turn will:
 - a. Materially reduce the financial viability of the renewable projects that have already been commissioned and connected or are currently being constructed. Potentially, and most likely, this will trigger debt financial covenants either limiting or preventing distributions to owners, further impairing the value of these projects. Without urgent actions this will be a material loss to equity. The subsequent impact on debt and equity financing as a result will make further investment in the region unlikely for a significant period of years.
 - b. This frustration or stopping of additional renewable investment/ growth in the Riverina will adversely affect the regional economy of the Riverina, and reduce job creation and other business growth. A letter of support from Narrandera Shire Council is attached;
 - c. Lead to significant reduction in renewable electricity production and, substantially less than the full capacity of the new power plants;
 - d. Riverina landowners/ users will have less ability to diversify their income by leasing a proportion of their current farming land; and
- e. Reduce the Riverina’s contribution to provide new electricity sources in readiness for the exit of coal-fired generation from 2023 onwards both in NSW and Victoria.

AEMO’s Insights paper (dated July 2019) identified that bringing forward an increase in transfer capability between Snowy Hydro and Melbourne would mitigate supply risks as reliability of the existing coal fleet diminishes and provide insurance against unexpected early plant closures.

5. The 2018-2023 review period submitted by TransGrid, and approved by the AER, flagged a contingent project was required to support the South West section of NSW for renewables.
6. Reach support **OPTION 2** in the RIT-T for the following reasons:
 - a. It provides the quickest solution to restore full operational capacity (300MVA to 900MVA) in the existing 330kV transmission line, namely Line 63, and not be reliant on PEC;
 - b. There is likely to be a material increase in net market benefit to the NEM. It enables low cost renewable generation to the NEM in readiness for the exit or breakdown of coal generation. It also reduces the linkage that NSW electricity prices has with cyclical global thermal coal, oil and LNG commodity prices;
 - c. Provides a strong message to investors and banks for projects in the Riverina that the transmission system constraints will be addressed so that the Riverina REZ is able to operate in a stable manner and maximise the flow of electricity utilizing the thermal capacity of the existing transmission infrastructure;
 - d. Follows an existing 330kV circuit and offers the use of existing easements for the majority of the route thereby reducing any additional loss of potentially viable farming land;
 - e. Connects an existing sub-station to another sub-station (i.e. Darlington Point to Wagga Wagga). No reliance on Project EnergyConnect for the RIT-T benefits to commence;
 - f. Offers a faster solution, 12 months from AER approval, improving confidence by all in developing further generation in the Riverina;
 - g. Other RIT-T options appear to require new easements over irrigated land, increasing project land costs and/ or risk of delay;
 - h. Known topography, and ground conditions;
 - i. Synergies in O&M with a new 330kV transmission line alongside an existing circuit; and
 - j. Provides additional non-monetised benefits such as renewables integration and system security. Enables sharing of energy between NSW, SA and Victoria;
7. Reach consider the programme for **OPTION 2** in the RIT-T (4-5 years) is very conservative. Reach discussions with technical advisors/ contractors suggest 12 months to design, build and commission a 160km 330kV single circuit transmission line. Reach request TransGrid to consider the urgency of this RIT-T and fast track both the process and programme.

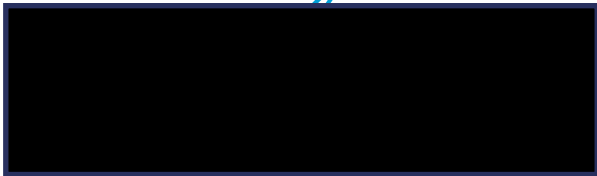
8. **OPTIONS 1A and 1B.** Both appear feasible but are likely to require material new easements through high-value, irrigated land. It also requires a connection between Darlington Point and a new sub-station called Dinawan (to be built as part of PEC). If PEC is delayed, then the RIT-T solution is also delayed. The acquisition of these easements will take considerable time and come at a significant cost over utilizing the existing corridor;
9. Reach consulted with its technical advisors on **OPTION 3**. This is considered to be an incomplete and inadequate solution and as such Reach does not support the development of OPTION 3.

This is important for the Riverina region. It will release material near-term market benefits to NSW and the NEM, and attract more investment to the region. A letter of support is attached from Narrandera shire Council.

In summary, Reach favour **OPTION 2**, consider the RIT-T process should be expedited and approval sought from the AER on an urgent basis to mitigate commercial distress at multiple renewable projects and maximise new electricity production in readiness for the exit of thermal coal.

Please do not hesitate to contact me if there are any questions on the above matter.

Yours faithfully,



Tony Concannon

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Letter of support from Narrandera Council