

Reach Solar energy
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Australian Energy Market Commission
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Dear Sir/ Madam,

DRAFT RULE DETERMINATION – ERC 0294

NATIONAL ELECTRICITY AMENDMENT (CONNECTION TO DEDICATED CONNECTION ASSETS) RULE

Reach Solar energy (“**Reach**”) is very pleased to provide its response to the Draft Rule Determination dated 26 November 2020 by the Australian Energy Market Commission (“**AEMC**”).

By way of background, the intent of Reach is to develop large-scale solar photovoltaic (PV) and distribution connected energy storage. Reach management (see www.reachsolarenergy.com.au) have a proven track record with operations, development and raising large-scale capital for both energy and infrastructure projects in South Australia, other States in Australia and internationally. Reach raised \$500m of project finance for Bungala One and Two (2 x 110MWac solar PV in SA) in mid 2017, is developing 450MW as a first stage of a 900MW solar PV site in NSW, and distribution-connected batteries in South Australia.

Reach comments are as follows:

1. But for the “Access Policy” by a Primary TNSP, there exists a dedicated connection access (DCA) precedent which is designed as described for the Designated Network Asset. The DCA was structured in 2016/17. It had:
 - a. An existing dedicated connection asset owned and operated by the TNSP;
 - b. connection points, metering and marginal loss factor local to the facility and designed to enable expansion;
 - c. a 15km DCA designed and built with a capacity for 300MWac (100% development);
and
 - d. Dedicated connection, and not subject to the open access regime;

2. The access right for 300MWac was with the first stage of the solar PV development. Subsequent development stages require consent from the first stage (not the TNSP) to connect to use the DCA infrastructure to its full capacity i.e. because the first stage funded the full DCA cost. A separate commercial cost sharing mechanism, and right of connection access, was agreed between the renewable facility owner and the developer;
3. A recent interpretation by the TNSP of the existing TCAPA Rule would require the generator performance standards for the existing two connection points to be re-opened. Reach question this interpretation, and there is no merit in exposing the first two renewable stages to such a risk.

The under-utilised DCA will therefore remain at part-load; consumers have paid for 300MWac (internalised in the electricity tariff) and it is effectively being constrained down by the interpretation of regulation applying to DCA infrastructure which was committed in mid 2017;

4. In view of the above there is a new reliance by the TNSP on the AEMC Draft Rule determination to fix the issue with TCAPA. If this persists then it will delay completion of the final 80MWac by 6 to 12 months (the existing DCA is rated at 300MWac) and potentially exposes the existing DCA to a new Rule change i.e. is not clear on the terms for the proposed Access Policy for an existing dedicated connection asset.

Reach does not agree with this interpretation of TCAPA by the TNSP, wants to avoid further delay, and welcomes thoughts from the AEMC as to how to resolve the interpretation promptly so as existing DCA infrastructure is utilised to its full capacity.

Specific comments on AEMC Draft Rule determination

5. Reach supports the AEMC “preferable draft rule” for the designated network asset (DNA);
6. Contrary to the AEMC comment (item 26), a DCA does exist which is part of the grid system, dedicated (not subject to open access regime), and owned and operated by TNSP;
7. Reach agrees with item 28, and designated network assets should not be subject to the open access regime. Furthermore, the preferred Rule change should clarify the potential for TNSP to part-fund the Designated Network Asset;
8. As detailed in the end of section 4.1.1, Reach would like it clear in the Rule change the Owner of an asset less than 30km in length can choose for their asset to be a Designated Network Asset;
9. Reach agree to apply the DNA to “small” radial connection to the grid system (less than or equal to 30km);
10. Reach agrees the concept of renewable energy zone (REZ) is attracting interest. Reach will provide detailed comments to the Energy Security Board (ESB) in the Interim REZ paper. In

summary, Reach suggest:

A. It is more appropriate for the ESB to consider a number of the points of policy/ market rules broached in the REZ consultation paper dated January 2021 as part of the P2025 Market design process i.e. it is much broader than the Interim REZ scope;

B. Reach supports the concept of a REZ and acknowledge that there have been successful examples of very large additions to existing grid systems to capture renewable resources including in the USA (NW Texas, by ERCOT 22GW plan) and the UK (offshore REZ, by Ofgem 75GW plan). Both of the said REZ had no existing grid infrastructure in place.

Each REZ was planned, funded, the contracts were competitively tendered, and all connected projects had the main market Rules apply to them i.e. there were **not separate** market rules applying to the new REZ.

C. Transitional arrangements apply for existing projects and/or well-advanced developments (if any) which are affected by new rules and/ or legislation which apply to the REZ;

D. Reach does not favour establishing a new REZ Co-Ordinator on a REZ by REZ basis, or on a State by State basis. Reach suggests the role can be managed by an existing regulator e.g. as ERCOT and Ofgem did in Texas, USA and the UK respectively for both energy grid reinforcement and the auction tender process; and

E. Reach consider there are three main connection regimes for a REZ:

- i. **New start.** REZ which are expected to be large-scale MW and little to no grid infrastructure exists today eg NW REZ for ERCOT, UK offshore REZ and New England REZ in NSW. This is likely to be large-scale and have more than one connection to the grid system;
- ii. **Meshed.** REZ which are located in and around the main grid system eg South West Victoria REZ and South West REZ in NSW; and
- iii. **Dedicated.** Dedicated network assets (large and small) where a project or a number of projects can be connected to the main grid system.

Large REZ

11. Reach agrees with AEMC comment (39) that a small DNA could facilitate a small REZ. Reach does however have reservations on how large REZ will integrate with the main grid system. The NW ERCOT and offshore Ofgem REZ, both operate to market rules that apply to all the market (i.e. not REZ specific).

12. Reach consider there should continue to be a market incentive to use existing grid infrastructure. There has been, and still is, residual capacity in the meshed grid system for connections. It makes sense to continue to use this to the fullest degree using the inviolable NER principle of open-access.

13. More grid system capacity will free up when (a) coal-fired power plant (black and brown coal) operates for less (or closes), (b) energy storage enables more of the transmission lines to be used (not less than 50% of the time), (c) technology makes inverter response even faster (assists grid), (d) technology permits more from the same grid infrastructure (eg sensors and real-time monitoring), and (e) distributed energy and/ or demand side management reduces reliance on centralized grid supply.

Grid connection process

14. Reach has provided detailed solutions to improve the connections process to the transmission system. A copy will be provided to the ESB.

Proposed "Access Policy" by Primary TNSP's

15. Proposed access policies should not disturb and/ or frustrate either existing projects and/ or the completion of final stage development for DCA's which were committed prior to pre mid 2018.
16. The recourse to the Primary TNSP is likely to complicate the commercial arrangements. Reach suggests the AEMC work through the likely requirements with a sub-set of investors, lenders, and TNSP to identify differences;

I hope this is of interest to the AEMC and please do not hesitate to contact Reach management on the email below if you have any questions on the same.

Yours faithfully,

info@reachsolarenergy.com.au

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