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18 June 2021

Ms Anna Collyer
Chair
Australian Energy Market Commission
PO Box A2449
Sydney NSW 1235

Lodged via AEMC website: www.aemc.gov.au

RE: ERC0300: DRAFT RULE DETERMINATION – EFFICIENT MANAGEMENT OF SYSTEM STRENGTH ON THE POWER SYSTEM

Dear Ms Collyer,

We welcome the opportunity to provide feedback on the draft determination for the efficient management of system strength on the power system by the AEMC.

Founded in 2012 by Pâris Mouratoglou and David Corchia, Total Eren develops, finances, builds and operates renewable energy power plants (solar, wind, hydro) representing a gross capacity of more than 3,500 MW in operation or under construction worldwide. Through partnerships with local developers, Total Eren is currently developing numerous energy projects in countries and regions where renewable energy represents an economically viable response to growing energy demand such as in Europe, in Central and South Asia, in Asia Pacific, in Latin America and in Africa. The objective is to achieve a global gross installed capacity of more than 5 GW by 2022. Since December 2017, TotalEnergies (formerly known as Total S.A.), the major energy company, has been participating as a shareholder of Total Eren.

Total Eren Australia has developed, managed the finance and construction, and is now operating the 200 MW Kiamal Solar Farm and 190 MVA Synchronous Condenser in North-West Victoria. We are in the unique position of owning and operating the only transmission connected solar farm in Victoria and the largest stand-alone synchronous condenser in the NEM.

We have been directly impacted by both existing system strength frameworks, that is, the 'do no harm' framework and the minimum system strength framework. As noted in the AEMC draft determination, in practice the current framework has resulted in a slow and reactive build out of system strength. This submission focuses on the practical elements of implementation. We would like to see the successful implementation of this framework and therefore urge the AEMC to cater for the following elements.

Implementation of the system strength locational factor

The draft determination provides an option to generators to either pay a system strength charge or procure their own system strength remediation. For this new framework to be effective, in most cases, the system strength charge needs to result in the generator choosing to pay the charge. This is more efficient than the alternative of the generator choosing to undergo the Full Impact Assessment (FIA) process and eventually building a system strength remediation scheme tailored for their own needs but providing little in terms of improving the system strength of the network.

We note that the system strength charge is made up of three individual components and we would like to raise a potential problem with the system strength locational factor (SSL). The SSL is determined by the electrical distance from the generator to nearest system strength node. Given that system strength does not travel well, a new generator is likely to face an unreasonably high fee even if connecting a reasonable distance away from the closest system strength node.

In the 2020 AEMO system strength report, only relatively few system strength nodes were identified and assessed (for example, there are only five across all of Victoria). This is insufficient. If the number of system strength nodes is not increased substantially, there is a risk that implementation of this framework will not work in practice.

Speed of implementation

New system strength services built under this framework would still need to pass a Regulatory Investment Test for Transmission (RIT-T). The RIT-T process is a rigorous process which serves its purpose for network assets but is unlikely to suit the needs of new Generators from a timing perspective.

In the case of the system strength shortfall declaration in South Australia, the AER was able to approve the synchronous condenser solution without the full RIT-T process. This type of approach seems more suitable as it aligns more closely with the time it takes to build renewable generation. The full RIT-T process may be more suited for transmission line investments costing in the order of billions of dollars. However, for synchronous condenser procurement, in the order of tens of millions, it is unlikely to be fit for purpose. If a RIT-T needs to be performed for a TNSP to build a synchronous condenser under this framework, this framework risks failing in practice.

Co-ordination with other market bodies

The current framework requires AEMO to declare a system strength shortfall before a TNSP would take action to improve system strength. One reason the current implementation failed to work in practice is because only 'committed' projects were considered even though AEMO and TNSPs were predicting a high penetration of renewables to come online. In this sense, it appears there was a misalignment between the AEMC's vision of the framework and how it played out in practice. This new framework also relies heavily on other market bodies such as AEMO for the update of the system strength impact assessment guidelines in determining the System Strength Quantity (SSQ) and the AER in guiding the development of the System Strength Unit Price (SSUP).

We would like to see the new system strength framework result in successful outcomes for the both the renewable energy industry and network stakeholders (AEMO, TNSPs) and would be happy to discuss any elements of this submission with you further. Thank you again for the opportunity to provide feedback and please feel free to reach out to Trevor Lim on 0432 848 768 or at Trevor.Lim@total-eren.com with any questions regarding this submission.

Yours sincerely,

DocuSigned by:

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Kam Ho

Managing Director - Australia

Total Eren Australia