

30 June 2020

Violette Mouchaileh
Executive General Manager
Australian Energy Market Operator

Dear Violette

Re: Renewable Integration Study

CitiPower, Powercor and United Energy welcome the opportunity to respond to the Australian Energy Market Operator's (AEMO) Renewable Integration Study (RIS) Stage 1 report. The RIS analyses the challenges, to 2025, of maintaining power system security while operating this resource mix at very high instantaneous penetrations of wind and solar generation, and recommends actions and reforms needed to keep the NEM operating securely.

We support many of the recommended actions identified by AEMO as the National Electricity Market (NEM) transitions to operating with an even higher share of renewable resources, while maintaining system security now and in the future.

Some of the issues raised by AEMO have been discussed, or will be addressed, elsewhere. In this submission we have limited our comments to the recommended actions associated with system strength.

System strength

We are participating in the Australian Energy Market Commission's (AEMC) investigation into system strength frameworks in the NEM, which commenced in May 2020. Many of the points made in that submission are relevant here.

The need for system strength in distribution networks should be recognised due to the potential impact of connections to the distribution network on the transmission system; and the increasing level of both large scale (>30MW) and small scale non-synchronous generation (<5MW), as well as residential/commercial/industrial rooftop PV and battery systems connected to the networks.

Managing system strength in distribution networks presents a number of challenges:

1. distributors are not recognised as system strength providers and practically this places transmission network service providers (TNSPs) in a position where they can only retrospectively declare a system strength shortfall after it has occurred
2. access to wide-area network data and models from AEMO is limited to network service providers only and there is no agreed process for determining the study area for a system strength assessment
3. minimum fault level should be defined at multiple network nodes at both transmission and distribution levels to better represent both the grid-wide and localised impact of system strength
4. the do-no-harm rule places the onus on individual connections which does not readily allow for any co-ordinated remediation. Practically, the grouping of connections is challenging to facilitate within the regulatory timeframes. Conversely, if projects are assessed in isolation, the approval of one project results in all later projects being required to re-validate some or all of their system studies.

As a method to partially address points 2 and 4 above we recommend further actions above what is proposed in the RIS, focused more towards the immediate challenges of modelling the changing generation mix and improved provision of information to both current and intending participants, and network service providers (NSPs). AEMO are currently the only body in the NEM with access to the NEM-wide picture of committed and proposed new generation connections that will impact system strength. Actions to facilitate quicker and more transparent access to this information will aide all NSPs in more efficiently facilitating integration of new projects for participants. The current process lacks transparency and can incur significant delays for proponents with a high probability of multiple re-assessments due to the lack of transparent information.

Should you have any queries, please contact Elizabeth Carlile on 0419 878 852 or ecarlile@powercor.com.au.

Yours sincerely

A handwritten signature in blue ink that reads "Brent Cleeve". The signature is written in a cursive, flowing style.

Brent Cleeve
Head of Regulation
CitiPower, Powercor and United Energy