



17 June 2021

Ms Anna Collyer
Chair
Australian Energy Market Commission

Lodged via the AEMC website

ERC0300: EFFICIENT MANAGEMENT OF SYSTEM STRENGTH ON THE POWER SYSTEM

Dear Ms Collyer,

Tilt Renewables is a leading Australasian renewable energy developer, owner and operator engaged across all stages of project development through to operations. Tilt Renewables currently has 500 MW of operational wind farms across the NEM and New Zealand, plus a further 336 MW in commissioning and over 5 GW in its development pipeline.

Tilt Renewables (TLT) welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) draft determination on the efficient management of system strength on the power system (Paper). TLT supports the work that the AEMC and the Energy Security Board (ESB) are undertaking with respect to improving system strength outcomes. The current minimum system strength and 'do no harm' framework is not fit for purpose and leads to fragmented and highly inefficient investments which can result in significant costs and delays. TLT is encouraged by the proposed reform to shift to a proactive centrally planned approach, where TNSPs are responsible for the planning and procurement of system strength, the level of which will be informed by fault level analysis completed by the Australian Energy Market Operator (AEMO).

TLT supports the introduction of a new planning standard that requires the proactive procurement of system strength services. The new standard will require AEMO to determine the location that the standard will apply (i.e. identify system strength nodes), forecast the minimum fault level required for system security and forecast the level and type of Inverter Based Resources (IBR). The Paper suggests that AEMO would account for the potential future impact of new generation using planning processes such as the ISP and ESOO in setting the minimum fault level for each node. TLT would like to highlight that the 2020 ISP has significantly underestimated the rapid uptake of IBR to date, with the connection of asynchronous generation more closely aligned with the fast or step change scenario. Significant forecast errors with respect to the uptake of IBR will feed through to the relevant TNSP's planning and procurement processes and ultimately result in inefficient procurement of system strength.

The Paper proposes that AEMO will have discretion in identifying and declaring system strength nodes. TLT is concerned that too few system strength nodes being declared will create winners and losers due to the proposed System Strength Locational (SSL) factor in the system strength charge. There also may be other unintended consequences such as otherwise perfectly good existing transmission infrastructure being underutilised if it is considered too far from a system strength node and its SSL factor too large.

After acknowledging inaction regarding a fit for purpose framework to build new grid infrastructure, including transmission and supporting network plant, state governments have decided to go it alone, announcing their own initiatives support the clean energy transition and bring energy prices down for consumers. The Paper highlights the requirement for collaboration between AEMO and the TNSPs, and the TNSPs between each other as system strength requirements and some solutions will likely cross regional boundaries. However, it will be imperative that AEMO and the TNSPs also effectively collaborate with the appropriate government



bodies to understand how their own programmes will interplay with the proposed reforms. This will help to improve the certainty around costs and connection timeframes for new generation projects that ensure that investments are made in the right place at the right time.

The Paper suggests that System Strength Service (SSS) providers would apply the RIT-T in procuring system strength services. TLT recommends a thorough evaluation of the limitations and challenges with respect to the current RIT-T planning framework be completed in parallel such that timely and efficient investments can be made.

It is likely that IBR developers of new generation capacity will have concern with their system strength charge directly subsidising existing synchronous generators and facing poorer commercial outcomes as a result of further entrenching synchronous generators that would otherwise retire. It is vital that transparency is provided with respect to the award of system strength contracts so that developers have visibility on how their system strength payment is being allocated and can make an informed decision to self-remediate if they so choose. Further to this point, industry will also expect transparency on these contracts such that any interaction with the ESB's proposed Unit Commitment for Security (UCS) has clear, understandable and transparent dispatch outcomes for market participants.

TLT has some concern regarding the mismatch in timeframes between the life of a new generation investment decision (typically around 30 years) and the AEMC's proposal to fix the System Strength Price (SSP) and SSL factors for only a 5-year period, with proponents facing potentially significant increases in their system strength charge after the initial 5 years. Furthermore, investors may go down the self-remediate pathway in order to provide cost certainty, which may be inefficient from an overall system perspective. The AEMC should further explore how to provide more price certainty with respect to the system strength charge in order to promote investor confidence. One way to achieve this would be to provide projects with a system strength charge cap as a part of their connection agreement that is not to be exceeded over the life of a project.

TLT considers that the proposal to update the automatic access standard requiring new connecting IBR and MNSPs to be capable of meeting all of their agreed performance standards at a Short Circuit Ratio (SCR) level of 3.0 needs further consideration. This requirement may create a barrier for entry for larger wind farms with long reticulation systems will negatively affect the overall generating systems Minimum Short Circuit Ratio (MSCR) capability at the Point of Connection (PoC). TLT suggests either relaxing the MSCR to 5.0 or assessing the MSCR at the turbine terminals using an alternative benchmark where a MSCR of 3 cannot be achieved.

TLT also notes its support for the Clean Energy Council's response to the AEMC's draft determination on the efficient management of system strength on the power system.

Tilt Renewables will be pleased to meet with you to discuss this submission in more detail and provide ongoing support through the consultation process. Please contact the undersigned or Rhys Albanese at rhys.albanese@tiltrenewables.com or 0423 423 797.

Regards,

A handwritten signature in blue ink that reads "Nigel Baker".

Nigel Baker

**Executive General Manager, Generation and Trading
Tilt Renewables**