



Tilt Renewables Australia Pty Ltd
ACN 101 038 331

16 September 2021

Ms Anna Collyer
Chair
Australian Energy Market Commission

Lodged via the AEMC website

Dear Anna

Re: Response to Integrating Energy Storage Systems into the NEM Draft Determination

Tilt Renewables welcomes the opportunity to provide feedback on the Australian Energy Market Commission (AEMC) Integrating Energy Storage Systems into the NEM Draft Determination.

Tilt Renewables is an owner, operator and developer of renewable energy and storage projects in Australia, owned by the Powering Australian Renewables (PowAR) group, a partnership between QIC, the Future Fund and AGL Energy Ltd. PowAR is the largest owner of wind and solar generation in Australia with more than 1,313 MW of renewable generation capacity, including seven operating wind and solar farms, two others in the final stages of commissioning and one wind farm (Rye Park) due to commence construction in 2021.

With a development pipeline in excess of 3 GW, Tilt Renewables is developing several energy storage projects and welcomes changes to the rules framework that provides clarity and flexibility for participants to optimise their assets.

Tilt Renewables is generally supportive of the proposed changes as outlined in the Draft Determination, however has serious concerns regarding the decision to not exempt ESS (Energy Storage Systems) from Transmission Use of System (TUOS) and Distribution Use of System (DUOS) charges. This change in position by the AEMC will result in significant barriers to entry for ESS and will potentially withhold the versatile capabilities of such technologies from the network, including network support and load shifting. Imposing such charges on ESS will not help to achieve the NEO (National Electricity Objective) and will result in greater energy costs for consumers.

TUOS and DUOS charges are designed as a cost recovery mechanism from consumers for transmission and distribution services, however ESS should not be liable for such charges as they are not the end consumer of electrons. By making ESS liable for TUOS and DUOS, transmission and distribution service providers are effectively 'double dipping' on energy stored for later use by an ESS, one charge for the storage of electrons and another charge for the consumption of the same electrons by the end consumer. This 'double dipping' is not the intent of the TUOS and DUOS framework, as demonstrated by the fact that generators are exempt for any such charge.



The Draft Determination is proposing no change to the treatment of TUOS and DUOS for energy storage projects. Tilt Renewables is concerned that this position by the AEMC endorses the view that energy storage projects should pay for TUOS and DUOS. This position will require proponents to negotiate charges with the NSP, as standard costs for these services will immediately make new projects unviable, and resulting in project uncertainty, inconsistency in approach across regions and potential delays. The requirement to effectively negotiate the removal of these default charges will leave proponents in a poor negotiating position with the NSP with little certainty of the final outcome

ESS have a proven track record of providing network services including frequency and voltage support, not to mention the potential for synthetic inertia. When placed in an efficient location in the distribution network, ESS can help effectively manage network loading which will naturally occur as a result of basic supply and demand principles, alleviating network operators' concerns of reverse flows (partly due to the prolific installation of rooftop PV capacity in the NEM and falling underlying demand) and having the ability to decrease maximum demand seen on a particular part of the network. These effects can ultimately result in network operators delaying or cancelling network upgrades to the benefit of consumers. As a service provider which can in fact alleviate the need for network upgrades and increase system security and reliability, Tilt Renewables reiterates its argument that ESS should be exempt from TUOS and DUOS charges, and that to not exempt such storage providers from these charges would result in significant barriers to investment, increase costs to consumers and be contrary to the NEO.

The payment of TUOS and DUOS by energy storage projects will also lead to inefficiencies in the market and result in higher costs to consumers. Since TUOS and DUOS are treated as a volumetric payment (\$/MWh for charging), any cost incurred from charging will need to be reimbursed from discharging thus increasing the market price when ESS discharges. This increase in spread from the charging price to the discharging price will result in ESS operating less frequently and only at times when market prices reach a value that meets the ESS hurdle rate. This will result in increases to the marginal prices which are paid by all consumers, outweighing the 'savings' resulting from the small amount which would be recovered from the ESS in the form of TUOS and DUOS charges.

Tilt Renewables notes that most discussion around the Draft Determination has been in relation to TUOS charges and not DUOS charges. Tilt Renewables recommends that DUOS be treated in the same way as TUOS for storage as the same principles and concerns apply. Tilt Renewables has investigated developing ESS assets within distribution networks and upon receiving DUOS estimates from the NSP has abandoned such investments, as charges were disproportionately high for the scale of the investment and rendered the projects uneconomic. For example, a 25MW / 100MWh BESS connecting into a 22kV network was quoted to have an annual DUOS charge in excess of \$3 million (if charging occurred between 7am and 11pm).

In summary, Tilt Renewables strongly urges that energy storage projects be exempted from TUOS and DUOS for the following reasons:

- Energy storage projects are not the end consumers of electrons;



- Energy storage projects can delay or alleviate the need for network investment, whilst improving system reliability and security;
- Energy storage projects do not have the same network rights as a consumer and should not be treated in the same manner; Investment certainty would be improved for energy storage projects, and the cost of such projects significantly reduced;
- Exempting ESS projects from TUOS and DUOS will result in net savings to consumers.

Thank you for the opportunity to provide a submission on this matter. If you would like to discuss any of the issues raised in this submission, please contact Maja Barnett, Development Portfolio Manager, on 0425 776 592 or maja.barnett@tiltrenewables.com or myself, as outlined below.

Yours sincerely,

A handwritten signature in blue ink that reads "Nigel Baker". The signature is written in a cursive style and is set against a light blue rectangular background.

Nigel Baker
Executive General Manager, Generation and Trading
Tilt Renewables