

15 September 2021

Ms Anna Collyer
Chair
Australian Energy Market Commission
GPO Box 2603
SYDNEY 2001

Submitted online at <https://www.aemc.gov.au/contact-us/lodge-submission>

Dear Ms Collyer

Re: Integrating energy storage systems into the NEM (ERC0280)

Thank you for the opportunity to respond to the draft determination on integrating energy storage systems into the National Electricity Market (NEM).

This submission outlines ATCO's response to the Transmission Use of System (TUOS) elements of the draft determination.

ATCO does not support the draft determination on charging TUOS for energy storage system as it will put investment in storage at risk.

Our view is that energy storage systems should be exempt from TUOS to maintain consistency with generators (and because they provide valuable technical services) and to reduce investment risk associated with a negotiated outcome with the transmission network service provider. Our position aligns with the view from many stakeholders that have provided feedback into this process. This includes stakeholders such as AGL, AusNet Services, Clean Energy Investor Group, Energy Networks Australia, ERM Power, GE Hydro, Infigen, Maoneng, Monash Energy Institute, Neoen, Origin, Snowy Hydro, Telsa, and Transgrid.¹

ATCO's interest in this rule change is because we are developing the Central West Pumped Hydro (CWP) Project in NSW that will provide 325 MW of long duration storage into the NEM from 2026. Projects like CWP are a critical part of the transition to renewable generation as it will provide firming and system security services that supports the delivery of affordable and reliable electricity to consumers. It is well recognised that the increase of renewable energy generators and withdrawal of synchronous generation creates technical challenges at both ends of the network, including issues around the stability, volatility and complexity of the electricity system. Storage is a crucial component to achieve a reliable, secure, low emissions, and cost-effective future electricity system.

The draft determination puts investment in storage at risk

The draft determination will disincentivise storage systems entering the NEM due to the uncertainty as to whether additional costs will arise for TUOS. The TUOS charge will impact on the commercial viability of storage projects. While a negotiated outcome could reduce the TUOS cost there is risk associated with achieving a negotiated outcome, which must be quantified in the investment case.

¹ AEMC, Draft Rule Determination, National Electricity Amendment (Integrating Energy Storage System into the NEM) Rule 2021, 15 July 2021, pg 108

Relying on a negotiated outcome with the transmission network service provider creates uncertainty that will detract from the case for investment in storage systems.

Storage should be exempt from network charges

ATCO does not support the draft determination and instead considers that the storage should be exempt from network charges for the following reasons:

- **Storage impact on networks is comparable with a generator** – Storage should be treated comparably to a generation asset and not pay TUOS charges. This is because whilst storage replenishes from the network and in that respect is similar to a load, it does not use that energy other than to dispatch it at a higher demand time to the market. Storage is most likely to charge when demand and prices are low and dispatch at times when demand and prices are high, therefore, when its services are most valued. This means that storage will not require additional shared network investment and so the marginal cost is demonstrably zero. In practice, it will be closer in its impact on the network and the market to a generator.
- **Technology agnostic to storage or generation** – Applying TOUS to storage creates a perverse incentive to install generation technologies rather than storage. If the storage were replaced by say, a scheduled generation service such as coal or gas fired generation, there would be no TUOS charges although the required transmission capacity would be the same. Applying TOUS to storage creates a perverse incentive to either extend the life of inefficient and carbon intensive coal fired generation units or install less economically efficient, new gas fired generation rather than storage, both of which will delay achieving decarbonisation policy targets.
- **Enables economic efficiency solutions** - Charging TUOS for storage is not economically efficient. Charging TUOS for storage is not technology neutral and provides alternate capacity firming competing options such as coal or gas fired generation with an unfair competitive advantage. Storage will play an increasing role in the development of the NEM. Economically efficient investment in storage is in the long term interests of consumers because it reduces the need for peak scheduled generation investment, reduces the cost of FCAS and other network ancillary services and avoids costly network investment.

Exempting storage from TUOS aligns with AEMO's original proposal and the Victorian Transmission 2022-27 pricing methodology that proposes not to charge energy storage systems for either supply (discharging) or consumption (charging), with some exceptions.²

A possible solution

Our preference is that the AEMC exempt storage from TUOS.

However, should this not be achievable under the IRP framework, we support the view put to the AEMC during the recent consultation process that [the way that the application of TUOS to storage is framed is key to reducing investment risk in storage capacity in the NEM. This alternative is that] the default position should be that energy storage does not pay TUOS for a pre-defined level of network access (specifically outside of peak times that would otherwise drive network investment). Should the energy storage system seek to acquire additional rights, for example to alleviate congestion, then TUOS would be negotiated with the transmission network service provider based on what is in consumers long term interest rather than in their own self-interest. This change in the balance of power in the negotiation, significantly reduces investment risk and as a result assisting in the investment case for storage projects.

² <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/aemo-determination-2022-27/proposal>

About ATCO

Established in Canada in 1947 and now a \$22 billion global company, ATCO has a long history of partnering with communities and indigenous groups, energising industries, and delivering customer focussed infrastructure solutions.

With almost 60 years' experience in Australia - having entered the market in 1961 - ATCO understands the Australian environment and is a trusted, long-term partner of many large and respected Australian companies.

Leveraging a 70+ year legacy of power generation, transmission and distribution networks operation and maintenance in Canada, ATCO has been providing gas-fired power generation in Australia for more than 20 years and is actively investigating investments across the entire energy value chain, including renewable generation, transmission, distribution and storage infrastructure for the national electricity market. ATCO is eager to apply its international expertise and experience in electricity, natural gas, water, storage and structures to its continued operations across Australia.

Experienced in building, owning and operating pipeline infrastructure globally, ATCO has successfully managed the Western Australian natural gas distribution network since 2011, and will apply its global capability and know-how to expand into solutions across transmission, storage and processing. In mid-2020, ATCO was selected, as a partner to rebuild Puerto Rico's electricity system; with a plan to modernise and operate the system for the next 15 years.

ATCO has invested in alternative and renewable energy solutions for 30 years. ATCO will continue to respond to disruption in the energy sector through investing in a range of projects that utilise new technologies and business models to provide energy solutions for a low carbon future. Activities in this area include renewable generation, microgrids, storage and hydrogen.

ATCO is a global leader in providing modular solutions to the community; from regional mining developments through to urban infrastructure development and provides a diverse range of services and products throughout various markets in Australia.

If you have any questions or would like to discuss any of these issues, please contact Ben Bolot, Executive General Manager Business Development on 0400 995 022.

Yours sincerely



J.D. Patrick Creaghan
Managing Director & Chief Operating Officer