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John Pierce

Chair, AEMC

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Dear John

**AESA Submission to AEMC on Five Minute Settlement Draft Rule Determination**

The Australian Energy Storage Alliance (**AESA**) is grateful for the opportunity to provide comments on the Australian Energy Market Commission's (**AEMC**) Draft Rule Determination - National Electricity Amendment (Five Minute Settlement) Rule 2017 (5 September 2017) and Draft National Electricity Amendment (Five Minute Settlement Rule 2017) (together, the **Draft Rule Change**), on behalf of its members.

The AESA sought the views of the group on the Draft Rule Change. Based on the submissions we received, we have ascertained that AESA's members broadly support the AEMC's proposed five minute settlement Draft Rule Change, just as many members of AESA supported the AEMC's position in its previous Five Minute Settlement Directions Paper (11 April 2017).

More detailed comments addressing various aspects of the Draft Rule Change are set out below.

**1.        About the AESA**

The AESA is a member driven information hub, whose mission is to advance the role of safe, clean and cost-effective energy storage in Australia and New Zealand.

The AESA was formed in 2014 and is governed by a volunteer Steering Committee. Our goal is be an effective vehicle for companies active in the energy storage sector, through enabling:

- networking and information sharing;
- promotion of member activities, successes and events;
- sharing innovative ideas and case studies;
- showcasing of new economic models incorporating energy storage; and
- collecting relevant feedback from members to pass onto government and relevant organisations.

## **2. Overview of AESA participant feedback**

The AESA has once again received several submissions of support for a change to the five minute settlement rule, battery and energy storage technology having advanced to the stage where it can effectively provide more and more energy customers with fast-response demand response capability.

While none of AESA's respondents had specific feedback on the drafting of the proposed amendments to the Rules to give effect to the five minute settlement rule, all respondents supported the Draft Rule Change.

However some of AESA's members expressed a preference to reduce the proposed implementation period, so as to realise the benefits of the Rule Change earlier.

## **3. Responses received by the AESA**

Darius Salgo, Co-Founder and CEO of Nexergy, reiterated the significance of the Draft Rule Change to the electricity sector as a whole:

*The transition to settlement of the NEM according to five minute intervals is of critical importance to the electricity sector at large. The current settlement structure of the NEM was devised according to the capabilities of the technology available at the time of its inception. Due to technological improvements, cost competitiveness and requirements for more transparent market dynamics, the AEMC is currently best placed to implement the Five Minute Settlement Rule change as soon as practicable. It will lead to more effective compensation for fast response generation and participants capable of providing fast response ancillary services. This will contribute to a more cost reflective and reliable system resulting in better outcomes for consumers above and beyond lower long-term energy costs, and so is aligned with the AEMC's goals under the NEO.*

*As such, Nexergy is firmly supportive of the rule change. Further, the infrastructure required to comply with the rule change such as more data, and more granular data, will have tangential benefits to the system and energy citizens. These include greater understanding and utilisation of the capabilities of new energy infrastructure such as energy storage, but also consumer empowerment for other innovative technologies such as peer-to-peer energy trading (which Nexergy is working on). By improving the return to fast response, flexible resources such as energy storage, the rule change will lead to greater uptake of distributed energy resources and the many benefits they can provide to the system.*

*We have no comment or concern with the implementation of the rule change in its current guise. However, we would be supportive of bringing the implementation date forward as much as practicable. We are familiar with the reasoning for the current implementation date but hope that the benefits of the rule change would outweigh that reasoning and result in an earlier implementation date.*

Jamie Allen from LG Chem noted various benefits for consumers, industry, networks and the energy market in general which would flow from the introduction of the rule as drafted by the AEMC:

*The introduction of the 5 minute settlement rule in July 2021 will provide much better competition in the Australian energy market and provide new opportunities for peak power offset solutions and fast deployment to reduce the spot market cost of electricity for a range of industries and consumers.*

*We are in favour of the 5 minute settlement and believe this much smaller trading interval would encourage more competitive trading and enable the uptake of grid scale and distributed energy storage systems on industrial and consumer sites to lower their peak demand charges, support networks and also provided opportunities for networks to*

*additionally access/purchase this energy during extreme weather and peak demand events.*

Robert Stevenson from Ecoult has also commented on the importance of following other energy networks such as the United States of America in providing the conditions for more stable and efficient energy markets:

*Ecoult is in favour of the suggested change to the pricing structure on the NEM. We believe it is a step in the right direction toward allowing new market mechanisms for the reliable and efficient delivery of energy, particularly for energy users who utilise renewables and/or battery technology, and make it more viable for high power, short duration suppliers to operate effectively in the market.*

*Battery storage devices can and do provide effective grid-scale variability management from seconds to minutes to hours, and recent rule changes in the USA have created a market for fast-frequency regulation services. Within that market, Ecoult has developed innovative applications for battery storage working in tandem with all types of generation sources—fossil and renewable—and has proven its technology is able to provide hundreds of kilowatts for periods long enough to manage significant changes in grid availability or renewable generation.*

*The proposed 5-minute settlement rule will be helpful in paving the way for the development of new markets that facilitate participation from new and effective tools to support a more stable and seamless grid. This includes renewable and battery energy suppliers in Australia.*

*While the suggested transition period gives players time to develop sensible business responses to the new conditions, it could perhaps be shorter as grid stability challenges are with us already.*

From the Tesla Motors Australia Pty Ltd (Tesla) submission, the following comment provided to the AESA adds to the views presented in this submission

*Tesla believes the following key points are relevant for the AEMC to note during the consideration of the 5 minute settlement rule change:*

- Battery energy storage is technically capable of responding in a near instantaneous manner to price and demand signals, and as such, can provide required capacity during a five minute dispatch interval.*
- We anticipate that the shift to a five minute settlement period will ultimately result in improved wholesale market participation revenue for battery energy storage leading to improved uptake trajectories.*
- Increased uptake of utility scale battery energy storage will ultimately manage some concerns raised during this rule change process regarding the liquidity of the cap market as utility scale battery energy storage can increasingly be used as energy capacity by counter-parties participating in the cap market.*

#### **4. Questions**

This submission was prepared by Mary Hendriks, Industry Executive, Australian Energy Storage Alliance with assistance from Aylin Cunsolo, Senior Associate, Baker McKenzie.

If you have any queries regarding this submission, please contact Mary Hendriks, Industry Executive, Australian Energy Storage Alliance at [mary@energystoragealliance.com.au](mailto:mary@energystoragealliance.com.au).