



14 September 2021

Australian Energy Market Commission
GPO Box 2603
SYDNEY NSW 2001

Attention: Mr J Aulbury

By direct lodgment

**Integrating Energy Storage into the NEM
ERC 0280**

Major Energy Users Inc (MEU) is pleased to provide its views on the draft decision on the integration of energy storage into the NEM.

The MEU was established by very large energy using firms to represent their interests in the energy markets. With regard to all of the energy supplies they need to continue their operations and so supply to their customers, MEU members are vitally interested in four key aspects – the cost of the energy supplies, the reliability of delivery for those supplies, the quality of the delivered supplies and the long-term security for the continuation of those supplies.

Many of the MEU members, being regionally based, are heavily dependent on locally based staff, local suppliers of hardware and services, and have an obligation to represent the views of these local suppliers. With this in mind, the members of the MEU require their views to not only represent the views of large energy users, but also those interests of smaller power and gas users, and even at the residences used by their workforces that live in the regions where the members operate.

It is on this basis the MEU and its regional affiliates have been advocating in the interests of energy consumers for over 20 years and it has a high recognition as providing informed comment on energy issues from a consumer viewpoint with various regulators (ACCC, AEMO, AEMC, AER and regional regulators) and with governments.

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The MEU is well aware that the National Electricity market (NEM) is changing quite rapidly and the influx of low cost, but variable, renewable energy (VRE) generation has resulted in the need for greater amounts of storage into the NEM, to moderate the times of feast and famine of supply to match the times when electricity supplies are needed by end users. This need for greater storage and the impacts it has, need to be recognised in the NEM rules as storage devices have the characteristics of being both an end user and a generator at different times.

The MEU also notes that there are:

- Some end users of electricity have their own generation as part of their production process and/or have generation as stand by needed when the grid supply fails. This means they can act as both providers of electricity and as users, and therefore able to provide support to the NEM at times of extreme need.
- Large generators that provide electricity when required also import electricity at times (usually to supply ancillary plant prior to start up of the main generating units).
- Many relatively small importers of electricity (eg residential end users and small to medium businesses) with rooftop solar are exporting significant amounts of power (in relation to the imports they have) and recently the AEMC decided that they should be exposed to export network costs in addition to the import network costs they already face.
- Storage devices (particularly batteries) are embedded in distribution networks as well as in the transmission networks, but it seems that storage connected to the transmission network is the main focus of this draft rule. The MEU does not support there being a differentiation in this regard.

The current rule arrangements mean that:

- Large end users that can (and do) export at times, are required to pay for TUoS/DUoS on their imports and generally do not pay additional network costs for export.
- Generators, at times, do import from the grid but do not pay any TUoS/DUoS charges.

The arguments for the different approaches between the two are that large end user exports are relatively small and generator imports are relatively small, and therefore these small amounts do not warrant specific arrangements in the rules. Equally the new rule change for DER exports to be exposed to a network charge for exports reflect the reality that imports and exports in the distribution networks are more balanced in size (eg residential import with residential rooftop solar export), and the recent rule change exposes these importer/exporters to network charges for both their exports as well as paying network charges for their imports.

The MEU has consistently been of the view that where power flows from the grid to an end user, the importer should incur a network cost related to the peak demand of the flow regardless of what its normal operational activity is¹. This approach is equitable and should be applied universally to ensure consistency of treatment. The MEU considers that there should be no exceptions to the approach regardless as to what the purpose of the import is. Even though a storage device might export similar amounts of energy at another time, the storage uses the network in exactly the same way that any other end user does and imposes similar requirements and stresses on the network that have to be paid for.

The MEU notes that network costs for larger users are based on the peak demand imposed on the network (whether transmission or distribution) by the end user and, as a result, end users are careful to manage the level and time of their peak demands imposed on the network. By not incurring network charges for its imports, the storage device has no constraint on the rate at which it imports, or when, or even its location, and therefore the storage device can impose increased requirements and stresses on the network with impunity.

It would be incongruous if a storage device is not required to pay for its usage of the network for its imports yet it actually caused a need for augmentation of the network to accommodate its peak import demands – if the storage device did not pay for its use of the network to import electricity, then the augmentation costs would have to be paid by other end users who did not cause the need for augmentation and did not even benefit from the network investment!

The rules for export of electricity should also be consistent so that any exporter of electricity is treated the same way regardless of its size or location. Unfortunately, despite a need for consistency in treatment, the AEMC recently decided that exporters of small amounts of electricity into the distribution network should be exposed to network charges while larger exporters of electricity are to be immune from such charges. The MEU does not support this unequal treatment.

To maintain consistency of treatment, the MEU therefore considers that a user of the network taking inflow from the grid should carry its share of network costs (ie both in transmission and distribution networks). This means the MEU considers that storage devices, like any other end user, should be treated as an importer of electricity and liable for network charges related to its import needs. The fact that the storage device then releases the power into the grid (as any other generator does) means it should not be exposed to network charges for its exports and should be treated like other generators. The MEU does not consider that storage devices should be exposed to network charges for exporting like very small exporters are now.

The MEU notes the recent AER draft decision on the AEMO pricing approach for 2022-2027 which results in large storage operating in the transmission network not incurring

¹ This approach would mean that all generators would pay network charges for any imports they may have

transmission charges for importing electricity but that a storage device operating in the distribution network could be exposed to network charges for importing. The MEU again highlights the lack of consistency in approach in exposing storage to network charges.

The MEU points out that lack of consistency in approach can lead to less efficient outcomes resulting in unnecessary costs for consumers. Such inconsistency has resulted in generators locational decisions being driven more by locational and resource availability decisions rather than delivering the most efficient outcome on a NEM wide basis. The MEU considers that a consistent approach in application of network charges for storage will drive more efficient locational and size decisions, as well as charging and discharging decisions, to deliver the most efficient market outcome for consumers.

The MEU has consistently advocated that all generators of electricity should bear the costs for delivering their product to market (ie generators directly paying for the transmission network rather than consumers) and, if this was implemented, there would be much better management of the transmission network to provide for the needs of generators and storage devices. However, until such time that a change along this line is implemented, the MEU considers that all importers of electricity (including storage devices) should pay their share of network charges, whether it is TUoS or DUoS.

We trust that the foregoing provides sufficient clarity on the MEU views but should you desire further explanation as to why we have responded as we have, we would be pleased to provide more detail, so please contact the undersigned on davidheadberry@bigppnd.com or 0417 397 056

Yours sincerely



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Public Officer