FIRM POWER
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TO/
Michelle Shepherd
Commissioner
Australian Energy Market Commission
Level 15
60 Castlereagh Street
Sydney NSW 2000

September 16, 2021

Dear Australian Energy Market Commission,

Firm Power submission to the AEMC's National Electricity Amendment Draft Rule Determination (ERC0280).

Firm Power is pleased to provide a submission to the Australian Energy Market Commission (AEMCs) Draft Rule (2021) Determination 'Integrating Energy Storage into the NEM' dated 15 July 2021.

Firm Power is an intending participant in the National Electricity Rules as a Generator and specialises in providing energy services as a non-network solution to network limitations and constraints. Firm Power leverages private investment to provide innovative solutions, actively participates in Regulatory Investment Tests (RITs) and works with NSPs to design efficient and cost-effective means to save customers money through non-network solutions.

Firm Power was recently awarded a grant under the NSW Emerging Energy Program to develop two battery energy storage systems in Western Sydney as a way of deferring network investment to meet peak summer loads (see here for further details: https://energy.nsw.gov.au/renewables/clean-energy-initiatives/emerging-energy-program).

Around the world, network operators are re-imaging the grid as an interactive network that provides value to connected end-users. However, the challenge is to implement change in a fair and equitable manner that does not have the potential to create stranded assets or provide perverse incentives to concentrate new technologies within specific regions of the grid while neglecting other areas of the network where this technology can provide a positive benefit to end-consumers.

Firm Power broadly supports the objectives and principles of the Energy Security Board's (**ESB's**) "two-sided market" in streamlining services for those who use electricity and those who sell electricity on behalf of end users. Development of market rules, which encourage Network Service Providers (NSP's) to interact with the private sector and create a level playing field in the provision of network services within both transmission and distribution networks, is a critical element of the ESB's vision of a two-sided market.

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The AEMO 2020 Integrated System Plan has identified 6 – 19 GW of new dispatchable resources will be required to firm the inherently variable nature of distributed and large-scale renewable energy generation. Firm Power believes that there is a risk that the draft determination from the AEMC in its present form will inhibit the market's ability to achieve the required resources by limiting the locations where particularly storage assets can be deployed economically, which will ultimately result in higher costs for the consumer

The AER noted in their Final Determination for Victorian Distributors that there is a potential distortionary impact on investment that arises from different charging arrangements at the transmission and distribution levels and this needs to be addressed through broader policy decision-making in the context of ongoing reforms to the NEM. At present the draft determination advocates a status quo arrangement and hence leaves these distortionary arrangements in place.

Firm Power is supportive of the AEMC's role in advancing the National Electricity Rules and updating the framework and aligning incentives in terms of how dynamic, scheduled loads are levied use of system costs by Transmission and Distribution Network Service Providers (DNSPs). We are also aware of the challenges the Australian Energy Regulator has faced in encouraging DNSPs to trial new energy storage tariffs and there appears to be a structural mis-alignment of incentive with most DNSPs publicizing their intent to own and operate energy storage projects. From a commercial perspective in order to provide investment certainty and meet project finance thresholds, trial tariffs would need to be applied over a reasonable project investment horizon i.e. at least 15 years. The current regulatory environment is making it increasingly difficult to negotiate Individually Calculated Tariffs and seek an alternative to existing (published) tariffs if:

- Scheduled loads can operate around peak demand windows,
- No additional network asset investment is required to support ESS charging and
- Scheduled generators can provide network support by dispatching into the peak demand window.

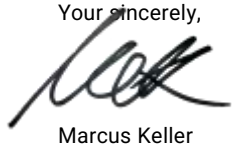
Due to existing regulations some DNSP's are unable to offer a negotiated services and are therefore being forced to provide a prescribed level of service which is in excess of the requirements of the proponent. Prescribed services impose higher costs on the proponent and can compromise the feasibility of a project.
Firm Power seeks to highlight the following key considerations of the Draft Rule:

1. The Rule Change should clarify the approach to assessing performance standards for hybrid and IRP projects
2. Firm Power supports the view that dispatch or generation of energy should not incur TUOS and DUOS charges DNSPs should be required to develop an additional service class for IRPs as part of their TSS, such as a controlled load tariff
3. We would encourage the timetable for FFR commencement to be accelerated in the interests of system security.

As a BESS project developer and provider of grid flexibility services, we thank you for the opportunity to provide a submission to the AEMC's Draft Rule Determination.

If you have any questions in relation to this submission, please don't hesitate to contact me.

Your sincerely,



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1. Creation of a new technology neutral participant category, Integrated Resource Participant (IRP)

Firm Power supports the creation of a new technology neutral participant, the IRP, including the allowance for aggregate dispatch conformance of hybrid systems, including the introduction of the concept of an Integrated Resource Unit (IRU). As part of the proposed Rule Change, Firm Power provides the following comments:

a) The Rule Change should clarify the approach to assessing performance standards for hybrid and IRP projects, particularly DC-coupled systems or otherwise clarify that the existing performance standards will apply to hybrid systems.
b) The implementation of the final rule should come into effect sooner than 18 months from the final determination given the increasingly important role IRPs will play in the NEM to maintain system stability as conventional generation retires. The final rule implementation should therefore be brought forward to be 6-12 months from the final determination.
c) If the implementation of the final rule cannot be brought forward then there should be allowance made for the assessment of IRP and hybrid performance standards immediately upon the final determination to allow IRP proponents to prepare projects for the implementation.

2. TUOS and DUOS charges

Firm Power supports the view that dispatch or generation of energy should not incur TUOS and DUOS charges and the consumption of energy as a load should only incur TUOS and DUOS charges to the extent it is reflective of the true burden on the network (e.g. contribution to network congestion).

However, the framework in which to negotiate cost-reflective charges should be reciprocal across transmission and distribution connected IRPs, otherwise, there will be a concentration of IRPs in either the transmission or distribution space purely as a result of perverse incentives/penalties rather than the economic and technical drivers for locating IRPs in appropriate locations within the NEM which support the NEO.

Firm Power is concerned there has been a lot of emphasis placed on the framework for negotiating TUOS charges, but very little attention brought to the framework for negotiating DUOS charges. Given a number of standalone storage and hybrid facilities have and will be located in distribution networks, we believe an appropriate reciprocal balance should be applied to both TUOS and DUOS concerns.

3. Proposed New Tariff Class: Flexible Load Tariff

The Draft Rule proposes to amend the dispute resolution process to clarify pricing for non-retail distribution customers should be based on cost-reflective principles. However, it is inappropriate and inefficient to rely on the dispute resolution process to apply cost-reflective pricing principles. Instead, Firm Power requests the following further amendments are made to the application of Chapter 6 pricing principles to non-retail distribution customers under the TSS process:

a) DNSPs should be required to develop an additional service class for IRPs as part of their TSS. The IRP service class should include a tariff structure which is sympathetic to the controllability of IRPs, similar to those associated with controlled load tariffs.
b) IRPs that accept that they will be metered and controlled at their connection point should receive a significantly reduced tariff based on only consumption charges (as opposed to demand and/or capacity charges). In order to receive this tariff class, IRPs will need to accept supply of energy may not be available within peak windows and may be constrained in load consumption linearly down to 0MW by the DNSP.
c) Charges associated with this IRP tariff class should not exceed those of a controlled load tariff class.
d) IRPs that perform network support services for deferring network expenditure should be exempt from paying DUOS charges in order to operate to the net benefit of customers. Where an exemption is not available, IRP's performing network services should only be liable for DUOS charges for energy they have consumed i.e. round-trip efficiency. Energy charged and subsequently discharged should not incur DUOS.

Furthermore, the requirement to adopt cost-reflective pricing principles should be inserted in section 6.7

(Negotiated Distribution Services) of the Rules rather than just the dispute resolution section in 6.22.2(b1).

Lastly, transparency should be provided by TNSPs and DNSPs on the outcomes of negotiated service arrangements for TUOS and DUOS charges. Principles and methodologies for determining negotiated TUOS and DUOS charges should be published and TNSPs and DNSPs should also be required to publish the TUOS and DUOS charges for individual projects. This is to ensure there is consistency across negotiations and there is no "gaming" of outcomes that leads to IRPs favouring one NSP over another.

3. DC coupled systems

Firm Power supports the option for DC coupled systems to register themselves under a single classification (scheduled or semi-scheduled) or multiple classifications (scheduled and semi-scheduled).

Firm Power also supports the view that no specific changes are required to performance standards for DC coupled systems compared to other forms of hybrid facilities.

Further guidance from AEMO on the assessment of DC coupled system performance standards and the telemetry and metering requirements should be released shortly after the final determination in order for IRP proponents to plan for their projects. In order to fast-track the release of these guidelines we suggest a staged approach where AEMO releases an interim methodology followed by the final methodology.