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PROGRESSIVE GREEN T/AS FLOW POWER ABN 27 130 175 343

11 February 2021

Mr. Albury
Senior Adviser
Joel.Aulbury@aemc.gov.au

Dear Mr. Albury,

Re: Integrating storage into the National Electricity Market

Flow Power welcomes the opportunity to make a submission in response to the options paper for the *Integrating storage into the NEM* rule change request.

Flow Power is a licenced electricity retailer that works with business customers throughout the NEM. Our model aims to give customers control over their energy costs through dynamic energy pricing that rewards flexible energy use. Customers can manage price volatility though physical or financial tools, including:

- A physical hedge in the form of a demand response or onsite generation (supported by our energy management systems).
- A financial hedge may include purchasing financial hedges from markets such as ASX Energy Futures or entering into a PPA with generators.

Our unique PPA model, Virtual Generation Agreement, plays an important role in supporting the development of large-scale renewables by providing price certainty and confidence to investors, and at the same time creating a product for business customers to access low electricity prices and take control of their energy costs.

Overview

While Flow Power does not currently own or operate a utility scale battery, we are currently exploring a number of large battery opportunities, including those co-located with renewable assets. As such, our comments do not relate to operational insights regarding utility scale storage and hybrid facilities in the current regulatory framework, but rather on the broader regulatory framework context. The key points we would like to make regarding the AEMC's options paper are:

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- **Reducing complexity in the NER supports competition**. The National Electricity Rules are long and getting longer. We appreciate the subject matter the NER governs is complex, both from an economic and operational perspective, so it is necessary to have a comprehensive regulatory framework. However, to the extent that regulation can be simplified, it will support the participation of smaller participants and new entrants. This will be important as technological developments enable a growing range of service providers to enter the NEM, which will in turn reduce service costs for consumers.
- **Service-based obligations are consistent with the decentralisation of the NEM**. With greater accessibility to new technology, including DER, communications equipment and smart homes, the NEM will be increasingly decentralised. Balancing supply and demand will rely more and more on the actions of consumers to align consumption with the output of variable renewable generators. For example, through technology and financial incentives, our customers significantly reduce their consumption during high wholesale prices.

  As more distributed energy resources and demand response look to participate in the wholesale market and respond to price signals, it is clear that the asset-focussed obligations the NEM was built on will not remain appropriate. Instead, a service-based approach to obligations is more likely to be technology neutral.
- **Feel free to give us a call.** We would welcome the opportunity to discuss our perspective as a growing retailer and generator.

If you have any queries about this submission, please contact me on (02) 9161 9068 or at Declan.Kelly@flowpower.com.au.

Yours sincerely,

Declan Kelly

Regulatory Policy Manager

Flow Power

Appendix

Questions		Feedback
Chapter 1 – Registration and participation framework		
▪ **Question 1: Registration and classification (p. 17)**		
1	Is introducing a new participant category, an Integrated Resource Provider (option 4), to better facilitate entry and participation of storage and hybrid facility, more preferable than modifying existing participant categories (option 3)? Are either option 3 or 4 more preferable to options 1 and 2?	Options 3 and 4 appear to be more appropriate long term adjustments to the regulatory framework. While Option 4 may entail higher upfront costs associated with the introduction of a new participant category, it would also be amenable to incorporating the growing range of resource and technology types likely to participate in the National Electricity Market.
▪ **Question 2: Classifying MSGAs (p. 18)**		
1	Do you agree that, if an Integrated Resource Provider category (option 4) is established, battery aggregators should use that category and MSGAs should not be allowed to classify storage units exempt from the requirements to register as a Generator? And in that case, should the current arrangements regarding the provision of market ancillary services by MSGAs be maintained?	No comment.
▪ **Question 3: Existing storage participants (p. 19)**		
1	Should existing storage participants be transitioned to a single participant category (as they are currently registered as both a Market Generator and Market Customer)?	Unless there are material disadvantages to participating as a single participant category (for example, if the number of price bands are reduced), it makes sense for existing storage participants to be transitioned to a single category.
▪ **Question 4: Scheduling of hybrid facilities (p. 20)**		
1	What proportion of a hybrid facility's sent-out generation capacity would need to be dispatchable for the whole of the hybrid facility's sent-out generation to be able to	No comment.

Questions		Feedback
	follow dispatch instructions, under a single DUID?	
2	Would a dynamic approach to scheduling obligations, for example shifting between scheduled and semi-scheduled obligations based on the state of charge of the storage unit, be appropriate, and how should this operate?	Without suggesting that this approach is necessarily best, it could be developed in-line with the dispatch obligations for semi-scheduled generation. Semi-scheduled generators are expected to follow dispatch targets where a dispatch flag is issued by AEMO (typically related to system security). The criteria for AEMO issuing a dispatch flag could be expanded to reflect an increased capability for hybrid facilities to participate in dispatch.
3	Could the same approach be taken to scheduling load where storage is added to a Market Customer's site, or should different considerations apply?	We suggest it is highly unlikely that any customers that install batteries, even those with significant capacities, would be able to meet the obligations associated with being a scheduled load. In addition to the scheduling obligations, it's also likely that this would impose significant costs relating to SCADA requirements to be a scheduled load. However, these customers may be more suited to concepts such as 'scheduled light' currently being considered by the ESB.
▪ **Question 5: Number of price bands (p. 21)**		
1	Do you agree that 20 price bands would be appropriate for grid-scale batteries or would another number of bands be more appropriate?	It would restrict the operational flexibility of grid-scale batteries if the number of price bands available to them were reduced. This would be counter to the trend of the regulatory framework supporting the integration of more flexible resources. It does raise the question of whether the restriction on the number of price bands, or the ability to change price bands over the course of a day, remain appropriate. As the number of batteries connecting to the NEM increases, alongside more renewables, demand side participation and with the start of five-minute settlement, it may be that more flexible bidding arrangements will be necessary.
Question 6: Dispatching hybrid facilities (p. 21)		
1	Are there certain configurations of hybrid facilities that cannot, or should not, be dispatched at a single connection point?	No comment.
2	What benefits are achieved by dispatching a hybrid facility at a single connection point, and what issues arise?	No comment.

Questions		Feedback
Question 7: Performance standards (p. 22)		
1	What issues may arise if performance and access standards are set at the connection point for hybrid facilities? Would these standards need to be amended to provide appropriate flexibility for hybrid facilities?	No comment.
Chapter 3 – Recovery of non-energy costs		
Question 8: Options for the recovery of non-energy costs (p. 27)		
1	Which option do you consider to be the most appropriate for the recovery of non- energy costs from market participants? Please provide detail on why it would be the most appropriate option.	The causer-pays approach appears to be the best, technology neutral approach. The Commission should explore the materiality of the change in non-energy costs for different participant groups.
2	Are there any other factors the Commission should consider when deciding how non-energy costs should be recovered from market participants?	No comment.
3	Are there any implementation issues the Commission should consider?	Depending on the preferred approach, there may be minor changes to billing systems required.
Chapter 4 – Additional issues relating to storage		
Question 9: Network service provider connection points (p. 34)		
1	Do you support the solution outlined in this options paper for resolving the potential issues with establishing standards for NSP owned energy storage?	No comment.
2	If not, do you consider there to be other potential solutions for resolving this issue?	No comment.

Questions		Feedback
Question 10: DC coupled systems (p. 38)		
1	What capital, operational or efficiency benefits do DC-coupled systems provide participants and the NEM as a whole, and how might these benefits help consumers in line with the NEO?	No comment.
2	Do you support amending the NER to permit the registration and operation of DC-coupled systems? If so, how should they register and operate?	No comment.
Question 11: Provision of ancillary services (p. 40)		
1	Do you support AEMO's proposal to redraft ancillary services provisions in Chapter 2 of the NER to make it more consistent with the services approach to regulation currently being considered by the ESB's two-sided market work? Please explain why or why not.	We support the proposed approach. The approach outlined in the options paper would simplify the regulatory arrangements for participants seeking to participate in ancillary service markets. This approach can also be extended to include participation in any future ancillary service markets.