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Mojo Power Pty Ltd ABN 61 604 646 479
Level 4, 115 Pitt Street Sydney NSW 2000
hello@mojopower.com.au fax: 02 8318 2118

John Pierce
Chair - AEMC
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce

Submission to the five minute settlement directions paper

Thank you for the opportunity to comment on the directions paper for the Australian Energy Market Commission's (AEMC's) five minute settlement rule change process (the directions paper).

Mojo Power Pty Ltd (Mojo) supports the initial views of the AEMC indicated in the directions paper and considers that any departure from the stated direction should only occur if it is based on significant new evidence.

About Mojo

Mojo is a new and innovative Australian energy retailer. We seek to make a fair profit that better reflects the true costs of providing our services.

We offer a subscription fee pricing model. We make money from the subscription fee so we can focus on servicing customers, not selling them more electrons. For us this includes helping our customers reduce energy costs by managing their energy consumption more intelligently with solar, batteries and other controllable devices.

Assessment framework

Mojo supports the assessment framework outlined in Chapter 2.2 of the directions paper.

Materiality of the problem

Mojo broadly supports the analysis conducted by the AEMC concluding that the current arrangements result in a materially less efficient wholesale market. This inefficiency is both allocative and dynamic.

The current mismatch between dispatch and settlement periods does not send an efficient signal of the value of directing resources to meeting the real-time supply and demand balance in the wholesale market. This has significant longer term impacts on the dynamic efficiency of the wholesale market, which is critical to investment decisions on the entry and exit of capacity in the National Electricity Market (NEM).

The allocative inefficiency therefore fails to send appropriate signals to investors to deploy capital in flexible assets on both the supply and demand side. As the market evolves with an increasing share of intermittent and distributed generation, the value of flexible capacity is likely to increase. However, without appropriate signals in the wholesale market reflecting the true value of flexibility, investment in flexible capacity is less likely to be forthcoming. Over time this further increases the impact of the current framework on allocative efficiency.

This issue is playing out in real time in South Australia, which should be viewed to some extent as the canary in the coal mine highlighting the impact of leaving the current arrangements in place.

We consider that bidding behaviour in the wholesale market will evolve under five minute settlement to better reflect the short run marginal cost of generating extra supply, or curtailing demand, at any point in time. This is appropriate for a market with the objective of balancing physical supply and demand in real time.

Design issues

Mojo supports compulsory participation in a five minute settled market on both the supply and demand side for the reasons stated in Chapter 5 of the directions paper. Demand side optionality could reduce the incentive to pursue flexible demand response options, undermining to some extent the efficiency of the wholesale market. The complexity of implementing demand side optionality would also result in higher costs.

Mojo also supports a revenue metering solution to implement the five minute settlement rule for the reasons stated in Chapter 6 of the directions paper. The costs of this option are low compared with the complexity of using alternative data sources.

Costs and transition

We acknowledge the analysis from Energy Edge (Effect of 5 Minute Settlement on the Financial Market; March 2017) that "across the market approximately 625MW of flat cap equivalent (23% of underlying cap volume) is likely to be withdrawn from the market".

As an innovative and growing retailer, Mojo is well aware of the need for a liquid market for risk management products upon the implementation of five minute settlement. In the event of a contraction in supply of hedging products, retailers are likely to pass on the additional costs to consumers. This includes higher costs of hedging contracts, and the inclusion of risk margins for unhedged load. This would also be likely to have flow on effects for competition in retail markets.

An appropriate transition period is necessary to mitigate these risks. We consider the proposed staged transition period set out in Chapter 7.4 of the directions paper is appropriate.

A range of new strategies are likely to evolve to manage wholesale risk on a move to five minute settlement. This should include both supply and demand side changes for existing and new assets. Our comments below focus on new risk management products that may evolve as we are better placed to comment on this than many other market participants.

The increasing penetration of new technologies is likely to continue to develop new risk management products for market customers. For example, Mojo is developing its capability to control home battery and other demand management technologies behind its customers' meters. This would allow Mojo to physically manage risk behind the meter, rather than contractually manage risk in front of the meter. Third party home energy management providers can also develop risk management products to offer market customers in lieu of traditional risk management contracts.

A move to five minute settlement would allow Mojo to more efficiently manage risk by controlling battery technologies behind its customers' meters. Firstly, our control systems would be able to respond to real-time price signals, rather than anticipated 30 minute price outcomes. This would mean that batteries would not be inefficiently responding to the many false positives and false negatives inherent in predicting current trading interval outcomes. Secondly, the batteries under our control could obtain the value of helping meet demand in the wholesale market within the five minute period it is needed, rather than being required to generate for 30 minutes (including 25 minutes where it is not required to meet demand) to obtain the same financial outcome.

A more efficient use of technologies behind the meter would provide more confidence to Mojo to sell down or withdraw contractual hedging arrangements. This model would therefore reduce demand for hedging contracts on a move to five minute settlement, particularly caps.

Any shortfall in contractual liquidity as the market moves toward the implementation of five minute settlement is likely to be signalled well in advance of the transition due to the tenor of many hedging products currently available. This should provide enough notice for financial contract structures, investment decisions and the practices of existing market participants, to evolve further to meet any risk management product supply shortfall.

If you have any queries regarding this submission please don't hesitate to contact me at **dadams@mojopower.com** or using the phone details below.

Dominic Adams

Regulatory Strategy Manager

Level 4, 115 Pitt St, Sydney NSW 2000

GPO Box 7049, Sydney NSW 2001

o 02 8318 2100

m 0402 378 086