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7 December 2020

Craig Oakeshott
Market Performance Branch
RRO@aer.gov.au

Dear Mr. Oakeshott,

Re: Issuing T-3 instrument for NSW: January – February 2024

Flow Power welcomes the opportunity to make a submission to the AER regarding the issuing of a T-3 instrument for New South Wales in January and February of 2024.

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

We do not consider a T-3 instrument should be issued for NSW for 2024. There are material reasons why, despite AEMO's forecast, a reliability gap that breaches the interim reliability standard will not be experienced, including:

- The NSW Emerging Energy Program which has allocated funding to five projects totalling 220MW of dispatchable capacity was announced too late to be included in AEMO's modelling.

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- Faster than expected growth in DER, which would consequently reduce the size of the forecast gap.
- AEMO's very slow forecast growth in demand side participation, is at odds with our experience and ignores major regulatory reforms (such as wholesale demand response) which are likely to reduce peak demand further.
- The impact of the new renewable capacity and firming capacity introduced under the NSW Government's Electricity Infrastructure Roadmap
- The impact that electric vehicles and distributed batteries are likely to have in 2024, by dispatching during periods of peak demand.

If the above reasons had been accounted for in AEMO's ESOO forecasts, this would show that even the new tighter, interim reliability standard would not be breached.

It is important that the AER only issues a T-3 instrument when it is certain that a gap exists. Issuing an instrument is not a costless exercise for market participants and will add costs to retail prices as market participants make adjustments to manage uncertainty regarding compliance risks.

A breach of the interim reliability standard is unlikely

We've expanded on the reasons outlined earlier for why we do not consider a breach of the interim reliability standard is likely, and as such, the AER should not issue a T-3 instrument for NSW.

NSW Emerging Energy Program

In AEMO's 2020 ESOO, it noted:[1]

> *"In New South Wales, the forecast USE sits above the IRM [interim reliability standard] but below the reliability standard. While announced too late to be modelled, the New South Wales Government's commitment to provide capital projects funding to 170 MW of dispatchable capacity under its Emerging Energy Program is expected to reduce expected USE to below the IRM in 2023-24."*

This explicitly indicates that, had the inclusion of the NSW government's commitment to provide funding for 170MW of dispatchable capacity been considered, there would be no reliability gap in NSW in 2023-24. We agree with AEMO that if the NSW Government provides for an additional 170MW of capacity, this would reduce the extent of the forecast gap such that, even the tightened interim reliability standard would not be breached.

This omission alone suggests a T-3 instrument cannot be reasonably issued for NSW in 2023-24.

Forecast growth of DER

AEMO's Reliability Instrument uses the central scenario for the uptake of rooftop PV. It also notes that distributed PV has a high impact on the materiality of the reliability forecast for 2023-24 in NSW.[2]

Despite early expectations of a possible downturn due to COVID-19, this year has seen continued record growth in distributed PV installations, with 2020 on track to have the record for installed capacity in a calendar year in Australia. This growth in distributed PV, which has consistently exceeded expectations, will likely exceed AEMO's central scenario forecast, and consequently reduce the size of the forecast reliability gap.

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[1] AEMO, *2020 Electricity Statement of Opportunities,* August 2020, p. 8.
[2] AEMO, *Reliability Instrument Request – T-3 instrument request for NSW,* November 2020, p. 7.

Impact of demand side participation

In its Reliability Instrument Request, AEMO notes that for 2020 ESOO, the 2020-21 maximum capacity for demand side participation (referred to as the "reliability response") is applied across the forecasting horizon.[3] This means AEMO has assumed *zero* growth in demand side participation over the forecast horizon. This is at odds with our experience, regulatory developments and AEMO's forecasts in their input assumptions.

- AEMO's input assumptions for its 2020 ESOO modelling shows that it forecasts a growth in NSW DSP from 285MW to 298.3MW. While small, this increase does not seem to have been factored in AEMO's forecast of the gap period.
- We consider the forecasts of DSP growth to be significantly underestimated. For example, AEMO is forecasting that by 2030-31, there will be 300MW of DSP in NSW. This represents a 15MW increase in DSP in 10 years!

  Flow Power is a retailer that works with large energy users. Our business is rapidly growing with our customer focussed retail products that provide strong incentives to respond to wholesale prices. We expect the growth in demand side participation amongst our customers in NSW to far exceed the entirety of AEMO's forecast growth in DSP. We also expect other retailers to increasingly offer demand response focussed products to their customers. As such, we consider AEMO's forecasts to vastly underestimate the growth in DSP.
- In October 2021, the Wholesale demand response mechanism will be introduced.[4] This mechanism introduces a new participant category, a Demand Response Service Provider, who can aggregate demand response and bid it into the wholesale market. This represents a material new source of DSP entering the market. However, this does not appear to have been factored into AEMO's ESOO forecasts.
- In addition, five-minute settlement will be introduced in September 2021.[5] Part of the rationale for the move to five-minute settlement is strengthened signals for demand side participation and fast responding technologies. The impact of five-minute settlement being introduced in facilitating more demand side participation also does not appear to be factored into AEMO's forecasts.

NSW Electricity Infrastructure Roadmap

The NSW Government Electricity Infrastructure Roadmap will deliver large quantities of new capacity into the NSW grid. The modelling undertaken by Aurora Energy, commissioned by the NSW Government, assumes an introduction of 12GW of renewables above the business-as-usual forecasts by 2030. This includes an additional 2GW of new renewables by 2023-24.

In addition to the new renewables, the NSW Government has introduced an Energy Security Target. This target sets a very high standard for reliability in the state and, if this standard is set to be breached, would result in some underwriting of new sources of firm capacity. The intention of this capacity would be to reduce the reliability shortfall. For example, if the Energy Security Target is forecast to be breached in the reliability gap period in NSW, this would result in some new firm capacity being introduced to reduce the extent of the gap. As such, this mechanism appears to subvert the RRO and the need for it to be triggered by delivering new firm capacity when gaps are forecast.

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[3] AEMO, *Reliability Instrument Request,* November 2020, p. 8.
[4] See: https://www.aemc.gov.au/rule-changes/wholesale-demand-response-mechanism
[5] See: https://www.aemc.gov.au/rule-changes/five-minute-settlement

Electric vehicles and distributed batteries

Electric vehicles and distributed batteries will be the next wave of DER installations. AEMO has produced forecasts showing the growth in batteries and electric vehicles and noted that impact of these devices on aggregated energy consumption. However, there seems to be limited consideration of how these batteries and electric vehicles could be used to offset peak demand in scarcity conditions. As control technology, communications infrastructure and retail products improve, willing consumers will be the ability and the incentive to respond to strong price signals from the wholesale market. We think that by 2023-24, there will be a material number of DER owners whose assets are either locally or remotely controlled to reduce strain on the grid in peak demand conditions. If this was accounted for in AEMO's forecasting, we would expect to see the size of the forecast reliability gap reduce.

In conclusion

There are material reasons why the forecasts produced for AEMO's reliability instruments are unlikely to reflect reality in 2023-24. For these reasons, we consider the AER should not issue a reliability instrument for NSW in 2023-24, particularly given the significant impacts on market participants where a T-3 instrument is unnecessarily introduced.

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