WestWind ENERGY

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Private & Confidential
Network Planning AEMO
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Copy:
Kiet Lee

RE: WESTERN VICTORIA RENEWABLE INTEGRATION - PADR

Dear Sir/Madam,

WestWind Energy (WestWind) would like to thank AEMO for the opportunity to attend to the Deep-dive session held on 30 January. We would like to submit the following with regards to the recently published Project Assessment Draft Report (PADR) for the Western Victoria Renewable Integration.

As you may be aware, WestWind have been developing windfarms in Australia since 2004. Some of our most well-known projects include Mount Mercer Wind Farm, Lal Lal Wind Farm and Moorabool Wind Farm. These projects were sold to other entities who committed to building and operating them. More recently, WestWind is focused on the development of Golden Plains Wind Farm (up to 1,200MW), Warracknabeal Wind Farm (potentially >300MW) and other early-stage projects.

With such projects in the pipeline, we are obviously very interested in the outcomes of this RIT-T process. Please refer to our below comments and queries.

Market benefits

If we understand the methodology for assessing market benefits correctly, comparisons have been made between 'net gains from the trade' for different scenarios, which were then netted out financially over the study period. In doing so, AEMO used the NTNDP Database[1] for determining the short-run marginal cost (SRMC) of different generators, which would be their offering price. We also understand that different bidding behaviours have not been modelled as part of this study. Westwind would query as to the accuracy of these values, given they seem to be from June 2014[2], and as to the availability of more up to date values.

Preferred Option

[1] http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/National-Transmission-Network-Development-Plan/NTNDP-database

[2] https://www.aemo.com.au/-/media/Files/XLS/Fuel_and_Technology_Cost_Review_Data_ACIL_Allen.xlsx

As we understand, the PADR's identified preferred solution is described under option C2, which is in addition to minor augmentations procured under this RIT-T or other mechanisms such as NCIPAP. These minor augmentations would be delivered up to 2021, given their immediate benefits to the broader market.

Option C2 entails augmenting the existing 220kV transmission network from Ballarat Terminal Station (BATS) to Bulgana Terminal Station (BGTS). This result was achieved by considering currently committed projects as well as advanced projects.

However, there are other projects seeking to connect to the Bulgana (BGTS) to Horsham (HOTS) to Murra Warra (MRTS) to Red Cliffs (RCTS) 220kV line. The table below presents a few of these projects in several stages of development.

Table 1 – Proposed Renewable Energy Projects in Northwest Victoria

Project	Capacity (MW)	Connecting Line / Terminal Station	Source
Nowingi Solar Farm (includes storage)	253	HOTS-RCTS	https://www.lyoninfrastructure.com.au/projects/nowingi-solar-storage/
Kiamal Solar Farm (includes storage)	256 - 450	HOTS-RCTS	https://www.pv-magazine-australia.com/2018/10/17/total-eren-seeks-to-expand-victorias-biggest-solar-farm-to-450-mwp/
Carwarp Solar Farm[3]	121	HOTS-RCTS	https://www.energy.vic.gov.au/__data/assets/pdf_file/0025/391174/Carwarp-Solar-Farm-Fact-Sheet.pdf
Murra Warra Wind Farm stage 2	209	MRTS	http://www.res-group.com/en/portfolio/?ProjectID=3308
Murra Warra Solar Farm (includes storage)	235	MRTS	http://www.murrawarra-solarfarm.com/
Warracknabeal Wind Farm	300±	HOTS-RCTS	http://w-wind.com.au/warracknabeal-wind-farm
Total	1,374 – 1,568 ±		

[3] Carwarp Solar Farm is one of the projects that were successful in the VRET process.

If all the projects in table 1 become committed, the likelihood of the BGTS-HOTS-MRTS-RCTS line rating being insufficient is very high, which will likely cause renewable energy curtailments and pose significant risks to the feasibility of these projects. This is expected to happen even with the proposed minor augmentations on the HOTS-RCTS line. These projects combined could form another Renewable Energy Zone (REZ) and may not have been considered in the ISP. In addition, the combined capacity represents potentially more than 50% of the further 3,000MW to be connected by 2025, as per PADR. Some of the projects include energy storage, which could provide additional benefits to the broader network. We note that, as it is often the case with renewable energy projects, there could be a number of other projects that have not yet reached the public domain and thus are not listed above. With the enormous renewable energy potential (wind and solar) of Northwest Victoria, it is reasonable to assume that there will be even more projects seeking to connect to that region.

Further, renewable energy projects proposing to connect in Southwest NSW, REZ 13, may pose additional strain on the BGTS-HOTS-MRTS-RCTS line. This may happen even if the Red Cliffs to Buronga augmentation progresses under the South Australian Energy Transformation (SAET) RIT-T.

The SRMC for renewable energy projects, such as the ones above, should be zero, which is lower than the SRMC for thermal generators, which are still predominant in Victoria. Therefore, it would be expected that they provide additional market benefits should they become committed.

Considering that a large portion of thermal generators will retire by 2030 (or possibly earlier, e.g. Latrobe Valley) and with no proposals to build new thermal generation, it is safe to assume that these retirements will be replaced by renewable energy. It is our understanding that the network should be augmented with this taken into account.

WestWind would like to request that AEMO clarifies how the preferred option C2 would change if all or some of these projects became committed. More specifically, we would like to understand the scenarios under which further augmentation of the 220kV circuit would be justified up to: a) HOTS; b) MRTS; c) RCTS.

Westwind would also like to understand what would happen in a scenario where these projects have become committed after this current RIT-T have progressed its preferred option. More specifically, would AEMO consider undertaking another RIT-T in this scenario?

We look forward to hearing from AEMO and remain at your full disposal in the meantime. Should you have any questions or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,

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MANAGING DIRECTOR