

15 October 2020

Australian Energy Market Commission
PO BOX A2449
Sydney South NSW 1235

Lodged online at: www.aemc.gov.au

AEMC: Integrating energy storage systems into the NEM (ERC0280)

Dear Sir/Madam,

Star of the South Wind Farm Pty Ltd ATF the Star of the South Trust welcomes the opportunity to provide comments to the AEMC Integrating Energy Storage into the NEM consultation paper (ERC0280).

Our project - the Star of the South offshore wind farm – is a proposed 2,200MW wind farm located off the south coast of Gippsland in Victoria, within an area covering 496km². A map of our offshore licence area is shown in Figure 1 below.

Our key point is:

The 6MW limit criteria currently applied to semi-scheduled generators in National Electricity Rules (NER), chapter 2 has become a hurdle for large wind farms currently under development. We support the Australian Energy Market Operator's (AEMO) proposal to remove the 6MW limit imposed on semi-scheduled generator units.

Specific feedback to consultation paper - Section 4.1 p55

We support AEMO's proposal for the removal of the 6MW maximum threshold to the aggregation of semi-scheduled generating units which exists in Chapter 2 of the NER.

The NER require all legal entities that intend to buy or sell electricity from the spot market to register with AEMO. Chapter 2 of the NER sets out the categories under which entities can register to become participants in the market. Large wind farms (with a rating of >30MW) currently register in the NEM as semi-scheduled generators.

From humble beginnings, the rated power of wind turbines has increased x50 fold since the 1990s. In line with global trends, wind turbine generator sizes connecting into the NEM have also grown steadily. Wind turbine generator sizes have grown from 1.5MW (2003, Star Fish Hill Wind Farm SA), to 2MW (2005 Wonthaggi Wind Farm VIC), to 3MW (2013 Macarthur Wind Farm VIC) and more recently to 5.5MW (2022, Murra Warra Wind Farm Stage 2, VIC).

Star of the South

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Some onshore wind turbines are already rated above 5MW and some Original Equipment Manufacturers (OEMs) offer power ratings in excess of 6MW. It is expected that onshore wind turbine power ratings will continue to grow over time.

The first offshore wind turbine with a rating exceeding 6MW entered commercial operation in 2018 in the UK.¹ Since then, offshore wind projects with 7MW and above wind turbines are being commissioned globally. For instance, a wind turbine with a rated power of 8.3MW was commissioned in 2019 in Germany.²

The trends for larger wind turbines and larger generator ratings are set to continue in the foreseeable future (as shown in Figure 2 below).

There is no longer a rationale that we are aware of, to maintain the imposition of a 6MW generating unit rating limit for semi-scheduled generators.

Should the limit be kept unchanged, wind farm projects will be in the same situation as the energy storage systems today: left without a specific category to register under. The status quo will create issues during the registration process of large wind farms. Delays incurred during registration may prevent low cost energy supply to smoothly enter the NEM. The situation will not promote efficient investment in, and operation of, electricity services for the long-term interests of electricity consumers unless an interim arrangement is found in the short term and/or the 6MW limit is ultimately increased or removed.

For the reasons outlined in this letter, we support AEMO's proposal to remove the 6MW limit imposed on semi-scheduled generator units.

Should you have any questions relating to this matter, please contact Jonathan Dahmani, Grid Connection Manager, via email jdahmani@starofthesouth.com.au or by phone on (04) 3946 1969.

Yours sincerely,



Casper Frost Thorhaug
Chief Executive Officer

Star of the South Wind Farm Pty Ltd ATF the Star of the South Trust

¹ Walney Extension Wind Farm, UK

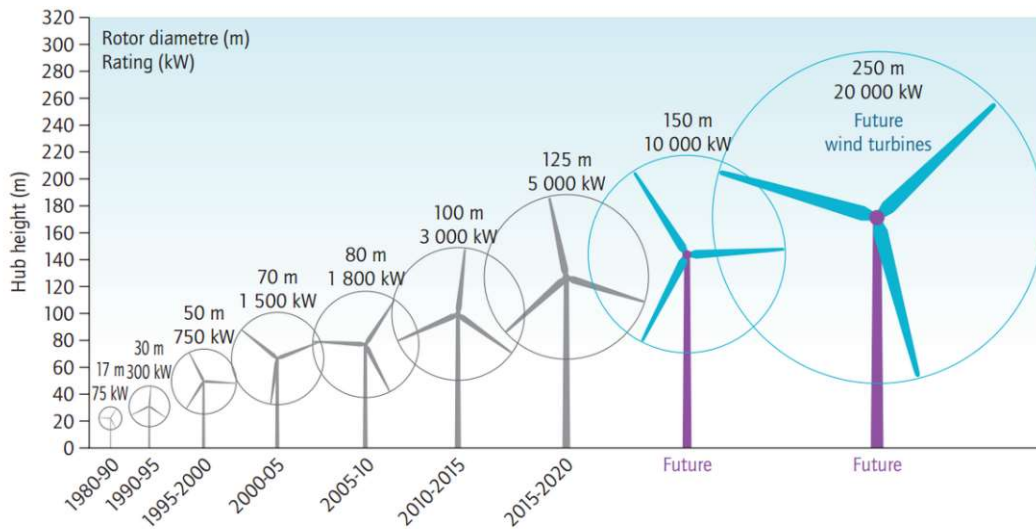
² Deutsche Bucht Offshore Wind Farm, Germany

Appendix



Figure 1: Star of the South licence area

Growth in size of wind turbines since 1980 and prospects



Source: adapted from EWEA, 2009.

Figure 2: Growth in size of wind turbines since the 1980s and prospects