Musselroe Wind Farm Pty Ltd

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30th May 2016

Clare Greenwood
Stakeholder Engagement Advisor
Energy Forecasting
Australian Energy Market Operator

Re: **Energy Conversion Model (ECM) Guidelines**

Musselroe Wind Farm (MRWF) welcomes the opportunity to provide a submission in response to the Australian Energy Operator's (AEMO) Energy Conversion Model (ECM) Guidelines consultation.

Musselroe Wind Farm operates a large scale semi-scheduled wind farm in Tasmania's North East.

Musselroe Wind Farm has been actively working with AEMO to manage the ongoing Scheduling issues post the 7th April 2016 change applied by AEMO.

During early May 2016 a series of events highlighted scheduling issues at Musselroe Wind Farm which required overriding of the MRWF *Active MW set-point SCADA* signal and AEMO's *hysteresis limits*.
It is understood the proposed ECM change may not fully resolve scheduling issues related to market limits and high wind speed/ Extreme wind direction operations. MRWF request further information from AEMO to understand the proposed permanent solution.

Real Time SCADA Local Limit – Mandatory
MRWF is supportive of the inclusion of the SCADA local limit however MRWF seeks further clarification regarding;

- *Market related limits* excluded from the proposed *SCADA Local Limit* signal - it is understood the UIGF would not identify the existing method for managing Market related limitations and bidding adjustments is not a practical solution as significant manual intervention is required.
- Reactive Plant limits managed by AEMO – MRWF request clarification of excluded non-network connected, local reactive plant, the availability of which is required for generation.
- Overriding of *AEMO hysteresis limits* 7.7% (12 MW) – details on AEMO's active limit and its effect on the ongoing generation post high Wind speed/Extreme wind direction recovery.

MRWF operates complex reactive plant with frequent limitations managed locally and by the NSP and AEMO. The proposed alterations to the SCADA system, its impact on NSP and the ongoing compliance costs are not fully understood at this stage.

Real Time SCADA Wind speed and direction – Mandatory

MRWF is supportive of the proposed changes to the *SCADA Wind Speed* and agrees data from the sites turbine anemometers is more representative than that of the Met mast(s). The proposed ECM *SCADA Wind Speed and Direction* changes are not estimated to impact MRWF.

MRWF currently provides instantaneous wind speed values updated at 5 second intervals from all turbines as an aggregate to AEMO, along with wind direction at the same data frequency, provided from 1 of 8 representative nacelles.
The ECM proposal seeks amending the wind direction units from Decimal Degrees Latitude/Longitude, MRWF currently provides wind direction units as degrees true (°).

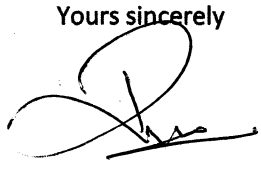
Real Time SCADA Possible Power – Optional

MRWF is supportive of the proposed changes to the *SCADA Possible Power* as it currently provides Possible Power data to AEMO. It is understood that SCADA changes may be required to meet the new AEMO definition. The costs to amend the SCADA point are not fully understood at this stage. MRWF would encourage AEMO to explore utilising the wind farm's possible power capabilities, which being calculated from real-time data at every turbine could further enhance the existing AWEFS forecasting.

Maximum Capacity – Mandatory

MRWF understands no consultation is required, as Maximum Capacity is already provided as part of the registration process and there are no proposed changes to that definition.

Yours sincerely



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