

2 September 2016

Attn. Clare Greenwood, Forecasting, AEMO  
GPO Box 2008  
Melbourne VIC 3001

Dear Ms Greenwood,

### **Energy Conversion Model Consultation Stage 2**

CWPR appreciate the opportunity to provide input regarding Stage 2 of the Energy Conversion Model consultation. With regards to the questions put forward in the Wind and Solar Energy Conversion Model Guidelines Consultation, published by AEMO in August 2016, CWPR's responses are provided as follows.

#### **4.2 – Dispatch Forecast with Extreme Wind Speed and Direction Cut-Out**

##### **1. Do you agree with the definition and proposed use of this signal?**

CWPR agrees with the definition, however CWPR is uncertain as to the overall benefit of this signal. Although this signal would likely resolve the issue stated by AEMO in the ECM stage 2 consultation, it's a targeted/specific signal which, from CWPR's experience in NSW, would come into practice for less than 3% of the time in any given year (CWPR understands extreme wind speed cut out is location dependent and other farms are subject to varying degrees of extreme wind speed events, however it is still believed extreme wind cut out is seldom). Regardless, CWPR believe the possible power signal would be more beneficial in addressing both this issue and the accuracy of UIGFs on a day to day basis, thus making the 'extreme wind speed cut out' signal redundant.

##### **2. Is your wind farm able to provide this signal?**

BRWF (Boco Rock Wind Farm) is currently able to provide WTG's cut out due to excessive winds, however further work and investigation would be required for extreme wind direction shifts.

##### **3. What upfront and ongoing costs do you estimate your farm(s) will face to provide this signal?**

CWPR does not believe this signal would be significantly expensive for BRWF, however CWPR does recognise other wind farms may be unable to provide this signal without considerable costs and upgrades. CWPR believes the cost of implementation of this signal for other wind farms would be better utilised for establishing a possible power signal instead.

Once established the ongoing costs are likely to be negligible for both the extreme wind cut out and possible power.

#### **4. Do you consider other options more suitable for managing extreme wind cut-out?**

CWPR is of the opinion that the possible power signal discussed in the initial consultation paper would be adequate in managing the issue of extreme wind speed cut-out. The cost of implementing the possible power signal, to BRWF alone, would be less in contrast to the proposed extreme wind speed signal, as the signal is currently available within the BRWF SCADA system, with little modifications required (the extreme wind speed signal does require further investigation with respect to the wind direction cut out). Furthermore, the possible power signal has the added benefit of increasing the accuracy/reliability of virtually all UIGFs on a daily basis, as opposed to a targeted signal for extreme wind speed cut out events only.

CWPR have provided a snap shot in Appendix A of a high wind speed event which occurred during May 2016. Unfortunately, current circumstances have not allowed a data resolution beyond 10 minute intervals for possible power, nevertheless the tabulated data demonstrates a strong correlation between the actual output of the wind farm with the possible power, which is greater than that of the UIGF issued by NEMDE. This is considered a more accurate representation of the wind farms target and CWPR believe it should be utilised for determining an intermittent generators UIGF.

It is CWPR's understanding AEMO receives a snap shot of the wind farm, for the purposes of the UIGF, 3 minutes into a 5 minute dispatch interval. CWPR believe that a higher resolution of the possible power signal (1 minute intervals), would further demonstrate the accuracy and reliability of the possible power signal during both extreme wind events and UIGFs for all dispatch intervals when compared to current NEMDE issued UIGFs.

#### **4.4– Optional Possible Power SCADA Signal**

CWPR maintains its support for the inclusion of the possible power signal and, although there are concerns surrounding the definitions for the possible power signal, CWPR does not believe it should be excluded from this ECM consultation.

CWPR believes the best opportunity to achieve mutual agreement of the defining parameters for possible power is via the current ECM consultation. With a clear

definition of the possible power signal, manufacturers will be able to account for the signal in future projects, and current wind farms will be able to determine the viability of upgrading systems to accommodate such a signal.

As previously stated, CWPR believes the inclusion of the possible power signal will increase accuracy of UIGFs in addition to resolving large discrepancies during periods of extreme wind speed cut out. The inclusion of the possible power signal for this ECM consultation would eliminate the need to introduce other signals, such as the extreme wind speed cut out, which would be addressed via the possible power signal therefore reducing implementation costs to existing wind farms.

#### **4.7– Provision of Signals for FCAS**

AEMO's consideration and investigation of wind farm generators ability to participate within the FCAS market is welcomed by CWPR. CWPR also look forward to working with AEMO and other participants in the development of this objective.

Kind regards,



***Peter Veljkovic***

Manager – Operations

CWP Renewables