

NOTES OF MEETING – Energy Conversion Model Guidelines Consultation update

MEETING: # 1
 DATE: Monday 26 September 2016
 TIME: 12.15pm – 2.00pm AEST
 CONTACT: Energy.Forecasting@aemo.com.au

ATTENDEES:

NAME	ORGANISATION	LOCATION
Ross Gillett	AEMO	Brisbane
Magnus Hindsberger	AEMO	Brisbane
Marcelle Gannon	AEMO	Melbourne
Leanna Tedesco	AEMO	Melbourne
Clare Greenwood	AEMO	Melbourne
Rhys Albanese	AEMO	Melbourne
Craig Price	AEMO	Melbourne
Christian Suprijatna	AEMO	Melbourne
Rob Cabion	AGL	Melbourne
Kong Min Yep	AGL	Melbourne
Barend Van Der Poll	Energy Australia	Melbourne
Jonathon Dyson	Greenview Consulting	Melbourne
Kate Summers	Pacific Hydro	Melbourne
Ryan Jennings	Pacific Hydro	Melbourne
Steve Brown	Palisade Asset Management	Melbourne
Rick Haines	Woolnorth	Melbourne
Jack Fox	AEMO	Sydney
Claudia Williams	Infigen Energy	Sydney
Niva Lima	Infigen Energy	Sydney
Louis Blateau	Acciona	Teleconference
Peter Veljkovic	CWP Renewables	Teleconference
Laszlo Csanyi	FRV	Teleconference
Harley MacKenzie	Hard Software	Teleconference
Niva Lima	Infigen Energy	Teleconference
Peter Van Loon	Meridian	Teleconference
Jose Fortes	Neoen	Teleconference
Justin Howes	Res Group	Teleconference
Evan Boyt	Trust Power	Teleconference
Christopher Williams	Vestas	Teleconference
Scott Goodwin	Vestas	Teleconference
Brad Yates	Woolnorth	Teleconference

References to slides are from “Wind and Solar ECM Guidelines Consultation Update September 2016.ppt”, published alongside these notes.

NOTES OF DISCUSSION AT THE MEETING

The aims of this meeting were to:

- Provide an update to participants on the consultation process.
- Seek technical input from Semi-Scheduled Generators on the provision and value of an “Estimated Power” SCADA signal.
- Seek technical input from Semi-Scheduled Generators on other means to improve the dispatch forecast accuracy from AWEFS and ASEFS.
- Assess participant support for an extension to the consultation for the purpose of proposing a definition of an “Estimated Power” SCADA signal in the ECM Guidelines.

Update on consultation process

Updates were provided on:

- the existing consultation dates.
- the resolution of the Local Limit SCADA and Wind Speed SCADA definitions through the consultation process to date.

Provision and value of “Estimated Power” SCADA signal

- “Possible Power” (here called “Estimated Power”) was taken out of the consultation Draft Report as AEMO felt it wasn’t well enough defined. Substantial feedback in the second stage of consultation has led AEMO to review it again. The work on this by both participants and AEMO continues.
- Many participants present commented that the “Estimated Power” signal would enable the wind farms to incorporate all the different factors affecting their operation, including the numerous control system functions, to give them a better dispatch forecast.
- Solar farms as well as wind farms see value in an “Estimated Power” signal.
- Accuracy and reliability of the “Estimated Power” signal is important as it is used in dispatch. A process for validation of the “Estimate Power” signal would need to be developed.
- AEMO would work with wind farms to analyse initially spreadsheet data and then SCADA for candidate signals, providing full transparency on this process. Participants suggested a fortnightly timeframe for reporting feedback on accuracy assessment.
- Wind farms would need to work with Original Equipment Manufacturers (OEMs) and AEMO to achieve a level of confidence to go forward. There would be similar concepts between wind farms, but also OEM-specific and site-specific issues.
 - o Support for a working group to be established.
 - o Proposal for the Clean Energy Council to meet with system manufacturers to understand the detail behind a simple definition. Action for CEC to arrange this.
- There was consensus that the approach should start with a simple definition in the ECM Guidelines, and what it meant in implementation could develop in detailed discussions with manufacturers.

- AEMO would develop a required level of accuracy. Participants suggested comparing to the accuracy of the AWEFS forecast.
- Care needed around the definition in times of curtailment, to ensure that turbines shut down due to curtailment could be ramped up.

Other means to improve AWEFS/ASEFS dispatch forecast accuracy

- It was suggested there may be value in re-examining the definition of the Turbines Available SCADA signal
 - Park controllers have increased in sophistication since AWEFS was implemented.
 - Turbines can be in a variety of states, manufacturer dependent – running, controlled pause/stop, synchronised, rotating but not yet synchronised, in some form of reset.
- There may be value in a signal or signals not as complete as Estimated Power, covering for example turbines available to run now and those available to run in five minutes time.
 - Estimated Power would be optional, and there is work in developing the signal and monitoring its accuracy. Less complex farms or older farms may prefer to provide more accurate measures of turbine availability instead.
 - AWEFS could use improved turbine availability information in verifying an Estimated Power figure.
- Participants noted that SCADA points are expensive, and that Estimated Power could provide all of this information, as well as a more accurate power estimate than AWEFS could, given knowledge of local power curves, actual conditions at site, and other factors such as wind sector management that aren't conveyed by simple turbine availability. It may be complex to calculate the number of turbines that will be available in five minutes.

Support for consultation extension

AEMO explained options for the consultation and sought views.

- **Option 1** – End consultation now with “Estimated Power” not in ECM Guidelines.
- **Option 2** – Third round of consultation, to propose “Estimated Power” in ECM Guidelines.
- **Local Limit**
 - **Option 1:** Implementation work can commence from October.
 - **Option 2:** Implementation delayed, though background work will minimise delay.
- **“Estimated Power”**
 - **Option 1:** New full consultation would be required to put “Estimated Power” into ECM Guidelines –minimum 4 months.
 - **Option 2:** Could allow proposals with respect to “Estimated Power” to be implemented without new full consultation.
 - The “Estimated Power” accuracy assessment can start now using SCADA and historical data under Option 1 or 2.

Participant attendees were individually asked their preference. All present nominated Option 2 (extended consultation) or were indifferent between the two options.

Other matters

- AEMO briefed participants on further lines of enquiry, and noted that participant input would be sought as part of this work.
- AEMO is assessing scope and timing of a project to establish dashboard reporting on performance of AWEFS/ASEFS forecasts.
- The value of wind farms bidding availability for pre-dispatch, 4-6 hours ahead, was discussed. Participants noted that the existing EMMS Portal for advising wind farm availability is clunky, and was difficult to use in an automated system.

Actions arising

- AEMO to provide an updated timetable for the consultation, based on the strong preference expressed for a third stage of the current consultation.
- CEC to arrange a meeting between wind farms and OEMs to understand the detail behind a simple definition of "Estimated Power".