Power Curve Working Group Agenda

7th Meeting, Tuesday 02 September 2014, RES, Beaufort Court, Egg Farm Lane, WD4 8LR, England

Theme: The 1st meeting gave a clear statement of the problem. The 2nd meeting examined possible solutions. The 3rd meeting put some of those solutions into practice. The 4th meeting consolidated the learning by examining new datasets. The 5th meeting focused on validating the candidate correction methods against real data. The 6th meeting broadened the validation to additional datasets, examined the limitations of the correction methods and probed the Type B effects associated with these limitations. The 7th meeting will consider some of the commercial implications of the work of the group.

Welcome/Registration:

• 9.30am-10am: Tea/Coffee will be available.

Morning Session: 10am-1pm

- 10.00 10.05 "Welcome" Mike Anderson (RES)
- 10.05 10.30 "Review of Actions from Last Meeting" and "Round Robin 3 Results Overview – Rotor Equivalent Wind Speed with Veer" Peter Stuart (RES)
- Commercial Considerations Presentations
 - 10.30 10.45 "Real World Contractual Experience of the Inner-Outer Range" Daniel Stevens (SSE)
 - 10.45 11.00 "Use of manufacturer specific inputs to refine energy yield predictions" Richard Whiting DNV GL
 - 11.00 11.30 Commercial Considerations Discussion
- Break: 11:30 11:45 Coffee Break
- Round Robins / Consensus Analysis
 - o 11.45 12.15 Tour of Consensus Analysis Peter Stuart (RES)
 - o 12.15 13:00 "Proposed Round Robin 4":
 - Exercise Definition:
 - Application of site specific power curves
 - Application of site specific power curves in conjunction with the turbulence renormalisation and rotor equivalent wind speed methods.
 - Dataset overview and Q&A.
 - RR using Black Box Model and/or Open Source Code.

Lunch: 13:00 - 14:00

Afternoon Session: 14:00 – 15:00

- Technical presentations
 - 14.00 14.15 "Use of Nacelle LiDAR data to explore impact of using non-linear averages", Chris Slinger (Zephir)
 - 14.15 14.30 "Power Performance Analysis using LiDAR simple terrain", Alex Clerc (RES)
 - 14.30 14.40 "Practical Consideration using the Equivalent Power Approach", Peder Bay Enevoldsen and Ioannis Antoniou (Siemens)
 - 14.40 14.50 "Calculation of REWS using CFX", SSE, Paul Hosley
 - 14.50 15.00 "Impact of Ground Boundary on Production of Short Tower Turbines
 A Conceptual Study", (SEE, RWE, RES & DNV GL)

Coffee Break: 15.00 – 15.15

Discussion Session: 15.15 – 16.45

- Guideline Document on the Presentation of Power Curve Information
- Guideline Document on the Application of the Turbulence Renormalisation Method
- Timescale for finalisation of guideline documents
- PCWG Open Source Code
- Is the consensus analysis for the Turbulence Correction Finalised?

Wrap Up: 16.45 – 17.00

- Agenda for October meeting in US
- Next Meeting (after October) Venue
- PCWG New Email Address: pcwg@res-ltd.com
- Future Roadmap / Group Focus
- Continued public distribution of minutes and proceedings

Minutes of and Presentation of Previous Meetings:

http://www.ewea.org/events/workshops/resource-assessment-2013/power-curve-working-group

Venue

The meeting will take place at RES, Kings Langley. Please ask for Peter Stuart at reception.

If you require parking please email <u>peter.stuart@res-ltd.com</u> in advance of the event.

RES Beaufort Court Egg Farm Lane WD4 8LR England



Transport

RES is accessible by train from London Euston Station (25 minute journey approximately every half hour).

Approximate taxi timings from nearby airports are:

- London Luton 25 minutes
- London Heathrow 40 minutes.
- London Stansted 1 hour 15 minutes.
- London Gatwick 1 hour 15 minutes.

For comprehensive details of how to reach Beaufort Court please see

http://www.beaufortcourt.com/contact-us