## Power Curve Working Group Agenda

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

**Theme:** The 1<sup>st</sup> meeting gave a clear statement of the problem. The 2<sup>nd</sup> meeting examined possible solutions. The 3<sup>rd</sup> meeting put some of those solutions into practice. The 4<sup>th</sup> meeting consolidated the learning by examining new datasets. The 5th meeting focused on validating the candidate correction methods against real data. The 6<sup>th</sup> 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 7<sup>th</sup> 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