

Power Curve Working Group Agenda

Impact of 'non-standard' inflow

2nd Meeting, Tuesday 12th March 2013, Remisen Brande

Theme: The 1st meeting gave a clear statement of the problem. The 2nd meeting will focus on possible solutions e.g. power curve correction methods, integrating corrections into the resource assessment process, measurement campaigns, improving communication between stakeholders etc.

Welcome/Registration:

- 9am-10am: Tea/Coffee will be available.

Morning Session: 10am-1pm

- 10.00 – 10.05 “Welcome” Ioannis Antoniou (SWP)
- 10.05 – 10.20 “Siemens Experience of Rotor Average Wind Speed for Power Performance” Ioannis Antoniou (SWP)
- 10.20 – 10.30 “Observed Performance in High Shear and Turbulence” Daniel Stevens (SSE)
- 10.30 – 10.50 “Rotor Equivalent Wind Speed for Power Performance Measurement and AEP Estimate” Rozenn Wagner (DTU)
- 10.50 – 11.10 “Use of 5 Distinct Power Curves as a Function of Shear and Turbulence in Time-Series Energy Capture Calculations” Dan Bernadett (AWS TruePower)
- 11.10 – 11.30 “Integrating Corrections into the Resource Assessment Process” Andrew Tindal (GLGH)
- 11.30 – 11.40 Tea/Coffee Break
- 12.00 – 12.20 “Experience of Rotor Averaged Power Curve Measurements in Cold Climates” Alan Derrick (RES)
- 12.20 – 12.40 “Using Machine Learning to Create Turbine Performance Models” Andy Clifton (NREL)
- 12.40 – 1.00 “Dynamic Power Curves and the LLNL Wind Power Program” Wayne Miller (Lawrence Livermore National Laboratory)

Lunch: 13:00 – 14:00

Afternoon Presentation Session: 14.00-14:30

- 14:00 – 14:15 “Roadmap for Industry to More Accurately Predict the Performance of Wind Turbines”, Ralph Torr, Sgurr
- 14:15 – 14:30 “Resource Assessment Methods Incorporating Rotor Equivalent Wind Speed, Density and Turbulence on a Time Step Basis” Anna Marsh, DNV KEMA

Discussion Session Part 1: 14:30 – 15:30 (Moderated by Andrew Tindal GLGH)

- How can the industry move forward on this issue?
- Proposed Round Robin Exercise
- 15.30 – 15.45 Tea/Coffee Break

Discussion Part 2: 15.45 – 17.00 (Moderated by Andrew Tindal GLGH)

- Further Discussion
- Proposed ‘Black Box’ Power Curve Initiative
- Wrap Up, Conclusions and Next Steps (20 minutes)
- Continued Public Distribution of Minutes and Presentations (5 minutes)
- Workshop Vision Exercise (10 minutes – if time allows)

Reception: 17:00 – 18:00

Minutes of Previous Meetings:

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