

Power Curve Working Group Agenda

19th Meeting, Thursday 8th September 2016

Gamesa, Pamplona, Spain

Theme: to explore new method for modelling turbine performance in outer range conditions.

Welcome/Registration:

- 9.00am-9.30am: Tea/Coffee will be available.

Morning Presentation Session: 09.30 -13.00

- 09.30-09.40: Welcome, Iñaki Lezaun Mas (Gamesa)
- 9.40-10.00: Update on the PCWG & PCWG-Share-X, Peter Stuart (RES)
- 10.00-11.00: IEC 61400-1 Ed 2 Uncertainty Methodology (PCWG & IEC Task 32 Interaction)
 - IEA Task 32 Round Robin on 12-1 Ed. 2 Power Performance Measurement Uncertainty using Lidar, Taylor Geer (DNV GL)
 - Open Source Worked Examples of IEC61400-12-1 Ed 2 Uncertainty Methodology, Peter Stuart (RES)
- 11.00-11.15: Coffee
- New Methods Presentations & Discussion
 - 11.15 – 11.30: "Defining turbine-specific performance adjustments – the next frontier", Taylor Geer (DNV GL)
 - 11.30 – 11.45: 'REWS Considering Upflow – Worked Example Overview', Iñaki Lezaun Mas (Gamesa)
 - 11.45 – 12.00: Alternative Turbulence Correction Methods, Peter Stuart (RES)
 - 12.00 – 13.00: Discussion (include PCWG-Share-X)

Lunch: 13:00 – 13:30

Afternoon Presentation Session: 13.30-14:15

- 'Power curve measurements on 40 turbines in complex terrain using iSpin technology.' , Nick Gerardus Cornelis Janssen, ROMO Wind A/S
- 'The Impact of wind veer on power curves & the extent to which turbulence acts as a proxy for wind shear and wind veer', Herbert Schwartz, Anemos Jacob

Afternoon Discussion Session: 14.15-15:30

Wrap Up: 15.30 – 16.00

Venue & Logistical Information

Venue

The venue will be held at Gamesa offices in Sarriguren (very close to Pamplona). It can be accessed by bus (and a short walk) from the city center (lines L20 and L23), but frequency is sparse. A taxi would cost around 15-20 €.

Avda. Ciudad de la Innovación, 9-11 (Gamesa Sarriguren I building)

31621 Sarriguren, Navarra, Spain.

Tel: (+34) 948 771000

Host

Ask for Iñaki Lezaun at the reception

Tel: (+34) 948 771 000 / (+34) 600 922 591

Email: ILEZAUN@gamesacorp.com

Transportation

There are 5 flights connecting Madrid to Pamplona during weekdays (and back). The flight is about 1 hour long.

Flights (<http://www.iberia.com/>):

MAD -> PNA

- 09:05
- 12:55
- 16:10
- 19:00
- 22:15

PNA -> MAD

- 06:30
- 10:30
- 14:20
- 17:35
- 20:30

There are also 4 “high” speed trains (about 3 hours) which may be a cheaper way. If the incoming flight arrives at Madrid at Terminal 2, there is a train that connects the airport to the Madrid-Atocha train station “just” 40 minutes (price included with the train ticket, but must be validated in the machines with a code that comes with the train ticket). Otherwise (Terminals 1 to 3) the subway will

get you there with some transfers in an hour or so (around 3 €). A cab would cost around 30 € and will take from 30 minutes to 1 hour depending on traffic.

Trains (<http://www.renfe.com/>):

MAD -> PNA

- 07:35
- 11:35
- 15:05
- 19:35

PNA -> MAD

- 06:35
- 11:30
- 15:35
- 18:07
- 19:35

Accommodation

Gamesa has special prices in two hotels. Please state that you want the Gamesa tariff when making the reservation.

Close to city center:

Hotel Iruña Park

Arcadio M^a Larraona, 1, 31008 Pamplona (Spain)

Price: 54€ (night + breakfast)

<http://www.nh-hoteles.es/nh/es/hoteles/espana/pamplona/nh-iruna-park.html>

Close to Gamesa's office:

Hotel Castillo Gorraiz

Avda. Vda. De Egües 78, 31620 Gorraiz (Spain)

Price: 65€ (night + breakfast)

<http://www.cghotel.es/>