Workshop on System Services from Wind power

26 September, Wednesday, from 9.15 to 12.

Hamburg, during WindEurope Global Wind Summit (25-28 September), Hamburg

Objective and target audience:

The workshop, Jointly organized by WindEurope and the Bundesverband WindEnergie is aiming the following:

- Awareness raising among energy sector stakeholders: Can wind power provide system services from a technical point of view? Is it possible from a market design point of view? Which services are best? How can services be remunerated?
- Sharing of best practices across EU Member States
- Dedicated discussion on the German policy context and current discussions on reactive power capabilities.

The target audience of this workshop are TSOs, wind industry, energy regulators, policy makers and academia.

9.15	**Wecome** • Daniel Fraile, WindEurope • Anne Palenberg, German Wind Energy Association (BWE)
9.25	**Topic 1. Frequency reserves and balancing markets** Moderator: Daniel Fraile, WindEurope Quick Fire presentations (10' each- 5 slides max) • Balancing from Wind power. Technology capabilities and current experiences, *Malte Jansen, Imperial College* • A Review of European Frequency markets. *Pierre-Albert Langlois, France Energie Eolienne* • Managing a system with large amounts of wind participation, *Juan Peiró Peña, Red Electrica España* • Opening up balancing markets- the role of the European Balancing guidelines, *Mathieu Fransen, Dutch regulator, ACER* **Questions:** • Wind Technology: What are the experiences when pre-qualifying wind farms to provide frequency-related services? What are the key industry recommendations? • Market: Which are the leading markets on using services from wind power? How is the market organised? How could be improved? What will be the impact of the European Balancing guidelines?
10.20	**Topic 2. A practical case- The German discussion on Remuneration of Reactive power provision from wind farms** Moderator: Anne Palenberg, German Wind Energy Association (BWE) • Overview on the German discussion of the provision of reactive power, *Prof. Oliver Brueckl, University Regensburg* • Regulatory view on reactive power provision from generators, *Michael Schnoor dos Passos, German regulator* • New planned remuneration scheme for reactive power in Switzerland, *Dr. Markus Imhof, SwissGrid* • Wind power and ancillary services in Denmark – experiences from a power system without must-run obligations for conventional power plants, *Søren Klinge, Danish Wind Energy Association* **Questions:** • What does an efficient supply of reactive power look like? Should the grid operator provide reactive power with their own utilities or should it be supplied through wind plants? • What are the implications of those solutions? • What are possible remuneration schemes in different countries? And what are the advantages and disadvantages of the different systems?
11.15	**Topic 3. Towards a new market Paradigm- incentivising new technologies and services to support a grid with 100% renewables** Moderator: Daniel Fraile, WindEurope Quick Fire presentations (10' each- 5 slides max) • Wind Industry contribution to a future energy system, *Eckard Quitmann, Enercon* • Hannele Holttinen, VTT • Dominique Dorne, Eurowatt **Questions:** • What does the system need? • Difference between technical system requirements vs (paid) System Services - who determines the border line? What are the technical criteria for differentiating obligatory versus paid services? • Who will provide system support when large synchronous generators are no longer there? • Now and in the future: How to address ramping, Inertia, fast frequency response (Australia, Ireland, islands) New market product? Is aggregation enough or hybrid systems (with storage) necessary?
12.00	**END OF MEETING**