

**International Energy Agency**  
**TASK 23: Offshore wind energy technology and deployment**

**Back-to-Back Workshops:**  
**Offshore Wind Farms – Wake Effects and Power Fluctuations**  
**February 25-26 2009**

**Risø DTU, Risø Campus,**  
**Niels Bohr/H. H. Koch**  
**399 Frederiksborgvej**  
**4000 Roskilde**  
**Denmark,**

*Workshop Programme draft*

WEDNESDAY, February 25

8.45           **Registration and Coffee**

9.15           **Workshop Introduction,**

*Jørgen Lemming, Risø DTU*

9.25           **Introduction to – Wake Effects**

*Sten Frandsen, Risø DTU*

10.00          **Single- and multiple-wake of wind turbines**

5 presentations + discussions

*Rebecca Barthelmie, IU: 'Wake model evaluation in the UPwind and POW'WOW projects'.*

*Clarissa Belloni, GE "WindPRO wake model validation".*

*Moriarty, Patrick; NREL "Wind Farm and Wake Modeling at NREL"*

*Arno Brand, ECN: Wake modeling*

*Juan José Trujillo, Stuttgart. "Wake meandering modeling for wind turbine loading."*

12.30 – 13.30   **Lunch**

13.30          **Small and large clusters of wind turbines**

4 presentations + discussions

*Jens Nørkær Sørensen, DTU MEK, 'Wind farm and wake modelling at DTU'*

*Gunner Larsen, Risø-DTU: TOPFARM – background and vision"*

*Helge Aagaard, Risø DTU "Development and calibration of an engineering model for computation of wake velocity deficits"*

*Gerard Schepers, ECN. "Wake measurements in a research farm consisting of 5 turbines with a rated power of 2.5 MW and a diameter of 80m. 4 years of data."*

15.30 – 16.00   **Coffee**



4 presentations + discussions

*Ola Carlson, Chalmers: Offshore grids and wind power control (to be confirmed)*

*Øyvind Byrkjedal, Vindteknikk: Offshore WRF simulations: geographical variation in wind power production for the North Sea”*

*Jan Dobschinsky, ISET e.V.: Reduction of Wind Power Variability by Aggregation of Wind Farms to Large Interconnected Offshore Grids*

*Poul Sørensen: The effect of geographical spreading on wind power fluctuations.*

*Michael Brower, AWS: Eastern Wind Integration and Transmission Study (EWITS)*

16.30

**End of workshop**