



Wind Power to the Grid

EPE Wind Energy Chapter – 1st Seminar
27-28 March 2008, Delft University of Technology
Delft, The Netherlands



Call for papers

Organisation and venue

The seminar will take place on 27 and 28 March 2008, at Delft University of Technology, Delft, The Netherlands. Plenary sessions, lecture and dialogue sessions will be organized in the best EPE tradition to provide maximum networking opportunities. Worldwide experts in the field are expected to take part in the event to exchange best practice and learn from experience with a special focus on industry and technology.

List of topics

1. Wind Energy Conversion Technologies

- 1.a. Permanent magnet generators for large offshore turbines
- 1.b. MW-class wind generator-converter technology for offshore applications
- 1.c. MW low-speed generator solutions
- 1.d. Small wind turbine systems for standalone and grid-connected applications
- 1.e. Geared and gear-less solutions for wind energy conversion. Gear-box issues.

2. Grid Compliance and wind power technology

- 2.a. Interconnection standards for distribution and transmission levels
- 2.b. Interconnections issues for wind turbines
- 2.c. Grid Interface: Grid connection for large wind farms. Reactive power/Voltage control
- 2.d. Ride Through Standards and Technical Solutions for Offshore Wind Farms
- 2.e. Ride-through capability of wind turbines with power electronic systems
- 2.f. Certification of Low Voltage Ride Through LVRT
- 2.g. Laboratory tests of LVRT
- 2.h. Stability analyses: small signal stability, transient stability, stability margin
- 2.i. Frequency control, active power control, runback schemes
- 2.j. Standardisation of simulation models for stability studies

3. Energy storage technologies

- 3.a. Short term: flywheel, super capacitors, batteries
- 3.b. Long term: pumped storage, dispatchable generation
- 3.c. Other storage

4. Wind System Coordination

- 4.a. Wind Farm Control
- 4.b. Real time information exchange required for harmonious operation of wind farms
- 4.c. Planning and configuration of wind farm power systems
- 4.d. Operation and control of doubly fed induction generator systems for wind turbines
- 4.e. Coordination between power electronic conversion characteristics and standard protection equipment characteristics
- 4.f. Fault monitoring and predictive maintenance of power electronic based wind turbine systems

5. Power electronics for integration and control of wind turbines in power systems

- 5.a. Power electronic interface including control for permanent-magnet and field excited synchronous generators

- 5.b. Topologies of Power Electronics Converters for wind turbines
- 5.c. Modelling and simulation of power electronic systems with wind turbines and wind farms
- 5.d. Protection of power electronic systems for wind turbines
- 5.e. Control of power converters for future dispersed generators with high degree of wind integration
- 5.f. Dedicated HVDC for wind power transmission

6. Future trends of wind energy conversion and power electronic applications

- 6.a. Reinforcement of power system for tapping wind power: FACTS, FACDS
- 6.b. Offshore wind turbines: floating and fixed
- 6.c. Power collection and integration of offshore wind farms

Presentations from companies supplying wind turbines, wind turbine equipment, developers, utilities, etc.. are most welcome.

Content of synopses

Authors intending to present a contribution to the EPE Wind Energy Chapter must submit a proposal that will be evaluated by the EPE Wind Energy Chapter Advisory Board.

The proposal should consist of one of the followings:

- a Power Point/pdf presentation to be presented as such during the seminar;
- a poster project to be presented as such during the seminar;
- a one page synopsis presenting the main lines of the proposed contribution that will be either a Power Point/pdf presentation or a poster;
- a maximum 6 pages full paper, including an abstract with no more than 50 words.

The proposal will include full coordinates of the contact author, the topic number and indication of the preference for dialogue or lecture presentation.

The synopses will be submitted by e-mail to bsneyers@vub.ac.be. A selection of the best conference papers will be published afterwards in the EPE Journal, which is an ISI registered journal.

The conference full papers will also be registered in IEEEExplore. (to be confirmed)

Proceedings of the seminar will be available to the participants on the EPE Website with a password after the seminar.

Deadlines

Intending authors should note the following deadlines:

Receipt of synopses	15 February 2008
Notification of provisional acceptance	15 March 2008
Receipt of full typescript IEEEExplore ready, ppt or pdf presentation	on-site at the registration desk

Working Language

The working language of the conference is English, which will be used for all printed material, presentations and discussion.

Programme and Registration

A provisional programme and registration form will be available on line some time before the seminar.
Additional information: <http://www.elkraft.ntnu.no/epewindchapter.htm>

Exhibition

There will be an exhibition integrated in the conference. If you would like to know more details please contact us via e-mail: bsneyers@vub.ac.be

Venue

The venue of the seminar is the campus of Delft University of Technology. The city of Delft is located about 50 km from Amsterdam airport. Delft can easily be reached from the airport by train, with a service every half hour.
The city is famous from the painter Johannes Vermeer, from Delft blue pottery and from links with the Dutch Royal Family. It has a nice historical centre with buildings from the 17th century, musea, canals and many small restaurants. The campus is located at walking distance from the city centre (20 min).

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