



CALL FOR PAPERS



INTEGRATION OF WIDE-SCALE RENEWABLE RESOURCES INTO THE POWER DELIVERY SYSTEM

SYMPOSIUM : Calgary, Canada., July 29th-31st , 2009

CIGRÉ and IEEE PES, in cooperation with US and Canada National Committees of CIGRÉ and Study Committee C6 (*Distribution Systems and dispersed generation*) are organizing an **International Symposium**.

CALGARY

Calgary is an attractive and dynamic city offering breathtaking views and an abundance of pristine wilderness close by. Situated on the banks of the Bow River and located in the foothills of Canada's Rocky mountains, this cosmopolitan growing city, known for its friendly people, is also a modern urban centre.

BACKGROUND and SCOPE

There are growing pressures to find alternatives to fossil fuels for electricity generation. Wide-scale integration of renewable generation will bring new technical challenges for planning, operating and maintaining the power system. Variability of wind and solar energy call for new approaches: to connect generation; to schedule, dispatch and balance energy; for protection and frequency/voltage control.

The objectives of the Symposium are:

- To address the technical issues related to the emergence of new generation means, for example integration, operation and control of energy, in both transmission and distribution systems
- To present practical examples and best practices
- To assess more general issues as environment impacts and compatibility with electricity markets

PROGRAMME

The Symposium will be held over 2 days, in conjunction with the IEEE Power and Energy General Meeting. It will be structured in sessions, during which Authors will be requested to present their papers and will then participate in a general discussion of the papers of, moderated by the Chairman of the session.

PARTICIPANTS

The Symposium is directed toward electric transmission system operators, generators, manufacturers, traders, design engineers, universities and regulators.



Contacts

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MAIN TOPICS

The main topics will include:

1. Characteristics of wind/Renewable Generation

- Interfacing technologies and practices
- Forecasting hourly, daily and seasonal output
- Control concepts and adaptive system protection
- Modeling of renewable generation
- Storage perspectives

2. Renewable in Transmission Systems

- Impact on system operation, control, development
- Connection requirements and grid codes
- Reliability and capacity credit analysis
- Wind integration case studies

3. Renewable in Distribution Systems

- Distributed generation: planning, design, operation
- Protection, automation, remote control, and safety,
- Role of communications and advanced metering
- Interaction of transmission and distribution control

4. Field Experience, Laboratory and Test Results

- Case studies of large wind plants
- Case studies of wide-scale photovoltaic systems
- Distributed generation, micro-grids with renewable
- Evaluation of grid interface systems

5. Wider Renewable Integration issues

- Economics
- Market models, supporting mechanisms and rules to facilitate the integration
- Power quality, regulatory aspects, standards
- Overall environmental impact

SUBMISSION OF PAPERS

Participants wishing to present written contributions are invited to submit their abstract (500 words) to CIGRE before **15th September 2008**:

sylvie.bourneuf@cigre.org

Each abstract must indicate the topic(s) that will be addressed (1 to 5 above). The name, title, company affiliation, e-mail of the author(s) should also be given.

The Selection Committee will communicate its agreement or comments to the authors by 15th November 2008.

Authors whose proposals are accepted will be required to draw up their full contribution before 15th March 2009.

TECHNICAL COMMITTEE

Organising and Selection Committee

| | |
|----------------------|-------------------------|
| Angelo Invernizzi | Co-Chairman |
| Thomas Key | Co-Chairman |
| Niklos Hatzigiorgiou | Chairman SC C6 |
| Roger Dugan | US member SC C6 |
| David Jacobson | CA member SC C6 |
| Michel Armstrong | Chairman SC C2 |
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| John Oglevie | US member SC C3 |
| Puica Nitu | CA member SC D2 |
| Salem Sameh | US member SC A1 |
| Reza Iravani | Member CA NC |
| Daniel Brooks | Assistant Co-Chair |
| Joe P. Toneguzzo | CA member SC C1 |
| Glen Singleton | CA member SC C3 |
| Paula Traynor | PES Technical VP |
| Richard Wakefield | US member SC C1 |

DEADLINES

Authors are kindly requested to take note of the following deadlines:

Receipt of abstracts: **15th September 2008**

Notification of acceptance: **15th November 2008**

Receipt of full papers: **15th March 2009**

PUBLICATION OF PAPERS

The papers will be published in the form of a CD to be forwarded before the Symposium to all registered participants. The CD will also be available for purchase from the CIGRE Central Office, after the Symposium. A Report on the Symposium will be drafted after the Symposium by the Technical Committee. It will be published in ELECTRA and on the CIGRE website.

LANGUAGE

The papers must be written in English.

REGISTRATIONS

Registration forms and the detailed program of the Symposium will be sent out after February 2009.

Further information on the Symposium can be found on www.cigre.org and www.ieee.org/power