



# Call for Papers



## *Assessing and Improving Power System Security, Reliability and Performance in Light of Changing Energy Sources*

### *International Symposium*

**Recife, Pernambuco, Brazil**

**April 3-6, 2011**

Organized by **CIGRÉ** and the **Brazilian National Committee**, with the Study Committees C1 (System Development and Economics), C2 (System Operation and Control) and C4 (System Technical Performance)

#### **Recife City**

*Recife*, the major gateway to the Northeast of Brazil, is known as the "Brazilian Venice" because of its many canals, waterways and bridges. With a population of more than 4 million people, the metropolitan area of Recife is surrounded by beautiful beaches with the warm and clean blue-green water of the Atlantic Ocean. One of the most famous beaches is "Porto de Galinhas" which is 60 km away from Recife.



#### **BACKGROUND and SCOPE**

The growing need for energy sources, the increasing attention paid to environment and the wide integration of renewables, result into new challenges in the areas of power systems planning, operation and technical performance assessment.

The objectives of this Symposium are:

- To address technical issues related to system security, reliability and performance, taking into account the new mix of energy sources;
- To present advanced numerical tools and techniques for modeling power system phenomena and performance;
- To present practical examples and best practices.

#### **PARTICIPANTS**

The Symposium is aimed at transmission, distribution and system operators, market operators, regulators, suppliers, traders, research organizations and universities.

#### **PROGRAMME**

The Symposium will be held over 3 days, organized in sessions during which authors will individually present their papers and participate in panel discussions.

The Symposium will take place in connection with the meetings of the 3 involved Study Committees and their Working Groups, with time slot planned for Tutorials.

#### **Contacts**

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## MAIN TOPICS

### 1. System development

- 1.1. Long term security and reliability
- 1.2. Integration of renewables
- 1.3. Long distance transmission - HV DC/AC
- 1.4. Asset management
- 1.5. Long term demand and supply forecast
- 1.6. Generation diversity: conventional and new sources.

### 2. System operation

- 2.1. Short term demand forecast and available power supply
- 2.2. Scheduling and dispatching methodologies facing uncertainties and increasing environmental constraints
- 2.3. Energy storage management
- 2.4. Frequency and voltage control facing power supply variability
- 2.5. ICT to support development and integration of new control and protection systems
- 2.6. Generation and transmission adequacy: criteria and performance indicators

### 3. System technical performance

- 3.1. System dynamic modeling and tools
- 3.2. New and improved numerical tools and techniques for modeling - bridging the gap between positive sequence and 3-phase modeling
- 3.3. Analytical techniques and tools for power balancing assessments with increasing variable generation
- 3.4. Power system security assessment
- 3.5. Switching and lightning transient on power systems. Impact on performance and measurements
- 3.6. HVDC links and their influence on system security and network performance
- 3.7. EMC and power quality issues

## TECHNICAL COMMITTEE

### Program and Selection of Papers

#### Chairman

J.H. Machado Fernandes Brazilian NC Chairman

#### Members

Carlo Alberto Nucci	SC C4 Chairman
Phil Southwell	SC C1 Chairman
Michel Armstrong	SC C2 Chairman
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Saulo J. N. Cisneiros	Brazilian NC
P. C. Vaz Esmeraldo	Brazilian NC
Jean Kowal	CIGRE General Secretary

## DEADLINES

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

Receipt of abstracts: **31<sup>st</sup> May 2010**

Notification of acceptance: **31<sup>st</sup> July 2010**

Receipt of full papers: **15<sup>th</sup> December 2010**

## PUBLICATION OF PAPERS

The papers will be published in the form of an ISBN registered 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. It will be published in ELECTRA and posted on the CIGRE website.

## SUBMISSION OF SYNOPSES

Participants wishing to present papers are invited to submit their abstract in ENGLISH (500 words) to the Central Office of CIGRE before

**31<sup>st</sup> May 2010**

to:

**[sylvie.bourneuf@cigre.org](mailto:sylvie.bourneuf@cigre.org)**

Each abstract must indicate the topic(s) and sub-topic(s) that will be addressed. The name, title, company affiliation, e-mail and full address of the author(s) should also be given.

## LANGUAGES

The papers must be written in English.

## REGISTRATIONS

Registration forms and the detailed program of the Symposium will be sent out in August 2010.

Further information on the Symposium can be found on [www.cigre.org](http://www.cigre.org) .