

# Call for Papers

## 2016 CIGRÉ Canada Conference

Vancouver, BC Canada • October 17-19, 2016

### *"Future Power Systems and Grid Resiliency"*

The **2016 11th Annual CIGRÉ Canada Conference on Power Systems** will bring together the key players in the electric power systems sector: business leaders, system operators, manufacturers, engineers, policy makers, regulators and academics. The conference is a unique forum to share exciting new research, to raise issues and awareness, to discuss future directions, and to network with leading professionals.

#### Topics of special interest:

**Topics:** Papers are invited on all topics of interest falling within the conference theme and especially papers with the following focus:

- **Artificial Intelligence Advanced Diagnostics and Monitoring Systems [D1]**
  - Role of online monitoring and diagnostics
  - Applications of Artificial Intelligence (AI) to improve prediction of life expectancy of High Voltage equipment and reliability of power systems
- **Seismic Vulnerability Assessment of Power Equipment [Various SC]**
  - Seismic design requirement challenges for Electrical and P&C equipment
  - Design, test, and operability requirements of power equipment during and after a seismic event
- **Emerging Technologies for Power System Applications [B3,B5]**
  - New high power circuit interruption devices
  - Alternate gases for use in traditional SF<sub>6</sub> Gas Insulated Systems
  - Development with Fault current limiters
  - Environmentally friendly High Voltage cable systems
- **Extreme Weather and Expedient Recovery and Performance of Power System [C1,C2]**
  - Design considerations for reliable operation of power system grids under extreme weather conditions
  - Retrofitting, monitoring, and making operational modifications to improve resiliency to adverse weather conditions
  - Advanced extreme weather forecasting techniques
- **Integrated Risk Assessment [C1,C2]**
  - New methodologies to model interdependent risks across the power system
  - Advanced visualization tools to assist decision making and front line crews during emergency recovery
- **Reliability and Asset Management [C1,D1]**
  - Asset Health Indices that integrate physical asset data with reliability, system criticality/organizational risk
- **Application of online monitoring to minimize maintenance and life-cycle costs**
  - Determining critical asset sparing strategies
  - Techniques to minimize maintenance outages on High Voltage radial lines
  - Advances in Non-Destructive Testing
  - Use of asset condition/health data to drive maintenance frequencies
  - Transmission Line Structural Alternative Materials
- **Power System Modelling, Analyses and Power Quality [B5]**
  - Transient over voltages when non-utility generation/industrial customers temporarily isolate from capacitive ungrounded High Voltage systems
  - Electromagnetic transient modelling of high-power electronic devices for impact studies and assessment of customer interconnections
  - Techniques of network modelling for harmonic penetration studies or harmonic filter designs
- **Digital Protection, Automation, and Cyber Security [B5,D2]**
  - Improving protection speed, security, and reliability using modern digital protection systems
  - Advancements in automation and control of power system equipment
  - Best practices and improvements in securing digital communications between power system protection and control equipment
- **Interconnection of Non-dispatchable Generation Into Grids [B5,C6]**
  - Protection issues and associated mitigations to interconnect green resources to the grid
  - Representation of wind and solar resources in a short circuit program
  - Challenges introduced by frequent cycling of the dispatchable generators for system support

#### Submissions:

Authors should submit a **one-page abstract** through the online system at [www.cigre.ca](http://www.cigre.ca). The submitted abstracts will go through a peer review process. Upon abstract acceptance, a 6 to 8 page paper in CIGRÉ format must be submitted for the final contribution.

Accepted final contributions will be included in the conference proceedings and papers will be published in the online CIGRÉ library ([www.e-cigre.org](http://www.e-cigre.org)), provided the contributions are fully registered by at least one author and presented in person at the conference. See the web site [www.cigre.ca](http://www.cigre.ca) for the submission instructions.

Special Poster Session for Students - Best Student Paper Award.

For more information, please contact the Technical Committee Chair:  
[sudhakar.cherukupalli@bchydro.com](mailto:sudhakar.cherukupalli@bchydro.com)

#### Important Dates:

**New Call-for-Papers  
is Open until April 1, 2016**  
Deadline for submission of abstracts  
(via website)

**April 15, 2016:**  
Notification of acceptance  
Registration Opens

**June 17, 2016:**  
Deadline for submission of  
final papers

#### Organizing Committee

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