

What is the objective of distribution system planning?

To develop a distribution system in conformity with present and future standards. The overall aim is to provide adequate and reliable electrical service to both present and future customers, at the lowest possible cost.

What does planning for a smarter grid entail?

Managing distributed generation, integrating renewable energy resources, and maximizing the utilization of existing assets while reducing the utility's carbon footprint are some of the new challenges facing modern distribution planners.

These factors, along with the evolution of new loads such as electric vehicles will potentially affect reliability, power quality, and voltage stability, and need to be considered when planning distribution system modifications.

Workshop Objectives

The workshop will present an overview of planning philosophy, from present to future, specifically related to smart grid planning. Over a series of four sessions discussions will focus on distribution planning for the 21st century.

- Distribution planning for the 21st century
- Planning for a smarter grid
- Integrating renewables into the distribution system
- Planning to Manage Reliability



This workshop is organized with the support of the CEATI Distribution Assets Life Cycle Management Interest Group.



Distribution Planning Workshop 2010

June 8, 2010

- 7:30 - 8:30 **Registration**
(Continental breakfast available)
- 8:30 - 8:45 **Welcome Address**
Ivano Labricciosa, Toronto Hydro
- 8:45 - 9:00 **Key Note Speaker**
Rick Stevens, Hydro One Networks

Session 1 - Planning in the 21st century

Chaired by Milan Prpic, BC Hydro

- 9:00 - 9:05 **Session Introduction**
- 9:05 - 9:40 CEATI's Distribution Planner's Manual
Guillaume Paradis, CEATI & Julio Romero Agüero, Quanta Technology
- 9:40 - 10:15 Load Forecast Methodology at Powerstream
Joe Bonadie & Richard Wang, Powerstream
- 10:15 - 10:30 *Refreshment Break*
- 10:30 - 11:05 A Roadmap of Anticipated Customer Loads
Shawn Otal, METSCO
- 11:05 - 11:40 Distribution Planning at ENERGEX
Ron Barbagallo, ENERGEX
- 11:40 - 12:15 Long-Term Distribution Planning at BC Hydro
Milan Prpic, BC Hydro
- 12:15 - 13:00 *Lunch*

Session 2 - Planning for a Smarter Grid

Chaired by John Tucker, American Electric Power

- 13:00 - 13:05 **Session Introduction**
- 13:05 - 13:40 Interoperability Standards in the Planning Process
Bob Saint, National Rural Electric Cooperative Association
- 13:40 - 14:15 Ontario's "Smart Zone" - Owen Sound
Rick Stevens, Hydro One Networks
- 14:15 - 14:50 Community Energy Storage and Distribution SCADA Improvements
Mike Riggins, American Electric Power
- 14:50 - 15:25 Distribution Planning at Hydro-Québec
Awa-Marie Ndiaye, Hydro-Québec
- 15:25 - 15:40 *Refreshment Break*
- 15:40 - 16:15 Planning of the Smart Distribution Grid
Luther Dow, Quanta Technology
- 16:15 - 16:50 Smart Grid Data Management Framework
Thor Hjartarson, Toronto Hydro
- 16:50 - 17:00 **Panel Discussion**
- 17:30 - 19:00 **Evening Reception**

Join us following the technical presentations for our evening reception.

Mingle and make new contacts (don't forget to bring business cards!)



June 9, 2010

7:30 - 8:30 *Continental Breakfast*

Session 3 - Integration of Renewables

Chaired by Helen Guo, Hydro One Networks

- 8:30 - 8:35 **Session Introduction**
- 8:35 - 9:10 AEP's Virtual Power Plant Simulation
Mike Riggins, American Electric Power
- 9:10 - 9:45 The Impact of Distributed Generation on Protections and Some Solutions
John Ciufu & Aaron Cooperberg, Hydro One Networks
- 9:45 - 10:20 Temporary Over-Voltage (TOV) on Four-wire Systems due to Distributed Generation in Feeds to L-G Faults
Andrew Yan, Hydro One Networks
- 10:20 - 10:35 *Refreshment Break*
- 10:35 - 11:10 Feeder DG capacity Limits Based on Power-Voltage Profiles
Lianxiang Tang, Hydro One Networks
- 11:10 - 11:50 Steady State Impacts and Benefits of Solar Photovoltaic Distributed Generation on Power Distribution Systems
Julio Romero Agüero, Quanta Technology
- 11:50 - 12:00 **Panel Discussion**
- 12:00 - 13:00 *Lunch*

Session 4 - Planning to Manage Reliability

Chaired by Jerry Ivey, Duke Energy

- 13:00 - 13:05 **Session Introduction**
- 13:05 - 13:40 Winnipeg's Waverley West Subdivision Project
Wally Rzeszutek, Manitoba Hydro
- 13:40 - 14:15 Customer-Based Reliability
Jamie Peralta, BC Hydro
- 14:15 - 14:50 The Application of the IEEE 1366 Standard in the Calculation of Utility Reliability Indices
Kevin Neithercut, ENMAX
- 14:50 - 15:05 *Refreshment Break*
- 15:05 - 15:50 IEEE Working Group on Distribution Reliability – Scope & Activities
John McDaniel, National Grid (Working Group's Vice Chair)
- 15:50 - 16:25 BC Hydro Perspective on Distribution Islanding for Customer Reliability Improvement
Jamie Peralta, BC Hydro
- 16:25 - 16:35 **Panel Discussion**
- 16:35 - 17:00 **Concluding Remarks and Workshop Wrap-up**

Registrant Information

Name

Organization

Street Address

City, Province/State

Postal/Zip Code

E-mail

Phone

Fax

Payment Options

- VISA
- MasterCard
- American Express



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Registration Fees

- \$865 Standard Registration
- \$655 CEATI Participant Organizations
- \$455 Workshop Speakers
- \$455 DALCM Participants (two per utility)
- \$1455 Exhibition Space (includes one pass)
- \$655 Exhibition (additional passes)

All prices subject to applicable taxes.

Sponsorship opportunities for exhibitors are also available. Please visit www.ceati.com/dpw2010 or contact workshops@ceati.com for more information.

Discounts

- Save 5% when registering 5+ attendees *
- Early bird discount of 5% until March 20th, 2010

*To be eligible, registrations must be received at the same time and from the same organization.

Important Information

Registration fees include meals and breaks (where indicated on the schedule), evening reception and proceedings packages.

All prices are listed in Canadian Dollars (CAD). Charges will appear as "CEATI International Inc." Please note that CEATI cannot guarantee currency exchange rates for credit card transactions.

All cancellations received before May 1st, 2010 will be subject to a \$100 processing fee. There will be no refunds granted after this date. Delegate substitution is permitted at no extra cost.

All workshop inquiries should be directed to workshops@ceati.com. Please visit www.ceati.com/dpw2010 for more information.

Dietary Requirements

- Please check if you wish to be contacted about allergies or other dietary requirements

Return this form via fax to +1 (514) 904-5038 or call us at +1 (514) 866-5377



Workshop Location:

The event will be held in at the Delta Chelsea hotel in Toronto, Ontario. A group rate with this hotel is available, and can be obtained by mentioning the "CEATI" room block upon reserving a room. Reservations may be made by calling 1-800-243-5732.

Located on Lake Ontario's northern shore, Toronto, Canada's most populous city, sparkles with exciting museums, good theater, and a lively waterfront. Some must-see attractions include the CN Tower, Casa Loma and the Hockey Hall of Fame.