One-day Engineering Course

IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces

Many countries have implemented renewables portfolio standards (RPSs) to accelerate the pace of deployment of distributed energy resources (DERs) generations. As their penetration increases across the power system, traditional electricity grids begin to experience new challenges, often caused by the intermittent nature of some renewable generation types, sudden changes of the output power due to grid disturbances, low short-circuit duty of the inverter-based generators, and the impact of these renewable generations on the transmission and distribution system protection.

This workshop will discuss the challenges brought by DER interconnections and the revision of the IEEE 1547™ standard, aimed to address some of the technical challenges associated with high penetration of DERs for issues such as grid support functionalities.

Schedule highlights

The participants will learn about:

- Benefits and challenges related to renewable energy resources interconnections
- Major changes to the IEEE 1547 standard on topics such as voltage regulation, response to abnormal system conditions (including voltage and frequency ride through), power quality, islanding, interoperability, etc.
- Utility concerns and solutions to adopt the revised IEEE 1547 standard.
- National Grid's experience with smart inverters on how to set power factor and use the Volt/VAR based control depending on the location of the solar facility

Key benefits

- Broaden one's understanding on the challenges faced by utilities on high volume of DER deployment
- Learn about the changes brought by the revised IEEE 1547 standard, and what they could mean to your current utility process and practices.
- Benefit from the experience of a real use-case

Who should attend?

Engineers involved in the design, planning and operations of distribution power systems, who are dealing with DER deployment and regulations, and those who would like to stay informed on the current issues of the evolving electric system landscape.

The instructor

Babak Enayati received his PhD in Electrical Engineering from Clarkson University, Potsdam, NY in 2009. He joined National Grid, USA in 2010 and is currently the Manager of the Technology Deployment team, which is responsible for development and implementation of the Transmission Network modernization strategy.



Electrical and Electronics
Engineers (IEEE) in 2006 and
currently is a Senior IEEE
Member. Dr. Enayati currently
serves as the IEEE Power
and Energy Society (PES)
Governing Board Memberat-Large. He is also the Vice
Chair of the IEEE Standards
Coordinating Committee
21 (SCC21) and IEEE 1547,
Standard for Interconnecting
Distributed Energy Resources
with Electric Power Systems.

Dr. Enayati is a registered Professional Engineer (PE) in the state of Massachusetts.



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Registration information

Date: June 17, 2019

Course language: English

Location:

Le Westin Montreal 270, rue St-Antoine Ouest Montreal (Quebec) Canada H2Y 0A3

Pricing info and registration:

my.cyme.com/UsersGroup

For questions:

cymeinfo@eaton.com

Presentation Outline

1.	IEEE 1547 Introduction
2.	Voltage Regulation
3.	Response to Abnormal Conditions
4.	Power Quality
5.	Interoperability

Agenda

Monday, June 17, 2019 - Westin Montreal, Room Ville-Marie

7:30 am to	Registration (Room: St-Antoine, 9th floor) and full breakfast buffet
8:30 am	(Room: Ville-Marie, 9 th floor)
7:30 am to 8:40 am	Opening remarks and introduction
8:40 am to 10:30 am	Workshop
10:30 am to 10:45 am	Refreshment break
10:45 am to 12:00 pm	Workshop
12:00 pm to 1:30 pm	Lunch (Room: Ville-Marie, 9 th floor)
1:30pm to 3:00 pm	Workshop
3:00pm to 3:15pm	Refreshment break
3:15 pm to 5:00 pm	Workshop
5:00 pm to 5:30 pm	Discussion and questions

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1000 Eaton Boulevard Cleveland, OH 44122 United States Eaton.com

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1485 Roberval, Suite 104 St.Bruno, QC, Canada J3V 3P8 P: 450.461.3655 F: 450.461.0966 P: 800.361.3627 (Canada/USA) CymeInfo@eaton.com www.eaton.com/cyme Eaton is a registered trademark.

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