



IEEE 1547 Full Day Workshop ([register here](#))

April 13th, 2018

9:00 am – 5:00 pm (8 PDH certificate available)

Dynapower

85 Meadowland Drive

South Burlington, VT 05403

Agenda:	8:45 a	Open for Arrival/Sign-in & Morning Morsel
	9:00 a	Welcome, IEEE Green Mountain Section PES Chapter
	9:10 a	Introduction (What is the IEEE 1547 standard?)
	~	Voltage regulation
	~	Ride through
	Noon	Lunch & Presentation by Dynapower
	~	Tour of Dynapower
	2:00 p	Power quality
	~	National Grid's experience with Smart Inverters
	~	Conclusion
	5:00	Closing & Night Nibble

Workshop Description:

Many countries have implemented renewables portfolio standards (RPSs) to accelerate the pace of deployment of renewable generation, which is distributed across the electrical grid. As the penetration of renewable power generation increases, grid operators are beginning to experience challenges, which are often caused by the intermittent nature of wind and solar energy, sudden changes of output power due to grid disturbances, low short circuit duty of inverter based generators, and the impact of this on transmission and distribution system protection. Due to the increasing amount of Distributed Energy Resources (DERs) connected to the electrical grid, the IEEE 1547 standard is going through a major revision to address some of the technical challenges associated with high penetration of DERs i.e. grid support functionalities, etc.

The participants will learn about the benefits and challenges of DER interconnections as well as major changes to the IEEE 1547 grid interconnection standard i.e. voltage regulation, response to abnormal system conditions (including voltage and frequency ride through), power quality, islanding, interoperability, etc.

The participants will also learn about the utility concerns/solutions for adopting the revised IEEE 1547 standard.

In addition, we have a presentation and plant tour by Dynapower. Lincoln Sprague will present on the recent evolution of technical requirements for grid-connected equipment (within the U.S. and abroad). Gysler Castelino will provide a technical introduction to Dynapower's utility-scale inverters and their modes of operation.

Main Speaker Bio:



Babak Enayati received his PhD in Electrical Engineering from Clarkson University, Potsdam, NY in 2009. He is currently a Lead Research Development and Demonstration Engineer at National Grid, Waltham, MA. Over the past ten years Babak has also worked on Distributed Generation interconnection, power system protection, control of microgrids, modeling and aging analysis of electrical asynchronous machines, optimization of electrical drives, multi-generation power system dynamics analysis, and control of switched reluctance motors. He joined IEEE in 2006 and currently is Senior Member, IEEE and the IEEE PES Governing Board Member-At-Large. Babak is also the Vice Chair of the IEEE Standards Coordinating Committee (SCC21) and IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems. Babak is also the Chair of IEEE PES Distributed Resources Integration working group. Babak is a registered Professional Engineer (PE) in the state of Massachusetts.