



IEEE

Ottawa Section



**IEEE Ottawa Instrumentation & Measurement Society, Power and Energy Society, and Reliability & PE Society Chapters and IEEE Ottawa Educational Activities
in conjunction with NRC Electrical Power Measurements**

The IEEE Ottawa Section is inviting all interested IEEE members to a seminar on

Fundamental changes to the electric power system-post 2018

By

Mark Siira, Director of Technology Strategy, ComRent International

&

David Narang, Principal Engineer, US National Renewable Energy Laboratory

DATE: Tuesday, October 11, 2016

TIME: 11:00 a.m. – 12:00 p.m.

PLACE: National Research Council (NRC), Building M-36, Kelvin Room, 1200 Montreal Road, Ottawa

PARKING: Visitors' parking opposite the building M-36. Please respect restricted areas.

Abstract **Part I.** Standards have always been an important consideration in the work of engineers and testing companies. But their role is increasing with the deployment of smart grids and the changes of how buildings interact with electricity. Some changes coming in the next two years will impact the testing done on systems that are interconnected to the electric power system (EPS). The electric power infrastructure is transforming from a system of power interconnections to a diverse, interconnected, interdependent, and adaptive system. As the smart grid develops, the interconnection standards will evolve to help enable interoperability, interconnection and integration of disparate systems, information technology (IT) and communications. This presentation will discuss the specific areas of impact for testing and commissioning of utility protection systems and interconnection.

Part II. In his part of the presentation, David Narang provided a summary of programs that the US Department of Energy is currently working on.

Mark Siira is the Director of Technology Strategy for ComRent International, a leader in load testing solutions for critical facilities and utility-scale systems. Mark is responsible for business development, external communication content and training. Prior to joining ComRent, Mark spent sixteen years in the industry developing solutions for distributed electric power systems.

Mark is a senior member of IEEE and currently active as a leader in several standards making organizations; Vice-chair of Standards Coordinating Committee 21 that Oversees the development of standards in the areas of Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage. Mark will become chair of this committee in 2017. Working Group Chair of IEEE 2030.2 Guide for Interoperability of Energy Storage Systems, Vice-Chair for the IEEE 1547 Interconnection Standard Revision (new test requirements), and is Sub-Group Chair of IEEE 1547.1 Commissioning.

David Narang is a Principal Engineer in the Power Systems Engineering Center at the National Renewable Energy Laboratory (NREL) in Golden, Colorado. He is Section Manager, Applied Power Systems – Distributed Energy Systems Integration Group (DESI), NREL. A primary work focus area for David is to support the development and adoption of interconnection and interoperability standards for distributed energy systems and he is currently serving as the co-chair for the IEEE 1547 full revision working group. Prior to joining NREL in June, 2015, David worked as a Senior Engineer at Arizona Public Service (APS) in the Transmission and Distribution Engineering, Technology Assessment group. While at APS, David led projects to expand the company's knowledge and ability to integrate photovoltaic systems and also coordinated research and deployment efforts with external partners. David holds a Bachelor of Science in Electronics Engineering Technology from DeVry Institute of Technology, Phoenix, Arizona.

Admission: Free. Advanced registration is **necessary**, for security reasons.

Please register **no later than Mon., Oct. 10, 2016 at 5:00 p.m.** by e-mail contacting: branislav@ieee.org.