2018 PV Systems Symposium

Grid Integration Track Agenda

		Wednesday, May 2, 2018
7:00	8:00	**Breakfast** (Alvarado A & B)
7:00	8:00	**Registration** (North Atrium)
Grid Integration Track – *Workshop on IEEE 1547* (Alvarado C)		

8:00	10:00	**Organizer:** **Tom Key** (EPRI) with **Aminul Huque** (EPRI), **Michael Ropp** (NPPT) and **Jesse Leonard** (Clemson University)
		     Review typical screening practices in current use, how we got here
		     Updating expectations from screening and commissioning
		     Revisiting screening with updated technical objectives/options — what does FERC SGIP have to do
		         with distribution operation and planning?
		     Value of a screening hierarchy for efficiency and decision making
		     Taking advantage of increasing interconnection experience, better engineering judgement
		         and improved data access and analysis tools

10:00	10:40	**Morning Break and Group C Posters** (North Atrium)

10:40	12:00	***Workshop on IEEE 1547 Continued***
		     Deciding on grid support options to mitigate interconnection issues
		     Bringing energy storage into the mix
		     Evolving practices for high penetration cases
		     Evolving practices to consider emerging power quality issues
		     Better use of supplemental screening when preliminary fails
		     Defining application-specific commissioning test regiment

12:00	13:00	**Lunch** (Alvarado A & B)
Grid Integration Track – *Workshop on Understanding DERMS – DER Aggregation, Optimization and Integration* (Alvarado C)		

13:00	14:40	**Organizers:** **Ajit Renjit** (EPRI), **Dean Weng** (EPRI) and **Daniel Spaizman** (SDG&E)
		     DERMS – Origin and Definition
		     DER group management functions – an overview
		     Need for interoperable protocols that support group management functions

14:40	15:20	**Afternoon Break and Posters** (North Atrium)
15:20	17:00	Plug-and-Play with EPRI's DER integration toolkit DER integration timeline and the role of DERMS
17:30	18:30	**Networking Reception** (Tablao)
18:30		*Dinner on your own*

Thursday, May 3, 2018		
7:00	8:00	**Breakfast** (Alvarado A & B)
9:00	10:00	**CFV lab tour** Jim Crimmins, CFV Solar Test Laboratory
Grid Integration Track – *Workshop: Firming and Shaping Renewables* (Alvarado D)		
8:00	8:30	**Welcoming Address: Dr. Charlie Gay** (Director, U.S. Department of Energy, Solar Energy Technologies Office) Dr. Gay leads a team dedicated to early-stage research and development of solar technologies, with a focus on how they contribute to supporting the reliability, resilience and security of the U.S. electric grid
Grid Integration Track – *PV and Storage at the Bulk and Distribution System* (Alvarado D)		

8:30	9:40	**Utility Experience with PV+ Storage**
		  Jon Hawkins (PNM) "Pursuing PV+ Storage"
		  Ted Burhans (TEP) "Demonstrating Large PV with Energy Storage"
		  Michelle Lim (Xcel Energy) "Solar+ Storage Operating Experience—Pilot Projects"

9:40	10:00	**Nicholas DiOrio** (NREL) and **Will Hobbs** (Southern Company) "Economic Dispatch for DC-Connected Battery Systems on Large PV Plants"
10:00	10:40	**Morning Break and Group D Posters** (North Atrium)
10:40	11:00	**Ray Byrne** (Sandia) "Control of PV+ Storage"
Grid Integration Track – *Solar + X = Higher Value* (Alvarado D)		
11:00	11:20	**Arindam Maitra** (EPRI) "Hydro One: Utilizing Energy Storage to Improve Distribution Reliability"
11:20	11:40	**Robert Broderick** (Sandia) "Resilient Microgrids in Puerto Rico with High Levels of Renewables: Technical and Regulatory Experience"
11:40	12:00	**Huijuan Li** (EPRI) "Identifying Best Mitigation Options for Higher PV Penetration in New York Distribution Grid"
12:00	13:00	**Lunch** (Alvarado A & B)
Grid Integration Track – *Monitoring and Control with High PV Penetration* (Alvarado D)		
13:00	13:25	**Aminul Huque** (EPRI) **"**Impact of Reactive Power Control Functions on Active Power Generation*"*
13:25	13:50	**Matt Lave** (Sandia) "Parameter and Topology Estimation using Utility AMI Data"
13:50	14:15	**Yingchen Zhang** (NREL) "Predictive Data Analytics for Enhanced Observability at Grid Edge"
14:15	14:40	**Rohit Moghe** (Varentec) **"**Grid Edge Projects in Hawaii"
14:40	15:20	**Afternoon Break** (North Atrium)
Grid Integration Track – *Planning, Operating and Protecting the System with Advanced Inverters* (Alvarado D)		
15:20	15:45	**Nicolas Heine** (EPRI) "Automating and Expediting Circuit Analysis using DRIVE Tool"
15:45	16:10	**Matt Reno** (Sandia) "Advanced Inverter Planning: Voltage and Protection"