



MISSISSIPPI STATE  
UNIVERSITY



**i – PCGRID Workshop - 2019**  
**New Generation of Energy, Technology, Security, and Reliable Power Delivery**  
**Strategies for Energy Trends & Industry Sustainability**

**March 27 - March 29, 2019**  
**San Francisco, California, USA**

**Earn Continuing Education Credits (CEUs)**

**Seventeenth (17<sup>th</sup>) Annual Workshop Overview**

Welcome to the **Leading Global Workshop in Power System Trends, Practices, Technologies & Applications** hosted by *Pacific Gas and Electric Co (PG&E)*.

Front line Leaders, best and brightest technology providers, and Global community of industry experts gather at the seventeenth annual premier industry event. Featuring keynotes from industry luminaries, insightful forums, and demos, the i-PCGRID 2019 workshop will provide a forum to discuss best practices and develop transformation solutions. Join **Experienced Industry Navigators** (utilities, vendors, consultants, regulators, and academics) united in a shared vision to craft a steady course towards higher level of resiliency, reliability, security, and energy efficiency. Participate in discussions surrounding technology advancements, and skill sets in support of the continuous grid modernization journey.

Modern society has reached a point where virtually every crucial economic and social function depends on the resilient, secure, reliable operation of the power and energy infrastructure. The energy industry worldwide is experiencing significant changes caused by rapid technology transformation, security and environmental concerns, evolving consumer needs, and regulated environment. The initiatives we undertake today affect the way in which the grid is operated and maintained in the future. The 2019 Workshop will explore business models and supply chain realities in the scope of utility technology transformation, the lessons learned from deployment of advanced technologies, strategies and operational aspects of managing electrical power systems and equipment assets to build a more resilient and efficient grid.

**Core Program** discussions focus on **Key Success Factors and Technologies for Modernizing the Electrical Power System** to provide reliable, safe, and cost-effective delivery of electrical energy around the world. **IN-DEPTH** featured topics dive into energy trends and industry sustainability, global grid resilience and modernization efforts and the required performance levels.

Part of this year's program is focused on technical and regulatory opportunities and challenges.

Electrical system planning and operations must transform to address integration of distributed energy resources, storage, and electrical transportation. Share your experiences and learn from others in dealing with integration of those technologies and impact on balancing demand and supply chain, as well as the need for new policies to address investments in support of the new energy trends. Worldwide sustainability roadmaps and efforts, to improve the performance of electric utility systems and address the energy needs of society, offer many **lessons learned and winning strategies**.

**Winning Ticket** - Your Organizing Committee, *PG&E, Mississippi State University, and Quanta Technology* have formulated another **Innovations in Protection and Control for Greater Reliability Infrastructure Development** (i-PCGRID) workshop. The emphasis is on managing investment and assets, roadmaps for deployment of technologies, enhanced security, resiliency, and reliability of the energy infrastructure.

***Our Vision is to illuminate and charter the roadmaps for the 21st Century power grid by exchanging knowledge and lessons learned, exploring core standards, and cultivating strategies for efficient asset management.***

**Topics Covered**

**Modern Grid Planning and Operations**

- Business case studies, roadmaps and priorities
- Value of DER and Hosting capacity
- Distribution System Operator (DSO)
- Integrated T&D planning
- Energy and capacity markets

**Resilience and Reliability**

- Essential Reliability Services
- System impact of smart inverters
- Cyber and physical Security
- Weather events, geo-magnetic disturbances, etc.
- Aging infrastructure and workforce
- Energy mix
- Thermal constraints
- Voltage and transient stability
- Power quality
- System restoration (black-start)



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**Automation and Protection Initiatives**

- Adaptive Protection and Control
- Automation’s Solutions for the Modern Grid
- Protection solutions for low fault current levels
- SCADA Strategies and Developments

**Sustainable and Distributed Resources, Green Power**

- Microgrids and renewable energy integration
- Storage technology and cost-benefit analysis
- Impact of electric transportation
- Demand response and distributed controls

**Technical Standards & Regulation**

- IEEE and IEC standards
- Interoperability initiatives for DER
- NERC Reliability and CIP standards
- Regulatory constructs and standards

**GOALS** Delve into Challenges of the delicate operating balance of the 21<sup>st</sup> Century Electrical Power System by offering in depth presentations, demonstrating lessons learned and solutions taken, revealing test results and impact of strategies and architecture.

**Workshop Platform – Three (3) Days of Expert Technical Presentations** with Topical Formats, including **Panel Q&A Sessions and opportunities to make connections at Professional Networking Events.**

**Attendee Feedback** – Survey feedback are reviewed and incorporated by the Organizing Committee every year.

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**Workshop Location:**

PG&E Headquarters  
 245 Market Street, San Francisco, 94107  
 Enter from 77 Beale Street Entrance **Train Station - Embarcadero Station**

**Parking:**

Parking available within 1-2 blocks from the workshop location - Parking fee range \$20-\$40 / day

**Bay Area Rapid Transit (BART):**

For more information, visit [www.bart.gov/](http://www.bart.gov/)

**Some Nearby Accommodations:**

***Hyatt Regency - San Francisco***

5 Embarcadero Center (1 Block from meeting location) Phone: (415) 788 -1234

***Courtyard San Francisco Financial District***

299 2nd St, Phone: (415) 947-0700

***Hotel Griffon - San Francisco***

155 Steuart St., Phone: (415) 495-100

***Harbor Court Hotel – San Francisco***

165 Steuart St., Phone: (415) 882-1300

***Holiday Inn - San Francisco***

Fisherman's Wharf, 1300 Columbus Ave  
 Phone: (415) 771-9000

**Airports:**

**San Francisco International (SFO)** – Twenty miles from the Workshop location – Mass Transit (BART) also available.

**Oakland International (OAK)** - Approximately 12 miles from Workshop location

**Contacts:**

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 Phone: 919-334-3061

**Registration:**

On-line: <http://ipcgrid.ece.msstate.edu>

**Fee:**

Attendee - \$400 registration (includes the cost of some meals, and workshop material).

Speakers - \$250 registration fee for speakers

Graduate Students - No charge, but please register

There is a \$25 processing fee for individuals who want to receive Continuing Education Unit