

Program Day 1: Tuesday, March 27, 2018

8:30 – 9:00 am

WELCOME AND OPENING

Scott Samuelsen, UCI Advanced Power and Energy Program (APEP)

EXISTING AND EMERGING MICROGRIDS

Moderator: Scott Samuelsen

9:00 – 10:00 am

COMMUNITY MICROGRIDS

Swarthmore College Microgrid
Sierra Spencer, Swarthmore College

UCI Microgrid
Brendan Shaffer, UCI APEP

Advanced Energy Community Microgrid
Jack Brouwer, UCI APEP

10:00 – 10:30 am

NETWORKING BREAK

10:30 – 11:30 am

AGRICULTURAL MICROGRIDS

Butler Farms Microgrid
Lee Ragsdale, North Carolina Electric Membership Cooperation

Stone Edge Microgrid
Craig Wooster, Wooster Energy Engineering Specialties

Bubolz Nature Center Microgrid
Terry Bickham, Faith Technologies

11:30 – 12:10 pm

MILITARY MICROGRIDS

Joint Base Microgrid
Mohammad Nikkhah Mojdehi, O'Brien & Gere

Point Hueneme Microgrid
Dan Cohee, PDE Total Energy Solutions

12:10 – 1:20 pm

LUNCH

EXISTING AND EMERGING MICROGRIDS

Moderator: Jack Brouwer

1:20 – 2:00 pm

RURAL MICROGRIDS

Puertecitos Microgrid
Pedro Rosales, Universidad Autónoma de Baja California

Ocracoke Island Microgrid
Lee Ragsdale, North Carolina Electric Membership Cooperation

2:00 – 3:00 pm

MICROGRID DESIGN AND UTILIZATION

Education: Bubolz Nature Center Microgrid
Caramy Reisenauer, Faith Technologies

Islanding: Stone Edge Microgrid
Jorge Elizondo, Stone Edge Farm/Heila

Islanding: UCI Microgrid
Scott Lee, UCI APEP

3:00 – 3:30 pm

NETWORKING BREAK

3:30 – 4:50 pm

Nanogrid Energy Management
Michel Kamel, MelRok

Fuel Cell Supported Microgrids
Pere Margalef, FuelCell Energy

Insights from Real-Time Simulation
Jean-Philippe Berard, OPAL-RT

A Microgrid Design Tool
Mohsen Jafari, Rutgers University

4:50 pm

INTERNATIONAL COLLABORATION

MOU Ratification
Director and Professor Tomasz Galka
Poland Institute of Power Engineering

Director and Professor Scott Samuelsen
UCI Advanced Power and Energy Program

5:00 pm

DAY 1 SESSIONS END

EVENING RECEPTION: OPTION TO TOUR UCI MICROGRID AND APEP LABORATORIES

Program Day 2: Wednesday, March 28, 2018

8:30 – 9:20 am

KEYNOTE ADDRESS

Role of Microgrids in the Regulatory Space
Wayne Nastri, Executive Officer, South Coast Air Quality Management District

POWERING MICROGRIDS

Moderator: Scott Samuelsen

9:20 – 10:00 am

CLEAN, FIRM (24/7, LOAD-FOLLOWING) POWER

Solid Oxide Fuel Cell Technology
Preeti Pande, Bloom Energy

Molten Carbonate Fuel Cell Technology
Tony Leo, FuelCell Energy

10:00 – 10:30 am

NETWORKING BREAK

10:30 – 10:50 am

NATURAL GAS AND CHP

CHP/Natural Gas in Microgrids
Adam Forni, Navigant

10:50 – 11:50 am

SUPPORTING DER (ELECTRIC, THERMAL, AND HYDROGEN BATTERIES)

Reversible SOFC/SOEC Systems to Complement Solar and Wind
Jakub Kupecki, Institute of Power Engineering, Warsaw

Battery Electric Storage
Phil Fischer, NEC Energy

Thermal Energy Storage
Matt Gudorf, UCI

11:50 – 1:00 pm

LUNCH

1:00 – 1:40 pm

SUPPORTING DER (ELECTRIC, THERMAL, AND HYDROGEN BATTERIES)

Power-to-Gas for Microgrids
Paolo Colbertaldo, Polytechnical University of Milan

Power-to-Gas Energy Storage by Reversible SOFC
Tianyu Cao, Tsinghua University, Beijing

MICROGRID CONTROL

Moderator: Jack Brouwer

1:40 – 2:00 pm

MICROGRID CONTROLLER STANDARD

IEEE 2030.7 Microgrid Controller
Russ Neal, APEP

2:00 – 3:00 pm

APPLICATIONS AND CHALLENGES

Integrating Electrical Controls for Microgrids
Jim Cushman, Emerson Automation Solutions

National Renewable Laboratory Microgrid Controller Shootout
Scott Manson, Schweitzer Engineering Laboratories, Inc.

Model-Driven Microgrid Control and Operation using Predictive Simulation
Derek Dean, ETAP

3:00 – 3:30 pm

NETWORKING BREAK

3:30 – 4:10 pm

Bubolz Nature Center Microgrid Controller
John Ahrens, Schneider Electric

Practical Implementation of Microgrid Control, Protection and Communication Systems
Scott Manson, Schweitzer Engineering Laboratories, Inc.

4:10 – 4:50 pm

UTILITY DMS MICROGRID CONTROL

System Operator Perspective
Lorenzo Kristov, Electric System Policy, Structure, and Market Design

Utility Perspective
Percy Haralson, Southern California Edison

4:50 pm

DAY 2 SESSIONS END

5:00 pm

EVENING RECEPTION: OPTION TO TOUR UCI MICROGRID AND APEP LABORATORIES

Program Day 3: Thursday, March 29, 2018

MICROGRID COMMERCIALIZATION

Moderator: Jeff Reed

8:30 – 10:00 am

MICROGRID ECONOMICS, SECURITY, AND RESILIENCY

California Lessons
Lori Schell, Empowered Energy

Microgrid Markets
Ghazal Razeghi, UCI APEP

Microgrid Security and Resiliency
Paul Myer, Veracity Industrial Networks

Microgrid Dispatch Economics
Robert Flores, UCI APEP

10:00 – 10:30 am

NETWORKING BREAK

10:30 – 12:00 pm

STATE INITIATIVES RECENT \$124M MICROGRID COMMERCIALIZATION AWARDEES

Overview of CEC Recent \$45M Microgrid Solicitation Results
Mike Gravely, California Energy Commission

Overview of the Port of Long Beach JCCC Microgrid
Christine Houston, California Energy Commission Awardee

Overview of the Miramar MCAS Microgrid
Byron Washom, California Energy Commission Awardee

Overview of the U.S. Army Parks and Reserve Forces Training Area (PRFTA) Microgrid
Doug Black, California Energy Commission Awardee

12:00 pm

SUMMIT CLOSURE