### Program Day 1: Tuesday, March 27, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 – 9:00 am</td>
<td><strong>WELCOME AND OPENING</strong></td>
</tr>
<tr>
<td></td>
<td>Scott Samuelsen, UCI Advanced Power and Energy Program (APEP)</td>
</tr>
<tr>
<td>9:00 – 10:00 am</td>
<td><strong>EXISTING AND EMERGING MICROGRIDS</strong></td>
</tr>
<tr>
<td></td>
<td>Moderator: Scott Samuelsen</td>
</tr>
<tr>
<td>10:00 – 10:30 am</td>
<td><strong>NETWORKING BREAK</strong></td>
</tr>
<tr>
<td>10:30 – 11:30 am</td>
<td><strong>AGRICULTURAL MICROGRIDS</strong></td>
</tr>
<tr>
<td></td>
<td>Butler Farms Microgrid</td>
</tr>
<tr>
<td></td>
<td>Lee Ragsdale, North Carolina Electric Membership Cooperation</td>
</tr>
<tr>
<td></td>
<td>Stone Edge Microgrid</td>
</tr>
<tr>
<td></td>
<td>Craig Wooster, Wooster Energy Engineering Specialties</td>
</tr>
<tr>
<td></td>
<td>Bubolz Nature Center Microgrid</td>
</tr>
<tr>
<td></td>
<td>Terry Bickham, Faith Technologies</td>
</tr>
<tr>
<td>11:30 – 12:10 pm</td>
<td><strong>MILITARY MICROGRIDS</strong></td>
</tr>
<tr>
<td></td>
<td>Joint Base Microgrid</td>
</tr>
<tr>
<td></td>
<td>Mohammad Nikkhah Mojdehi, O’Brien &amp; Gere</td>
</tr>
<tr>
<td></td>
<td>Point Hueneme Microgrid</td>
</tr>
<tr>
<td></td>
<td>Dan Cohee, PDE Total Energy Solutions</td>
</tr>
<tr>
<td>12:10 – 1:20 pm</td>
<td><strong>LUNCH</strong></td>
</tr>
</tbody>
</table>
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 RESILENCY

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