MILITARY & COMMERCIAL MICROGRIDS

November 7-9, 2012 | Hilton San Diego/Del Mar | San Diego, CA

Opportunities and Business Cases for
Defense, Remote, Campus, & Utility Markets

Advanced Microgrid Solutions Showcase, November 7, 12:00 – 5:45 PM
Summit: **Military & Commercial Microgrids,** November 8-9

Draft Agenda

DAY ONE
Thursday, November 8, 2012

8:00 – 8:15 *Opening Remarks by Summit Chair:*
David Chiesa, *Manager, Business Development,* S&C ELECTRIC COMPANY

Session I: Microgrid Opportunities

8:15 – 8:45 *Presentation:*
Microgrid Market Opportunities, Trends and Segments
This presentation will sum up Pike Research's forecasts for the following microgrid segments: campus environment; military; remote; and utility distribution microgrids. Major market players will also be profiled. Finally, key market barriers and opportunities will be presented for microgrids in general, and for specific segments.

Peter Asmus, *Senior Research Analyst,* Pike Research

Session II: Military Microgrids

8:45 – 10:15 *Presentations:*
Military Requirements and RFPs for Fixed Base and Mobile Microgrids
What are the requirements of the different forces—Air Force, Army, Navy -- for base/garrison microgrids? What other types of microgrid formats are they looking at?

Presenters:
Samuel Booth, *Senior Project Leader, Deployment and Market Transformation,* NATIONAL RENEWABLE ENERGY LABORATORY

CAPT Ken Branch, *Reginonal Engineer,* NAVAL DISTRICT WASHINGTON, *Commanding Officer,* NAVFAC WASHINGTON
Dr. Tsvetanka S. Zheleva, *Microgrid Program Lead, Energy and Power Division, Sensors and Electron Devices Directorate,* US ARMY RESEARCH LABORATORY

10:15 – 10:45 *Networking Break*

10:45 – 11:15 *Presentation:*
Current RFPs, Grants and Other Funding Sources for Microgrids and Related Technologies/Initiatives Across the DOD + SPIDERS Overview

Harold R. Sanborn, *Energy Program Manager,* US ARMY CORPS OF ENGINEERS

11:15 – 11:45 *Case Study:*
The MicroGrid Solution at 29 Palms
An Environmental Science Technology Certification Program (ESTCP) demonstration project at the World's largest Marine Corps base. MAGTFTC/MCAGCC is leading the Navy and Marine Corps in areas of energy efficiency and security and developing a robust MicroGrid to mitigate utility fluctuations and outages while driving operational costs down**.**

Marques D. Russell, *Electrical Engineer,* MAGTFTC MCAGCC PWD

11:45 – 12:15 Presentation:
Advanced Command & Communications R&D for Military Microgrids

Jeff Johnson, *Chief Information Officer,* NAVAL DISTRICT WASHINGTON

12:15 – 1:45 *Networking Luncheon*

1:45 – 2:45 *Panel Discussion:*
Boeing, NAVFAC & UCSD Panel Discussion

Panelists:
Paul P. Bollinger, *Director of Government Solutions,* BOEING ENERGY
Additional Panelists to be announced from NAVFAC & UCSD

Session III: Commercial Microgrid Markets Survey

2:45 – 3:45 *Panel Discussion:*

Microgrids for Remote Communities and Installations
This panel will feature rural coops, island utilities, major utilities involved in a remote microgrid, companies with remote off-grid projects (mines…). Panelists will describe their needs, economics and technical requirements for microgrid functionality, as well as unique challenges for installation, operations & maintenance.

Moderator:
Gary Wetzel, *Director – Commercial & Industrial Business Development,* S&C ELECTRIC COMPANY

Panelists:
Michael Anderson, *Senior Vice President of Worldwide Markets,* ECHELON
Thomas O. Bialek, Ph.D., P.E, *Chief Engineer – Smart Grid,* SAN DIEGO GAS & ELECTRIC
Dean L. Schneider, Ph.D., PE, *Associate Director for Industry Relations,* TEXAS CENTER FOR APPLIED TECHNOLOGY

3:45– 4:10 Networking Break

4:10 – 4:30 *Case Study:*
DC, A Technology Whose Time Has Come Again
Guy AlLee, *Research Scientist & Manager NM ESRC,* INTEL

4:30 – 4:50 *Case Study:*
Development of Microgrid Research, Demonstration and Training Facilities in Wisconsin
The case study will address a comprehensive, regional microgrid industry development initiative involving two complementary University centers being developed in Milwaukee and Madison and a third Technical College workforce training facility being planned in Milwaukee all in conjunction with the Wisconsin Energy Research Consortium (WERC).

John Bobrowich, *Executive Director & CEO,* WISCONSIN ENERGY RESEARCH CONSORTIUM (WERC)

Panel Discussion:
4:50 – 5:30 **Campus Microgrids: University, Hospital, and Research Parks**
The campus microgrid scenario can be thought of as a set of facilities owned by a single entity.

Panelists:
Guy AlLee, *Research Scientist & Manager NM ESRC,* INTEL
John Bobrowich, *Executive Director & CEO,* WISCONSIN ENERGY RESEARCH CONSORTIUM (WERC)

Leonard G. Pettis, Chief of Plant, Energy and Utilities, CALIFORNIA STATE UNIVERSITY OFFICE OF THE CHANCELLOR
Scott Prince, *EVP Sales & Marketing,* BLUE PILLAR, INC.

Friday, November 9
Microgrids Summit Day Three

8:00 – 8:30 *Panel Discussion:*
High Efficiency Airport Microgrid Applications

Panelists:
Dan Blitz, *Director of Technology/Business Development,* HONEYWELL LABORATORIES / ACS
Joel M. Rinebold, *Director of Energy Initiatives,* CONNECTICUT CENTER FOR ADVANCED TECHNOLOGY

8:30 – 9:30 *Case Study and Panel Discussion:*
Net Zero/Green Building Microgrid Applications
This panel will feature large real estate developers, major corporations with large portfolios of buildings or franchises, and progressive facility owners discussing their needs, wants and technical requirements for getting their facilities off the grid.

Panelists:
George Denise Sr., CFM, FMA, RPA, LEED-AP, *Global Account Manager, Corporate Occupier & Investor Services,* CUSHMAN & WAKEFIELD for ADOBE SYSTEMS INCORPORATED
Christopher F. Halpin, PE, CEM, CMVP, CEP, LEED AP, *President,* CELTIC ENERGY, INC.
Kevin Kampschroer, *Director, Office of Federal High-Performance Green Buildings,* US GENERAL SERVICES ADMINISTRATION *(Invited)*
Kenneth Munson, *President and CEO,* SUNVERGE ENERGY, INC.
Osamu Onodera, *Chief Representative, Silicon Valley Office,* NEDO

Session IV: Utilities, Finance and Partnering

9:30 – 10:15 *Panel Discussion:*
Utility Activities and Perspectives vis-à-vis Microgrids
Given the variety of utilities that now exist, handling different facets of the grid under varying business models, with some actively experimenting with microgrids and others fundamentally resistant, this panel will explore the attitudes and activities of different utilities, providing a cross-section of perspectives.

Panelists:
Thomas O. Bialek, Ph.D., P.E, *Chief Engineer – Smart Grid,* SAN DIEGO GAS & ELECTRIC
Andrea Traber, AIA, LEED-AP BD+C, *Principal, Sustainable Buildings and Communities,* DNV KEMA ENERGY & SUSTAINABILITY
Additional Panelists to be Announced

10:15 – 10:30 *Networking Break*

10:30 – 11:15 *Panel Discussion:*
Microgrid Finance

- *PPA vs. Energy Savings Performance Contract: Pros and cons, which is more appropriate where?*
- *Funding sources – will solar finance be extended to full microgrid features? Investment banks, new venture-backed companies.*
- *What are the economic arguments?*

Panelists:
Ed Feo, *Managing Partner,* USRG RENEWABLE FINANCE
R. Thomas Hoffman, *Partner,* BALLARD SPAHR LLP
Additional Panelist to be Announced

11:15 – 12:35 *Panel Discussion:*
System Integrators Perspectives on Partnering
Some system integrators are seeking to provide turnkey microgrid packages, with all in-house equipment. Others are happy to assemble a variable mix of third party technology, changing from one project to the next. And there is no such thing as a one-size-fits-all "ACME Microgrid Kit"– each customer scenario has unique characteristics, and the technology and integration skills are rapidly evolving.

- *How do system integrators select potential partners?*
- *Where does the money come from – must system integrators have deep pockets? Are there special, dedicated funding sources that can be leveraged?*
- *How is intellectual property handled – both existing IP, and IP developed as a result of new, unique system integration designs or applications?*
- *What communication protocols are needed from technology vendors? Are there special quality or reliability ratings needed?*

Moderator:
Phillip N. Barton, *Microgrid and Advanced Reliability Program Director,* SCHNEIDER ELECTRIC

Panelists:

Paul D. Albertelli Jr., *Technologist – New Ventures Infrastructures,* LOCKHEED MARTIN
David Chiesa, *Manager, Business Development,* S&C ELECTRIC COMPANY
Richard Fioravanti, *Vice President, Storage Applications & Support,* DNV-KEMA ENERGY & SUSTAINABILITY
Christian Grant, *Director, Energy Automation Applications,* SIEMENS INDUSTRY, INC.
Stephen F. Schneider, *Vice President – Chief Solution Architect Federal,* SAIC

12:35 – 12:45 *Closing Remarks by Summit Chair*
David Chiesa, *Manager, Business Development,* S&C ELECTRIC COMPANY

12:45 *Summit Adjourns*