



MICROGRID & DERs SUMMIT WEST

February 26- 27, 2019

Parma Payne Goodall Alumni Center,
SDSU, San Diego, CA

Building a Resilient, Efficient and Sustainable Future



The Summit will take place at: Parma Payne Goodall Alumni Center at San Diego State University.

Located at: 5250 55th St, San Diego, CA 92115

LOCATION:

*Do not contact the Parma Payne Alumni Center with any requests regarding this Summit, please contact RSC. You must use the above address for GPS location.

FREE ONSITE PARKING:

Parking for the summit will be located on the LOWER level of PS7 (directly adjacent to the Alumni Center where the summit will be held). There will be directional signs reading "RSC MICROGRIDS & DERS SUMMIT" .Parking Services will be placing signs from both the 55th St entrance as well as the Montezuma Rd entrance leading attendees to the reserved and roped off spaces. Parking map will be



Upon arrival, you will enter through the main entrance of the Alumni Center and head right towards the Fowler Family ballroom – directional signs will be posted. Its just a few feet from the entrance.

Here is a virtual tour link of the Center : <http://www.sdsualumni.org/s/997/rd16/ppgac-interior.aspx?sid=997&gid=1&pgid=2492>

ARRIVAL:

An RSC staff member will be at the registration desk to greet you (contact information below)

Please pick up your badge and sign in : take a booklet and attendee list. Badges must be worn at all times. There is no assigned seating for attendees. (Seating will be at roundtables)

FREE WIFI – You may bring your devices.

Your main onsite POC:

Ms. Monica Mckenzie, Managing Partner, Roosevelt Strategic Council
Cell phone: 1-917-992-1270 Email: mckenzie@rscouncil.org

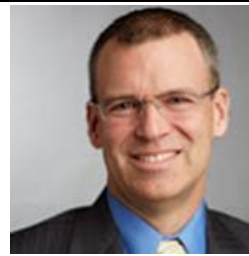
**ONSITE POCs
from RSC:**



**RSC
Volunteer
Advisory
Board
Members
Onsite**



COL (ret) Paul Roege , Typhoon Hil



Mr. Erik Felt, RTI

DRESS CODE:

Speakers on Day of Presenting: Military: Service Dress Uniform Civilian: Business Dress

Attendees are requested: Civilian: business casual, button down, slacks and jacket requested, tie optional. No casual jeans or t-shirts please)
Military: Duty Uniform of the day.

**FOOD &
BEVERAGE**

Buffet style throughout the day: We will provide fresh coffee, teas, beverages, breakfast, snacks and a full lunch on both days. Breakfast will include a variation of eggs, croissants, fresh fruit salad, yogurt, mid morning cheese and crackers and muffins. Lunches will be served buffet style and include a salad and vegetable side and main dishes of chickens and pastas. Afternoon snacks are a variety of fresh desserts and cakes.

MIL and GOV : per person price for lunch and beverage falls below general per diem rates set by DoD and GSA specifically

If you have an allergy or require a special food request, please inform us by FEB 20th

**PRESS
POLICY/
Social Media**

NO PRESS / NO RECORDINGS

Social Media posts by speakers and attendees that simply show general participation and key topics that are publicly listed in the agenda are fine (no pictures allowed when slides are being used)

Agenda on next pages...

7:15 – 8:15	Registration and Networking Breakfast
8:45 – 9:00	Welcoming remarks: RSC
BUSINESS MODELS TO SUPPORT RESILIENCY, SUSTAINABILITY and EFFICENCY	
9:00- 9:50	<p>Military Leadership Panel: Enhancing Energy Assurance and Resiliency for Military Installations</p> <ul style="list-style-type: none"> -Emerging business models and approaches towards achieving energy resilience in our DoD installations: from defining the goals to structuring the supporting contracting guidance -Current initiatives and strategies for delivering an increased grid-independence capability: the role for microgrids and DERs on our installations -Viewpoint towards the “energy security as a service” model - drivers, challenges, and possible business models <p>Panelists:</p> <p>CAPT Mark Edelson, USN, Commander , Navy Facilities Engineering Command (confirmed)</p> <p>CAPT Curtis Jones, USN, Chief of Staff, Navy Region Southwest, Commander, Navy Installations Command (confirmed)</p> <p>Col Patrick Miller, USAF, Vice Commander, Air Force Installation and Mission Support Center (confirmed)</p> <p>COL William Myer, USA, Chief, Installations & Environment, Army National Guard Bureau (confirmed)</p> <p>Moderator : COL Paul Roege (ret), Former Chief of Operational Energy, U.S. Army, VP Strategic Initiatives, Typhoon Hill</p>
9:50 – 10:20	Networking Break
10:20 -11:10	<p>Utility Panel: Evolving Strategic Business Models and Integrating DERs into the Utility of the Future</p> <ul style="list-style-type: none"> -How to frame the evolving business models for integrating distributed resources into the grid , and does that model need to adjust if the goal is necessarily to achieve resiliency, efficiency and / or sustainability -Developing a new systems configuration without reducing reliability: what needs to occur to get us there -What are the opportunities for utilities with large-scale storage and microgrid projects? - Over the next 5 years, what are the most compelling paths of adaptation and innovation for the utilities to ensure their unique role in society <p>Panelists:</p> <p>Mr. Andy Butcher Chief Operating Officer, Platte River Power Authority (confirmed)</p> <p>Ms. Shelee Kimura, Senior Vice President, Business Development and Strategy, Hawaiian Electric Company (confirmed)</p> <p>Mr. Raj Roy, Principal Manager - DSO Implementation, Southern California Edison (confirmed)</p> <p>Mr. Vincent Zabukovec, Manager, Distribution Planning & Reliability, LADWP (confirmed)</p> <p>Moderator: Dr. John Caldwell, immediate past Director of Economic, Edison Electric Institute (ret)</p>
OPERATIONAL PERSPECTIVE ON DER INTEGRATION	
11:10 -11:40	<p>An Engineer's Perspective Towards Integrating DERs onto the Grid, While Maintaining Stability and Reliability</p> <ul style="list-style-type: none"> -The evolving technical frameworks and transformational steps needed to achieve a modernized electric grid able to integrate an ever-expanding supply of DERs. - How far can the data really take us? Current maturity, and limitations, of advanced data analytics to support the integration of DERs - Advice towards technical factors to consider when undertaking DER Integration : 3 things we got right and 3 surprises along the way <p>Dr. Thomas Bialek, Chief Engineer, SDG&E (confirmed)</p>
11:40-12:10	<p>Utilizing Big Data and AI to Enable a Smarter Energy Internet</p> <ul style="list-style-type: none"> - Current research and operational innovation towards supporting the integrations of microgrids and DERS through advanced analytics and AI capabilities - How far can the data take us? Case studies of current microgrids projects utilizing advanced analytics <p>Mr. Vish Ganti, Director of Strategy, AutoGrid (confirmed)</p>
12:10 -12:50	Networking Lunch

12:50 – 1:20	<p>Building a Resilient Energy Future</p> <ul style="list-style-type: none"> -Transitioning to an Integrated Energy Network: Resource planning capabilities and processes we believe need to evolve to support the IEN framework -The role of DERS and microgrids to support a sustainable and resilient grid - What stakeholders need to know towards working toward a holistic, integrated energy framework and the impact on future business models <p>Mr. Jimmy Herren, Senior Technical Advisor, EPRI (confirmed)</p>
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CYBER RESILIENCE

1:20 – 1:50	<p>DHS’ National Risk Management Center: Developing a unified collective approach to cyber resilience and security</p> <ul style="list-style-type: none"> - Current threat landscape towards the security and resilience of the utility sector - How the NRMC is creating a cross-cutting risk management approach across the federal government and our private sector partners through three lines of effort: How stakeholders can get involved <p>Mr. Mark Kneidinger, SES, Deputy Director, National Risk Management Center, Department of Homeland Security (confirmed)</p>
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1:50 – 2:20	<p>Understanding the Threat landscape and How to Increase Cyber Resiliency for Critical Infrastructure in the Energy Sector</p> <ul style="list-style-type: none"> -Current threat landscape towards increased penetration of DERs and what energy stakeholders can begin to implement today to increase cyber resilience -What does a cyber ecosystem truly look like in a DERs environment? Who mitigates the risk? As more generation assets join the grid that utilities don’t own or control where should resilience reside? <p>Mr. Tobias Whitney, Technical Executive, EPRI (confirmed)</p>
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2:20 – 2:50	<p>Implementing a Cyber Resilient Microgrid Control System</p> <ul style="list-style-type: none"> - Best practices towards designing, implementing, testing, and installing cyber resilient microgrid control systems - Brief review on increasing performance through edge optimization intelligence and consolidating data formats and exchange protocols used for system optimization <p>Mr. Bob Morris, Chief Engineering Services Officer, Schweitzer Engineering Laboratories (confirmed)</p>
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CAMPUS FOCUS & TOUR

2:50 – 3:15	<p>Closing Remarks: Strategic planning to develop and advance sustainable energy initiatives for San Diego State University</p> <p>Mr. Tom Abram, Energy and Sustainability Officer, San Diego State University (confirmed)</p>
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3:15pm	End of sessions for Day 1
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<p>3:30 – 6:00</p> <p>SITE TOUR</p>	<p>University of California, San Diego Microgrid SITE TOUR : FREE FOR ALL ATTENDEES /SPEAKERS</p> <p>3:30pm – depart for UC San Diego Microgrid Site Tour via Charter Bus</p> <p>4:00pm – 5:45pm guided tour:</p> <p>5:45pm - depart and return to downtown San Diego and Venue</p>
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7:30 – 8:45	Networking Breakfast and welcome back
REGULATORY & MARKETS LANDSCAPE	
8:50 – 9:45	<p>Panel Discussion: The Regulatory Landscape Towards Microgrid and DERS Integration into the Grid</p> <p>What are the roles of DER Aggregators and Providers? How do we protect safe delivery of electricity to meet customer demand in an increasingly fragmented market? Who's going to be allowed to own microgrids, who's going to be allowed to dispatch them, and how are they going to be compensated?" Should utilities be allowed to socialize the costs?</p> <p>How will new renewable laws and standard translate into new operational rules and programs? This panel will address these questions while providing attendees insight and perspective towards their current focus, respective approach and what they foresee for the near future</p> <p>Panelists:</p> <p>Mr. Elijah Abinah, Director, Utilities, Arizona Corporation Commission (confirmed)</p> <p>Mr. Simon Baker, Deputy Director, Energy Division, California Public Utilities Commission (confirmed)</p> <p>Mr. Drew Bohan, Executive Director, California Energy Commission (confirmed)</p> <p>Mr. Branden Sudduth, Vice President of Reliability Planning and Performance Analysis, Western Electricity Coordinating Council (confirmed)</p> <p>Moderator: Mr. Chris Schroeder, Vice President, SEPA (Smart Electric Power Alliance) (confirmed)</p>
9:45 – 10:15	<p>CAISO: Building a Resilient, Sustainable and Efficient Energy Future: Markets and the Integration of DERS</p> <p>-CAISO's vision for the future: innovating to include a fair valuation of resources that contribute to resilience, fewer grid dependencies, fully integrated distributed resources and tightly coordinated transmission and distribution system</p> <p>-Understanding the market's current challenges with DERS and what our partners need to know : including the topics of interconnection and aggregation, operations and coordination</p> <p>Dr. Keith Casey, Vice President, Market and Infrastructure Development, CAISO (confirmed)</p>
10:15 -10:45	Networking Break
PROJECT EXECUTION / CASE STUDIES	
10:45 -11:15	<p>USACE Case Study: Kwajalein Atoll Project</p> <p>About The Huntsville Center : executes more than 6,000 contracts valued at \$2.1 billion annually in engineering, construction and technical services in support of strategic national programs such as the design and construction of worldwide chemical weapons demilitarization facilities, Army and Air Force installation facility repair and renewal construction, national energy savings programs, nationwide environmental and ordnance remediation programs, Army medical facilities design oversight, and overseas contingency operations.</p> <p>COL John Hurley, USA, Commander, U.S. Army Engineering and Support Center, Huntsville (confirmed)</p>
11:15-11:45	<p>USMC's Approach to Energy Resilience at the Facilities Level</p> <p>-Understanding the USMC's ethos towards energy resilience and how that translates to operational needs and requirements</p> <p>-Working with our private and public partners: what they need to know to help improve the energy resilience of the Marine Corps' facilities</p> <p>LtCol Tony Mitchell, USMC, Regional Facilities Officer, Marine Corps Installations West (confirmed)</p>
11:45 -12:10	<p>Demonstrating Technical Innovation and Viable Business Cases for Microgrid Projects and Renewable Integration</p> <p>- Overview and status update on Humboldt County Airport planning: a case study for demonstrating the ability for CCAs to work with utilities to maintain reliability, offsetting electricity costs, integrating microgrids into CAISO operations, generating data and producing ancillary benefits at the remote location.</p> <p>- Blue Lake Rancheria microgrid project and Solar+ distributed energy project: 3 things we got right and 3 surprises along the way</p> <p>-Advice and perspective towards the most compelling paths of adaptation, current challenges, and innovation needed to ensure the evolution into 'energy farmers'</p> <p>Mr. Jim Zoellick, Managing Research Engineer and Mr. David Carter, Senior Research Engineer, Schatz Energy Research Center, Humboldt State University (confirmed)</p>

12:10 -12:20	<p>Case Study: Fuel Cell to Support Resiliency, Efficiency and Sustainability of Microgrids in Utility, Government and Commercial Installations” Case Study 1- University of California San Diego Case Study 2- Naval Submarine Base New London Mr. Frank Wolak, Vice President, Fuel Cell Energy (confirmed)</p>
12:20–1:00	Networking Lunch
ENERGY STORAGE BUSINESS MODELS AND INNOVATION	
1:00 – 1:50	<p>Energy Storage Leadership Panel: Evolving Business Models and Innovation with Energy Storage</p> <ul style="list-style-type: none"> -Storage in the Future of Markets: What are emerging as the key challenges and encouraging pathways for distributed storage in market conversations -Supporting Innovation: where technical innovations are occurring to help speed the integration : current challenges and next steps needed to improve interconnection .Panelists will discuss their perspective on storage in integrated resource planning, grid modernization and public policy-driven planning efforts <p>PANELISTS:</p> <p>Mr. Jonathan Adelman, Vice President, Strategic Resources and Business Planning, Xcel Energy (confirmed)</p> <p>Mr. Nathan Wyeth, Director of Grid Service, Sunrun (confirmed)</p> <p>Mr. Walker Wright, VP, Public Policy, ENGIE Storage (confirmed)</p> <p>Moderator: Dr. John Caldwell, immediate past Director of Economic, Edison Electric Institute (ret)</p>
INNOVATION TO SUPPORT DERs INTEGRATION	
1:50 – 2:15	<p>How the IIoT is Aiding the Electric Utility for DER Integration: Standards, Architecture, Security</p> <ul style="list-style-type: none"> -Layered Databus architecture; opening new realms for DER integration -Past, Present, Future; the approach to incorporating today's DER with your existing system. <p>Mr. Erik Felt, Market Development Director, Future Grid RTI (members of the Industrial Internet Consortium and Advisory Board member to RSC) (confirmed)</p>
2:15 – 2:45	<p>Emerging Innovation to Support Microgrids & DERS Projects</p> <p>Helping the world’s largest energy companies around the world to be more innovative, by connecting them with relevant startups in energy storage, DERs, renewables, EVs, predictive analytics, Industrial IoT, cyber security etc... This session will highlight some of the most innovative companies working here is San Diego and supported by the State of California and the 501 c(3) CleanTech San Diego. Two innovators will present for 15 minutes each:</p> <p>Managing DERs in Real Time</p> <ul style="list-style-type: none"> -New solutions for a changing grid -Unlocking the potential of DERS as grid assets, brief case studies <p>2:15 – 2:340: Ms. Hanna Grene, Strategy and Partner Development, PXiSE Energy Solutions, LLC - Sempra Infrastructure, LLC (confirmed)</p> <p>Data Driven Optimization of Distributed Energy Asset Design and Operation</p> <p>Reaching clarity on the interaction of multiple DER to meet objectives for cost savings, resiliency, and sustainability within a complex and dynamically changing utility landscape can be polarizing for customers interested in DER and microgrid deployments. How can customers reach certainty on the questions ‘What blend of DER should I install?’ and “How do I operate the system to meet my objectives once it’s installed</p> <p>2:30 – 2:45: Mr. Bryan Huber, COO, CleanSpark (confirmed)</p>
2:45 – 3:00	Closing Remarks
3:00	End of Summit

RSC thanks our sponsors and supporters:



Summit Guidelines for DoD & Federal and State Government Employees only:

- RSC's meetings are open and complimentary to all DoD and Federal and State employees
- RSC meetings are compliant with Department of Defense operating guidelines as a "NO-COST to the DoD" meeting.
- Pricing and onsite protocol voluntarily follows: Department of Defense, Office of General Counsel, standards of Conduct Office: SOCO ADVISORY 09-03: 7.(a)