Building a Resilient, Efficient and Sustainable Future

RSC WEST

2019 PROGRAM HIGHLIGHTS

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Convening a Diverse Group of over 25 Experts Across the Public and Private Sector Including:

CAPT Curtis Jones, USN, Chief of Staff, CNIC, Navy Region Southwest

Mr. Mark Kneidinger, SES, Deputy Director, National Risk Management Center, Department of Homeland Security

Mr. Drew Bohan, Executive Director, California Energy Commission

Mr. Andy Butcher COO, Platte River Power Authority

Ms. Shelee Kimura, SVP, Business Development and Strategy, Hawaiian Electric Company

Dr. Thomas Bialek, Chief Engineer, SDG&E

Who we are:	RSC is a premier **non-partisan woman owned, minority owned, small business.** Since 2011, Roosevelt Strategic Council (RSC) has convened the most senior and respected leaders in business, technology and the federal government to collaborate and examine the next generation of challenges transforming global business enterprises, and mission priorities for the federal government. Through our high level educational and training summits and symposiums we bring together the relevant representatives in our neutral forums in order to foster the necessary discussions and debates to help them achieve efficient and effective mission success with their partners in the public, private and academic sector. **In order to maintain our neutrality, we receive no funding or investment for operating costs from any outside organization, group, or individual.** RSC is the parent organization to Defense Strategies Institute (DSI) which focuses solely on the DoD and Federal Government communities: DSI has convened over 100 senior level forums for leaders across the military services, and federal government. We invite you to learn more at: rscouncil.org *Supporting our Veterans, severally injured Service men and women, and their families through our charitable donations and contributions is a core mission of Roosevelt Strategic Council. To learn more about the charities we support and how you may get involved, please visit our defense division site:* ***dsigroup.org/giving-back****. (This Summit is not an official fundraising event.)*
Program Design & Goal	**A non-partisan educational and training Summit designed as a "Town Hall" format** that encourages an interactive level of discussion and debate amongst all in attendance. The objective of the Summit is to serve as a catalyst for collaboration and the interchange of knowledge among a cross sector of the energy stakeholder community towards the topic of "Building a Resilient, Sustainable and Efficient Energy Future" and the integration of DERS and microgrids The Summit consists of two days of structured plenary and panel sessions. By participating in one of our meetings, you will discover an environment that strives to encourage real actionable outcomes for its participants, while fostering new and continued relationships amongst all in attendance
Focus Areas Include:	**Technical Focus:** - Data analytics in optimizing DR, energy efficiency, and DER management - Advancements in microgrid controllers: intelligent software for load prediction and management - Cyber resilience strategies and capabilities - Distributed energy resource management systems (DERMS) - Remote, real time monitoring, tracking, measuring and verification of microgrid performance - Energy storage solutions -**Business Focus:** **-**Emerging business model frameworks for utilities towards DERS and microgrids -Energy storage and future business models -Regulation, standards and interoperability issues -Current trends and future revenue opportunities with microgrids and DERS -Risk Management: Building effective strategies to increase resiliency, improve response time and enhance overall system robustness.
Location:	**The Parma Payne Goodall Alumni Center, San Diego State University | San Diego, CA** **(Rental fees directly support the Alumni Center) : under 20 minutes from San Diego Airport**

General Target Audience:	**Public and private sector participants** **Key titles include:** • C-level charged with strategic planning and performance management professionals • Energy innovation Directors and emerging technologies representatives • Grid or market operators/Transmission system operators • Energy Managers / Facility Managers • System integrators and consultants • Senior level commercial, public, federal, and industrial end users • Smart grid technology and software developers • Regulators and public policy makers **Specific fields include:** • Investor-owned, public, municipal, and co-op utility professionals • Microgrid project developers, owners and entrepreneurs • Solar, PV, wind power, biogas, CHP, and renewable energy companies • Power control systems and software developers and Systems integrators • Energy storage companies

FEBRUARY 26, 2019 | SUMMIT DAY 1	
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	**Military Leadership Panel: Enhancing Energy Assurance and Resiliency for Military Installations** -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 **Panelists:** **CAPT Mark Edelson,** USN. Commander , Navy Facilities Engineering Command **(confirmed)** **CAPT Curtis Jones, USN, Chief of Staff,** Navy Region Southwest, Commander, Navy Installations Command **(confirmed)** **Col Patrick Miller, USAF, Vice Commander**, Air Force Installation and Mission Support Center **(confirmed)** **COL William Myer, USA, Chief,** Installations & Environment, Army National Guard Bureau **(confirmed)**
9:50 – 10:20	Networking Break
10:20 -11:10	**Utility Panel: Evolving Strategic Business Models and Integrating DERs into the Utility of the Future** -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 **Panelists:** **Mr. Andy Butcher** Chief Operating Officer, Platte River Power Authority **(confirmed)** **Ms. Shelee Kimura**, Senior Vice President, Business Development and Strategy, Hawaiian Electric Company **(confirmed)** **Mr. Raj Roy**, Principal Manager - DSO Implementation, Southern California Edison (**confirmed)** **Mr. Louis Ting,** Director of Power Planning Development & Engineering, LADWP **(confirmed)**

OPERATIONAL PERSPECTIVE ON DER INTEGRATION	
11:10 -11:40	**An Engineer's Perspective Towards Integrating DERs onto the Grid, While Maintaining Stability and Reliability** **-**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 **Dr. Thomas Bialek, Chief Engineer, SDG&E (confirmed)**
11:40-12:10	**Utilizing Big Data and AI to Enable a Smarter Energy Internet** - 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 **Mr. Vish Ganti, Director of Strategy, AutoGrid (confirmed)**
12:10 -12:50	Networking Lunch
12:50 – 1:20	**Building a Resilient Energy Future** -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 **Mr. Jimmy Herren, Senior Technical Advisor, EPRI (confirmed)**
CYBER RESILIENCE	
1:20 – 1:50	**DHS' National Risk Management Center: Developing a unified collective approach to cyber resilience and security** - 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 **Mr. Mark Kneidinger, SES, Deputy Director, National Risk Management Center, Department of Homeland Security (confirmed)**
1:50 – 2:20	**Understanding the Threat landscape and How to Increase Cyber Resiliency for Critical Infrastructure in the Energy Sector** -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? **Mr. Tobias Whitney, Technical Executive, EPRI (confirmed)**
2:20 – 2:50	**Implementing a Cyber Resilient Microgrid Control System** - 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 **Mr. Bob Morris, Chief Engineering Services Officer, Schweitzer Engineering Laboratories (confirmed)**
CAMPUS FOCUS & TOUR	
2:50 – 3:15	**Closing Remarks: Strategic planning to develop and advance sustainable energy initiatives for San Diego State University** **Mr. Tom Abram, Energy and Sustainability Officer, San Diego State University (confirmed)**

3:15pm	End of sessions for Day 1
3:30 – 6:00 SITE TOUR	**University of California, San Diego Microgrid SITE TOUR : FREE FOR ALL ATTENDEES /SPEAKERS** **3**:30 – depart for UC San Diego Microgrid Site Tour 4:00pm – 5:45pm guided tour: 5:45pm - depart and return to downtown San Diego and Venue
FEBRUARY 27, 2019 | DAY 2	
7:30 – 8:45	Networking Breakfast and welcome back
REGULATORY & MARKETS LANDSCAPE	
8:50 – 9:45	**Panel Discussion: The Regulatory Landscape Towards Microgrid and DERS Integration into the Grid** 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? 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 **Moderator: Mr. Chris Schroeder, Vice President, SEPA (Smart Electric Power Alliance) confirmed** **Panelists:** Mr. Elijah Abinah, Director, Utilities, Arizona Corporation Commission **(confirmed)** Mr. Simon Baker,Deputy Director, Energy Division, California Public Utilities Commission **(confirmed)** Mr. Drew Bohan, Executive Director, California Energy Commission **(confirmed)** Mr. Branden Sudduth, Vice President of Reliability Planning and Performance Analysis, Western Electricity Coordinating Council **(confirmed)**
9:45 – 10:15	**CAISO: Building a Resilient, Sustainable and Efficient Energy Future: Markets and the Integration of DERS** -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 -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 **Dr. Keith Casey, Vice President, Market and Infrastructure Development, CAISO (confirmed)**
10:15 -10:45	Networking Break
PROJECT EXECUTION / CASE STUDIES	
10:45 -11:15	**USACE Case Study: Kwajalein Atoll Project** 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. **COL John Hurley, USA, Commander, U.S. Army Engineering and Support Center, Huntsville (confirmed)**
11:15-11:45	**USMC's Approach to Energy Resilience at the Facilities Level** -Understanding the USMC's ethos towards energy resilience and how that translates to operational needs and requirements -Working with our private and public partners: what they need to know to help improve the energy resilience of the Marine Corps' facilities **LtCol Tony Mitchell, USMC, Regional Facilities Officer, Marine Corps Installations West (confirmed)** Continued on next page...

11:45 -12:10	**Demonstrating Technical Innovation and Viable Business Cases for Microgrid Projects and Renewable Integration** - 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. - Blue Lake Rancheria microgrid project and Solar+ distributed energy project: 3 things we got right and 3 surprises along the way -Advice and perspective towards the most compelling paths of adaptation, current challenges, and innovation needed to ensure the evolution into 'energy farmers' **Mr. Jim Zoellick, Managing Research Engineer and Mr. David Carter, Senior Research Engineer, Schatz Energy Research Center, Humboldt State University (confirmed)**
12:10 -12:20	**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)**
12:20–1:00	Networking Lunch
ENERGY STORAGE BUSINESS MODELS AND INNOVATION	
1:00 – 1:50	**Energy Storage Leadership Panel: Evolving Business Models and Innovation with Energy Storage** -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 PANELISTS: **Mr. Jonathan Adelman**, Vice President, Strategic Resources and Business Planning, Xcel Energy **(confirmed)** **Mr. Larsh Johnson,** CTO, Stem **(confirmed)** **Mr. Nathan Wyeth**, Director of Grid Service, Sunrun **(confirmed)** **Mr. Walker Wright**, VP, Public Policy, ENGIE Storage **(confirmed)**
INNOVATION TO SUPPORT DERs INTEGRATION	
1:50 – 2:15	**How the IIoT is Aiding the Electric Utility for DER Integration: Standards, Architecture, Security** -Layered Databus architecture; opening new realms for DER integration -Past, Present, Future; the approach to incorporating today's DER with your existing system. **Mr. Erik Felt, Market Development Director, Future Grid RTI (members of the Industrial Internet Consortium and Advisory Board member to RSC) (confirmed)**
2:15 – 2:45	**Emerging Innovation to Support Microgrids & DERS Projects** 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:** **(Topic coming soon)** **2:15 – 2:340: Ms. Hanna Grene,** Strategy and Partner Development, PXiSE Energy Solutions, LLC - Sempra Infrastructure, LLC **(confirmed)** **Data Driven Optimization of Distributed Energy Asset Design and Operation** 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 **2:30 – 2:45: Mr. Bryan Huber, COO, CleanSpark (confirmed)**
2:45 – 3:00	Closing Remarks

3:00	End of Summit

Working AGENDA: Sessions are not in final order and not all invited sessions are listed.

HOMEPAGE: https://rscouncil.org/microgridswest

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