MICROGRID & DERS SUMMIT
September 25-26, 2018
The Mary M. Gates Learning Center
Alexandria, VA

Building a Resilient, Efficient and Sustainable Energy Future
2018 PROGRAM HIGHLIGHTS

Leadership Sessions with:

Mr. Thomas Fanning, President, Chairman and CEO, Southern Company
Mr. Bruce J. Walker, Assistant Secretary, Office of Electricity and Acting Assistant Secretary, Office of CESER, U.S. DOE
Ms. Lisa Jung, SES, Deputy Assistant Secretary of Defense, Installation Energy

Innovative Discussions with:

Mr. Andy Haun, SVP, Chief Technology Officer, Microgrids, Schneider Electric
Dr. Sonja Glavaski, Program Director, ARPA-E
Ms. Denise Foster, VP- State & Member Services, PJM Interconnection

To learn more about these organizations, please visit: rscouncil.org/giving-back
## 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 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:

**Technical Focus:**
- 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
- Cloud computing and data analytics in optimizing DR, energy efficiency, and DER management
- Transactive Energy and blockchain capabilities for DERS and Microgrids

**Business Focus:**
- The role of distribution utilities in integrating microgrids and DERS into the larger grid
  - 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.

## 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, 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
- Systems integrators
- Energy storage companies
- Communications, and power control solutions providers

## Location:

The Summit will be hosted at the Mary M. Gates Learning Center / United Way:

701 N. Fairfax St. Alexandria, VA  [http://www.marygateslearningcenter.com](http://www.marygateslearningcenter.com)

* Rental fees will support the nonprofit United Way Foundation

POC: Monica Mckenzie, Managing Partner, RSC: [mckenzie@rscouncil.org](mailto:mckenzie@rscouncil.org) | 917.435.1266
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<th>Time</th>
<th>Session</th>
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<tr>
<td>7:30 – 8:30</td>
<td>Registration and Networking Breakfast</td>
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<tr>
<td>8:30 – 8:40</td>
<td>Welcome</td>
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<td>8:40- 9:00</td>
<td><strong>Department of Energy Opening Remarks: Building a Resilient, Efficient and Sustainable Energy Future</strong>&lt;br&gt;- Thoughts towards the role of DERS and Microgrids towards modernizing the U.S. electric grid: current security and reliability considerations, and strategic approaches towards the most efficient and sustainable integration methods for the future&lt;br&gt;<strong>Mr. Bruce J. Walker</strong>, Assistant Secretary, Office of Electricity and Acting Assistant Secretary, Office of Cybersecurity, Energy Security, and Emergency Response, U.S. Department of Energy (confirmed)</td>
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<td>9:00- 10:00</td>
<td><strong>Military Leadership Panel: Enhancing Energy Security and Resiliency</strong>&lt;br&gt;- Emerging thoughts and strategic approaches towards achieving energy resilience: from defining the goals to structuring the supporting guidance&lt;br&gt;- Current initiatives and strategies for delivering an increased grid-independence capability&lt;br&gt;- The role for microgrids and DERs (with a focus on renewables)&lt;br&gt;- Viewpoint towards the “energy security as a service” model - drivers, challenges, and possible business models&lt;br&gt;<strong>Moderator: Nicholas Judson, PhD, Assistant Group Leader, Energy Systems, MIT Lincoln Laboratory (confirmed)</strong>&lt;br&gt;<strong>Panelists:</strong>&lt;br&gt;<strong>Ms. Lisa Jung, SES</strong>, Deputy Assistant Secretary of Defense, Installation Energy, Office of Assistant Secretary of Defense, Energy, Installations &amp; Environment (confirmed)&lt;br&gt;<strong>The Honorable Mrs. Phyllis L. Bayer</strong>, Assistant Secretary for Energy, Installations and Environment, U.S. Navy (confirmed)&lt;br&gt;<strong>The Honorable Mr. John W. Henderson</strong>, Assistant Secretary of the Air Force, Installations, Environment and Energy, USAF (confirmed)&lt;br&gt;<strong>Mr. Jordan Gillis</strong>, Acting Assistant Secretary of the Army (Installations, Energy and Environment), U.S. Army (confirmed)</td>
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<td>10:00-10:30</td>
<td>Networking Break</td>
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<td>10:30- 11:45</td>
<td><strong>Leadership Panel: Evolving Strategic Business Models for Integrating Distributed Energy Resources and Microgrids into the Grid</strong>&lt;br&gt;- 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&lt;br&gt;- Exploring evolving microgrids business models: microgrids-as-a-service to partial ratepayer support&lt;br&gt;- Working with utilities in a complex regulatory environment: what our partners need to know&lt;br&gt;- Perspective towards where technical innovations will make the greatest strides in the near term that will help improve the resilience, efficiency and sustainability of the Grid.&lt;br&gt;<strong>Moderator: H.G. Chissell, Founder and CEO - Advanced Energy Group</strong>&lt;br&gt;<strong>Panelists:</strong>&lt;br&gt;<strong>Mr. Frank Almaraz</strong>, Senior Vice President, Commercial Operations, CPS Energy (confirmed)&lt;br&gt;<strong>Dr. Paul Chodak III</strong>, Executive Vice President – Utilities, American Electric Power (confirmed)&lt;br&gt;<strong>Mr. Leonardo Moreno</strong> Senior Vice President, Corporate Strategy &amp; Investment; Chief Risk Officer, AES Corporation (confirmed)&lt;br&gt;<strong>Mr. Jay Stowe</strong>, Senior Vice President, Distributed Energy Resources, Tennessee Valley Authority (TVA) (confirmed)</td>
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<tr>
<td>11:45</td>
<td>How New Microgrid Technologies Enable Optimal Cooperation Among DERS</td>
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<td>12:15</td>
<td>Implementing an Effective Microgrid Controller from NREL Challenge Winner</td>
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<td>12:45</td>
<td>TECH TALK: Advantages for Using a Microgrid Gateway Controller</td>
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<td>Networking Lunch</td>
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### SEPTEMBER 26, 2018 | DAY 1

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<th>Time</th>
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| 3:40 – 4:10 | **Innovation in Grid Tied Energy Storage and DER Integration: An Engineer’s perspective on the near future**  
- Energy storage grid integration capabilities and interconnection and what the near term future may hold: Renewables Integration, Ancillary Services  
*Dr. Sherif Abdelrazek*, Senior Engineer, Distributed Energy Resources Group, Duke Energy *(confirmed)* |
| 4:10 – 4:40 | **ARPA-E Project Updates: Innovations underway to enhance the efficient, sustainable and resilient integration and interconnection of DERS into the Grid, and the role for microgrids**  
*Dr. Sonja Glavaski*, Program Director, ARPA-E *(confirmed)* |
| 4:40 – 5:10 | **Case Study of Microgrid and DERS Projects: 3 things we are getting right, 3 things we want to improve, and 3 surprises along the way**  
Philadelphia Navy Yard Update and Bethel, CT: Bethel’s solar farm is comprised of more than 2,900 photovoltaic panels totaling 947.7 kW DC and designed to generate more than 1.2 million kWh of renewable electricity each year. The solar farm is connected directly to the local utility distribution system.  
*Mr. Will Agate*, Vice President, Microgrid Services, Ameresco *(confirmed)* |
| 5:10 – 5:15 | Closing Remarks |
| 5:15pm | **End of Day 1** |

### SEPTEMBER 26, 2018 | DAY 2

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<td>7:30 – 8:45</td>
<td>Networking Breakfast and welcome back</td>
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### REGULATORY & MARKETS LANDSCAPE

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| 0845 – 0945 | **Panel Discussion: The Regulatory Landscape Towards Microgrid and DERS Integration into the Grid**  
As more utilities propose microgrids and increase their renewables portfolio, the regulatory environment is increasingly highlighted to help ensure the reliability, and sustainability of the Grid while balancing the financial benefits and costs.  
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 of microgrids? How do we protect safe delivery of electricity to meet customer demand in an increasingly fragmented market? 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:** *Dr. John Caldwell*, Director of Economics, Edison Electric Institute *(confirmed)*  
**Panelists:**  
*Dr. Karl Rabago*, Professor of Law and Executive Director, Pace Energy and Climate Center *(confirmed)*  
*Mr. Joseph Power*, VP Federal Legislative and Regulatory Affairs, Ameren *(confirmed)*  
*Mri. Jim Horan*, Director, Regulatory Affairs, NRECA *(confirmed)*  
NARUC Representative confirmed *(speaker tbd)* |
| 0945 – 1020 | **Building a Resilient Energy Future: Markets and the Integration of DERS**  
PJM’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  
*Ms. Denise Foster*, Vice President - State & Member Services, PJM Interconnection *(confirmed)* |
<p>| 10:20 – 10:50 | Networking Break |</p>
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| 10:50 - 11:20 | Innovative Approaches to Microgrids and Integrating DERS into the Grid                           | - Brief overview of how Coned is creating a unique new hybrid service model for large microgrids: case study at Hudson Yards  
- Best practices towards integrating DERs into the traditional electric distribution  
- Perspective towards near term role for data analytics (for both the customer and the utility), distribution automation, and grid edge sensing  
- On the horizon energy storage grid integration capabilities  

Mr. Andre Wellington, Distributed Generation Ombudsman / Manager, Consolidated Edison (confirmed) |
- Meeting tomorrow’s challenges: Perspective towards the changing operational environment and the potential impact on current energy capabilities and future requirements  
- The role of microgrids and renewables: 3 things we are getting right and 3 areas for improvements  

Moderator: COL(ret) Paul Roege, Vice President, Typhoon HIL, former Chief of Operational Energy Office, US Army (confirmed)  
- Ms. Marnie Bailey, Chief, Power Management Branch, CP&ID, CERDEC (confirmed)  
- Mr. Cory Goetz, Technical Management Division Chief ,PM-E2S2, PEO CS&CSS (invited)  
- MSgt Fred McCue, USMC (Ret.).(confirmed)  
- Col (ret) James Caley, ASN, OE (tentative)  

-Mr. Chris Evanich, Manager Microgrids, S&C Electric Company (confirmed) |
| 12:10 - 12:45 | Utility Leadership Keynote: The Evolving Business Model Frameworks and Innovations for Integrating Distributed Energy Resources into the Grid | - 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)  
- Exploring microgrids business models: microgrids -as-a-service to partial ratepayer support  
- Working with utilities in a complex regulatory environment: what our partners need to know  
- Perspective towards where technical innovations will make the greatest strides in the near term that will help improve the resilience, efficiency and sustainability of the Grid.  

Mr. Thomas Fanning, President, Chairman and CEO, Southern Company (confirmed) |
| 12:45 – 1:20 | Networking Lunch                                                                                   |                                                                                                                                                                                                      |
- Considerations towards baking in cyber resiliency  
- Role for microgrids and DERS: does the use case / business model necessarily look different when the goals is resiliency, sustainability and/or reliability  

Mr. Robert Hughes, Executive Director, Office of Energy Assurance, U.S. Air Force (confirmed) |
| 1:50 – 2:00  | Light refreshment Break                                                                           |                                                                                                                                                                                                      |
| 2:00 – 2:15  | Energy Storage Innovation Updates                                                                | Advanced Flywheel Technology: extending the discharge duration from minutes to four hours  

Amber Kinetics: Dr. William Golove, Amber Kinetics (confirmed) |
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<tr>
<td>2:15 – 2:30</td>
<td>Energy Storage Innovation Updates</td>
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<td>Lithium-ion-based Energy Storage Solutions: Innovations in battery architecture, performance and safety</td>
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<td>Cadenza Innovations: Mr. Rick Chamberlain, Vice President of Engineering, Cadenza Innovation (a World Economic Forum’s 2018 Technology Pioneer) (confirmed)</td>
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<td>2:30 – 3:00</td>
<td>Transactive Energy for Optimized and Reliable DERS Penetration</td>
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<td>- Understanding what is required to support increasing levels of distributed energy resource penetration in electrical distribution systems</td>
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<td>- Overview and status report on GridWise® Transactive Energy Systems Research, Development and Deployment Roadmap and TE Framework</td>
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<td>Mr. Ron Ambrosio, Chair Emeritus of the Gridwise Architecture Council and co-founder and Chief Scientist at Utopus Insights (confirmed)</td>
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<td>3:00 – 3:30</td>
<td>Exploring Blockchain Applications and Processes for the Energy Sector</td>
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<td>- Understanding the implications of decentralized computing platforms in the context of the energy transition</td>
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<td>- What potential users need to know about current technical limitations and regulatory uncertainties</td>
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<td>- How utilities, grid operators, and consumers are using blockchain today - and how it may support greater DER and microgrid market participation in the future</td>
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<td>Mr. Sam Hartnett, Senior Associate Rocky Mountain Institute / The Energy Web Foundation (confirmed)</td>
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<td>3:30 – 3:45</td>
<td>Closing Remarks TBD</td>
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<td>3:45pm</td>
<td>End of Summit</td>
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Contact details on following page
Since 2011, Roosevelt Strategic Council has convened the most senior and respected leaders in business, technology and government to collaborate and examine the next generation of challenges transforming global enterprises. In each of our practice areas, RSC has developed a highly vetted network of end users, solutions providers, and field experts to contribute their unique perspective and insights to change business operations.

Animated by the values and guiding principles of RSC, our vision is to continually be the United States’ most dynamic and ethical Institute to the business, healthcare, and energy communities; recognized by government, and private industry as both a thought leader and a reliable, trustworthy, value oriented operating partner. We strive to deliver mission relevant educational summits, seminars, and symposiums to the respective departments, agencies, and business leaders to help them achieve effective and efficient mission success.

**Federal Government and Military Personnel:** Complimentary to attend. The Summit is considered a no-cost to DoD, widely attend educational and training forum.

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**Ways to Register:**
Online: microgrids.rscouncil.org
Phone: 201-918-3466
Email: registrations@rscouncil.org

**Exhibit & Sponsorship Opportunities Available:**
Table Top Displays, Networking Receptions, Though Leadership Sessions & Branding Opportunities

**CONTACT:**
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mckenzie@rscouncil.org