



DIGITAL INTELLIGENCE FOR ENERGY SUMMIT

Innovating with Automation, Analytics, and AI for a Smart, Resilient Energy Future

June 26 – 27, 2019 | Alexandria, VA

Who we are:	<p>RSC is a 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.</p> <p>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.</p> <p><i>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.)</i></p>
Program Design & Goal	<p>A non-partisan educational senior level 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.</p> <p>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</p>
Focus Areas:	<p>Business / Leadership Focus:</p> <ul style="list-style-type: none"> -Creating Digital Strategies that Lead to Business Value :What do we really want the data to do for us? Transforming Business Models and Processes to leverage digital applications -Establishing the end goals / defining the use case: what are we trying to achieve through utilizing big data? What insight or process improvements are we trying to achieve? - Who owns the data and what does good data governance look like? Consideration towards cost and security with increased data generating assets -Utilizing data to unlock solutions that can increase convenience and comfort for customers <p>Technical & Operational Focus: Ingesting, correlating and disseminating data in a meaningful and efficient capacity</p> <ul style="list-style-type: none"> -Data visualization: bringing together large, disparate data sources across assets for real time visualization / digital twins -Advanced analysis / predictive analytics for performance and health, load prediction, price forecasting, and DER management -Robotic Process Automation (RPA) applications/ Smart metering and leveraging customer data for improving revenue streams and enhancing customer experience -Cyber resilience: advanced data analytics for predictive and recovery modeling and planning -Leveraging cloud computing for big data analytics to increase operational efficiency and flexibility - EV Charging, big data, and the grid - Utilizing weather data sets to help in optimizing wind and solar assets and to enhance energy trading, outage prediction and load forecasting/ UAS, Geospatial, and predictive analytics
Location:	<p>The Summit will be hosted at the Mary M. Gates Learning Center / United Way: 701 N. Fairfax St. Alexandria, VA http://www.marygateslearningcenter.com * Rental fees will support the nonprofit United Way Foundation</p>
General Target Audience	<p>Public and private sector participants include but not limited to: Utilities, cooperatives, and independent power producers; Federal, state and private sector energy customers including facilities, installations, community, city level, research labs and industry innovators</p> <p>Key titles include but not limited to:</p> <ul style="list-style-type: none"> • Executive level charged with strategic planning and digital /IT integration and performance management • Energy Innovation Directors and emerging technologies representatives • Grid or market operators / Digital grid technology and software developers • System integrators and consultants/ Regulators and public policy makers • Software innovators in: asset performance management software, analytics and analysis, advanced machine-learning <p>Data science and digital integration</p>

7:15 – 8:15	Registration and Networking Breakfast
8:15 – 8:30	Welcome: RSC Managing Partner, Monica Mckenzie Summit Moderator (by invitation from RSC): Mr. H.G. Chissell, Founder and CEO, Advanced Energy Group

STRATEGIC OPERATIONAL AND BUSINESS OBJECTIVES OPENING SESSIONS

8:30 – 8:55	<p>DOE Opening Remarks: Innovating with Automation, Analytics and AI for a Smart, Resilient Energy Future</p> <ul style="list-style-type: none"> -Key elements for developing an enterprise wide strategy that includes good data governance, and a business case for digital innovation in your organization -Advice for utilities for moving from asset intensive businesses to data and information intensive businesses: increasing use of open data in the industry to build new applications for processes and empower each other to become more data and insight driven as well as collaborative -Where DOE CIO sees opportunities for applying advance machine learning and AI applications for the utility sector -Current focus of DOE towards standing up a big data platform for cybersecurity utilizing AI <p>Ms. Pam Isom, Deputy Chief information Officer of Architecture, Engineering, Technology & Innovation; Chief Data Officer (CDO); Department of Energy (confirmed)</p>
-------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

8:55 – 9:20	<p>Harnessing the Power of Data to Support a Resilient, Efficient and Sustainable Digital Utility Sector</p> <ul style="list-style-type: none"> -Establishing the end goals and defining the use case: what are we really trying to achieve through utilizing data in the utility sector? -Lessons learned and advice towards developing an operating strategy in a data driven environment: How NYPA began their journey and where are we going next -Innovating from within: Brief overview of the activities and goals of NYPA's Advanced Grid Innovation Laboratory for Energy (AGILe) - Thoughts towards how you approach your security considerations when integrating new digital capabilities <p>Mr. Ricardo DaSilva, Vice President, Strategic Operations, NYPA (confirmed)</p>
-------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

9:20 – 10:30	<p>Utility Panel: Innovating with Advanced Data Applications for the Utility Sector: Navigating new data driven technologies and methodologies</p> <ul style="list-style-type: none"> -What insights or process improvements are most important to achieve through utilizing technical solutions rooted in big data? -How do you insert advanced data capabilities into your IT /OT ecosystem? Key questions to consider when navigating new data driven technologies. What are your key success metrics? (efficiency, sustainability, resiliency of the grid, increased customer engagement and convenience, etc) - Innovating from within: What do you see as the value from internal incubators and innovation labs? How are you able to leverage this value? Examples? <p>Panelists:</p> <p>Mr. Michael Britt, Vice President, Energy Innovation Center, Southern Company (confirmed)</p> <p>Mr. Chris Johnson, Director of Enterprise Innovation and Technology, AEP (confirmed)</p> <p>Mr. Josh Gould, Utility of the Future, Con Edison (confirmed)</p> <p>Moderator: Mr. H.G. Chissell, Founder and CEO, Advanced Energy Group</p>
--------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

10:30 – 11:00	Networking break
---------------	-------------------------

11:00 – 11:25	<p>CVC Perspective: Strategic Approaches to Navigating and Integrating Digital Innovations into the Utility Sector</p> <ul style="list-style-type: none"> - How National Grid Partners is approaching the investment into new advanced data driven capabilities : current technologies and innovation areas of interest - Key questions to consider when navigating new technologies and opportunities <p>Ms. Hilary Flynn, Director, Incubation; in lieu of Mr. Pradeep Tagare, Vice President, Head of Corporate Venture Capital (CVC), National Grid (confirmed)</p>
---------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

HOW TO APPROACH AND INTEGRATE NEW DIGITAL CAPABILITIES

11:25 – 12:00 **How to Approach the Build Out and Application of Advanced Digital Capabilities for your IT/OT ecosystem**

- Your journey towards applying advanced digital capabilities to your ecosystems: understanding the steps involved towards integrating any effective digital application into your business and operational process
- Proven use cases for the utility sector, and brief case study of The Weather Company Vegetation Management - Predict : utilizing AI for geospatial satellite imagery for assisting in predictive maintenance and outage prediction, load forecasting, optimizing wind and solar assets and to enhance energy trading

Mr. Mahesh Sudhakaran, Chief Digital Officer, IBM Energy, Environment & Utilities (confirmed)

12:00- 12:45 **Lunch**

12:45 – 1:15 **A CEO’s Approach to Evolving a Utility of the Future and the Role for Digital Innovation**

- Perspective towards where digital innovations will make the greatest strides in the near term that will help improve the resilience, efficiency and sustainability of the Grid.
- Defining the use and business case for advanced digital capabilities: from improving customer communication to enhancing the efficiency and safety of operations and the nation’s grid infrastructure

Mr. Calvin Butler, CEO, BG&E (confirmed)

1:15 – 1:45 **Building the Operating Strategies and IT Architecture to Unlock the Capabilities and Power of Data for a Smart, Resilient Energy Future**

- How to begin to harness and operationalize data for enhanced data driven decisions while overcoming legacy systems and infrastructure : where do you begin your integration and what type of support team do you need
- Where to store your data? How best to ingest, correlate and disseminate data for meaningful outcomes that solve and meet a desired end goal
- Current focus and approach for implementing near term capabilities, from RPA to advanced data analytics and ML

Mr. Richard Rosenstiel, Director, Information Technology, ComEd ; Director, Data Analytics Platform Implementation, Exelon Corp (confirmed)

DEPARTMENT OF DEFENSE INSTALLATIONS FOCUS

1:45 – 2:15 **Strategy: DoD: Army Installations of the Future and the Role for Digital Capabilities to Improve Resiliency and Efficiency**

- Establishing the end goals / defining the use case: what are we trying to achieve through utilizing digital capabilities on our installations? What insight or process improvements are we trying to employ by looking to smart city technologies and IoT
- Starting with the data: how Army is approaching the strategic build out of the IT Infrastructure to support new data capabilities while overcoming legacy systems
- Where future opportunities may arise to apply advanced machine-learning, and varying levels of autonomy /AI throughout the strategic and operational IT/OT ecosystem on our installations

Mr. Richard Kidd IV, SES, Deputy Assistant Secretary of the Army for Strategic Integration, Office of Assistant Secretary for Energy, Installations and Environment (confirmed)

2:15 – 2:40 **Implementation: Determining Effective Use of Data to Improve DoD Facility Energy Investments and Resiliency**

- Learn about the areas of interest with The Department of Defense (DoD) Installation Energy Test Bed that is seeking to demonstrate innovative solutions that improve the use, access and quality of data for the purposes of efficient and informed decision-making and improved installation/facility energy and water management.

Mr. Tim Tetreault, Program Manager for Installation Energy & Water (EW), Environmental Security Technology Certification Program (ESTCP), DoD (confirmed)

2:40 – 2:50	<p>10 minute Tech Talk: The Emerging “Grid” Behind the Meter...The Disruptive Force of Facility-Based IoT Networks</p> <ul style="list-style-type: none"> - Showcasing the evolution of solutions enabling the integration and connectivity of “behind the meter” energy systems - How connectivity of facility-based energy systems is enabling entirely new services and customer benefits  <p>Mr. Tom Willie, CEO Blue Pillar (confirmed)</p>
2:50 – 3:20	Networking Break
DERS, EV, and the GRID	
3:20 – 3:50	<p>Federal Afternoon Keynote:</p> <p>Advanced Grid R&D from DOE: Shaping the Future Development and Application of Faster Grid Analytics and Modeling through data driven applications</p> <ul style="list-style-type: none"> -How DOE is supporting efforts to derive more value from the sensor data already being gathered and used to monitor the health of the grid and support system operations. -Integrating advanced sensors, communications, visualization and analytics to enable 100% observability -Improving applicability of large, multi-source datasets for real-time operations and off-line planning studies <p>Deputy Assistant Secretary Mr. Michael Pesin, Advanced Grid R&D, Office of Electricity, DOE (confirmed)</p>
3:50 – 4:20	<p>EV Charging, Big Data, and the Grid</p> <ul style="list-style-type: none"> - How Greenlots is utilizing data to support an open standards grid balancing service that helps grid operators avoid overloading their system by aggregating and shifting EV loads based on grid conditions and events. -Current capabilities for prioritizing and controlling charging at times when additional grid capacity is needed -Lessons learned: what data sets are proving the most meaningful according to the end goals and early lessons learned towards ingesting, correlating and disseminating our data -Update on pilots with Avista and SCE <p>Mr. Scott Fisher, Vice President, Greenlots (confirmed)</p>
4:20 – 4:50	<p>Conquering Mountains of Data Creating an Analytical Avalanche</p> <ul style="list-style-type: none"> - How to bring disparate datasets together harmoniously to support analysis initiatives including data quality, rate analysis, demand response performance, and other advanced analytics - Mapping master data using a flexible data model - Best practices for integrating tracking, billing, AMI, and other secondary data  <p>Mr. Chuck Juhasz, Senior Principal Consultant, Energy Insights, DNV GL (confirmed)</p>
UAS CAPABILITES	
4:50 – 5:20	<p>Utilizing UAS in the Utility Sector</p> <ul style="list-style-type: none"> -Current applications of UAS platforms within AES and what data feeds are proving most useful -Current technical challenges to consider -How AES is managing the ingest of large data and then utilizing that data in a meaningful way? Where to store your data? <p>Ms. Assel Ayapova, Global Drone Program Manager, AES Corporation (confirmed)</p>
5:20 – 5:30	Closing Remarks, End of Day 1

7:30 – 8:45	Networking Breakfast and welcome back
-------------	---------------------------------------

REGULATORY LANDSCAPE

8:50 – 9:40	<p>Panel Discussion: The Regulatory Landscape Towards Digital Intelligence and Data Governance</p> <p>This panel will provide an in depth discussion towards key regulatory and governance topics surrounding the continued integration and applications of advanced digital capabilities. Panelists will offer a diverse set of viewpoints to provide all in attendance a beneficial and insightful understanding of the current regulatory landscape.</p> <p>Panel Moderator : Mr. Erik Ford, Executive Director, New Jersey Energy Coalition (confirmed)</p> <p>Panelists:</p> <p>Representative from PSEG (confimed)</p> <p>Mr. Bryson Bort, Founder, SCYTHE (confirmed)</p> <p>Mr. Michael McCormick, Associate Director, Maxwood Solutions, LLC (confirmed)</p> <p>Mr. Thomas F. Zadlo, Manager, Corporate Data Management Department, PJM Interconnection (confirmed)</p>
9:40 – 10:00	Morning break

CYBER RESILIENCY

10:00- 10:30	<p>Cyber Resiliency through AI enabled Blockchain and Next-Generation Cyber Tools for the Power Grid</p> <ul style="list-style-type: none"> -Exploring AI enabled blockchain solutions to distribute and automate IoT in a more secure way : how AI enabled blockchain solutions may help increase cyber resilience and optimize complex exchanges of DERs by encrypting, monitoring and automating transactions and removing third parties -Brief status report and overview of PNNL's DOES funded research projects for next generation cyber tools and what the utility sector needs to prepare for <p>Dr. Michael Mylrea, Senior Advisor, Cybersecurity & Technology Blockchain Lead (PI), Pacific Northwest National Laboratory – PNNL (confirmed)</p>
10:30 – 11:05	<p>A conversation on Cyber Resilience and Recovery for the Federal Perspective</p> <p>From Increasing resiliency across an expanding footprint of sensors and networks, to exploiting data to enhance decision-making, this conversation will offer you insight, advice and available resources from our federal leaders and their respective mission priorities towards cyber resilience, response and recovery</p> <ul style="list-style-type: none"> -Hear how DoD approaches cyber resilience and recovery across its military installations and bases: Current policies or approaches that our partners and stakeholders need to know and how we coordinate with our energy partners. -Learn about DHS's current priorities for strengthening the security and resiliency of our Nation's Grid and their perspective towards the rising challenges in an ever expanding digital footprint in our energy sector: Available resource for private sector and energy partners <p>Mr. Donald Heckman, SES, Principal Director, Deputy CIO for Cybersecurity, Department of Defense (confirmed)</p> <p>Ms. Boyden Rohner, The Cybersecurity and Infrastructure Security Agency (CISA) , DHS (confirmed)</p> <p>Discussion facilitated by Dr. Michael Mylrea, Senior Advisor, Cybersecurity & Technology Blockchain Lead (PI), Pacific Northwest National Laboratory – PNNL</p>

TURNING DATA INTO POWER

11:05 – 11:35	<p>Turning Data into Power: Utilizing advanced data applications to improve Power Plant Operations and Maintenance</p> <ul style="list-style-type: none"> - How Duke Energy is utilizing advanced sensors to increase automation of predictive maintenance - Creating a digital worker platform utilizing big data analytics and visualization to provide insight and drive actionable intelligence: what are the desired goals and objectives? -How far can the data really take us? viewpoint on current limitations towards trust and validation and verification towards the data outcomes and what the future may hold for applications in the utility sector -Best practices and advice towards optioning the right data sets according to the desired outcome <p>Dr. Michael Reid, General Manager, Technical Programs, Fossil Hydro Group, Duke Energy (confirmed)</p>
---------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

11:35 – 12:05	<p>AI that reads? One step forward towards your Digital Transformation Journey</p> <ul style="list-style-type: none"> - How artificial intelligence and machine learning technology is closing the unstructured-to-actionable-data gap - Understanding the technical framework that allows ThoughtTrace to identify and extract all the data locked in your contracts and commercial agreements - Learn how the technology also enables companies to integrate newfound data with their own internal data and systems to gain additional insights. <p>Sponsored by:</p> <p>Ms. Catalina Herrera, Director of Education and Enablement, ThoughtTrace</p> <p>Sponsored by:  ThoughtTrace</p>
12:05– 12:50	<p>Networking Lunch</p>
12:50 – 1:20	<p>Big Data and Machine Learning in NETL’s Fossil Energy Portfolio: including digital twinning, predictive maintenance and sensors and controls</p> <ul style="list-style-type: none"> - Brief overview of FE technology thrusts and active portfolio leveraging big data and machine learning - Perspective towards where future opportunities may arise to apply advanced machine-learning, and varying levels of autonomy throughout the IT/OT ecosystem <p>Dr. Antonio Ferreira, CIO National Energy Technology Laboratory (NETL) , DOE (confirmed)</p>
1:20 – 1:50	<p>Creating a Digitally Connected and Dynamically Optimized Power Plant: Update on EPRI’s work in this area</p> <p>The i4Gen vision requires an increase in data collection, autonomous data integration, methods for massive data management, data analysis, and applications that convert data to actionable intelligence. Here about current work and pilots focused on:</p> <ul style="list-style-type: none"> - Maturing technology in the areas of sensors, advanced control, data analytics, digital worker, and next stage monitoring and diagnostics. - Improving decision-making through data analytics and potential application of prognostics, - Integrating fundamentals and digital tools to enable a digital workforce - Improving communication using data visualization to display relevant information in a timely manner <p>Ms. Susan Maley, Principal Project Manager, Instrumentation, Controls, and Automation Program; Project Manager i4Gen, EPRI (confirmed)</p>
1:50 – 2:00	<p>Refreshment break</p>
2:00 – 2:30	<p>The Industrial Internet of Things: How the IIoT is Aiding the Electric Utility for DER Integration and Innovation</p> <ul style="list-style-type: none"> - Learn about the IIoT and how to achieve new efficiencies and expand operations. The trend to "edge" is fueling the ability for systems traditionally monitored and controlled by centralized applications to become distributed <p>This talk is around the evolution of the central system architected control systems to true distributed/autonomous systems and is fueled by the work and examples already deployed in other markets (A&D, medical, autonomous vehicles, etc). The Industrial Internet Consortium (IIC) has a wealth of information already published and readily available for use by interested organizations, along with testbed environments that are open for new partner/collaborators.</p> <p>Mr. Erik Felt, Market Development Director, Future Grid RTI (members of the Industrial Internet Consortium and Advisory Board member to RSC) (confirmed)</p>
2:30 – 2:55	<p>reserved</p>
2:55 – 3:00	<p>Closing Remarks, end of Summit</p>

ARRIVAL LOGISTICS NEXT PAGE

LOCATION:

The Summit will take place at:

Mary M. Gates Learning Center at The United Way Worldwide Headquarter Building:

701 N. Fairfax St. Alexandria, VA , Corner of Madison St, one block west of the Potomac River.

<http://www.marygateslearningcenter.com> (please do not call the Center for logistics, contact DSI)

ONSITE PARKING:

There is no parking at the Center

Taxis are readily available from the Center and arrive within 5 minutes usually.

PARKING LOT:

Parking is available for a fee nearby at:

Waterfront at Old Town (One block away)

226 Montgomery St

Alexandria, VA 22314, US

\$11 Daily Max – CASH ONLY

Canal Center (Three blocks away)

44 Canal Center Plaza

Alexandria, VA 22314

\$10 Daily Max

Washington Square (Four blocks away)

652 Wythe St

Alexandria, VA 22314

\$13 Daily Max

ARRIVAL LOGISTICS:

Upon arrival, you will enter through glass doors. Directly to your right we be another set of glass doors, with The Mary Gates Learning Center written above (see picture), about 10 feet from the entrance. We are located directly through these glass doors – you will be able to see us when first entering the building



An RSC staff member will be at the registration desk to greet you (contact information below) **Please pick up your badge, onsite agenda booklet and sign in. Please note that badges must be worn at all times.**

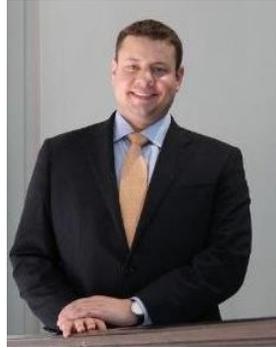
DRESS CODE

Speakers: Business Dress

Attendees: Military: Duty Uniform of the day. **Civilian:** business casual, jacket and slacks requested, tie optional

Your main onsite POCS:

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



Mr. Thomas Engelman, Managing Partner, Roosevelt Strategic Council
Cell Phone 1.919.215.6873 Email: tengelman@dsigroup.org

**ONSITE POCS
from RSC:**

**WIFI/
BUSINESS
CENTER**

We will provide you with complimentary WIFI. You may bring your personal devices

There is access to phones, printers and computers should you need them.

**Food and
beverage**

FOOD AND BEVERAGE:

We will provide fresh coffee, teas, beverages, breakfast, snacks and a full lunch on both days. Breakfast will include a variation of fresh stuffed croissants, French toast, 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

Please inform us if you have any dietary needs (kosher, vegan, gluten free, etc..) by THURSDAY JUNE 20