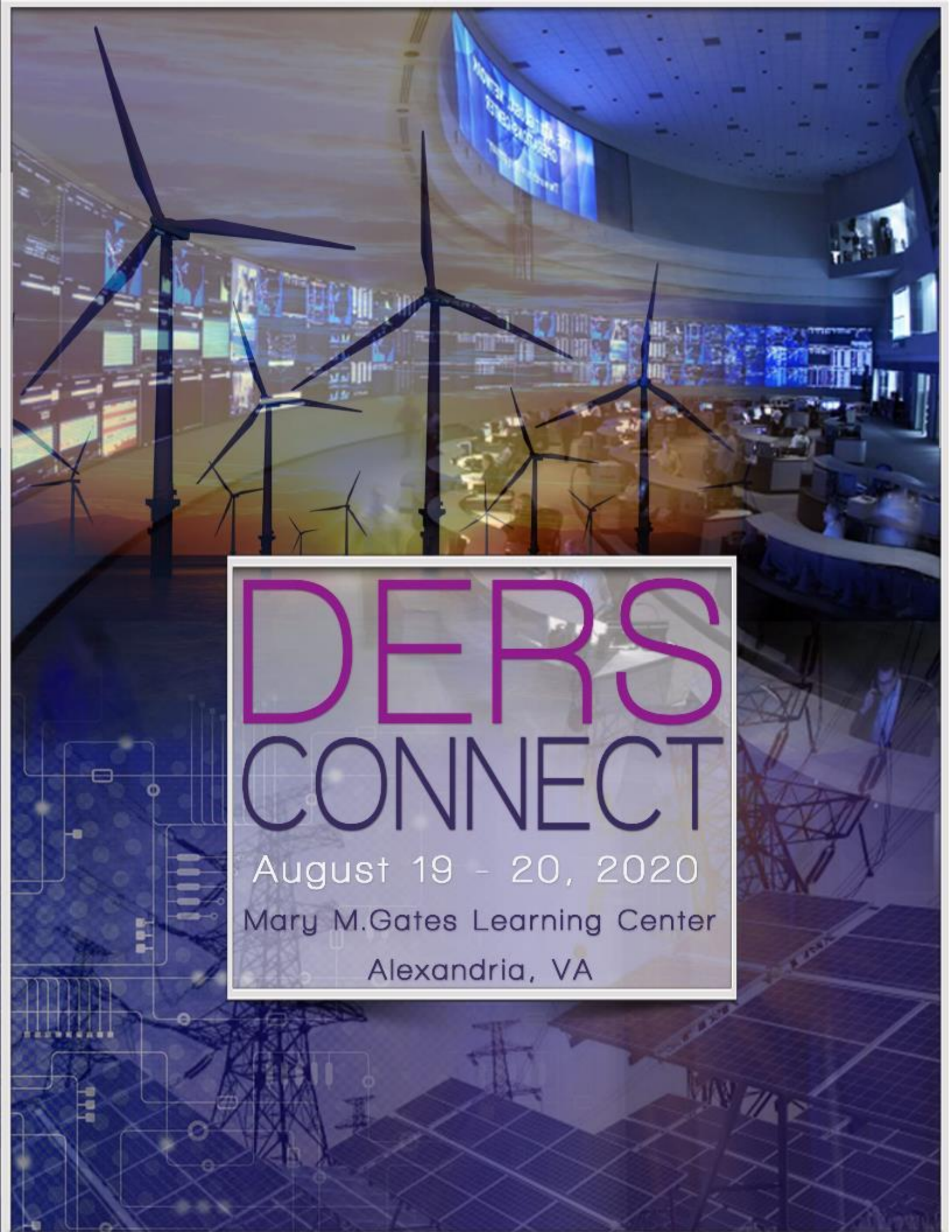
DERS
CONNECT
August 19 - 20, 2020
Mary M.Gates Learning Center
Alexandria, VA

Who we are:	**Roosevelt Strategic Council (RSC) is a non-partisan woman owned, minority owned, small business.** We serve as a catalyst for collaboration that fosters the interchange of knowledge among a cross sector of senior leaders from the federal, state and private sectors. We achieve this through our live, two day educational summits that are highly curated around a particular functional topic or sector challenge. Our forums are often referred to as business level "Town Halls' because of our strong promotion of dialogue, debate and discussion among all in attendance.  RSC's Three Founding Partners: Tom Engelman, Monica Mckenzie and Luis Hernandez **In order to maintain our neutrality,** we receive no funding or investment for operating costs from any outside organization, group, or individual and are not a membership based organization. Our summits are open to the general public of Allied Nations, excluding members of the press or reporting organization. ***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 us at: https://rscouncil.org/ giving-back. (This Summit is not an official fundraising event.)*** *You may visit our sister organization, Defense Strategies Institute (in operation since 2011) for more information on our defense and intelligence summits.*
Agenda Design:	- **This two - day educational summit** is designed to provide an interchange of knowledge and serve as a catalyst for collaboration across federal, state and private sector institutional, and commercial facility and campus energy sectors, utilities and industry innovators. - **Over 16 highly curated and moderated plenary sessions** with 6 hours of dedicated networking with an exclusive technology and solutions table top demonstration area. Over 75% of the agenda is by invitation only and chosen from our extensive unbiased research to provide a well-rounded set of perspectives
Venue:	**The Mary M. Gates Learning Center** (at United Way Worldwide HQ), A**lexandria, VA** (10 minutes south of D.C.) **Rental fees go to support the United Way.**

Focus Areas to Include but not limited to:	**With the core focus on** driving the integration of DERs into our energy ecosystems at the commercial, industrial, institutional facility and campus level and the larger grid infrastructure, you will walk away after two days with new knowledge gained on business and strategic operations and innovation, ideas sparked, and new collaborative relationships formed to support your respective organization. **Business Models, Strategies and Financing:** **-**Successful business models for gaining c-suite buy-in for funding the use of DERs to improve efficiency, resiliency, flexibility and sustainability projects for your built environment - What are the emerging operational and business cases for utilities integrating renewables to meet customer demand? -Cluster and community microgrid use cases for resiliency and reliability -Developing Flexible Energy Master Plans that account for future 'unkowns' (from evolving technical innovations to future threat environments) -Evolving operational strategies for the integration of DERs into the grid : what is the chain of command? Who can see what? **Technical Topics:** **-**Capabilities needed from a distributed energy resource management system : Supporting advanced data analytics for optimizing DER management; from EV charging to rooftop solar in facilities -Microgrid controllers: intelligent software for load prediction, management and enabling optimal cooperation among DERS -Energy storage and onsite generation technical advancements -Cloud computing, remote connectivity, and visibility of the edge: where to store your data? -The future of grid-interactive efficient buildings, AI in energy, and peer-to-peer trading
General Target Audience:	**1.Senior Corporate and Engineering Leaders and Stakeholders of Institutional and Commercial Facilities and Campuses from the Federal, State and Private Sectors with titles such as:** CFO, Vice President of Facility Management; Chief Sustainability Officer; Executive Director Facility Management; Portfolio Energy Managers; Senior Energy Engineer and Facilities Manager; State Energy Administrators **2.Senior Corporate and Engineering leaders from Utilities (IOUS, POUs), Cooperatives, and Community Choice Aggregates** **3.Industry Solution Providers Specializing in**: Design and Engineering Services, Energy Management, and IT software systems (DERMS, ADMS, etc..) **4.Power and Energy Providers (storage, microgrids, PV, Wind, EV charging, onsite CHP, etc...) with titles such as:** CTO, Vice President of Strategic Customers, Chief Innovation Officer, Vice President, Director or Manager of Business Development
Agenda POC:	**Monica Mckenzie, Senior Partner, Roosevelt Strategic Council | mckenzie@rscouncil.org | 917.435.1266** **WEBSITE: https://rscouncil.org/ders**

NOT ALL INVITED SPEAKERS ARE LISTED IN AGENDA. SESSIONS ARE NOT IN FINAL ORDER

AUGUST 19, 2020 | SUMMIT DAY 1

7:15 – 8:15	Registration and Networking Breakfast
8:15 – 8:30	Opening Welcome: RSC Founding Partner: Ms. Monica Mckenzie Remarks by Moderator: Mr. H.G. Chissell, Founder and CEO, Advanced Energy Group
8:30 – 8:50	**DOE Opening Remarks: Supporting the Future of Energy Resiliency, Efficiency and Sustainability for the Nation's Energy Infrastructure** **-**As our grid and built environments continue to integrate varying distributed energy resource capabilities, learn about the current foci and initiatives of The Office of Electricity (and how your organization can be involved) towards supporting the innovations and new business models needed to drive our Nation's energy infrastructure towards a more secure, reliable and sustainable future
BUSINESS STRATEGIES & OPERATIONAL MODELS for DERs	
8:50- 9:40	**C&I Facilities Panel: Utilizing DERs for Supporting Energy Sustainability, Reliability and Efficiency Goals in the Built Environment** Learn how leaders in various facility sectors are successfully integrating renewables and DERs (offsite and onsite) into their energy portfolios **Sustainability :** Key elements for successfully presenting a project to senior decision makers to finance and approve energy sustainability projects and / or efficiency upgrades **Efficiency**: Where are we seeing the largest energy savings / efficiencies originating from across our portfolios and what combination of DERs (onsite and offsite) are proving effective for meeting our desired goals? **Financing**: What financing methods and service contracts are we utilizing or exploring: from working with our utility to private financing **Building agility into your Energy Master Plan** –advice on how to build in flexibility and agile methodologies into current decision making that accounts for the future 'unknowns' (from natural weather impacts and increased energy demands, to future digital and asset innovations) **3 Panelists in Total:** **The Honorable Katherine Hammack, Director Special Projects, GBCI (former Assistant Secretary of the Army (Installations, Energy and Environment (confirmed)**
9:40 – 10:30	**DoD Panel : Improving Energy Reliability, Resiliency, and Efficiency for DoD Installations and the role of DERs** For the DoD, energy resiliency is paramount to mission capability. Over the last year the Services have been conducting energy management plans assessments and various "pull-the-plug" exercises. With a multitude of installations, each varying in energy supply and demand and mission needs across DoD installations, learn how the Services are working towards developing baseline standardized energy frameworks while also working to improve cyber resiliency and energy sustainability at their installations and where DERs and microgrids come into play. Invited Panelists: **The Honorable Alex Beehler, Assistant Secretary of the Army (Installations, Energy and Environment)** **(tentatively confirmed)** **The Honorable John Henderson, Assistant Secretary of the Air Force for Energy, Installations and Environment** **(tentatively confirmed)** **The Honorable Charles Williams Jr, Assistant Secretary of the Navy (Energy, Installations and Environment) (invited)**

10:30 -11:00	Networking Break
DATA MANAGEMENT FOR CONNECTING & OPTIMIZING DERs	
11:00 -11:30	**Enabling Facility Customers to Leverage Advanced Facility Analytics to Optimize Energy Use** **-** Understanding the IT backbone needed for facility energy managers to participate with DERs in interactive utility programs for improving efficiencies including peak load management, time of day pricing and demand response -What data sets have been providing the most useful analytics for utilizing onsite DERs to increase efficiencies and overall flexibility -Overview of The Consumer's Energy Virtual Energy Engineer: a cyber secure cloud hosted technology core platform **Mr. Glenn Remington, Energy Engineer, Consumers Energy (tentatively confirmed)**
11:30 -12:00	**Control Co-Design Methodologies and Metric Space Guidelines to Optimize DERs** **-** Understanding the Control Co-Design concept, applications and how this can support future DER innovations - Levelized Cost Of Energy Metric Space, research guidelines and best design practices for optimal solution **Prof. Dr. Mario Garcia-Sanz, Program Director, Advanced Research Projects Agency – Energy (ARPA-E, DOE) (confirmed)**
12:00 -12:30	**Case Study of Basalt Vista Pilot Program: Developing an Autonomous Network of Residential DERs** -Scalable and dynamic algorithms for supporting an autonomous energy grid: understanding how the NODES algorithms enter Basalt Vista via distributed controllers that direct the controllers on how to manage the residential distributed energy resources (DERs) - Understanding the IT/OT ecosystem: how Basalt Vista's equipped homes can exchange energy and services with neighbors, matching generation and demand intelligently and on the fly while respecting the reliability limitations of the local grid. - Overview of NREL's ESIF's Advanced Distribution Management System (ADMS) test bed coupled with hardware-in-the-loop device testing capability - Three lesson learned along the way and areas for continued innovation **Dr. Andrey Bernstein, Senior Scientist, NREL (NODES project lead) (confirmed)**
12:30 – 1:15	**Networking Lunch**
CAPABILITES in ONSITE STORAGE & GENERATION	
1:15 – 1:45	**Current Energy Storage Landscape to Support Onsite Generation** **-**Understanding the current capabilities, and limitations, of onsite energy storage technologies (from battery and ice storage to flywheels, fuel cells, etc.) -Factors to consider when choosing a capability for your facility including technical complexities for integration and maintenance, and financial investments **Dr. Imre Gyuk, Director, Energy Storage Research, OE, U.S. Department of Energy (tentatively confirmed)**
1:45 – 2:15	**Small Modular Nuclear Reactors (SMRs)** **-**Capabilities, and limitations, in SMR design and implementation: considerations to give towards the " who, where and why" for integrating SMR into an energy ecosystem -Case Studies: update on Western Initiative for Nuclear (Program WIN) and overview of UAMPS, Carbon free Power Project **Mr. Chris Colbert, Chief Strategy Officer, NuScale Power (confirmed)**

MICROGRIDS: Connecting DERs and Supporting Onsite Reliability & Resiliency	
2:15 – 2:45	**Renewable Energy in Remote and Grid Connected Microgrids** This presentation will explore two microgrids— one serving a remote community and one connected to the main power grid. In Deering, Alaska, the power plant's microgrid is a hybrid of wind, solar, and generator and battery storage, making use of the renewable resources to reduce emissions and costs, and utilizing up to 100% renewable energy at times. In contrast, a microgrid in the continental U.S. uses a solar, storage, and generator microgrid to improve resilience of its critical facilities in the event of a natural disaster. - Technical overview of ABB's emesh control and PowerStore storage systems that run these microgrids - How did we measure the energy economics in these cases? - How has energy resiliency been tested from both cyber and physical threats? (in temperatures that can reach -62 degrees Fahrenheit, and even during earthquakes?) **Mr. Nathan Adams, Director, Grid Edge Solutions, ABB (confirmed)**
2:45 – 3:15	**Networking Break**
315 – 3:45	**The Future of Community Driven Microgrids and Storage: Cleveland, Ohio** (µGrid Cle, or the Cleveland Microgrid Project, is a feasibility study to evaluate the potential demand, costs, benefits, design, and logistics of a microgrid infrastructure project in downtown Cleveland) - Learn how Cuyahoga County, the City of Cleveland, Cleveland Public Power and the Cleveland Foundation jointly came together to develop the concept of constructing a microgrid in downtown Cleveland. - What are the drivers, and what questions did we consider when issuing a Request for Qualifications (RFQ) for developers -Project status & update and next steps **Mr. Mike Foley, Director, Office of Sustainability, Cuyahoga County (Cleveland), Ohio (tentatively confirmed)**
3:45 – 4:15	**Making Town Center Microgrids Work: Challenges to Overcome** *Town Center projects involve supplying DER power to independent community facilities that cross multiple right of ways, that are prompted by a local government interests in resiliency, reliability, and cost savings.* **-**Review of work-in-progress findings of a US DoE funded study of the procurement, financing, regulatory, legal, and underlying public policies that must be addressed for the successful development of a Town Center Microgrid. -Overview of Town Center microgrid ownership models -Challenges and path forward towards financial Pro Formas, working with regulators and IOUs for successful outcomes **Mr. Marc Pfeiffer, Assistant Director, Bloustein Local Government Research Center, Rutgers University (confirmed)**
4:15 – 4:45	**SEPA's Framework to Support Microgrid Research, Development and Planning Resilience** *The framework organizes microgrids as both a customer resilience/reliability service and a macro-grid resilience/reliability service***.** SEPA will discuss the framework while highlighting specific case-study examples of each -Findings from our recent publication, "The Microgrid Playbook and Case Studies: Community Resilience for Natural Disasters", providing an overview of the different perspectives of resilience (utility, customer and community) and how each dictates applicable microgrid services and application -Microgrid services and value streams based on utility, community and customer perspectives **Mr. Jared Leader, Manager, Industry Strategy, SEPA (Smart Electric Power Alliance) (confirmed)**
4:45 - 5:00	**Closing Remarks, End of Day 1 SESSIONS ARE NOT IN FINAL ORDER**

AUGUST 20 , 2020 | SUMMIT DAY 2	
7:30 – 8:30	Networking Breakfast and Welcome Back
CYBER RESILIENCY	
8:30 – 8:55	**Cyber Threat Landscape: how to build in resilience, and what level of resilience to expect from your control systems, EIS and BAS against a cyber or EMP threat** -Cyber resiliency baselines: emerging threat intelligence towards new types of threats and vulnerabilities in the cyber physical energy ecosystem. -What your control systems' minimum-security capabilities should include -Advice towards raising the level of cyber awareness within your facility team in both the IT /OT environment **Mr. Tobias Whitney, Vice President - Energy Security Solutions - Fortress Information Security (confirmed, virtual)**
8:55 – 9:40	**Panel on Critical Power Facilities: Balancing Reliability, Resiliency and Sustainability Energy Goals for our Facilities and the Role for DERs** **-** How does your project planning need to change, or not, in order to meet the goals of reliability, resiliency and/or sustainability? - Recent / upcoming projects: What combination of energy generating capabilities and supporting data management systems are we looking at and what is the precise objective? - Key questions to ask your team of colleagues and potential partners before undertaking any change to your energy systems - How we approach IT/OT cyber security and resiliency in our energy ecosystem **3 Panelists in Total:** **Mr. Rame Hemstreet, Vice President of Operations & Chief Sustainable Resources Officer, Kaiser Permanente** **(tentatively confirmed)**
CAMPUS & LARGE MULTI - FACILITY CASE STUDIES	
9:40 – 10:10	**The Role of DERs in Achieving Campus Carbon Neutrality at Dickinson College** - Overview of our offsite (VPPA) and onsite generation and why we choose these assets including our 3MW Solar field and EV charging stations : what was the end goal we established for each? - Critical power needs: how are we ensuring 100% reliability to our critical facilities and resources? - Where are our greatest energy savings deriving from? Top projects / capabilities that t have proved to generate the most energy efficiencies and financial savings. - A look over the horizon: what's next in our future Energy Mater Planning? **Mr. Ken Shultes, Associate Vice President for Sustainability and Facilities Planning, Dickinson College (tent. confirmed)**
10:10 -10:40	**Networking Break**
10:40 -11:10	**University of Maryland's NextGen Energy Program** -What are the key objectives within the NextGen Energy Program that support broader resiliency, efficiency and sustainability goals and what role will onsite and offsite generation play in meeting these goals? --Critical power facilities: how we are we ensuring 100% reliability to our critical facilities and resources **Charles R. Reuning, P.E., Associate Vice President, Chief Facilities Officer, University of Maryland (invited)**

11:10- 11:40	**Increasing Energy Efficiency, Reliability and Flexibility Across The Department of Veterans Affairs and the Role for DERs** -Energy Management Policy and Plans: how we develop overarching policies, baseline standards and metrics across a large, diverse portfolio while also allowing for site specific energy needs. What are the key factors we take into account and how do we factor in sustainability and environmental impact in our decision making? -Onsite vs off site generation: how we are determining the right mix to meet our facilities' energy needs and goals: what energy resource has worked well, and where others proved inefficient and why - Critical power needs: how are we ensuring 100% reliability to our critical facilities and resources? **Mr. Asad Gilani, Energy Portfolio Manager, Department of Veteran Affairs (tentative)**
11:40 -12:10	**Microgrids in the New Normal of Extreme Weather and Scaling Demand** **-** Overview of microgrids for community resources and the value they bring to communities, first responders, and others - Case study of two temporary hospitals / Stop & Shop grocery chain case study **Mr. Paul Wilkins, Senior Director, Federal Government Relations, BLOOM Energy (confirmed)**
UTILITY & GRID LEVEL	
12:10 -12:40	**The Role of the Utility in a Multi-Stakeholder Community Microgrid Initiative** *PSE&G participated in the New Jersey Center DER initiative which funded several microgrid feasibility studies for community microgrids across New Jersey* - Lessons learned and insights on the role of the utility in a multi-stakeholder process for microgrid development - Viewpoint towards what the operational and business models that can best be applied for effective community level microgrids and what needs to occur to get us there **Mr. Ahmed Mousa, Manager, Utility of the Future, PSE&G (confirmed)**
12:40 – 1:15	**Networking Lunch**
1:15 – 1:55	**Utility Panel: Integrating Renewables, Storage and Customer DERs** *Hear three distinct perspectives from utilities towards DERs: learn from leaders in operations, customer service and engineering and technical delivery* -Insight towards our emerging operational and business models for utility-scale solar, wind and storage : from meeting customer demands to improving grid reliability -Viewpoint towards what it will take to seamlessly integrate customer owned grid-edge devices, from EVs and onsite solar + storage to microgrids? What's needed from the customer and what's needed from the grid operator and who would control what - Viewpoint on biggest challenges for grid - connected microgrids and grid interactive buildings **3 Panelists in total:** **Mr. Thomas Pierpoint, Vice President Engineering and Technical Services, Austin Energy (tentatively confirmed)** **Mr. William Ellis, Sr. Portfolio Manager, Energy Efficiency Programs, Pepco Holdings (confirmed)** **Continued on next page…**

1:55 – 2:20	**Project AURORA: Grid Resilience through Renewables and Microgrids: Developing innovative solutions for situational awareness, distributed control during cyberattacks or natural disasters, and autonomous restoration after power outages.** In AURORA, Siemens and NREL are investigating a revolutionary bottom-up system restoration approach—how the many decentralized generation units that exist today could restart the grid by automatically reconfiguring and collectively stabilizing the grid after a blackout. The researchers are developing special control functions that make an autonomous "black start" within the microgrids possible. These control functions can be installed in smart inverters of residential solar-power systems, batteries, or wind turbines that successively build microgrids to provide electricity to streets and small towns. A key secondary benefit to autonomous black start is that it decreases the risk exposure to the utility workers. **Dr. Ulrich Muenz, Head of the Autonomous Systems and Control Research Group, Siemens CT (tentatively confirmed)**
CONNECTING GRID INTERACTIVE EFFECIENT BUILDINGS	
2:20 – 2:50	**The Future of Grid-Interactive Buildings: Drivers, Status & How to Prepare** **-** Three core values and the key characteristics and benefits of GEB including demand flexibility - Technological trends, opportunities, and challenges of grid-interactive building integration: what will we need to demand from our control systems? - Where to start and what to prepare for? What facilities managers and stakeholders need to begin to prepare for with their current built infrastructure in order to participate in a future grid-interactive environment? **Mr. Joseph Hagerman, Group Leader for Buildings Integration and Controls Research, ORNL (tentatively confirmed)**
2:50 – 3:00	**Refreshment Break**
3:00- 3:30	**GT Flex' at Georgia Tech Campus: Developing Grid Interactive Efficient Buildings at the Legacy Campus Level and the Role for DERs** **-**Learn about the phase 1 planning technical and programmatic goals at Georgia Tech: How we are developing a baseline energy model for the campus - Aggregating different load reduction to provide grid services – what capacity, how to test and verify and instill efficient coordination - Cost effectiveness as a driver: how do we figure out which buildings would prove the most effective for turning into GEBs and what role might onsite and offsite DERs hold in supporting our objectives **Dr. Scott Duncan, Research Engineer, Georgia Tech (invited)**
3:30 – 4:00	**Vehicle-to-Grid (V2G)/Vehicle-to-Building (V2B) Energy Management** **-**What will be the operational impact of increased electric vehicles market penetration on commercial buildings' energy management systems and the grid? What are some of the key solutions or considerations to minimize impact on building load management systems? -Current overview of how electric vehicles, renewable energy and Building Energy Management Systems (BEMS) can work together to enable buildings to become more energy efficient and offset peak pricing - Perspective towards the next steps needed in transforming buildings into highly efficient grid interactive assets and the role for EV charging
4:00- 4:15	**Closing Remarks, End of Summit**

WORKING AGENDA: Sessions are NOT in final order and all invited speakers are not listed