

NEW YORK POWER SUMMIT 2020

September 22-23, 2020
Online | Central Time

PRE-CONFERENCE WORKSHOP

Deployment of Electrification, Microgrids, and DERs Across the Grid

*Challenges, Opportunities,
and Solutions Roadmap*

TUESDAY, SEPTEMBER 22, 2020



*"This was an excellent conference with
a manageable size that made it great
for networking with other attendees."*

Sr. Combined Heat & Power Engineer,
Schneider Electric



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OVERVIEW

This conference is our annual convention of leaders, engineers, regulators, and everyday stakeholders in the New York energy system. From renewables and the deployment of DERs to Governor Cuomo's ambitious Green New Deal, Climate Mobilization Act, and general Reforming the Energy Vision (REV), this conference will be a comprehensive look at the big changes and updates in New York's grid.

Hear from state agencies, service providers, and utilities both in and out of state about relevant energy projects on efficiency, sustainability, and technological innovation. Our reformatted **6th annual NY Power Summit** will be proudly featuring some exciting developments such as Duke Energy's solar programs, Avangrid's Vineyard Wind offshore wind projects, PSEG LI electrification, as well as much more. This exciting lineup of speakers will be available for interactive, deep-dive presentations, panels, and networking receptions.

LEARNING OUTCOMES

- Review important projects and updates in the New York Energy System
- Discuss Cuomo's newly approved Climate Mobilization Act as well as other relevant energy policy
- Hear from out of state utilities like Duke Energy, Ameren, and Exelon on outside perspectives on energy efficiency and state initiatives
- Describe the challenges, risks, and advantages to offshore wind projects from Vineyard Wind
- Share project impacts of COVID-19 on renewable goals
- Hear New York City's Mayor's Office share on recent sustainability projects like OneNYC
- Assess strategic electrification deployment in New York from PSEG LI
- Identify Energy Efficiency financing options and best practices from NY Green Bank, NYISO, and others

WHO SHOULD ATTEND

- Utility and industry Directors, VPs, and CEOs
- Engineers, managers, and policy analysts from the utility industry
- Facility managers and electrical engineers for corporate, academic, or residential campuses
- State regulators and staff
- Energy efficiency SMEs
- County and municipal officials
- Distributed generation industry
- Combined heat and power industry
- Renewable energy suppliers
- Hardware suppliers, advanced metering vendors, software vendors, construction firms
- General energy stakeholders with an interest in the New York grid



"Informative conference. Covered many aspects of current energy landscape in the Northeast. Great networking opportunity as well!"

Business Development Manager,
Northeast-Western Energy Systems



"Great overview of a complicated regulatory regime."

Senior Counsel Regulatory,
PSEG Long Island

AGENDA

TUESDAY, SEPTEMBER 22, 2020 – CENTRAL TIME

12:45 – 1:00 pm

Log In

Energy Policy and Vision

1:00 – 2:15 pm

LEADERSHIP PANEL – New York Policy & Sustainable Strategy

Ambitious sustainability policies in New York are pushing the grid forward in a pioneering new phase of energy development. Many of the projects being done to meet the goals laid out in the Climate Mobilization Act and REV have unveiled practical challenges and exciting new innovations to share. This panel will serve as a comprehensive exploration of these policies, strategy, and technology within the New York energy grid.

Moderator: Paul DeCotis, Senior Director, West Monroe Partners

Panelists:

Rana Mukerji, Sr. Vice President, Market Structures, NY ISO

Stephen Whemple, VP of Regulatory Affairs, ConEd

Kevin Hale, Director of Utility Affairs, NYSERDA

Echo Cartwright, Director Climate Mitigation, The Nature Conservatory

2:15 – 2:30 pm

Networking Break

2:30 – 3:15 pm

New York City's Transition to a Clean and Resilient Energy System

New York City is taking bold steps to address the climate crisis, including committing to achieving carbon neutrality by 2050 and 100% clean electricity by 2040. Beyond aggressively pursuing decarbonization, the City is working to build an energy system that is resilient to the impacts of climate change and affordable for all New Yorkers.

Susanne DesRoaches, Deputy Director, Infra. + Energy, NYC Mayor's Office

3:15 – 4:00 pm

Rooftop and Community Solar Compensation – Duke Energy

This session will focus on what methods other jurisdictions are using to form the basis of compensation to distributed assets. It will also cover recent changes to New York's rooftop solar policies and how those changes align with trends and perspectives from other states.

Lon Huber, VP of Rate Design and Strategic Solutions, Duke Energy



"Great conference covering a broad spectrum of policy, utility programs, and technologies in the New York clean energy environment."

Senior Energy Solutions Engineer, ECOSAVE

AGENDA

WEDNESDAY, SEPTEMBER 23, 2020 - CENTRAL TIME

8:45 – 9:00 am

Log In

Electrification & Project Management

9:00 – 9:45 am



Long Island Case Study – Beneficial Electrification

PSEG Long Island is working to support the state goal of implementing the “Climate Leadership and Community Protection Act” which calls for 185 TBTU of building energy savings by 2025. The act also calls for obtaining 70% of all electricity from renewable resources by 2030, with the overall goal to achieve an 85% reduction in greenhouse gas emissions by 2050. This presentation will discuss two technologies for achieving these results: 1) electric heat pumps and 2) electric vehicles. In both cases, the displacement of fossil fuels with electricity will reduce greenhouse gas emissions and also improve electric system efficiency because most of the electricity for these uses will be off-peak. Heat pumps primarily increase consumption in the winter months, where there is spare capacity, and EVs are expected to be charged mainly at night.

Michael Voltz, Director, Energy Efficiency & Renewable Energy, PSEG LI

9:45 – 11:00 am

PANEL: Energy Project Financing and Approval Methods

As more effort is invested into green infrastructure and Energy Efficiency projects in New York, procuring adequate funding can be difficult. This panel will consist of different financing agency leaders who will discuss the opportunities, challenges, and suggestions for getting a project off the ground.

Moderator: Echo Cartwright, Director Climate Mitigation, The Nature Conservatory

Panelists:

Alfred Griffin, President, New York Green Bank

Rana Mukerji, Sr. Vice President, Market Structures, NY ISO

11:00 – 11:15 am

Networking Break

11:15 am – 12:00 pm

Creating a Holistic Evaluation of Non-Wire Alternatives Within a Utility Enterprise Environment

The Non-Wire Alternative (NWA) market is a fast paced and legislatively uncertain place. It can be difficult to optimize a system which feels secure while integrating third party vendors and partners. In the state of New York, there is a disproportionate ratio between load and demand in the downstate vs upstate regions. This presentation will discuss different solutions National Grid has evaluated in the NWA market, system optimization between third-party partners and the utility, and pertinent legislative updates. Additionally, the presentation will share useful tactics on capital planning to assess the viability of an NWA vs a traditional solution in a technology agnostic format.

Marie Schnitzer, Lead Project Manager, National Grid

12:00 – 1:00 pm

Break for Lunch

DERs & Renewables

1:00 – 1:45 pm

Energy Storage Resource Integration in the NYISO Markets

This presentation will give an overview of the opportunities for energy storage resource’s participation in the NYISO’s markets. It will also go over the NYISO’s compliance with FERC Order no 841. The benefits and challenges of integrating storage into the NYISOs systems will be discussed. Finally, the potential impact of storage to provide reliable and cost-effective supply to customers in light of increasingly aggressive New York State decarbonization and clean energy policies will be discussed.

Pallavi Jain, Energy Market Design Specialist, New York ISO

AGENDA

WEDNESDAY, SEPTEMBER 23, 2020 - CENTRAL TIME (CONTINUED)

1:45 – 2:30 pm



NYPA's North Country Energy Storage Project

NYPA's North Country Energy Storage Project supports New York State's 3 GW by 2030 storage goal. This is NYPA's first utility-scale battery project. The Project will be a 20MW/1Hr lithium-ion system and interconnect at NYPA's Willis Substation in Chateaugay, NY.

Ana Stachowiak, Project Manager, New York Power Authority (NYPA)

2:30 – 2:45 pm

Networking Break

2:45 – 3:30 pm

Building Out Offshore Wind in the US: Risks, Challenges, and Lessons Learned

Given the significant implications of the region's offshore wind procurement targets, it is critically important to understand what it takes to build out offshore wind in the US. From developing a proposal in response to a competitive solicitation, permitting at the local, state, and federal level, and procurement and contracting, to logistics, local supply chain and workforce development, financing, and project delivery, there are substantial risks, challenges, constraints, and opportunities associated with putting together an offshore wind proposal. Drawing from over 5 years of experience in renewable energy consulting and offshore wind market and project development, and using Vineyard Wind projects and proposals as case studies, this talk will discuss the risks associated with developing and submitting an offshore wind project proposal, the challenges in delivering a project, and lessons learned from Vineyard Wind's experience in the US to date.

Joseph Shoemith, PMO and Bid Development, Vineyard Wind

3:30 – 4:30 pm

PANEL: Approaches from Out of State

Many states have reform initiatives underway like New York's. While there are many similarities, there are also many differences. Success is mixed with some states' initiatives being very successful, and some less so, and in both cases, there are many lessons learned, including:

- Utility-scale renewable update
- DG Transition away from Retail-Rate NEM – it will have been almost a year under new regime
- Distributed Generation Interconnection Requirements – this document will probably have just become "law" statewide, having been revised to accommodate advanced inverter settings, distributed storage and operating characteristics
- Electric Vehicle promotion and utility programs
- Distributed storage adoption, rates and programs
- DER(MS) R&D – Project RAIN (Resource Aggregation & Integration Network) update
- Maryland is undergoing significant changes and updates to its interconnection regulations including changes in storage and electric vehicles policies
- New legislation introduced this year will impact Maryland's RPS goals and its SREC market, potentially boosting DER volumes

Moderator: James Mirabile, Principal Engineer, Baltimore Gas & Electric

Panelists:

Lon Huber, VP Rate Design and Strategic Solutions, Duke Energy

Joshua Skelly, Project Manager, Ameren

John Ryan, Director, Strategic Projects, Exelon Utilities

4:30 pm

Conference Concludes

PRE-CONFERENCE WORKSHOP

Deployment of Electrification, Microgrids, and DERs Across the Grid

Challenges, Opportunities, and Solutions Roadmap

TUESDAY, SEPTEMBER 22, 2020 – CENTRAL TIME

OVERVIEW

With the steep sustainability goals in New York, it is more important than ever to deploy electric power systems both effectively and efficiently the first time. Additionally, new technology such as microgrids are an important step forward for grid reliability, security, and resiliency. Motivated in part by NYSERDA's \$40 million-dollar microgrid prize, as well as other financing options now available, hundreds of New York communities are exploring microgrid options. New York is poised to be a national leader regarding development in this field. But while microgrids offer exciting opportunities, it is crucial to facilitate a smooth implementation process from both a technological and financial standpoint.

This workshop will begin with an overview of the current technology market. It will provide a background along with relevant updates about cutting-edge projects. The speaker, who has hands-on experience with several current projects, will review the technical, financial, and commercial challenges and solutions to electrification and DER deployment. He will also discuss critical microgrid design considerations.

The workshop will showcase opportunities to streamline processes in order to increase infrastructure resilience. Attendees will discuss technical solutions to successful deployment. The speaker will also describe business and financial opportunities to facilitate effective microgrid adoption, including various financial structures for microgrid projects and legal/contractual strategies. Attendees will have the opportunity to learn about technical and financial considerations of microgrid deployment through real-life, forward-thinking case studies.

LEARNING OUTCOMES

- Assess current trends in the energy technology market
- Evaluate the costs and considerations to building EV charging stations and load management
- Provide a brief overview of the microgrids market
- Describe the technical, financial, and commercial challenges to microgrid and electrification implementation- and the solutions
- Discuss critical factors for microgrid design
- Evaluate the ROI for battery storage systems and other power alternatives
- Explain how streamlining microgrid technology can increase infrastructure resilience
- Describe business and financial opportunities to facilitate effective microgrid adoption
- Explain how to leverage energy markets and programs
- Address legal/contractual strategies to facilitate
- Utilize real-life, forward-thinking case studies to provide practical application of technological and financial solution

WORKSHOP AGENDA

TUESDAY, SEPTEMBER 22, 2020 – CENTRAL TIME

8:45 – 9:00 am

Workshop Log In

9:00 – 11:30 am

Workshop Timing

DER Overview – Opportunities and Challenges

- State of the market
 - o Recent updates
- Microgrid implementation
 - o Where?
 - o How?
 - o Which microgrids?
 - o Why
- Challenges to deploying microgrids
 - o Technical
 - o Financial
 - o Commercial
- Opportunities for microgrid deployment
- Electrification challenges and roadmap
 - o EV deployment
 - o Rate costs

How Streamlining Can Accelerate Microgrid Penetration and Increase Infrastructure Resilience

- Technical solutions
 - o Leveraging technologies and systems to enable streamlining
 - o Identify viable options
 - o Working with utilities
 - o Critical design considerations
 - o Case studies
- Business and financial solution
 - o Utilizing 3rd party structures, special purpose entities and public-private partnerships
 - o Leveraging energy markets and programs
 - o Legal/contractual strategies to aid streamlining
 - o Case studies

DERs and Oncoming Market Trends

- Storage case studies
- Load management strategies and design

WORKSHOP INSTRUCTOR



David Smith

Director of Energy Services, Burns Engineering

Dave has over 30 years of energy industry experience with a background in combined heat and power, microgrids, renewable energy, project finance, energy efficiency, innovative technologies, sustainability, planning and public policy. Dave is a proven systems thinker who, over the course of his career, has led many campus energy and sustainability master planning projects with an emphasis on identifying integrated, holistic strategies to maximize cost savings, energy resilience and environmental benefit. Dave has presented at many industry conferences and has been a guest lecturer at the University of Pennsylvania and Green Mountain College, speaking on topics ranging from sustainable energy to smart grids, cogeneration and advanced microgrids. Dave earned his A.B. degree in Economics from Harvard University and a Master of Science in Energy Management and Policy from the University of Pennsylvania.

INSTRUCTIONAL METHODS

This program will use PowerPoint presentations and active participant discussion.

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 0.9 CEUs for the conference and 0.3 CEUs for the workshop.

ONLINE COURSE DELIVERY & PARTICIPATION DETAILS

We will be using Microsoft Teams to facilitate your participation in the upcoming event. You do not need to have an existing Teams account in order to participate in the broadcast – the online course will play in your browser and you will have the option of using a microphone to speak with the room and ask questions, or type any questions in via the chat window and our online administrator will relay your question to the instructor.

- You will receive a meeting invitation which will include a link to join the meeting.
- Separate meeting invitations will be sent for the morning and afternoon sessions of the online course.
 - o You will need to join the appropriate meeting at the appropriate time.
- If you are using a microphone, please ensure that it is muted until such time as you need to ask a question.
- The remote meeting connection will be open approximately 30 minutes before the start of the online course. We encourage you to connect as early as possible in case you experience any unforeseen problems.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

You must be logged in for the entire presentation and send in the evaluation after the online course is completed.

COURSE RECORDING

A recording of this program will be available for three days from either the end of the program (or three days from the date of purchase, if you purchase the recording after the session ends). It is presented in four-hour sessions and can be watched an unlimited number of times for three days (for the registrant). There is no additional cost beyond the registration fee.

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See page 8 for information

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Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before August 21, 2020 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our office. EUCI reserves the right to alter this program without prior notice.