

next-gen smart grid virtual summit

Wednesday, December 9, 2020
100% online

100% online at www.smartgridobserver.com/vsummit

Energy networks are undergoing fundamental change: centralized power systems are decarbonizing and incorporating more distributed energy resources, fostered by developments in power system management and ICT advances. The energy ecosystem is characterized by a growing number of prosumers (consumers and producers), interoperability challenges among disparate devices, new load sources such as EVs, and the growing importance of big data analytics for utility decision making. Navigating this environment is critical for electric utilities who wish to survive and thrive going forward.

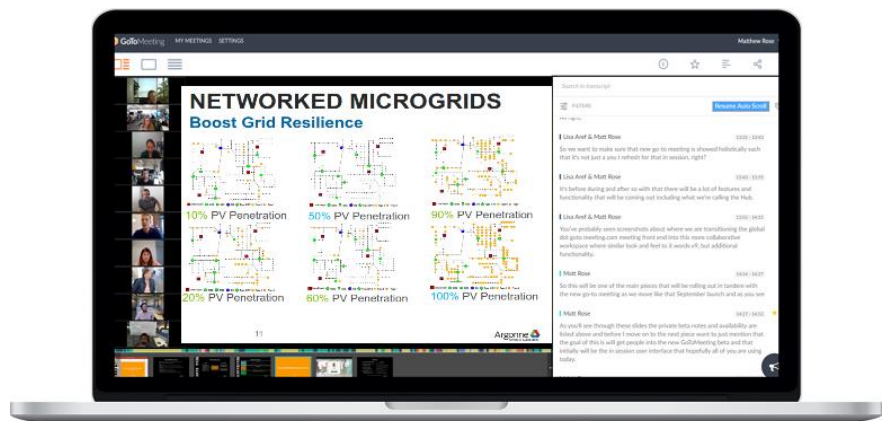
The **Next-Gen Smart Grid Virtual Summit** on Wednesday, December 9, 2020 is a one-day, 100% online conference that takes a deep-dive look into key opportunities and challenges facing energy providers in today's changing grid environment. Specific focus is on recent advances in smart grid technology and the latest implementation business models for ensuring grid resiliency, reliability and services flexibility.

Case studies of utility smart grid deployments will be examined with an eye toward key lessons learned to date and how to utilize next-gen advances for strategic growth in mid- to long-term.

100% Online and Interactive

Powered by GoToMeeting, the virtual platform allows for live interaction between speakers and fellow attendees

via audio, video, chat and PowerPoint presentation. Attendees have the opportunity to view the attendee list and set up one-to-one meetings with fellow registrants prior to, and during, the conference.



Breaks between sessions allow for plenty of networking time, and streaming recordings of all presentations will be available post-conference for on-demand viewing by registered participants.

Who Should Attend?

- Investor-owned, municipal and co-op electric utilities
- Independent Power Producers
- Larger commercial enterprises
- Solar and wind technology companies
- Finance and Investment professionals
- Regulatory and public policy agencies
- Project developers, system designers and consultants
- Smart grid technology vendors and software developers

Wednesday, December 9, 2020

Note: All times are CST

9:00 - 9:45 am

A New Approach to Strategic Planning in a High Distributed Resource Environment: Distributed Solar as a Case Study

Penetration of distributed technologies, especially rooftop solar, has been rising steadily across many parts of the country. Many states and cities have announced clean energy goals and targets, which involve meeting certain percentage of their load by renewable energy resources in the next several decades. In order to improve equitable renewable energy access to all customers, other utilities have introduced community scale solar programs or pilots. These efforts underscore the importance of understanding distributed solar penetration in a region and its impact on utility operations, planning and financials. In this presentation, we will discuss a new strategic planning framework based on systems dynamics that enables:

- i) projecting distributed solar penetration by taking into account the feedback loops between increased adoption and ratemaking practices
- ii) identifying inflection points in the penetration levels
- iii) interactions between rooftop and community solar adoption
- iv) assessment of potential to meet clean energy goals through various distributed solar strategies
- v) implications of alternative strategies for utility earnings

While we will discuss the solar PV applications, this planning framework can be applied to other new technologies including BTM storage and electric vehicles.

THE **Brattle** GROUP



Sanem Sergici
Principal
The Brattle Group

9:45 - 10:15 **Networking Break**

10:15 - 11:00 am

Today, Tomorrow and Beyond: How Grid Modernization Delivers Community Resilience, Can Drive Economic Recovery, and Will Enable Our Clean Energy Future

How each of us has experienced the COVID 19 pandemic has been deeply influenced by our ability to work, study and socialize from home. Foundational work done by utilities in the past decade has allowed the grid to seamlessly shift power delivery from where we were yesterday to where we are today and to withstand storms and other events while keeping utility workers and communities safe. As the pandemic eases, robust grid modernization can and should be a key element in economic recovery. Continued investment in the grid will not only deliver good jobs and strong economic growth but also create an infrastructure able to support the ambitious renewable energy, decarbonization and electrification goals set by the communities we have the honor to serve.

This session will discuss the essential investments in grid resilience that are needed to ensure the grid can continue to respond to future challenges. We will also detail stimulus priorities that can both drive economic recovery for our communities and value for the DERs essential to combatting climate change.



Susan Mora
Senior Director, Strategic Initiatives
Exelon



Kelly Speakes-Backman
Chief Executive Officer
Energy Storage Association

11:00 - 11:30 **Networking Break**

11:30 - 12:15 pm

Why VPPs Will Become the Glue Holding Together Our Future Grid

Virtual power plants (VPPs) have evolved dramatically over the past decade. Once largely experiments and pilot programs, VPPs are becoming mainstream business opportunities, particularly in Europe, where the emphasis is on renewable integration and market trading. This sessions will cover the following topics:

- What is a VPP - and how does this platform differ from DERMS?
- How has the evolution of VPPs differed between North America and Europe?
- Why has the market shifted to a mixed asset approach, optimizing generation, load and forms of storage?
- In what ways are business models changing for VPPs as the market matures?
- What are some of the cutting edge VPP projects around the world?



Peter H. Asmus
Research Director, Microgrids
Guidehouse Insights

12:15 - 1:15 pm **Lunch Break**

1:15 - 2:00 pm

SCE's Pathway to Advancing Deeper Integration of Distributed Energy Resources

Southern California Edison's (SCE) [Pathway 2045](#) white paper provides a blueprint for reaching California's ambitious greenhouse gas reduction and carbon neutrality goals through a profound transformation of the way energy is produced and used in California. To get there, SCE continues to modernize the grid and harness the full potential of distributed energy resources (DERs) through several pilot and demonstration projects. The pilot projects include integration of lithium-ion battery energy storage systems in distribution operations. While the demonstration projects, supported by the [Electric Program Investment Charge \(EPIC\)](#), address topics including optimizing dispatch of large numbers of DERs, control and protection in community-scale microgrids, smart inverter integration dynamics, system black start with inverter-based resources and novel battery energy storage applications. During this session, SCE will present preliminary results and plans for future work.



Joshua Mauzey
Senior Manager, Grid Edge Innovation
Southern California Edison (SCE)

2:00 - 2:30 pm **Networking Break**

2:30 - 3:15 pm
Leveraging DERMS to Deliver Net-Zero Energy

For countries to quickly realize the ambition of a carbon-free electric supply future, renewable and distributed energy resources must be able to compete on price - without subsidy - with traditional, already-installed carbon-based sources. Peter Maltbaek will examine how we can achieve greater utilization of the available electric infrastructure to avoid some of the costs of integrating additional renewable resources, and how, through the optimization and close-to-real time control and synchronization of DER assets via DERMS systems, we can drive "stacked values" from them and simultaneously solve the intermittency problem to help make net-zero energy a truly economic proposition.



Pete Maltbaek
General Manager, North America
Smarter Grid Solutions

3:15 - 3:45 pm **Networking Break**

3:45 - 4:30 pm
Smart Grid Technology: The Convergence of Mobility and Renewable Energy

Extensive collaboration between technology innovators, governments and utilities is building momentum toward decarbonizing electricity and transportation systems. As a result, this dual decarbonation effort inspires greater clean energy use, but increased renewable penetration puts pressure on utility providers and local grid operators as renewables are inherently less flexible in comparison to other forms of generation. Smart grid technology limits these pressures by intelligently balancing energy on the grid in real-time and shifting loads by charging electric vehicles (EVs) dynamically, in effect utilizing them as "virtual batteries." As a result, smart charging solutions enable cheaper energy storage compared to stationary methods and can be called upon to incentivize grid use via IoT when excess renewable energy is available.

Join Karen Hsu from Enel X, a subsidiary of the world's largest producer of renewable energy and Europe's biggest utility, Enel, to learn how smart grid technologies are driving a more sustainable future. Key Takeaways:

- How smart EV charging exists at the nexus of decarbonization of transportation and electric production
- How smart grid technologies reduce grid load and lower costs for both utilities and consumers
- How smart grids and other grid services facilitate real-time grid balancing
- How the smart grid and charging technology leverages IoT to incentivize EV drivers to charge at certain times (such as when excess renewable energy exists on the grid)



Karen Hsu

Senior Director - Business Development, Utilities
Enel X

A Unique Opportunity To:

Get up to Speed on the latest smart grid tech advances and their implications for utility operations and performance

Refine your business model for grid modernization, energy efficiency and services optimization

Learn from key thought leaders, technology innovators and utility business strategists in mapping your course for the future

Network cost-effectively with colleagues, prospects and customers from the convenience of your office

Gain understanding into key market opportunities, drivers and challenges facing the 21st Century electric utility market as it undergoes fundamental change

Share your expertise, technology developments and insights with smart grid professionals from around the U.S. and internationally

Sample Attendee Feedback from Recent SGO Virtual Conferences

13th Microgrid Global Innovation Forum

September 7-11, 2020



"Excellent. 20 out of 2020. The quality of speakers' presentations, the companies' projects and experiences, and their genuine position to share information and openness for further contacts. THANK YOU!!!"

- *Guilherme Collares Pereira A2E- International Relations Director at EDP Renewables*

"The conference was very insightful, I would rate it best. The topics were on point"

- *Joe Lohose, CEO & Founder, Tech Power Services*

"I think conference was very well organized with interesting topics covered. Overall I was very satisfied."

- *Svetlana Timofejeva, Team Assistant, Gommyr Power Networks*

"It was a great conference with a broad spectrum of credible speakers on interesting topics relating to microgrids. Thanks for your hard work in maintaining interest in the microgrid space."

- *Shelli Zargary, Marketing Strategy & Content, GenCell Energy*

"This conference was of great interest, knowing the advances in microgrids from other regions and from different technology providers has enriched my knowledge to apply it to the Colombian case. I thank with all my heart those who made this event possible in a virtual way."

- *Olga Estella Ramírez Yaima, Mining Energy Planning Unit, Columbia*

"Interesting overview of topics currently playing in the minigrid sector. Good way to connect to new people."

- *Benedikt Lenders, Head of Minigrids and Managing Director, ENGIE PowerCorner Africa*

5th Annual Grid Modernization Forum

May 19-20, 2020



"The virtual experience was good and the content was well delivered; topics were timely and well curated in terms of who and what was presented. A good mix of speakers and topics."

- *Gary Brinkworth, Senior Advisor - Innovation & Research, TVA (Tennessee Valley Authority)*

"The subjects and the subject matter experts were all highly informative. Very well organized and presented by SGO"

- *Eric McDonald, Director - Infrastructure Development, NextEnergy*

"Excellent conference, great presentations and Q&A. Great job holding a virtual conference in these difficult times!"

- *Matt Haakenstad, Sr Director, Electric Services, World Kinect Energy Services*

"Great new topics and new information from presentations. Well done!"

- *Steffen Ziegler, Director - Signal Analysis and AI, IMCORP*

"Excellent" - *Brian Patterson, Chairman, EMerge Alliance*

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Sponsors receive a range of valuable exposure opportunities for highlighting their involvement in the Virtual Summit and maximizing their interaction with attendees.

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**GridEdge
Intelligence**

[GridEdge Intelligence](#) is being created by QualityLogic for industry leaders who are investigating, developing, or deploying one or more of the standard application protocols designed for communications with DERs and Loads at the grid edge. The subscription-based service aims to collect everything necessary on covered protocols to facilitate selection, implementation, and deployment of an interoperable, standards-based communications infrastructure and products for the smart grid of the future. GridEdge Intelligence will fill the gap by assembling comprehensive information and analysis on covered DER protocols. The information will include: who is adopting the protocol and for what applications; what are the mandates driving adoption; who owns, manages, and certifies implementations of the standard; where is technical training available; and what help is there for developers.

The service is scheduled to launch with a single protocol in November and expand to 6 covered protocols in the first quarter of 2021. The initial DER protocols planned for coverage include IEEE 2030.5, OpenADR, IEC 61850, DNP3, IEEE 1547, and SunSpec. Other grid edge protocols will be added based on subscriber interest and input. For more information, visit www.gridedgeintelligence.com.



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**Guidehouse
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About the Organizer



The Smart Grid Observer is an online information portal and weekly e-newsletter serving the global smart grid industry. SGO delivers the latest news and information on a daily basis concerning key technology developments, deployment updates, standards work, business issues, and market trends driving the smart energy industry worldwide. The publication serves a global readership of executives and practitioners in the electric power generation, transmission, and distribution industry. For a free subscription, click [here](#) or visit www.smartgridobserver.com.

Virtual Summit Registration

Your registration includes:

- Attendance at all sessions on December 9, 2020
- 1-to-1 introductions and meetings with fellow attendees facilitated by SGO
- Attendee list
- Access to on-demand recordings and transcripts of each presentation
- Access to PDFs of all presentations
- Participation in live polls and Q&A discussion sessions

Registration Fee: \$249.00

To register, visit www.smartgridobserver.com/vsummit/register.htm

For Further Information

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