

# Thanks for joining us this year at the Seattle Electrical Conference 2020

# **IEEE Consultant Network Seattle IEEE Power and Energy Society**

Mike Brisbois, Conference Chair mike.brisbois@ieee.org (708)668-5488

# Seattle Electrical Conference

Dec 22, 12:00 PM PST Live Stream



## **Welcome to the Seattle Electrical Conference**

We have a great line up of speakers today speaking on topics ranging from Cybersecurity to Smart Building Infrastructure. Our timing for our events will be exact so you can join throughout the day. Our platform will be Microsoft Teams and you will get an access code to come and go as you please. All attendees must register for the event. The event will be recorded and released after approval from our speakers. It is a network conference where we will provide you all contact information on the speakers. The intent of the speakers is to provide technical and professional high impact knowledge to you. You are welcome to contact us for further information on the speaker. We thank all our speakers for providing their time today for a successful Seattle Electrical Conference. We are the IEEE Consultant Network Seattle. Our goal is to foster and promote the interest of our members and to provide professional and technical services. Second, we maintain an online member directory and lastly, we arrange and provide technical and management talks like we have here today. Sit back, relax, and enjoy the show!

Message from our Conference Chair Mike Brisbois

We are proud to announce our Keynote speaker Kayne McGladrey. Kayne has a background in cybersecurity, and this is a major issue in our world today including Utility companies, office-based computers, and our homework stations. Today Kayne will share some great knowledge on cybersecurity on how it affects our lives. Please welcome Kayne McGladrey:



Welcome our Keynote Speaker Kayne McGladrey

#### Our Program:

#### Seattle Electrical Conference – Tuesday December 22, 2020 High Noon PST

- 11:45 am Announcements from Conference Chair Mike Brisbois
- 11:50 am Announcing the Seattle Electrical Conference Tom Coughlin past IEEE USA President
- 12:00 pm Keynote Kayne McGladrey Cybersecurity
- 12:30 pm Dr. Claudio Lima Blockchain as a New Digital Infrastructure Technology Layer
- 12:55 pm Tim Callahan Utility Transforming Direct Transfer Trip
- 1:20 pm Souvik Chandra Microgrids
- 1:45 pm Bhanu Srilla Why Electrical Equipment Maintenance is Critical for both Business Continuity and Compliance?
- 2:10 pm Isaac Maze-Rothstein The Role of Solar PV in US Microgrids
- 2:35 pm Mark McGee-Pasceri Digital Services Smart Building Infrastructure
- 3:00 pm Seth Ely POE Power Over Internet Wireless lighting
- 3:25 pm Wendi Walsh Organizational Management Panel Discussion with Shirly Shemesh
- 3:50 pm Bob Ke -Work with Chinese SME Suppliers
- 4:15 pm Jake Sherrill -Proposals Writing Process
- 4:35 pm Bob Williams Next Generation UPS Design
- 5:00 pm Entertainment and Networking SWAG

Times are exact PST. Each session is 20 minutes with 5 min Q&A. (except Keynote which is 30 min)

\*\*\* All Sessions will begin on time at their designated time \*\*\*

#### 12:00 pm Keynote – Kayne McGladrey – Cybersecurity



Kayne McGladrey is a senior member of the IEEE and the cybersecurity strategist for Ascent Solutions. He has over two decades of experience in cybersecurity and has served as a CISO and advisory board member, and focuses on the policy, social, and economic effects of cybersecurity lapses to individuals, communities, and the nation.

Kayne +1 (360) 632-0915 @kaynemcgladrey

#### 12:30 pm Dr. Claudio Lima – Blockchain as a New Digital Infrastructure Technology Layer



Blockchain as a New Digital Infrastructure Technology Layer

This talk introduces new concepts on how energy companies and power utilities can introduce the blockchain as a new enterprise and operational digital service automation layer to enable new energy transactions, improve operational efficiency, and grid cybersecurity. The Blockchain Engineering Council, BEC, will introduce for the first-time new engineering design rules and will explain how companies can use, deploy, and benefit from this new solution.

Claudio Lima, Ph.D.

Blockchain Engineering Council, BEC, Co-Founder

Bio

Dr. Claudio Lima leads the digital energy informatics transformation in the power and energy sector, smart grid, telecom/IT, and smart city. Currently, Lima is chair and vice-chair of the IEEE Blockchain IoT and Energy standards WGs, chair of the IEEE Blockchain Transactive Energy Initiative (BCTE) and serves as an industry advisory board member of the DOE-Department of Energy Blockchain Cybersecurity Initiative. He has a Ph.D. in Electronic Engineering (UKC-UK), and he is the co-founder of the Blockchain Engineering Council (BEC).

#### 12:55 pm Tim Callahan – Utility - Transforming Direct Transfer Trip

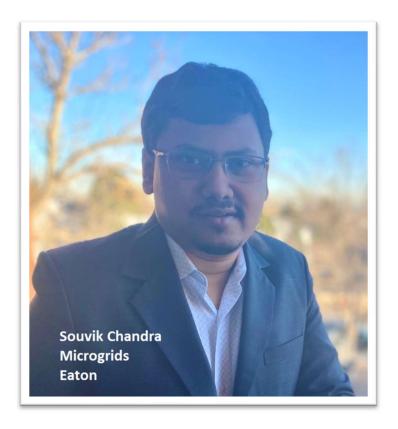


Eversource Energy has seen tremendous growth in renewables (solar and wind generation) distribution interconnection requests. Interconnecting these renewables on to the Eversource Distribution System presents many challenges. The Distribution System was not originally designed for Distributed Generation (DG). One of the most critical concerns for the distribution system is unintentional DG Islanding. To ensure safe and reliable operation of the Eversource Distribution System, transfer trip is sometimes required. This presentations steps through a Cellular Distributed Generation Pilot conducted by the Eversource Energy Team. One of the challenges was identifying a reliable communications medium for carrying the transfer trip signal. The discovery of this total pilot design is covered. Highlighting the innovative Distributed Generation Transfer Trip (DGTT) design using SEL's 3505 RTAC and Sierra Wireless' cellular gateways to communicate and control reliability over LTE.

#### Biography: Tim Callahan

Tim Callahan received a Bachelor of Science Degree in Electrical Engineering and a Master of Business Administration Degree from the University of Hartford. Tim has over thirty years' experience in the electric utility industry and is an active member of the IEEE PES Connecticut Chapter. Tim's current position with Eversource Energy is Senior Engineer in the Engineering Standards Group. Tim's focus is developing and implementing Standards for Distribution Automation (Smart Grid). Tim is also developing and implementing Standards for leased line, Power Line Carrier (PLC), unlicensed spread spectrum radio and Fiber Optic for Distributed Generation Transfer Trip schemes. A more recent initiative, Volt Var Optimization (VVO) deployment, is another initiative Tim is currently working on. The VVO Initiative will help integrate more renewable energy onto the electrical distribution system.

#### 1:20 pm - Souvik Chandra - Microgrids



#### Bio

Souvik Chandra is a Lead Engineer in Eaton Research Laboratories from Golden, Colorado. His research focuses on advanced protection and energy management in microgrids designed for Military installations. He has over 5 years of experience working in R&D of distribution protection and control for different vendors. He is involved in technical reviewing and publishing with IEEE. Souvik holds a PhD from North Carolina State University.

#### Topic of Talk

In the face of a rapidly changing distribution power system, microgrids have emerged as a potential solution that will help enhance resilience and sustainability while simultaneously reducing energy costs. This talk will address some key control and protection features of microgrid which are critical for ensuring end-user value propositions. Practical implementation examples will be discussed with ensuing challenges and opportunities.

1:45 pm – Bhanu Srilla - Why Electrical Equipment Maintenance is Critical for both Business Continuity and Compliance?



Title: Why Electrical Equipment Maintenance is Critical for both Business Continuity and Compliance? Summary:

For most facilities, electrical equipment maintenance and reliability are still an afterthought and a last priority. Most management decisions when it comes to electrical equipment operation and maintenance are made primarily based on their impact on production metrics and bottom line. With increased regulatory enforcement on safety and shortage of skilled workers, organizations are shifting their focus from reactive to proactive work. This topic will discuss the compelling case for proactive work and its importance when it comes to maintaining electrical systems with few application scenarios.

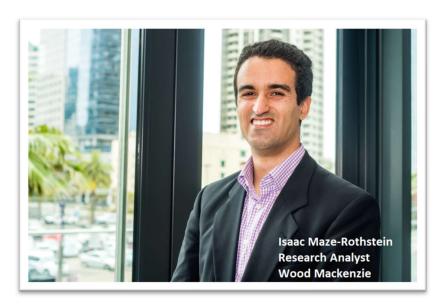
Presenter: Bhanu Srilla, MS, CESCP, CMRP, CRL

Schedule: 22<sup>nd</sup> December 2020, 1:45 PM Pacific Time

Presenter Bio:

Bhanu Srilla is the Director of Technical Marketing at Grace Technologies. He is responsible for developing strategy for new products, overseeing new product development efforts and product applications at Grace. Bhanu has over two decades of experience in power generation and distribution industry and has led diverse programs in electrical power distribution and control system projects in various IEC and ANSI applications for low and medium voltage systems. Bhanu is an IEEE member, and a member of Standards Technical Panel (STP) for UL 1436, UL 61010, UL 508, and 508A Standards. Bhanu is a certified electrical safety compliance professional (CESCP) by NFPA, certified maintenance and reliability professional (CMRP) by SMRP, certified reliability leader (CRL) by reliability web, and holds advanced degrees in Electrical Engineering, Manufacturing Systems, and Technology Management.

#### 2:10 pm - Isaac Maze-Rothstein - The Role of Solar PV in US Microgrids



#### The Role of Solar PV in US Microgrids

Why are customers and developers integrating solar into microgrids? To explore this question, we will look at the role Solar PV has played within the US microgrid market. Leveraging Wood Mackenzie's database of over 3,300 planned and operational US microgrids, we will start by exploring the primary motivations for microgrids and scope of solar deployment in microgrids historically. We will use this context to understand how solar is being used in these systems – what value does it provide to the larger system? We will conclude with take-aways about why customers have integrated solar and the outlook for the future.

#### Bio

Isaac Maze-Rothstein is a Research Analyst for Wood Mackenzie's Grid Edge practice, focused on microgrids. He leads research coverage for the US microgrid market and tracks the competitive landscape of installers and financiers. Prior to joining Wood Mackenzie in 2017, Isaac held various sales and research positions with clean technology companies. He graduated with honors from Williams College with a Bachelor of Arts in political science. His research has been cited in over 70 news articles including Forbes, Politico, Utility Dive, and Microgrid Knowledge.

#### 2:35 pm – Mark McGee-Pasceri - Digital Services Smart Building Infrastructure



The shift to data has been the biggest change in our industry over the last decade. How can we use our data to better understand the condition of the facility or the building environment, and use that to make better data driven decisions? Answering this question has led us to a point of condition-based maintenance and monitoring based commissioning strategies that are becoming more and more present in our industry today. But is system performance data really the only data set that we have readily available to analyze today? How can we use other readily available data sets and advancements in technology to more quickly determine root cause, minimize workorder tickets while making them more data rich, and create the highest impact maintenance strategy possible.

Bio - Mark McGee-Pasceri is a Business Development Manager for Siemens Smart infrastructure, specializing in Digitalization and Digital Services. In his role, Mark works to develop smart building and digitalization strategies to enable facilities teams to maximize their efforts, connect occupants with their building environment, use data to improve energy usage, equipment operations, and maintenance strategies, and help organizations achieve their overall and facility goals.

#### 3:00 pm - Seth Ely - POE Power Over Internet Wireless lighting



#### Bio

Seth Ely contributes 19 years of experience in electric lighting design, daylighting analysis and connected, IoT lighting controls on world class, sector leading projects to maximize value.

As a student of art and art history, Seth became passionate about how light informs our perception and experience of architecture and public spaces. Currently Seth is integrating data-oriented design to enhance occupant experience and enhance real estate assets. In addition to project work, Seth supports Stantec's Building Engineering and Lighting Design groups as a subject matter expert in lighting control and IoT systems.

#### Topic

Seth Ely will discuss how Power over Ethernet lighting can create the core infrastructure of Smart Buildings. In addition, Seth will review how PoE lighting infrastructure supports the Service Model of buildings and how this can be leveraged to support organizational change management.

#### 3:25 pm - Wendi Walsh - Organizational Management - Panel Discussion with Shirley Shemesh



#### Managing the Risks Associated with Change

Pandemic notwithstanding, change was already a big part of our lives. Of course, the pandemic has amped up our world and the intervals in between changes are decreasing. Let us have a conversation about what changes you have seen - with your clients and practice, how to leverage and embed change to differentiate your firm and to deliver the best outcome for your clients, team, and senior leadership.

#### Bio:

With degrees in Electrical Engineering and Organizational Development, Wendi combines technical, organizational, and operational expertise working with individuals, teams, and organizations to develop and implement complex systems (people, processes, and technology). This gives here the foundation to engage senior leaders in conversations that directly impact strategy and planning. She is particularly adept at facilitating discussions that enable groups to determine what is needed, developing the plans, and achieving the goals.

Wendi believes that the bottom line will be enhanced when projects, individuals, teams, and organizations work interdependently to fully support the needs and interests.

#### 3:25 pm - Shirly Shemesh - Organizational Management - Panel Discussion with Wendi Walsh



Shirly Shemesh, PMP, MA

"It's all about the people".

I believe that in today's world, being a human first help achieve efficient interactions between teams which is critical to delivering successful projects. Holding Master's Certificates in Project Management, PMP, and M.A in Educational & Administration Leadership.

I am excited to help deliver successful IT projects in today's agile and demanding world of digital transformation, and COVID pandemic requiring distributed remote teams. I have two decades of experience working with people in very challenging situations and multicultural environments.

As a certified project manager with Agile approach, I would like to briefly share with you how to embrace change through understanding the benefits of Agile processes and the importance of building extremely high functioning teams.

#### 3:50 pm – Bob Ke -Work with Chinese SME Suppliers



#### Bob Ke Bio

Bob Ke, general manager of Viotech. A consultant with 23 years of experience in consulting services and 16 years in outsourcing management. He and his team provide support to international companies to enter China market from market study, chancel construction to entry strategy and review. He and his team are also managing the purchase of an American company that buys sports equipment from China. Other services they offer include industry updating, assessment of partners, benchmarking, and IP strategy.

Email: bobke@viotechconsulting.com

Add: Tianjin, China

Topics: Work with Chinese SME Suppliers

Bob will talk about how to reduce your risk of buying from China, including how many suppliers you need, what the suppliers are looking form you and communication tips, measures to keep product quality up to your levels and how to prevent shipment delay.

#### 4:15 pm – Jake Sherrill -Proposals Writing Process



Tier4 Advisors is a global IT procurement redefined process. Once we complete the risk assessment, Tier4 can provide immediate access to the solutions needed to close the identified gaps. Tier4 eliminates the wasted time, stress, fear of failure, and minute details involved in IT Procurement projects. Our clients and vendor partners appreciate the depth of enterprise IT security and compliance experience we bring along with a deep passion to help educate and dramatically increase their clients' security posture. Tier4 Advisors is an expert in all things data center, Telecom, Managed Services, Security/Compliance. Not as a vendor but as a subject matter expert who literally and figuratively sits on your side of the table while assisting you to simplify and speed up dealing with vendors, gathering quotes, and getting projects completed.

#### Bio

He comes with a long background of leadership and executive responsibility which started when he became the youngest RVP (Regional Vice President) for the American Business Association managing the entire State of Arizona when he was 27 years old. In that position, Jake built one of the top 3 teams in the company. His passion for flipping the status quo on its head and dedication to see things to the end give him a drive that is fun to watch and be led by. He entered the technology world in 2010 by joining Fogo Data Centers where he successfully drank from the firehose as the first employee and spearheaded a few programs from scratch to assist in growing the business. He later joined Business Technology Architects where he developed relationships and partnerships that would lead him to where he is today. Jake's knowledge of data centers and the cloud has given him the proper respect and title of "One of The Best Trusted IT Advisors in The Business."

#### 4:35 pm – Bob Williams – Next Generation UPS Design



Next Gen" UPS design. This UPS features bi-directional ports allowing unique operation we have not previously been able to do with UPS systems, including seamless integration into buildings with PV arrays.

Bio: I have been a sales engineer in the power quality field since '99. Focusing mostly on critical environments, but also education, healthcare, and industrial facilities. Previously spent 20+ years working in electrical distribution supporting contractors, industrial and OEM accounts.

#### 5:00 pm - Entertainment and Networking SWAG

#### Special Guest will come in at 5 pm sharp. You do not want to miss!



#### We thank our sponsors:



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Also visit our Showcase at Seattle Electrical Conference.com/Showcase for a brief video clip of who are consultants are and what they do. Enjoy!

#### Meet our consultants:

Dan Velando, Tier 4 Advisors

**Tam Tran** PE, Power Studies

Sean Zhou, Self

Mike Brisbois, Salas O'Brien

Phillip Serna, ESR Reliability

Stephen Byers, Arc Line Safety Solutions

John Barkley, Rite Solutions

Mark McGee-Pasceri, Siemens

Chris Hils, Practical Physics, LLC

Cheryl Christensen, Data2Develop

**Bob Williams**, Integrated Power Systems

Wendi Walsh, W Squared

Shirly Shemesh, self

Bruce Yee, Kohler

Hal Moroff, Self

Jose M Tapia-Ruiz, T-Mobile

Flaviano Reyes, Reyes Engineering

Paul Kostek, Base2 Solutions

Hans Frederick, Action Technical

Bryan Santarelli, Fogg Law

Brook Walker, Electric League Pacific NW

Neha Kardam, Lake Washington Inst. Tech

**Bob Ke**, VioTechConsulting

Jeff Johnson, self

Martin Taylor, self

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