EUCI’S 7TH ANNUAL SOUTHEAST CLEAN POWER SUMMIT

February 27-28, 2018
Millennium Maxwell House Hotel Nashville
Nashville, TN

PRE-CONFERENCE WORKSHOP I
The Effects of High Penetration of Distributed Generation on Distribution Systems
MONDAY, FEBRUARY 26, 2018

PRE-CONFERENCE WORKSHOP II
Pricing Distributed Generation (DG): Issues and Approaches
MONDAY, FEBRUARY 26, 2018

“It was nice to have so many high level players in the same room.”
Sales, RBI Solar

EUCI is authorized by IACET to offer 1.0 CEUs for this conference and 0.4 CEUs for each workshop
OVERVIEW

Generating electricity from renewable energy sources continues to play a significant role in advancing sustainability goals and reducing carbon outputs across North America. In the past, the Southeast (SE) region of the U.S. has found renewable energy to be an expensive and confusing venture, as what is “normal” in other parts of the country can still be challenging here. The region possesses strong coal and nuclear industries, and enjoys some of the lowest electricity rates in the nation. Still the SE has begun to embrace renewable energy in recent years. Despite a reversal in policies around fighting climate change at the federal level, cities and counties throughout the SE are still committed to clean energy.

The region has a variety of readily available clean energy sources, including land to generate biomass, coastal wind, water tables to tap for geothermal, and enough sunlight that can produce high return on investment on solar installations. The adoption of solar in the region has been slow, but this is changing as significant amounts of solar are being added in SE states such as Georgia and North Carolina. Wind has been a less prominent player in the SE, but the Amazon wind farm in North Carolina is signaling a shift in for the region as now other wind farms are in the works in nearby states, including Virginia. Energy storage is coming into more widespread deployment, also.

This 7th annual Clean Power Summit is the key event to learn about what’s happening and what the outlook is for renewable energy developments in the SE. The conference features utilities, project developers and industry experts discussing the most current information and what it’s likely to mean for stakeholders in the region.

LEARNING OUTCOMES

• Discuss best practices in renewable energy development and implementation
• Evaluate the progress of renewables in the Southeast region
• Critique policy perspectives on the future demand for renewable resources
• Identify the positive impact of distributed generation
• Explore the ways in which solar development is having a meaningful impact on the SE region
• Evaluate how to redesign the distribution system so that it can handle a lot more renewable energy production
• Assess the advancement of wind for the SE region
• Discuss how companies are managing their REC portfolios

WHO SHOULD ATTEND

• Utility professionals involved with generation and procurement of power
• Independent power producers
• Federal, state, county, and local regulatory agencies
• ISO/RTO professionals
• Financial and legal professionals interested in cleantech development
• Energy consultants, project managers, and engineers
• Cleantech developers, manufacturers, and distributors
• Permitting and siting professionals
• Academia involved with renewable energy R&D
• Energy service companies
• Renewable energy trade associations

“Great opportunity to learn more about all aspects of the market.”
Senior Associate, Scott Madden, Inc.
TUESDAY, FEBRUARY 27, 2018

7:45 – 8:15 am  
Registration and Continental Breakfast

8:15 – 8:30 am  
Welcome Announcements

8:30 – 9:15 am  
The Role of Pilots and Demonstrations in Reinventing the Utility Business Model
The rapid growth of distributed energy resources (DERs) is causing disruptions to traditional grid operations and business models for utilities. Making the transition to a DER-rich future requires piloting new approaches to operating the electricity system, to engaging customers, to working with third-party DER providers, and to the utility business model itself. How can utilities ensure that pilot and demonstration projects result in productive learning, eventually leading to large-scale deployment? Rocky Mountain Institute (RMI) recently examined utility pilot and demonstration projects with a focus on establishing best practices for utilities, regulators, and DER providers. In this session, RMI will present key findings from that research and discuss opportunities for creating more effective pilots and demonstrations.

Anthony Teixeira, Senior Associate, Rocky Mountain Institute

9:15 – 10:00 am  
How High Can We Go? A Systems Approach to Incorporating More DER
Today’s grid has several issues with small scale solar PV and small wind generation: not easy to connect, tough to manage, not as efficient as it could be. High levels of DER can wreak havoc on distribution equipment. But could the grid handle more? Yes. The Future Renewable Electric Energy Delivery and Management (FREEDM) Systems Center is a university-led research center headquartered at NC State, whose vision is to re-design the distribution system so that it can handle a lot more renewable energy production. The concept relies on energy cells that contain generation, loads and storage that plug-and-play to the network. This session will review the concept along with the necessary wide bandgap semiconductors, solid state transformers, and distributed grid intelligence needed to support it.

Ken Dulaney, Director of Industry and Innovation, FREEDM Systems Center

10:00 – 10:15 am  
Morning Break

10:15 – 11:00 am  
Economics of Solar
Throughout the Southeast, utilities are exploring different rate designs in response to distributed solar. With reference to specific examples from the region, this presentation will focus on assessing the impacts of distributed solar in low-penetration markets in the Southeast, evaluating the economics of distributed solar from a range of avoided cost perspectives, fostering customer choice, and other emerging rate design issues.

Amanda Garcia, Staff Attorney, Southern Environmental Law Center

“The Southeast Clean Power Summit is a great way to get a holistic update on the ‘state of the union’ for clean power with diverse utility, supplier and academic perspective.”

Director of Business Development, Radiance Solar
TUESDAY, FEBRUARY 27, 2018 (CONTINUED)

11:00 am – 11:45 am  
**Wind Energy in the Southeast**  
In this session, the Southeastern Wind Coalition will provide an overview of land-based and offshore wind, as well as imports from the Midwest to the Southeast and the region's thriving supply chain to the wind industry. It will also examine the benefits that wind energy provides to local communities and ratepayers, its compatibility with agriculture operations and military installations, and the technological advancements that are making wind an increasingly viable technology in the Southeast.  
*Jaime Simmons, Program Associate, Southeastern Wind Coalition*

11:45 am – 12:30 pm  
**Solar and Wind Developments in South Carolina**  
The state of South Carolina has been tracking solar installations since 2014. As a result of the passage of Act 236, the state continues to see a big increase in the number of solar installations each year and this trend should continue. South Carolina is not known for its wind activity, but there are resolutions and ordinances that have been put into place by some local areas. For example, Charleston and North Myrtle Beach have developed resolutions in favor of wind development while Pawleys Island has instituted an ordinance against wind. This presentation will review the outlook for development of these renewable energy resources in South Carolina.  
*Stacey Washington, Energy Specialist, SC Office of Regulatory Staff*

12:30 – 1:30 pm  
**Group Luncheon**

1:30 – 2:15 pm  
**REC Markets, Volumes and Opportunities in the Southeast**  
The NAR tracking system issues millions of RECs annually from renewable energy facilities in the Southeast. This presentation will detail recent market trends and present case studies illustrating how companies are managing REC portfolios, supporting C&I purchases, monetizing RECs and providing transparency for their initiatives.  
*Lars Kvale, Managing Director, APX*

2:15 – 3:15 pm  
**Integrating QFs into MISO**  
As the vigorous pace of wind and solar energy development continues, the ability of renewable projects to obtain Qualifying Facility (QF) status under PURPA can be critical to a renewable project’s viability and can have important cost implications for the utility receiving the project’s output. This presentation will examine how QFs are integrated into the MISO.  
*Eugene Mauk, Senior Advisor – Client Relations, MISO*

3:15 – 3:30 pm  
**Afternoon Break**

3:30 – 4:15 pm  
**What’s Next for PJM after Ancillary Services?**  
As energy storage capabilities evolve, what options are available for energy storage to maximize their capability in the wholesale market? This session will review the recent changes in the PJM regulation market and discuss what’s next after Ancillary Services for energy storage.  
*Eric Hsia, Manager – Operation Analysis & Compliance, PJM Interconnection*

4:15 – 5:00 pm  
**Retail Pricing to Support Electric Vehicle Charging**  
The number of electric vehicle owners, both residential and business, is expanding rapidly. Additionally, third-party vendors of vehicle charging services are emerging. This session will review the rate design issues that utilities face in designing rates to support this expanding source of utility business. The segment will set out the challenges in recovering costs and setting “efficient prices”, i.e. electricity prices that neither subsidize nor deter 1) electric vehicle purchases and 2) establishment and use of public electric vehicle charging infrastructure.  
*Bruce Chapman, Vice President, Christensen Associates Energy Consulting*

5:00 pm  
**Networking Reception**
**AGENDA**

**WEDNESDAY, FEBRUARY 28, 2018**

7:45 – 8:15 am  Continental Breakfast

8:15 – 9:00 am  Incorporating New Technologies to Meet Evolving Customer Demand

Evolving customer demands and new technologies are reshaping electric utility services and helping modernize the grid. Entergy’s five utilities continue to develop new pilots and programs to better meet customer interests as well as incorporate new technologies. Entergy will provide an overview of new programs, related technology investments, and perspectives on policy matters.

*Elizabeth Ingram, Manager– Regulatory Research, Entergy*

9:00 – 9:45 am  TVA Renewable Energy Policy

The Tennessee Valley Authority (TVA) offers various renewable programs and a new approach to defining distributed generation: integrated value. In this session, an overview of TVA’s renewable energy policy (supporting clean energy and renewables) and the lessons learned will be provided. The discussion will also include regulatory policies related to transmission, generation interconnection and risk assessment.

*Laura Duncan, Senior Program Manager – Renewable Energy Solutions, Tennessee Valley Authority (TVA)*

9:45 – 10:00 am  Morning Break

10:00 – 10:30 am  Xcel Energy’s Renewable*Connect Program

Designed from the World Resource Institute’s Corporate Buyer’s Principles, Renewable*Connect is Xcel Energy’s next generation renewable choice product which provides customers a competitive, green and sustainable energy option that mitigates impact to other customers. Launched in 2017, Renewable*Connect offers customers a blend of wind and solar to meet there on and off-peak requirements. The program’s flexible subscription terms allows customers to subscribe on a month-to-month basis or lock in there pricing for up to 10 years for all or a portion of their energy needs.

*Nick Paluck, Rate Consultant, Xcel Energy*

10:30 – 11:00 am  Smart Grid Consumer Collaborative’s “Consumer Pulse Wave 6” Study

How are today’s consumers using and managing energy? And what are their attitudes toward and awareness of smart grid-enabled products and services? The sixth wave of SGCC’s flagship “Pulse” series of nationally representative consumer surveys provides insights into consumers’ knowledge of smart energy and smart grid-enabled services and technologies, including peak-shifting/demand response programs, home energy management systems, energy storage systems, rooftop/community solar and more. The survey also updates SGCC’s consumer segmentation framework and presents consumer information in a way that is actionable by industry stakeholders. Attendees will hear major findings from “Consumer Pulse Wave 6” and will take away valuable insights on today’s energy consumers, their attitudes and values, and their propensities for new programs & services.

*Patty Durand, President & CEO, Smart Grid Consumer Collaborative*

11:00 – 11:45 am  Energy Storage Policy Panel Discussion

This panel session will discuss modernizing utility planning processes and state policies to deliver the benefits of energy storage to electric customers in the Southeast.

*Tim Ash, Market Director East, AES Energy Storage*

*Howard Smith, Manager – Distributed Energy Resources Policy, Southern Company*

*Zak Kuznar, Director of CHP – Microgrids and Energy Storage, Duke Energy (invited)*

11:45 am  Conference Concludes
PRE-CONFERENCE WORKSHOP I

The Effects of High Penetration of Distributed Generation on Distribution Systems

MONDAY, FEBRUARY 26, 2018

8:00 – 8:30 am  Registration & Continental Breakfast
8:30 am – 11:45 pm  Workshop Timing

OVERVIEW

The risks of adding significant levels of distributed generation are systemic and potentially threaten the power quality and operation of modern distribution systems. To address these risks, one must think critically about what pre-emptive measures should be taken in terms of both engineering decisions as well as technical policies. This workshop provides attendees with the background knowledge necessary to more effectively identify and address both transient and steady-state phenomena on distribution systems today. Topics ranging from policy decisions and system impact study procedures, to commissioning and technical inspections will provide the audience with expertise in areas of concern to take into consideration when anticipating the effects of future distributed energy resources on their systems. The purpose of this workshop will be to find a balance among maintenance costs, power quality, and rising levels of aggregate generation on the distribution system at both the substation feeder and the customer facility level.

LEARNING OUTCOMES

• List considerations needed before connecting Distributed Energy Resources (DER)
• Review the importance of creating a defendable DER connection policy
• Assess to conduct a DER interconnection study.
• Create a punch list for commissioning and inspection

AGENDA

I. Introduction and Scope of Discussion
II. Creating DER Policy for the Utility
III. Steps to create a DER Connection Study
IV. DER Commissioning and Technical Inspection
V. End User Power Quality Issues and Resolutions
INSTRUCTORS

Keith Clapp  
**Consulting Engineer, UC Synergetic**

Keith Clapp is a consulting engineer at UC Synergetic. He is responsible for performing system impact studies for new distributed energy resources (DER) including system analysis, planning, protection, and reliability. He has helped to shape new policy and methodologies for the interconnection of DER involving solar PV, biogas, and battery energy storage. With the explosive growth of new interconnecting requests, Mr. Clapp has researched new practices and strategies to ensure power quality on medium voltage distribution systems.

Jerry Josken  
**Senior Consultant, UC Synergetic**

Jerry Josken is a Senior Consultant for UC Synergetic. During his 30+ year career with Eaton’s Cooper Power Systems, he has served as Test Engineer, Design Engineer, Distribution Protection Engineer, and Field Application Engineer. Past leadership positions include Chair of IEEE Rural Electric Power Conference (2012) and GLEMS Distribution /Controls (2013-2014). He also coordinates UCS Professional Development Programs. Mr. Josken holds a BS in Electrical Engineering Technology from the Milwaukee School of Engineering and a MBA from North Central College.

“Very nicely done! I was impressed by the quality of the speakers and the relevance of topics.”  
Technical Leader, Renewable Generation, Electric Power Research Institute

“The key event to learn about renewable energy developments in the southeast.”  
Managing Director, APX, Inc.

“Great exchange of views, cutting-edge research and challenging policy views.”  
Research Director, SACE
PRE-CONFERENCE WORKSHOP II

Pricing Distributed Generation (DG): Issues and Approaches

MONDAY, FEBRUARY 26, 2018

12:30 – 1:00 pm Registration
1:00 – 4:30 pm Workshop Timing

OVERVIEW

Net energy metering (NEM) is the dominant pricing arrangement that utilities use to serve customers with distributed energy generation (DG). NEM is well-known for the issues that arise with respect to distribution cost recovery and resulting cross-subsidy. This workshop will review those issues around the NEM design and set out alternative pricing mechanisms for serving DG customers. Attendees at the preceding workshop on the system challenges of renewable pricing will find the workshop a valuable companion by reviewing the cost recovery and pricing challenges of clean power integration. Conference participants will find this a useful reminder of the pricing issues that challenge development of customer site-based clean power prior to attendance at the Clean Power Summit.

LEARNING OUTCOMES

- Identify the issues and challenges associated with NEM pricing
- Review candidate alternatives to NEM, including buy-all/sell-all, residential demand charges, time-of-use pricing
- Review the role of avoided cost and controversies surrounding its measurement

AGENDA

I. Introduction to NEM pricing structures and problems
II. Avoided costs associated with DG service
III. Design alternatives using familiar tariff constructs (demand charges, TOU pricing)
IV. Design alternatives using new tariff constructs (buy-all/sell-all, net demand)
V. Likely future issues
VI. Summary

INSTRUCTOR

Bruce R. Chapman
Vice President, Christensen Associates Energy Consulting

Bruce Chapman is a Vice President at Christensen Associates Energy Consulting. He assists clients in the electricity and natural gas industries to improve their costing and pricing capabilities. Mr. Chapman advises clients in such areas of expertise as: cost-of-service analysis and rate design based upon both established regulatory and market-based principles; innovative rate design including demand response products, renewables pricing, fixed billing, and other market-based retail pricing products; load forecasting and load research analysis. Additionally, he has supervised the development of software required for the implementation and support of innovative retail products.
INSTRUCTIONAL METHODS

Case Studies, PowerPoint presentations, case studies and panel discussions will be used in program.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the conference to be eligible for continuing education credit.

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 1.0 CEUs for this conference and 0.4 CEUs for the workshop

EVENT LOCATION

A room block has been reserved at the Millennium Maxwell House Hotel Nashville, 2025 Rosa L Parks Blvd, Nashville, TN 37228, for the nights of February 25-27, 2018. Room rates are US $99 plus applicable tax. Call 1-615-259-4343 for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is February 4, 2018 but as there are a limited number of rooms available at this rate, the room block may close sooner. Please make your reservations early.

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this conference may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.
A room block has been reserved at the Millennium Maxwell House Hotel Nashville, 2025 Rosa L Parks Blvd Nashville, TN 37228, for the nights of February 25-27, 2018. Room rates are US $99 plus applicable tax. Call 1-615-259-4343 for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is February 4, 2018 but as there are a limited number of rooms available at this rate, the room block may close sooner. Please make your reservations early.

**SOUTHEAST CLEAN POWER SUMMIT, AND BOTH WORKSHOPS**
FEBRUARY 26-28, 2018: US $2195
EARLY BIRD on or before FEBRUARY 9, 2018: US $1995

**SOUTHEAST CLEAN POWER SUMMIT AND ONE WORKSHOP**
(MAKE SELECTION BELOW): US $1795
EARLY BIRD on or before FEBRUARY 9, 2018: US $1595

**PRE-CONFERENCE WORKSHOP I: THE EFFECTS OF HIGH PENETRATION OF DISTRIBUTED GENERATION ON DISTRIBUTION SYSTEMS:**
MONDAY, FEBRUARY 26, 2018

**PRE-CONFERENCE WORKSHOP II: PRICING DISTRIBUTED GENERATION (DG): ISSUES AND APPROACHES:**
MONDAY, FEBRUARY 26, 2018

**SOUTHEAST CLEAN POWER SUMMIT ONLY:** FEBRUARY 27-28, 2018: US $1395
EARLY BIRD on or before FEBRUARY 9, 2018: US $1195

I'M SORRY I CANNOT ATTEND, BUT PLEASE EMAIL ME A LINK TO THE CONFERENCE PROCEEDINGS FOR US $395

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**EVENT LOCATION**

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**PLEASE SELECT**

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**CREDIT CARD INFORMATION**

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Substitutions & Cancellations
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 January 26, 2018 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 conference 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 offices at (201) 871-0474.