2020 WESTERN TRANSMISSION SUMMIT
Resiliency. Reliability. Grid Modernization

January 22-23, 2020
Hilton Costa Mesa
Costa Mesa, CA

PRE-CONFERENCE WORKSHOP
Grid Readiness – The Path to Grid Modernization, Considerations for Laying the Foundation for the Modern Grid
WEDNESDAY, JANUARY 22, 2020

“This was an enjoyable and rewarding training experience. The topics were current, and the content will be useful in my business. The most worthwhile benefit for me was the opportunity to network with my peers.”

Director, Regional Coordination, California ISO

EUCI is authorized by IACET to offer 1.0 CEUs for the conference and 0.3 CEUs for the workshop.

HOST UTILITY

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL® Company

SPONSORS

WSP

BURNS MCDONNELL
OVERVIEW

The 12th Annual Western Transmission Summit will convene leaders and operators from across the Western U.S. grid to discuss new challenges and developments to the regional transmission system. As Western operators and legislators innovate new methods for grid operation, including its recent movement towards regionalization, the rest of the industry will continue to watch the West for what’s next.

The 2020 Western Transmission Summit will discuss forward-thinking tools for modernization such as wind and solar integration, microgrids and the influence of DERs, and legislative developments in the aftermath of a more congested and vulnerable system. Speakers represent a variety of different perspectives from RTOs to utilities, federal legislators, and construction contractors. Hear from some of the leading voices on the future of transmission expansion in one of the most advanced areas in the world.

LEARNING OUTCOMES

- Progress updates from SCE, Puget Sound Energy, SMUD, and more…
- Discuss new efforts towards system regionalization from CAISO and other Western utility operators
- Review sophisticated methods for transmission siting, planning, and the nuances of the complex western market structure
- Identify the transmission impact of the proliferation of Community Choice Aggregators (CCAs) with CAISO and other western utility operators
- Prospect the implications and meaning of the new planning region, NorthernGrid
- Discuss integration of solar and wind renewable assets onto the grid and peak load challenges
- Cover challenges and vision of FERC 1000 for transmission operators
- Identify cyber and physical resiliency improvement methods to ICS and vulnerabilities on the transmission system
- Explore FERC Order 841 and the applications of energy storage as a transmission resource

WHO SHOULD ATTEND?

- Transmission planners, engineers, and operators
- Transmission project managers
- Utility finance executives
- Transmission developers and consultants
- Renewable energy developers
- Lenders and financial institutions
- Construction executives
- Permitting and environmental planners and managers
- State public utility commission advisors and staff
- Managers of grid and resource integration

“Great conference for seasoned professionals.”
Electric Engineer, PUCN

“The conference offered an in-depth look, through balanced panel discussions and case studies, into the current state of transmission planning and development in the U.S.”
Attorney, Montana PSC
AGENDA

WEDNESDAY, JANUARY 22, 2020

12:30 – 1:00 pm  Conference Registration

1:00 – 1:10 pm  Opening Remarks

1:10 – 1:45 pm  Keynote Welcome
   *Erik Takayesu, VP of Transmission, Substations, and Operations, Southern California Edison*

1:45 – 3:15 pm  PANEL: Regionalization and the Future of Grid Expansion in the West
   The Western transmission system is the indisputable leader on decarbonization and green energy commitments in the U.S. With all of the legislation surrounding transmission operation, a potential shift towards CAISO consolidation with other Western operators has been discussed. This panel full of different opinions, will share the advantages and potential pitfalls of a movement towards grid regionalization in the west—what has already happened and what might we expect in the future.
   **Moderator: Laura Manz, Director, Navigant**
   **Panelists:**
   - Robert Cummings, Sr. Director of Engineering and Reliability, NERC
   - Bob Hellrich-Dawson, Senior Economist, FERC
   - Bruce Rew, Senior VP, Operations, Southwest Power Pool
   - Bob Smith, VP Transmission Planning & Development, TransCanyon
   - Gary DeShazo, Director, Regional Coordination, CAISO

3:15 – 3:45 pm  Networking Break

3:45 – 4:30 pm  Utility Vulnerability, Threat, and Risk Management
   The U.S.’s cyber security approach to its critical infrastructure and industrial control systems (ICS) has been a mix of voluntary guidelines and standards to regulated standards mandated by congressional actions, with a somewhat predictable outcome based on financial reporting and risk appetite of the enterprises. Federal regulations and standards, such as NIST, ISO27001 and FISMA, also drive IT-based system security. Critical infrastructure has moved from mechanical controls to digital technologies, computer networks and internet-driven devices. With each addition, the grid — along with the rest of the nation’s critical infrastructure — becomes increasingly vulnerable along with a constant evolving cyber threat landscape. Every critical infrastructure entity, cyber security and compliance team is using metrics to measure the effectiveness of their compliance program. It is important to acknowledge that “Not everything that counts can be counted, and not everything that can be counted counts.” Does the entity’s risk management program support the measures of the compliance and cyber program? Do the established metrics provide the entity with information and insight to assess risks and make the appropriate decisions?
   **Jerome Farquharson, Sr. Director, Compliance and Risk Management, Burns & McDonnell**

“EUCI serves as a sounding board/forum to share best practices and information that effects anyone related to energy, no matter what their level of involvement. The cumulative experience of event attendees is astounding, and information shared is invaluable.”

Director of Business Development, PJ Helicopters, Inc.
WEDNESDAY, JANUARY 22, 2020 (CONTINUED)

4:30 – 5:15 pm  Identifying the Barriers to Energy Storage in Transmission Planning and Operations
Since 2007, regional transmission planning entities have been directed to consider energy storage in their planning processes. Additionally, the Federal Energy Regulatory Commission issued a policy statement in 2017 encouraging regional energy market operators to develop policies and procedures that would enable energy storage to provide regulated transmission services and unregulated market services (dual use). Despite these policies, recent research has found that regional planning processes have been slow to include energy storage, and proceedings to implement the FERC policy statement have proven challenging. This presentation will discuss Department of Energy-funded research at Pacific Northwest and Argonne national laboratories to conduct detailed research into the specific market barriers that impede energy storage from serving in transmission and dual-use applications and assess the technoeconomic potential of energy storage as a transmission asset.
Jeremy Twitchell, Energy Research Analyst, PNNL

5:15 – 6:30 pm  Networking Reception

THURSDAY, JANUARY 23, 2020

7:30 – 8:00 am  Continental Breakfast

8:00 – 8:45 am  Reliability Insights from WECC’s 2019 Study Program
WECC developed a Study Program for 2019 to assess potential future reliability risks. Priority assessments in the 2019 Study Program include reliability impacts of: The Most Likely 2028 Future; Changes to System Inertia; Significant Electrification; Resilience In Response to an Extreme Natural Disaster; A Disruption of the El Paso Natural Gas Pipeline; and WECC’s 2038 Future Scenarios. The discussion will result of each of the assessments through the end of 2019.
Byron Woertz, Manager, System Adequacy Planning, WECC

8:45 – 9:30 am  FERC regional transmission planning: A review of Planning Region Requirements and the formation of the NorthernGrid planning region
Learn about important aspects of FERC Orders 890 and 1000 as it relates to the requirements for transmission planning regions, and future transmission projects in the West. Learn how these FERC Orders are being implemented by the existing planning regions in the western interconnection today, potential changes by FERC in the future and the formation of a new transmission planning region. NorthernGrid is planned to replace the existing ColumbiaGrid and Northern Tier Transmission Group planning regions and would conduct transmission planning for transmission owners within Washington, Oregon, California, Idaho, Utah, Wyoming and Montana and provide valuable information necessary to make efficient and cost effective choices about transmission infrastructure.
Laura Hatfield, Transmission Policy and Contracts, Puget Sound Energy

9:30 – 10:00 am  Networking Break
AGENDA

THURSDAY, JANUARY 23, 2020 (CONTINUED)

10:00 – 11:15 am  PANEL: Renewable Integration on the Western Grid
The energy system in the west is looking to improve sustainability by integrating more load from renewable assets such as offshore wind and solar fields. This panel of qualified and experienced industry leaders will explore different methods for interconnectedness, system planning, and case studies. Objectives include:
- Discuss interregional planning efforts in various RTO territories
- Identify key benefits and challenges in grid efforts to introduce renewables
- Explore different renewable technologies and their viability in the west
- Discuss recent legislation and compliance standards that apply towards transmission planners and a greener grid

Panelists:
- Robert Cummings, Sr. Director of Engineering and Reliability, NERC
- Bob Smith, VP Transmission Planning & Development, TransCanyon
- Ali Ipakchi, Executive VP, Smart Grid & Green Power, OATI
- Carl Borgquist, President & CEO, Absaroka Energy
- Laura Hatfield, Transmission Policy and Contracts, Puget Sound Energy

11:15 am – 12:00 pm  Technical System Planning and the Western Energy Grid
This presentation will cover a case study from the recent grid upgrades and reconductoring methods Southern California Edison has done to improve grid resiliency and capacity.

Charles Adamson, Principal Manager, T&D Major Projects, Southern California Edison

12:00 – 1:00 pm  Group Luncheon

1:00 – 1:45 pm  SunZia Project Update
The SunZia Southwest Transmission Project is located in Arizona and New Mexico. Over 520 miles long, it will consist of two 500 kV transmission lines and interconnection facilities. A Record of Decision approving the project was issued in January 2015 by the Department of Interior. SunZia completed permitting in Arizona in February 2016 and is currently completing approvals for project's location in New Mexico. The project has been rated by the Western Electricity Coordinating Council at 3,000 MW from east-to-west. SunZia's anchor customer on the first 500 kV transmission facility is Pattern Energy, who is developing wind energy facilities in New Mexico of approximately 2,000 MW to serve load in western markets.

Tom Wray, Project Manager, Southwestern Power Group (SPP)

"Great list of speakers and topics. Very relevant and timely."
Regional Public Affairs Manager, SDG&E

"EUCI provides a small conference format that enables easy networking and free-flow discussions. It is also nice to not be pressured by vendors or sponsors. It is great in its informality of venue."
Manager, Grid Integration, NREL
AGENDA

THURSDAY, JANUARY 23, 2020 (CONTINUED)

1:45 – 2:30 pm  A Proactive Strategic Approach to Support Major Project Approval and Construction
In this session, you will learn how San Diego Gas & Electric proactively engages stakeholders to gain support of major project development of electric and natural gas projects throughout the SDG&E service territory, at all stages of development. SDG&E’s belief is that there is no such thing as a “one-size fits all” approach to public participation. Instead, the Regional Public Affairs Team and Major Projects Specific Teams coordinate to tailor the right approach for each project, including:
• Internal support and external outreach
• Project-specific public affairs plans
• CAISO bidding process, pre-filing, CEQA process, construction
• Lead on construction notifications
• Active role in agency approval processes
• Close coordination with RPA, media, community relations, and the broader project team

Claudia Valenzuela, Public Affairs Manager, San Diego Gas and Electric

2:30 – 3:00 pm  Networking Break

3:00 – 4:15 pm  PANEL: Grid Technologies, Decarbonization, & Transmission Modernization
This panel will explore the complexities of the emerging technology market on the Western transmission grid. With the explosion of DERs, NWAs, microgrids, storage, synchrophasers, and more, operators are faced with a whole new series of challenges…and potential. Hear from industry experts on the future of these technologies and how they are helping modernize and decarbonize the energy of the west.

Moderator: Giovanni Damato, Principal Project Manager- Energy Storage/DER, EPRI
Panelists:
Jenifer Hedrick, Project Manager, Southern California Edison
Emmanuel Jaramillo, Project Manager, Bonneville Power Administration

4:15 – 5:00 pm  Impacts of Wildfires on Transmission Investment, Planning, and Operations
The recent wildfires in California have redirected attention to adapting and fireproofing transmission systems. Utilities and transmission owners have many options to consider including undergrounding lines, reconductoring, sensors, etc. This presentation will discuss the potential impacts of similar events across the west on grid reliability and resilience, what certain prevention measures mean for transmission lines, the current state of implementation and examine the investment necessary.

Laura Manz, Director, Navigant

“Excellent and useful Summit.”
Program/Project Supervisor, CPUC
PRE-CONFERENCE WORKSHOP

Grid Readiness – The Path to Grid Modernization, Considerations for Laying the Foundation for the Modern Grid

WEDNESDAY, JANUARY 22, 2020

8:00 – 8:30 am  Registration and Continental Breakfast
8:30 – 11:00 am  Workshop Timing

OVERVIEW

The utility industry is facing extraordinary change. Demands for clean, renewable, sustainable power, an aggressively managed carbon footprint, customer choice and preferences, innovative solutions and advances in energy technology & control systems, and the internet of things (IoT) are all driving that change, notwithstanding local and regional variations. Customers, in part with third-party energy entrepreneurs, are leading the charge, demanding affordable, cost-effective, reliable, resilient, flexible and sustainable power supply, and delivery solutions. Demands for clean energy are not just to power up individual homes and businesses, but to power electric vehicles, self-sufficient and connected communities, campuses, industrial sites and smart integrated microgrids as well.

Multiple dynamics that are in play in Energy Markets, Policy Decisions, Regulatory Landscape, Rate Reform, Generation Mix, and Distributed Energy Resources are all attempting to influence, enable, and support next-generation customer demands and requirements, and … the emerging modern grid. Change is underway with a quickening pace. The embodiment of that change is in flux too, in what might be called the “sorting out” phase in the march to the next-generation utility to meet customer demands and expectations.

The traditional utility industry is right in the middle of it all, being pulled along, trying to establish its new legs in a somewhat chaotic “sorting out” environment that will establish the modern electric grid. There is no looking back. Many factors in the march to the modern grid are external to what the utility companies can control. They know the changes are coming; they have some sense of what those changes will be and how they might be accommodated and integrated into the grid. But what can they do to be prepared to ensure a stable and sustainable grid foundation for the next phase? Timing is everything.

LEARNING OUTCOMES

• Focus on grid readiness as a prerequisite to grid modernization
• Examine what it means to be grid ready
• Identify and discuss preparedness considerations
• Identify and discuss planning for future considerations
WORKSHOP AGENDA

WEDNESDAY, JANUARY 22, 2020

**Introduction: Future Ready Utility Roadmap: A Bias for Action**

‘Grid Readiness to Grid Modernization’

1. Drivers of Change
2. Overarching Tenants
   a. System Performance
   b. Resiliency
   c. Reliability
3. System Planning Considerations
4. Utility Short Term Actions – Preparing
5. Utility Long Term Actions – Sustaining
6. What Does It Mean to Be Grid Ready?
7. Future Ready Considerations

WORKSHOP INSTRUCTOR

Richard (Dick) Steeg, PE
Senior Consultant, WSP USA

Richard (Dick) Steeg, PE is a Senior Consultant with WSP USA. His 45-year career in the electric and gas utility, and transportation industries (37 years utility) is uniquely distinguished by significant depth and breadth of experience in management, design engineering, operations, maintenance, and construction. He has held several key management positions in the public, utility, and private sectors related to the effective delivery of services, and improvements in system performance. His utility career has been focused on the operations, maintenance, design, and construction of gas and electric distribution systems, and electric transmission systems. His positions have been as varied as design engineer through key leadership in all facets of the utility environment; and, as senior executive in related functions in the private sector. Dick is a decisive, focused, dedicated professional with experience-backed judgment, inspired and driven by innovation, challenge, and problem solving. He has demonstrated capability as a practitioner in developing and implementing strategic and detailed plans, programs, and solutions; and, in making key decisions. He is keenly focused on transmission and distribution utility systems asset resiliency, reliability, and system performance, namely operations and maintenance practices, all necessary tenants in support of grid readiness for the next generation utility.
INSTRUCTIONAL METHODS

PowerPoint presentations and case studies will be used in this 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 the conference and 0.3 CEUs for the workshop.

EVENT LOCATION

The event is located at the Hilton Costa Mesa, 3050 Bristol St, Costa Mesa, CA 92626, for the nights of January 21-22, 2020. Room rates are US $178 plus applicable tax. Call 1-714-540-7000 or visit the website for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is December 31, 2019 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.

SPONSORSHIP OPPORTUNITIES

Do you want to drive new business through this event’s powerful audience? Becoming a sponsor or exhibitor is an excellent opportunity to raise your profile before a manageably sized group of executives who make the key purchasing decisions for their businesses. There is a wide range of sponsorship opportunities available that can be customized to fit your budget and marketing objectives, including: Platinum, Gold, or VIP sponsor, Reception host, Networking break host, Tabletop exhibit, Workshop sponsor, Lanyard sponsor, Luncheon host and Breakfast host.

Please contact Aaron Voss at avoss@euci.com or 720-409-0611 for more information.
REGISTRATION INFO

Mail Directly To:
EUCI
6400 S Fiddlers Green Cir., Suite 1620
Greenwood Village, CO 80111
OR, scan and email to: conferences@euci.com

WWW.EUCI.COM
p: 303-770-8800
f: 303-741-0849

REGISTER TODAY! CALL 303-770-8800 OR VISIT WWW.EUCI.COM

EVENT LOCATION

The event is located at the Hilton Costa Mesa, 3050 Bristol St, Costa Mesa, CA 92626, for the nights of January 21-22, 2020. Room rates are US $178 plus applicable tax. Call 1-714-540-7000 or visit the website for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is December 31, 2019 but as there are a limited number of rooms available at this rate, the room block may close sooner. Please make your reservations early.

PLEASE SELECT

☐ BUNDLE PRICE: 2020 WESTERN TRANSMISSION SUMMIT AND PRE-CONFERENCE WORKSHOP
  JANUARY 22-23, 2020: US $1795
  EARLY BIRD on or before JANUARY 10, 2020: US $1595

☐ 2020 WESTERN TRANSMISSION SUMMIT ONLY
  JANUARY 22-23, 2020: US $1395
  EARLY BIRD on or before JANUARY 10, 2020: US $1195

  EARLY BIRD on or before JANUARY 10, 2020: US $495

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name

Job Title

Company

What name do you prefer on your name badge?

Address

City

State/Province

Zip/Postal Code

Country

Phone

Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card

Billing Address

Account Number

Billing City

Exp. Date

Billing State

Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

Billing Zip Code/Postal Code

OR Enclosed is a check for $ to cover registrations.

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 December 27, 2019 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 303-770-8800.

EUCI reserves the right to alter this program without prior notice.

ENERGIZE WEEKLY

Energize Weekly is EUCI’s free weekly newsletter, delivered to your inbox every Wednesday. We provide you with the latest industry news as well as in-depth analysis from our own team of experts. Subscribers also receive free downloadable presentations from our past events.

☐ Sign me up for Energize Weekly

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name

Job Title

Company

What name do you prefer on your name badge?

Address

City

State/Province

Zip/Postal Code

Country

Phone

Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card

Billing Address

Account Number

Billing City

Exp. Date

Billing State

Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

Billing Zip Code/Postal Code

OR Enclosed is a check for $ to cover registrations.

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 December 27, 2019 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 303-770-8800.

EUCI reserves the right to alter this program without prior notice.

ENERGIZE WEEKLY

Energize Weekly is EUCI’s free weekly newsletter, delivered to your inbox every Wednesday. We provide you with the latest industry news as well as in-depth analysis from our own team of experts. Subscribers also receive free downloadable presentations from our past events.

☐ Sign me up for Energize Weekly

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name

Job Title

Company

What name do you prefer on your name badge?

Address

City

State/Province

Zip/Postal Code

Country

Phone

Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card

Billing Address

Account Number

Billing City

Exp. Date

Billing State

Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

Billing Zip Code/Postal Code

OR Enclosed is a check for $ to cover registrations.

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 December 27, 2019 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 303-770-8800.

EUCI reserves the right to alter this program without prior notice.

ENERGIZE WEEKLY

Energize Weekly is EUCI’s free weekly newsletter, delivered to your inbox every Wednesday. We provide you with the latest industry news as well as in-depth analysis from our own team of experts. Subscribers also receive free downloadable presentations from our past events.

☐ Sign me up for Energize Weekly

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name

Job Title

Company

What name do you prefer on your name badge?

Address

City

State/Province

Zip/Postal Code

Country

Phone

Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card

Billing Address

Account Number

Billing City

Exp. Date

Billing State

Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

Billing Zip Code/Postal Code

OR Enclosed is a check for $ to cover registrations.