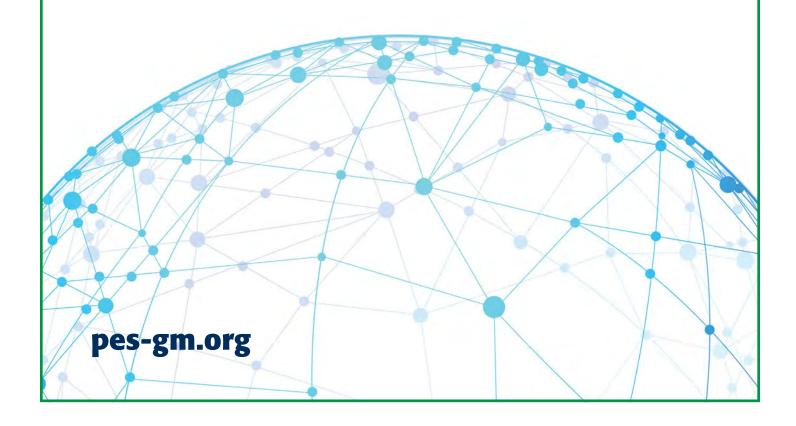




# 2023 IEEE PES GENERAL MEETING PROGRAM & SCHEDULE

16-20 July 2023 | Orlando, Florida

Meeting the Energy Needs of a Dynamic World



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	Dean Shafari

### WELCOME LETTER

On behalf of IEEE, IEEE Power and Energy Society (PES), PES Governing Board, PES staff, and volunteers, I extend a warm welcome to the esteemed attendees of the 2023 IEEE PES General Meeting in Orlando, Florida. We are truly grateful for the unwavering commitment and dedicated efforts of our exceptional team, who have overcome numerous challenges to make this event a reality.

It gives us great pleasure to gather once again in person this year in the vibrant city of Orlando. Our organizing team has meticulously crafted an exceptional program that begins with a Welcome Reception on Sunday evening, setting the tone for the transformative days ahead. The following morning, we have an inspiring Opening Plenary Session Panel featuring prominent industry leaders.

At the heart of the PES General Meeting is our focus on fostering the growth and development of our members. We are excited to showcase the highly esteemed PES Student Poster Session and Contest on Tuesday morning, followed by an evening dedicated to celebrating the remarkable accomplishments of the 2023 PES Award recipients. On Wednesday, we invite you to participate in the Student, Industry, and Faculty Luncheon and Job Fair, providing a valuable platform for meaningful engagement and exchange among students, industry professionals, and academia. In addition, Women in Power (WiP) and Young Professionals will be hosting engaging panel discussions and social sessions, adding further depth to the comprehensive experience we strive to offer.

With over 170 panel sessions, nearly 600 technical sessions and committee meetings, and many exclusive technical tours, the 2023 IEEE PES General Meeting presents abundant opportunities for professionals and thought leaders in the power and energy field to connect, collaborate, and expand their networks.

We extend our heartfelt appreciation to our conference supporters, the dedicated organizing committee, the insightful technical committee program chairs, the esteemed PES Governing Board, the diligent PES staff, and, most importantly, each and every participant. It is your unwavering dedication to PES and our collective mission to be at the forefront of providing scientific and engineering knowledge in the realm of electric power and energy, ultimately driving societal betterment, that ensures the resounding success of PES and the General Meeting. We sincerely hope that you make the most of this extraordinary event, embracing the unparalleled opportpunities it presents.

Once again, we welcome you to the 2023 IEEE PES General Meeting in Orlando, Florida. Let us come together, learn, collaborate, and create lasting memories during this exceptional gathering.

Thank you,

Praveen Kumar, P.E.

LOC Organizing Committee Chair

# **GENERAL INFORMATION**

### **Registration & Information Desk**

Located on the Convention Level Will be open during the following days & hours:

**Sunday** 7:00AM-7:00PM

Monday 6:30AM-7:00PM

Tuesday 6:30AM-7:00PM

Wednesday 6:30AM-4:00PM

Thursday 6:30AM-12:00PM

### **Badges**

IEEE PES GM badges must be worn at all times and are necessary for admittance to sessions, meetings, and social events.

### **Attendee Breakfasts**

Complimentary continental breakfast is available for all conference attendees, Monday through Thursday from 6:30AM–8AM and will be served in the Regency Ballroom.

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### **Friendly Reminder**

Please turn off your devices that chirp, beep, buzz, or ring, including but not limited to pagers, beepers, cell phones, PDAs, and laptops during the conference. The speakers and audience thank you for your consideration and cooperation.



The 2023 IEEE PES General Meeting App is proudly sponsored by VR Energy.



### Download the EventMobi App.

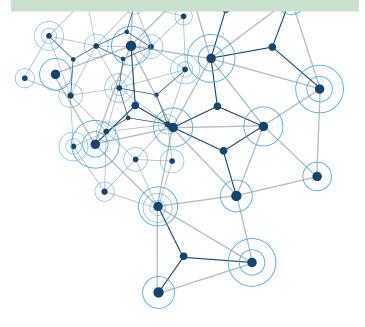
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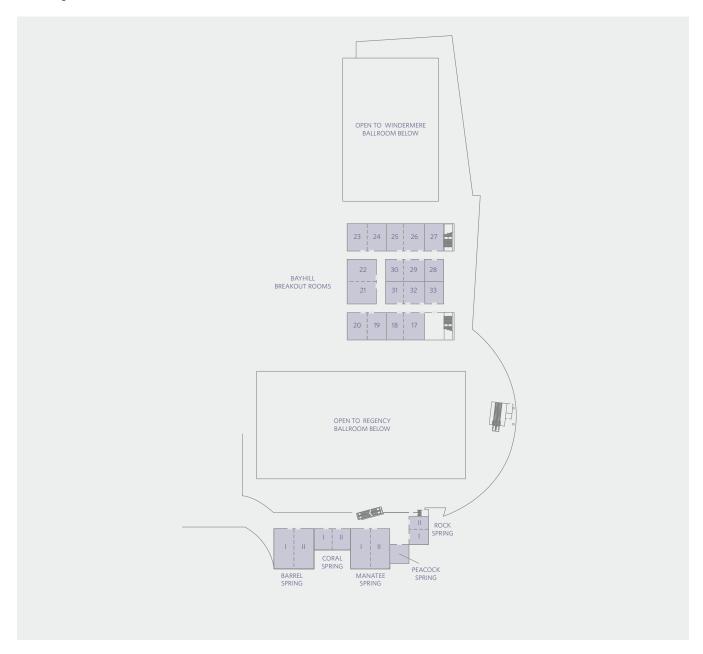


 Enter Code: pesgm to access & launch the 2023 IEEE PES General Meeting



# **HOTEL MAP**

# **Lobby Level**

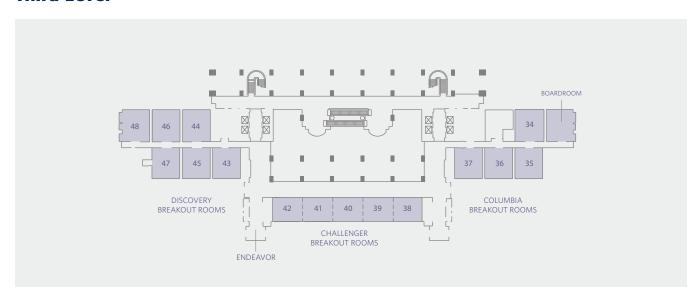


# **HOTEL MAP**

### **Conference Level**



### **Third Level**



# **Professional Development Hours (PDHs) and Continuing Education Unit (CEUs) For Attendee**

#### **Professional Development Hours (PDHs**

Continuing professional education for licenses engineers is measured in professional development hours (PDHs). A PDH is 1 contact hour of instruction or presentation. Currently, approximately 30 States mandate Professional Development Hours to maintain P.E. licensure, each with a varying requirements. Continuing Education Units (CEUs) readily translate into PDHs (1 CEU=a10 PDHs), though PDHs do not convert automatically to CEUs.

The licensee is responsible for maintaining records to be used to support PDH credits claimed. PES does not track this information. Unlike the procedure for CEUs, courses are not pre-approved by IEEE for PDHs.

At many PES meetings, forms are readily available that can be completed by attendees of any session and signed by the session chair to verify attendance. The completed forms are held by each attendee, they are not submitted by IEEE. It is up to each licensee to provide the forms to the certifying body or employer

and determine if a specific course or program fills the needs of the discipline or certifying body and/or employer which the PDHs are intended.

#### **Continuing Education Units (CEUs)**

A continuing education unit (CEU) is 10 contact hours of participation in an organized continuing education experience under responsible, qualified direction and instruction. A unit generally consists of courses of study that refresh, update and enhance knowledge skills and experience with professional personnel. Any course the offers CEUs which is presented by an IEEE entity has been reviewed and approved according to standards set by IEEE. All registered students who complete an IEEE of course offering CEUs will receive a certificate via email from IEEE attesting to the CEUs earned by the attendee.

It is up to each student to determine if a specific course or program fills the needs of the discipline or certifying body for which the CEUs are intended.

# **IEEE Event Conduct and Safety Statement**

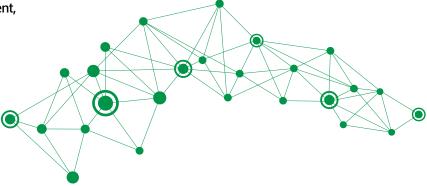
IEEE believes that science, technology, and engineering are fundamental human activities, for which openness, international collaboration, and the free flow of talent and ideas are essential. Its meetings, conferences and other events seek to enable engaging thought-provoking conversations that support IEEE's core mission of advancing technology for humanity. Accordingly, IEEE is committed to providing a safe productive and welcoming environment to all participants including staff and vendors at IEEE-related events.

IEEE has no tolerance for discrimination, harassment, or bullying in any form at IEEE-related events.

All participants have the right to pursue shared

interests without harassment or discrimination in an environment that supports diversity and inclusion. Participants are expected to adhere to these principles and respect the rights of others.

IEEE seeks to provide a secure environment at its events. Participants should report any behavior inconsistent with the principles outlined here to on-site staff, security, venue personnel, or to eventconduct@ieee.org.



# **2023 IEEE PES General Meeting Local Organizing Committee**

**Conference Chair** Praveen Kumar

**Conference Vice Chair** 

Ivelisse Rivera

**Treasurer/Finance Chair** 

Ivelisse Rivera

**Secretary Chair** 

Josh Dillier

**Welcome Reception Chai** 

Nadia Larrea Robles

**Technical Tours Chair** 

**Aaron Staley** 

**Plenary Co-Chair** Kyle H. Wydner

**Plenary Co-Chair** Rajat Majumdar **Technical Program Co-Chair** 

Sebastien Billaut

**Technical Program Co-Chair** 

**Drew Welton** 

**Volunteer Chair**Brittany Chapman

**Student Activities Chair** 

Kim Fullenkamp

### **IEEE Power and Energy Society Governing Board**

**President** 

Jessica J. Bian

**President-Elect** 

**Shay Bahramirad** 

**Past President** 

Saifur Rahman

**Treasurer** 

Juan Carlos Montero Quirós

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Bikash Pal

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Hong Chen

**Regional Representative, Asia and Pacific** 

Ramakrishna Kappagantu

Regional Representative Europe,

Middle East & Africa

Hanan M. Albuflasa

**Regional Representative, Latin America** 

Santiago Leon

Regional Representative, United States and Canada

Mythili Chaganti

**Member At Large, Diversity & Inclusion** 

Guadalupe González

Member At Large, Global Outreach

Nirmal-Kumar C Nair

Member At Large, Student/Young

**Professional Representative** 

**Anand Shah** 

**Member At Large, Climate Change** 

Mercy Chelangat K.

**Executive Director** 

Tim Licitra

### **2023 IEEE PES General Meeting Technical Committee Program Chairs**

# **Analytic Methods for Power Systems** Zita Vale

### **Electric Machinery**

William Bloethe

# **Energy Development and Power Generation**Melanie Johnson

# **Energy Internet Coordinating Committee** Qinglai Guo

Xinwei Shen

### **Energy Storage & Stationary Battery**

Babu Chalamala Steve Vechy

# Grid & Emerging Technologies Coordinating Committee

Jovanio Santos

### **Insulated Conductors**

Henk Greene

### **Marine Systems Coordinating**

Dwight Alexander John Prousalidis

### **Nuclear Power Engineering**

Kenn Miller

#### **Power & Energy Education**

Aaron St. Leger

### **Power System Dynamic Performance**

Panagiotis (Panos) Papadopoulos Shruti Raz

### **Power System Operation, Planning & Economics**

Ramteen Sioshansi Zhaoyu Wang

# Power Systems Communications & Cyber Security

James Formea Mohammad Reza Khalghani

### **Power Systems Relaying & Control**

Gene Henneberg

### **Smart Buildings, Loads and Customer Systems**

Bishnu Bhattarai Sumit Paudyal

#### **Substations**

Joe Warner Matt Bauer

### **Surge Protective Devices**

Steven Hensley

### **Switchgear**

**Kevin Sippel** 

#### **Transformers**

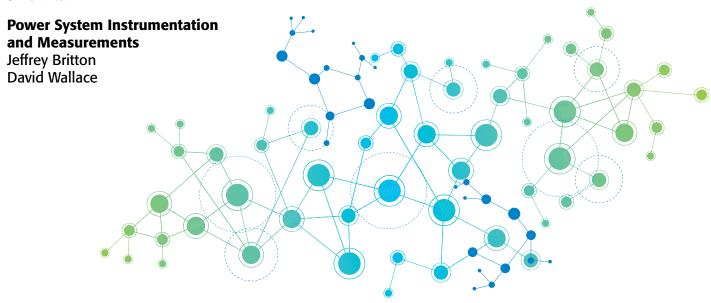
David Wallach

### **Transmission and Distribution**

Brian Johnson Rob Schaerer

### **Industry Technical Support Leadership Commitee**

Dagmar Niebur



# **OPENING PLENARY SESSION PANEL**

### Monday, 17 July 2023 at 9:30AM Windermere Ballroom

#### Theme: Meeting the Energy Needs of a Dynamic World

As the Power and Energy industry continues to evolve, new opportunities and difficulties manifest each year. As the drive and desire for carbon-free sources of energy continue to grow to tackle the climate crisis, our industry will need to adapt and advance to meet new challenges that arise. Cyber attacks and natural disasters such as wildfires, hurricanes, and ice storms have revealed areas in need of fortification and innovative technologies, policies, and business models.

The plenary session panel will showcase experienced leaders in power delivery, research, and regulation. Each of these experts will be able to discuss their unique perspectives on their initiatives and how the industry can innovate and adapt to move toward a reliable, sustainable future.

#### **Keynote Speaker**

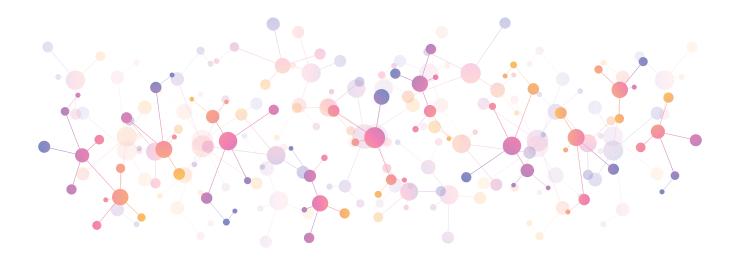
• Clint Bullock: General Manager & CEO, Orlando Utilities Commission

#### Moderator

• Shay Bahramirad: IEEE PES President-Elect

### **Featured Panel Speakers**

- Fermin Fontanés: Executive Director of Public Private Partnership of Puerto Rico
- Richard Negrin: Secretary of the Department of Environmental Protection, State of Pennsylvania (Invited.)
- Kristen Senechal: Executive Vice President and Chief Operating Officer of Transmission of LCRA
- Erik Takayesu: Senior Vice President, Asset Strategy and Planning, Southern California Edison (SCE)



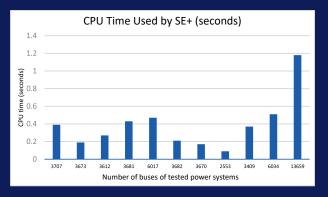


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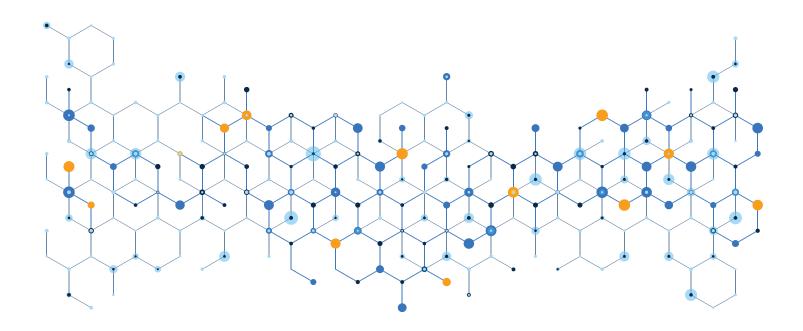
Saturday,		5
Jaturuay,	July I.	_

Start	End	Session Name	Session Type	Sponsoring Committee	Room
8:00 AM	5:00 PM	Student Chapters Committee	Committee Meeting	Admin	Celebration 12
12:00 PM	2:00 PM	Volunteer Orientation	Committee Meeting	Admin	Celebration 13

Sund	ay, .	July	16

Start	End	Session Name	Session Type	Sponsoring Committee	Room
7:00 AM	7:00 PM	Registration	Registration	Admin	Registration Counters
8:00 AM	12:00 PM	Voltage Optimization: Methodologies, Implementations, and Industry Practices	Tutorial	Admin	Celebration 7
8:00 AM	12:00 PM	Generic Modeling of Inverter Based Resources (IBR) and Load for Power System Planning Studies	Tutorial	Admin	Celebration 6
8:00 AM	5:00 PM	Power System Stabilization Via Excitation Control	Tutorial	Admin	Celebration 8
8:00 AM	5:00 PM	Probabilistic Energy Forecasting: Methodologies, Implementations, and Applications	Tutorial	Admin	Celebration 5
8:00 AM	5:00 PM	Studies for planning and execution of HVDC transmission projects	Tutorial	Admin	Celebration 4
8:00 AM	5:00 PM	Dynamic Grid Stabilization with Grid- Forming + Energy Storage Technologies	Tutorial	Admin	Celebration 3
8:00 AM	5:00 PM	Fundamentals of Transactive Energy Systems	Tutorial	Admin	Celebration 1
8:00 AM	5:00 PM	Regions 1–7 Professional Chapter Chairs & Student Chapter Chair Training	Committee Meeting	Admin	Celebration 9
8:00 AM	5:00 PM	Student Chapters Committee	Committee Meeting	Admin	Celebration 12
8:00 AM	5:00 PM	Future Directions Climate Technologies Sustainability Initiative Workshop: Low- Carbon Emission Energy Technologies (separate registration required)	Panel	Other	Bayhill 33
12:00 PM	1:00 PM	Latin American infrastructure working group	Committee Meeting	Energy Development and Power Generation	Columbia 35
12:00 PM	4:00 PM	Women in Power Advisory Board Meeting	Committee Meeting	Admin	Challenger 39
12:00 PM	4:00 PM	PES Conference Advisory & Technically Cosponsored Meeting Committees	Committee Meeting	Admin	Columbia 37
1:00 PM	3:00 PM	EMC Grid Task Force Discussion Group	Committee Meeting	Electric Machinery	Bayhill 17
1:00 PM	3:00 PM	PES YP Advisory Board	Committee Meeting	Admin	Columbia 36

 Start	End	Session Name	Session Type	Sponsoring Committee	Room
1:00 PM	4:00 PM	CIGRE C4/C2.62 Review of Advancements in Synchrophasor Measurement Applications	Committee Meeting	Power System Dynamic Performance	Celebration 11
1:00 PM	5:00 PM	Application of CIM-based Methodologies to Utility Big Data Management and Real-time Operation Model Update	Tutorial	Admin	Celebration 7
1:00 PM	5:00 PM	Grid Forming Inverter Technology	Tutorial	Admin	Celebration 6
1:00 PM	5:00 PM	How Grid Energy Storage Meets the Challenges of a Decarbonized Future	Tutorial	Admin	Celebration 2
2:00 PM	4:00 PM	PEEC Research Subcommittee	Committee Meeting	Power & Energy Education	Bayhill 21
3:00 PM	4:00 PM	New Attendees Orientation	Panel	Admin	Celebration 14
3:00 PM	5:00 PM	EMC Comb C50.1213 WG Session 1	Committee Meeting	Electric Machinery	Bayhill 17
6:00 PM	8:00 PM	Welcome Reception	Reception	Admin	Verandah



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Monday, July 17						
	Start	End	Session Name	Session Type	Sponsoring Committee	Room
	6:30 AM	8:00 AM	Presenter Breakfast	Breakfast	Admin	Orlando Ballroom
	6:30 AM	8:00 AM	Attendee Breakfast	Breakfast	Admin	Regency Ballroom
	6:30 AM	7:00 PM	Registration	Committee Meeting	Admin	Registration Counters
	7:30 AM	8:00 AM	PEEC Student Program Review Committee	Committee Meeting	Power & Energy Education	Challenger 39
	8:00 AM	9:30 AM	PES Members' Meeting	Panel	Admin	Windermere Ballroom
	9:30 AM	11:00 AM	Plenary Session	Panel	Admin	Windermere Ballroom
	11:00 AM	5:00 PM	IEEE PES Project on Electrification History	Committee Meeting	Admin	Challenger 40
	11:00 AM	12:00 PM	IEEE International Practices Subcommittee meeting	Committee Meeting	Energy Development and Power Generation	Bayhill 25
	11:00 AM	12:00 PM	ESMOL SC   ESMOL 957 IEEE Guide for Cleaning Insulators	Committee Meeting	Transmission and Distribution	Bayhill 27
	11:00 AM	12:00 PM	PSOPE—Working Group on Machine Learning for Power Systems	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 18
	11:00 AM	12:00 PM	PSOPE—Task Force on Reinforcement Learning for Power System Dynamic Controls	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Columbia 34
	11:00 AM	12:00 PM	PSOPE—Task Force on Machine-learning based Power System Synthetic Data Generation, Validation, and Sharing	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 24
	11:00 AM	12:00 PM	PSOPE—Task Force on Hydrogen Integration into Power Systems	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 17
	11:00 AM	12:00 PM	PSOPE—Task Force on Digital Twin of Large-Scale Power Systems for Adoption of Emerging Technologies	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 23
	11:00 AM	12:00 PM	ISS WG on Intelligent Data Mining and Analysis	Committee Meeting	(AMPS) Intelligent Systems	Bayhill 19
	11:00 AM	1:00 PM	HVDC & FACTS Economics and Operating Strategies WG	Committee Meeting	Transmission and Distribution	Bayhill 31
	11:00 AM	5:00 PM	Hydroelectric Power Subcommittee working groups	Committee Meeting	Energy Development and Power Generation	Challenger 41
	11:30 AM	12:00 PM	OHL SC   OHL SC/WG/TF Introduction	Committee Meeting	Transmission and Distribution	Bayhill 29

Start	End	Session Name	Session Type	Sponsoring Committee	Room
11:30 AM	12:30 PM	PSOPE—Working Group on Demand Response	Committee Meeting	PSOPE— Power System Economics Subcommittee	Bayhill 21
11:30 AM	1:30 PM	PEEC ADCOM	Committee Meeting	Power & Energy Education	Challenger 39
11:30 AM	1:30 PM	Industry Leaders Luncheon	Luncheon	Admin	Rainbow Spring
12:00 PM	1:00 PM	ISS WG on Multi Agent Systems	Committee Meeting	(AMPS) Intelligent Systems	Bayhill 19
1:00 PM	2:00 PM	OHL SC   Std 1283 TF—Guide for Determining the Effects of High-Temperature Operation on Conductors, Connectors, and Accessories	Committee Meeting	Transmission and Distribution	Bayhill 29
1:00 PM	2:00 PM	PEEC Career Promotion and Workforce Development Subcommittee	Committee Meeting	Power & Energy Education	Columbia 37
1:00 PM	2:00 PM	IEEE 665 Working Group	Committee Meeting	Energy Development and Power Generation	Bayhill 28
1:00 PM	2:00 PM	Power Quality Data Analytics WG (P3139)	Committee Meeting	Transmission and Distribution	Bayhill 33
1:00 PM	2:00 PM	Smart Buildings—Loads—Customer Systems (SBLC) Main Committee	Committee Meeting	Smart Buildings, Loads & Customer Systems	Bayhill 21
1:00 PM	2:00 PM	RRPA Resource Adequacy WG	Committee Meeting	(AMPS) Reliability and Risk Analysis	Bayhill 26
1:00 PM	3:00 PM	Planning and Operational Practices of Distribution Utilities in the Extreme Weather Events	Panel	(AMPS) Distribution System Analysis	Celebration 16
1:00 PM	3:00 PM	Development and Implementation of Low Frequency High Voltage ac (LF- HVac) Transmission, Its Advantages and Disadvantages over High Voltage dc (HVdc)	Panel	Transmission and Distribution	Celebration 2
1:00 PM	3:00 PM	PSOPE AdCom	Committee Meeting	Power System Operation, Planning & Economics	Bayhill 18
1:00 PM	3:00 PM	PSDP Task Force on on Integrating Relay Models with Electromechanical Simulations	Committee Meeting	Power System Dynamic Performance	Bayhill 25

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
1:00 PM	3:00 PM	IBR and DER driven T&D Interactions in Dynamic Security Assessment	Panel	Power System Dynamic Performance	Celebration 11
1:00 PM	3:00 PM	ESMOL SC   ESMOL 1067 IEEE Guide for In- Service Use, Care, Maintenance, and Testing of Conductive Clothing for Use on Voltages up to 765 kV AC and +/-750 kV DC	Committee Meeting	Transmission and Distribution	Bayhill 27
1:00 PM	3:00 PM	EMC Generator Subcommittee Meeting	Committee Meeting	Electric Machinery	Bayhill 24
1:00 PM	3:00 PM	PSOPE—Working Group on Natural Disaster Mitigation Methods and Operation Technology	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 17
1:00 PM	3:00 PM	Asian and Australasian Experience of New-age System Operation	Panel	Energy Development and Power Generation	Celebration 4
1:00 PM	3:00 PM	Hybrid Hydropower Systems for Providing Grid Flexibility Services	Panel	PSOPE—Bulk Power System Operations Subcommittee	Celebration 3
1:00 PM	3:00 PM	Electrification Magazine Editorial Board Meeting	Committee Meeting	Admin	Columbia 34
1:00 PM	3:00 PM	Data-Driven Approaches for Multi-Party Resources Management in Energy Internet Paradigm	Panel	Energy Internet Coordinating Committee	Celebration 1
1:00 PM	3:00 PM	How Electric Utilities are Improving Distribution System Resilience and Reliability: Challenges, Solutions and Trends	Panel	Admin	Celebration 7
1:00 PM	3:00 PM	Planet Positive 2030 Initiative	Panel	Admin	Celebration 8
1:00 PM	5:00 PM	From charging challenges to becoming interactive assets—EVs' road map to grid integration	Panel	Renewables Systems Integration Coordinating	Celebration 6
1:00 PM	5:00 PM	Distribution and Grid Edge Planning and Operation	Best Paper Session	Admin	Celebration 12
1:00 PM	5:00 PM	Bulk power system planning and operation	Best Paper Session	Admin	Celebration 13
1:00 PM	5:00 PM	Advancements in Power System Generation, Transmission, and Distribution	Best Paper Session	Admin	Celebration 14
1:30 PM	3:30 PM	Cap SC   Series Capacitor WG	Committee Meeting	Transmission and Distribution	Bayhill 23
1:30 PM	4:00 PM	Industry Executive Advisory Council	Committee Meeting	Admin	Columbia 35
2:00 PM	3:00 PM	Harmonics Modeling & Simulation TF	Committee Meeting	Transmission and Distribution	Bayhill 33
2:00 PM	3:00 PM	Customer Systems & Smart Buildings Subcommittee	Committee Meeting	Smart Buildings, Loads & Customer Systems	Bayhill 21
2:00 PM	3:00 PM	ISS WG on Intelligent Control Systems	Committee Meeting	(AMPS) Intelligent Systems	Bayhill 19
2:00 PM	3:30 PM	OHL SC   Structural Materials and Hardware WG	Committee Meeting	Transmission and Distribution	Bayhill 29

Start	End	Session Name	Session Type	Sponsoring Committee	Room
2:00 PM	3:30 PM	PES Awards Committee Meeting	Committee Meeting	Admin	Columbia 36
2:00 PM	4:00 PM	IEEE 666 Working Group	Committee Meeting	Energy Development and Power Generation	Bayhill 28
2:00 PM	4:00 PM	Young Professionals Panel Session	Panel	Admin	Celebration 9
2:00 PM	5:00 PM	HVDC & FACTS Dynamic Performance and Modeling WG	Committee Meeting	Transmission and Distribution	Bayhill 31
3:00 PM	3:30 PM	ESMOL SC   ESMOL 1882 IEEE Draft Guide for Establishing, Benchmarking, and Maintaining a Working Program for Energized Transmission Lines	Committee Meeting	Transmission and Distribution	Bayhill 27
3:00 PM	4:00 PM	PSDP Working Group on Dynamic Security Assessment	Committee Meeting	Power System Dynamic Performance	Celebration 11
3:00 PM	4:00 PM	Renewable Technologies Sub-Committee	Committee Meeting	Energy Development and Power Generation	Bayhill 25
3:00 PM	4:00 PM	Voltage Sag Indices TF (IEEE Std 1564)	Committee Meeting	Transmission and Distribution	Bayhill 33
3:00 PM	4:00 PM	PSOPE-Working Group on Integrated Resource Planning	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Bayhill 18
3:00 PM	4:00 PM	ISS TF on Open Data Sets	Committee Meeting	(AMPS) Intelligent Systems	Bayhill 19
3:00 PM	4:00 PM	RRPA TF on Capacity Value of Solar Power	Committee Meeting	(AMPS) Reliability and Risk Analysis	Bayhill 17
3:00 PM	4:30 PM	Stray and Contact Voltage WG	Committee Meeting	Transmission and Distribution	Bayhill 21
3:00 PM	5:00 PM	Exploring Feasibility of Machine Learning for Grid Resilience Assessment	Panel	(AMPS) Reliability and Risk Analysis	Celebration 5
3:00 PM	5:00 PM	Advanced Grid Operations	Panel	Transmission and Distribution	Celebration 2
3:00 PM	5:00 PM	Harnessing Behind-The-Meter DERs for Flexible Grid Services	Panel	Smart Buildings, Loads & Customer Systems	Celebration 16

─ Notes ─			

Start	End	Session Name	Session Type	Sponsoring Committee	Room
3:00 PM	5:00 PM	Emerging Technologies for Decarbonization	Panel	Energy Development and Power Generation	Celebration 4
3:00 PM	5:00 PM	High-Performance Electromagnetic Transients Simulation for Power Electronics Dominated Power Systems	Panel	(AMPS) Computer Analytical Methods	Celebration 15
3:00 PM	5:00 PM	Pathways towards an equitable and just grid transitions	Panel	PSOPE—Bulk Power System Operations Subcommittee	Celebration 8
3:00 PM	5:00 PM	Fellows Committee	Committee Meeting	Admin	Columbia 34
3:00 PM	5:00 PM	PES Smart Grids Synchronised Measurements and Analytics (SGSMA) Conf. Steering Committee	Committee Meeting	Admin	Columbia 37
3:00 PM	5:00 PM	Student Chapters Leadership Meeting	Committee Meeting	Admin	Bayhill 26
3:00 PM	5:00 PM	Digital Twins Applications in the Energy Internet Era	Panel	Energy Internet Coordinating Committee	Celebration 7
3:00 PM	5:00 PM	Pete Sauer and M. A. Pai Memorial Service	Panel	Admin	Windermere X
3:30 PM	4:30 PM	ESMOL SC   ESMOL P2798 Guide for Helicopter Operation Procedures for the Utility Industry	Committee Meeting	Transmission and Distribution	Bayhill 27
3:30 PM	5:00 PM	OHL SC   Management of Existing Lines WG	Committee Meeting	Transmission and Distribution	Bayhill 29
3:30 PM	5:00 PM	PEEC University Education Subcommittee	Committee Meeting	Power & Energy Education	Challenger 39
3:30 PM	5:00 PM	Cap SC   Capacitor GMD Mitigation TF	Committee Meeting	Transmission and Distribution	Bayhill 23
4:00 PM	5:00 PM	PSDP Working Group on Power System Dynamics Measurements	Committee Meeting	Power System Dynamic Performance	Windermere Z
4:00 PM	5:00 PM	Station Design SubCommittee Meeting	Committee Meeting	Energy Development and Power Generation	Bayhill 28
4:00 PM	5:00 PM	Power Quality Solutions Working Group (IEEE Std 1409)	Committee Meeting	Transmission and Distribution	Bayhill 33
4:00 PM	5:00 PM	PSOPE—Working Group on Test Systems for Economic Analysis	Committee Meeting	PSOPE— Power System Economics Subcommittee	Bayhill 19
4:00 PM	5:00 PM	PSOPE—Task Force on Design BPS- Connected Inverter-Based Resource (IBR) Models for Grid Planning	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Bayhill 18
4:00 PM	5:00 PM	ISS joint annual meeting of WG on MHO and TF on MHO Test Beds	Committee Meeting	(AMPS) Intelligent Systems	Celebration 11
5:00 PM	7:00 PM	Power System Communication and Cybersecurity (PSCC) Committee Poster Session	Poster Session	Power Systems Communications & Cyber Security	Regency Ballroom

Start	End	Session Name	Session Type	Sponsoring Committee	Room
5:00 PM	7:00 PM	AMPS Big Data Analytics Poster Session	Poster Session	(AMPS) Big Data Analytics	Regency Ballroom
5:00 PM	7:00 PM	AMPS Computer Analytical Method Poster Session	Poster Session	(AMPS) Computer Analytical Methods	Regency Ballroom
5:00 PM	7:00 PM	AMPS Distribution System Analysis Poster Session	Poster Session	(AMPS) Distribution System Analysis	Regency Ballroom
5:00 PM	7:00 PM	AMPS Intelligent Systems Poster Session	Poster Session	(AMPS) Intelligent Systems	Regency Ballroom
5:00 PM	7:00 PM	AMPS Reliability and Risk Analysis Poster Session	Poster Session	(AMPS) Reliability and Risk Analysis	Regency Ballroom
5:00 PM	7:00 PM	AMPS Transient Analysis and Simulation Poster Session	Poster Session	(AMPS) Transient Analysis and Simulation	Regency Ballroom
5:00 PM	7:00 PM	Analytical Methods for Power Systems Poster Session	Poster Session	Analytic Methods for Power Systems	Regency Ballroom
5:00 PM	7:00 PM	Electric Machinery Poster Session	Poster Session	Electric Machinery	Regency Ballroom
5:00 PM	7:00 PM	Energy Development and Power Generation Poster Session	Poster Session	Energy Development and Power Generation	Regency Ballroom
5:00 PM	7:00 PM	Energy Internet Coordination Committee Poster Session	Poster Session	Energy Internet Coordinating Committee	Regency Ballroom
5:00 PM	7:00 PM	Energy Storage & Stationary Battery Poster Session	Poster Session	Energy Storage & Stationary Battery	Regency Ballroom
5:00 PM	7:00 PM	Grid & Emerging Technologies Coordination Committee Poster Session	Poster Session	Grid & Emerging Technologies Coordinating Committee	Regency Ballroom
5:00 PM	7:00 PM	Insulated Conductors Poster Session	Poster Session	Insulated Conductors	Regency Ballroom
5:00 PM	7:00 PM	Marine Systems Coordinating Poster Session	Poster Session	Marine Systems Coordinating	Regency Ballroom
5:00 PM	7:00 PM	Nuclear Power Engineering Poster Session	Poster Session	Nuclear Power Engineering	Regency Ballroom

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
5:00 PM	7:00 PM	Power System Dynamic Performance Poster Session	Poster Session	Power System Dynamic Performance	Regency Ballroom
5:00 PM	7:00 PM	Power System Instrumentation and Measurements Poster Session	Poster Session	Power System Instrumentation & Measurements	Regency Ballroom
5:00 PM	7:00 PM	Power Systems Relaying & Control Poster Session	Poster Session	Power Systems Relaying & Control	Regency Ballroom
5:00 PM	7:00 PM	PSOPE—Bulk Power System Operations Subcommittee Poster Session	Poster Session	PSOPE—Bulk Power System Operations Subcommittee	Regency Ballroom
5:00 PM	7:00 PM	PSOPE—Bulk Power System Planning Subcommittee Poster Session	Poster Session	PSOPE—Bulk Power System Planning Subcommittee	Regency Ballroom
5:00 PM	7:00 PM	PSOPE—Distribution System Operationand Planning Subcommittee Poster Session	Poster Session	PSOPE— Distribution System Operation and Planning Subcommittee	Regency Ballroom
5:00 PM	7:00 PM	PSOPE—Power System Economics Subcommittee Poster Session	Poster Session	PSOPE— Power System Economics Subcommittee	Regency Ballroom
5:00 PM	7:00 PM	PSOPE—Technologies & Innovation Subcommittee Poster Session	Poster Session	PSOPE— Technologies & Innovation Subcommittee	Regency Ballroom
5:00 PM	7:00 PM	Smart Buildings, Loads & Customer Systems Poster Session	Poster Session	Smart Buildings, Loads & Customer Systems	Regency Ballroom
5:00 PM	7:00 PM	Substations Poster Session	Poster Session	Substations	Regency Ballroom
5:00 PM	7:00 PM	Switchgear Poster Session	Poster Session	Switchgear	Regency Ballroom
5:00 PM	7:00 PM	Transformers Poster Session	Poster Session	Transformers	Regency Ballroom
5:00 PM	7:00 PM	Transmission and Distribution Conference Poster Session	Poster Session	Transmission and Distribution	Regency Ballroom
5:00 PM	7:30 PM	Meet the Candidates	Reception	Admin	Regency Ballroom
7:00 PM	8:00 PM	AI in Power Systems Happy Hour by CCAI & IEEE WG MLPS	Panel	Other	Celebration 16

Tues	day, Ju	ly 18			
Start	End	Session Name	Session Type	Sponsoring Committee	Room
6:30 AM	8:00 AM	Presenter Breakfast	Breakfast	Admin	Orlando Ballroom
6:30 AM	8:00 AM	Attendee Breakfast	Breakfast	Admin	Regency Ballroon
6:30 AM	7:00 PM	Registration	Committee Meeting	Admin	Registration Counters
7:00 AM	9:00 AM	Student Poster Competition	Panel	Admin	Regency Ballroom
8:00 AM	9:00 AM	Excitation and Control System 421.2 Standard Revision	Committee Meeting	Energy Development and Power Generation	Bayhill 33
8:00 AM	9:00 AM	PSOPE—Task Force on Redefining Demand Response in the DER Era	Committee Meeting	PSOPE— Power System Economics Subcommittee	Columbia 34
8:00 AM	9:00 AM	PSOPE—Working Group on Transmission System Planning	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Bayhill 22
8:00 AM	9:00 AM	ESMOL SC   ESMOL 1048 IEEE Guide for Protective Grounding of Power Lines	Committee Meeting	Transmission and Distribution	Bayhill 27
8:00 AM	9:00 AM	Foundation Donors Breakfast	Breakfast	Other	Challenger 41
8:00 AM	9:30 AM	Smart Distribution WG	Committee Meeting	Transmission and Distribution	Windermere W
8:00 AM	9:30 AM	Reliability Impacts of Inverter-Based Resources WG	Committee Meeting	Transmission and Distribution	Bayhill 21
8:00 AM	10:00 AM	Evaluation of Voltage Stability Assessment Methodologies in Transmission Systems	Panel	Power System Dynamic Performance	Celebration 13
8:00 AM	10:00 AM	OHL SC   Std C135.100 TF—Standard for Line Hardware for OHL Construction	Committee Meeting	Transmission and Distribution	Bayhill 18
8:00 AM	10:00 AM	Resilient supply chains and probabilistic risk assessment for power grid resilience	Panel	Transmission and Distribution	Celebration 2
8:00 AM	10:00 AM	Modern Grid-Interactive Buildings: Flexibility, Resilience, and Market Design	Panel	Smart Buildings, Loads & Customer Systems	Celebration 1

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
8:00 AM	10:00 AM	International Practices Subcommittee—Europe	Committee Meeting	Energy Development and Power Generation	Bayhill 25
8:00 AM	10:00 AM	Studies for Planning of HVDC WG	Committee Meeting	Transmission and Distribution	Bayhill 20
8:00 AM	10:00 AM	Practical Technologies for VSC HVDC Systems WG	Committee Meeting	Transmission and Distribution	Bayhill 19
8:00 AM	10:00 AM	PSOPE—Technologies & Innovation Subcommittee	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Columbia 35
8:00 AM	10:00 AM	EMC Renewable Energy Machines & Systems Subcommittee Meeting	Committee Meeting	Electric Machinery	Windermere Z
8:00 AM	10:00 AM	Wind and Solar Plant Design WG	Committee Meeting	Energy Development and Power Generation	Bayhill 17
8:00 AM	10:00 AM	Working Group on Digital Twin for Power Equipment	Committee Meeting	Transmission and Distribution	Bayhill 24
8:00 AM	10:00 AM	Intelligent Systems Subcommittee	Committee Meeting	(AMPS) Intelligent Systems	Bayhill 23
8:00 AM	10:00 AM	Synchrophasor Data Analytics	Panel	(AMPS) Big Data Analytics	Celebration 16
8:00 AM	10:00 AM	New developments to mitigate power line induced wildfire ignitions	Panel	Power Systems Relaying & Control	Celebration 14
8:00 AM	10:00 AM	Quantum Computing for Power Systems Operations: A Pragmatic View	Panel	PSOPE—Bulk Power System Operations Subcommittee	Celebration 8
8:00 AM	10:00 AM	Transactions Paper Session 1	Transactions Paper Session	Admin	Celebration 11
8:00 AM	10:00 AM	Late Breaking News—Extreme Weather: Lessons from Winter Storm Elliott and Planning Implications for Future Extreme Events	Super Session	Super Session	Windermere X
8:00 AM	10:00 AM	Communication and Control of Storage—The Enabling Capabilities	Panel	Energy Storage & Stationary Battery	Celebration 5
8:00 AM	10:00 AM	RRPA SC Meeting	Committee Meeting	(AMPS) Reliability and Risk Analysis	Bayhill 29
8:00 AM	10:00 AM	Accelerating Global Power System Transformation	Panel	Admin	Celebration 10
8:00 AM	11:00 AM	OHL SC   Lightning Performance of OHL WG	Committee Meeting	Transmission and Distribution	Bayhill 31
8:00 AM	12:00 PM	Grid forming machine advances and planning applications	Panel	Electric Machinery	Windermere Y
8:00 AM	12:00 PM	A New Approach to Performance Qualification of Smart Grid Voltage and Current Sensor Systems	Panel	Power System Instrumentation & Measurements	Celebration 12
8:00 AM	12:00 PM	High Voltage Power Electronics in Power Grids: Applications & Way Forward	Panel	Substations	Celebration 7

Start	End	Session Name	Session Type	Sponsoring Committee	Room
8:00 AM	12:00 PM	Distribution System analytics, platforms, and tools	Paper Forum	Admin	Rainbow Spring
8:00 AM	12:00 PM	Distribution System modeling simulation, and analysis	Paper Forum	Admin	Silver Spring
8:00 AM	5:00 PM	PlainTalk: Power System Basics— Understanding How the Bulk Electric Power System Works	Plaintalk	Admin	Celebration 15
8:00 AM	5:00 PM	IEEE PES Project on Electrification History	Committee Meeting	Admin	Challenger 40
9:00 AM	10:00 AM	Distribution Systems Analysis Subcommittee	Committee Meeting	(AMPS) Distribution System Analysis	Bayhill 22
9:00 AM	10:00 AM	PSDP Working Group on Dynamic Performance of Renewable Energy Systems	Committee Meeting	Power System Dynamic Performance	Celebration 6
9:00 AM	10:00 AM	Excitation and Control System 421.4 Standard Revision	Committee Meeting	Energy Development and Power Generation	Bayhill 33
9:00 AM	10:00 AM	Voltage Quality WG (IEEE Std 1250)	Committee Meeting	Transmission and Distribution	Bayhill 28
9:00 AM	10:00 AM	ESMOL SC   ESMOL 516 IEEE Guide for Maintenance Methods on Energized Power Lines	Committee Meeting	Transmission and Distribution	Bayhill 27
9:00 AM	10:00 AM	WG on Computational Aspect of Distributed Optimization in the Power System	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 26
9:00 AM	11:00 AM	PSOPE—Distribution System Operation & Planning Subcommittee	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Bayhill 30
9:00 AM	11:00 AM	Workforce Initiative	Committee Meeting	Admin	Columbia 36
9:00 AM	12:00 PM	Cap SC   Shunt Capacitor WG	Committee Meeting	Transmission and Distribution	Columbia 37
9:30 AM	11:00 AM	Volt/Var WG	Committee Meeting	Transmission and Distribution	Windermere W
9:30 AM	11:00 AM	Generation and Energy Storage Integration WG	Committee Meeting	Transmission and Distribution	Bayhill 21

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
10:00 AM	11:00 AM	Distribution Test Feeder WG	Committee Meeting	(AMPS) Distribution System Analysis	Bayhill 29
10:00 AM	11:00 AM	Excitation and Control System Subcommittee	Committee Meeting	Energy Development and Power Generation	Bayhill 33
10:00 AM	11:00 AM	Monitoring Electric Power Quality WG (IEEE Std 1159)	Committee Meeting	Transmission and Distribution	Bayhill 28
10:00 AM	11:00 AM	ESMOL SC   ESMOL Live Working Insulator Guide	Committee Meeting	Transmission and Distribution	Bayhill 27
10:00 AM	11:00 AM	PSOPE—Working Group on Sustainable Energy Systems for Developing Communities	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Columbia 34
10:00 AM	11:00 AM	PSOPE—Working Group on Modern & Future Distribution System Planning	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Bayhill 26
10:00 AM	11:00 AM	PSOPE—Task Force on Benchmarks for Validation of Emerging Power System Algorithms	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 17
10:00 AM	11:00 AM	PSOPE—Task Force on Solving Large Scale Optimization Problem in Electricity Market and Power System Applications	Committee Meeting	PSOPE— Technologies & Innovation Subcommittee	Bayhill 25
10:00 AM	11:00 AM	WG on High-Performance Computing for Grid Analysis	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 19
10:00 AM	11:00 AM	WG: WG on the Understanding, Prediction, Prevention and Restoration of Cascading Failures	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 20
10:00 AM	11:00 AM	RRPA WG on Probability Application for Common Mode Events	Committee Meeting	(AMPS) Reliability and Risk Analysis	Bayhill 23
10:00 AM	12:00 PM	Modeling of Inverter-Based Resources for Large System Stability Studies	Panel	Power System Dynamic Performance	Celebration 6
10:00 AM	12:00 PM	Augmenting power system protection & control—Industry perspectives and case studies of practical AI/ML applications	Panel	Power Systems Relaying & Control	Celebration 14
10:00 AM	12:00 PM	Next Generation of Dynamic State and Parameter Estimation Tools for IBRs	Panel	PSOPE—Bulk Power System Operations Subcommittee	Celebration 8
10:00 AM	12:00 PM	Challenges and Opportunities Toward 100% Clean Energy	Panel	Energy Development and Power Generation	Celebration 4

Start	End	Session Name	Session Type	Sponsoring Committee	Room
10:00 AM	12:00 PM	OHL SC   Std 524 TF—Guide to the Installation of TL Conductors	Committee Meeting	Transmission and Distribution	Bayhill 18
10:00 AM	12:00 PM	Open source datasets for BTM DER: Challenges and Opportunities	Panel	Smart Buildings, Loads & Customer Systems	Celebration 1
10:00 AM	12:00 PM	PEEC Main Committee	Committee Meeting	Power & Energy Education	Windermere Z
10:00 AM	12:00 PM	Distribution Grid Resilience: Metrics and Integration into Planning/Operation	Panel	Transmission and Distribution	Celebration 2
10:00 AM	12:00 PM	EMC Comb C50.1213 WG Session 2	Committee Meeting	Electric Machinery	Bayhill 24
10:00 AM	12:00 PM	Digital Twins for Power System Modeling, Control and Optimization	Panel	(AMPS) Intelligent Systems	Celebration 3
10:00 AM	12:00 PM	Ultra Long Duration Energy Storage— Developing a Roadmap for Policy, Planning and Operations	Panel	Energy Storage & Stationary Battery	Celebration 5
10:00 AM	12:00 PM	Transactions Paper Session 2	Transactions Paper Session	Admin	Celebration 11
10:00 AM	12:00 PM	Transactions Paper Session 10	Transactions Paper Session	Admin	Celebration 16
10:00 AM	12:00 PM	IBR Interconnection with high voltage Transmission networks—Risks, Requirements and Compliance	Panel	Local Organizing Committee	Celebration 10
10:30 AM	11:00 AM	Discussion with 2022 Power Tech LOC	Committee Meeting	Admin	Challenger 39
10:30 AM	11:30 AM	Energy Internet Coordinating Committee Meeting	Committee Meeting	Energy Internet Coordinating Committee	Bayhill 22
11:00 AM	11:30 AM	OHL SC   Std C135.90 TF—Standard for Pole Line Hardware for OHL Construction	Committee Meeting	Transmission and Distribution	Bayhill 31
11:00 AM	12:00 PM	DSSE Performance Evaluation TF	Committee Meeting	(AMPS) Distribution System Analysis	Bayhill 19
11:00 AM	12:00 PM	PSDP Task Force on Adjustable Speed Pumped Storage Modeling	Committee Meeting	Power System Dynamic Performance	Bayhill 20
11:00 AM	12:00 PM	Transfer of Power Quality Data TF (IEEE Std 1159.3)	Committee Meeting	Transmission and Distribution	Bayhill 28
11:00 AM	12:00 PM	ESMOL SC   ESMOL 1070 IEEE Guide for the Design and Testing of Transmission Modular Restoration Structure Components	Committee Meeting	Transmission and Distribution	Bayhill 27

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
11:00 AM	12:00 PM	PSOPE—Task Force on Micro-grids Pre-feasibility Toolkit	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Columbia 34
11:00 AM	12:00 PM	T&D Conference & Expo. LOC Meeting	Committee Meeting	Admin	Columbia 36
11:00 AM	12:30 PM	Voltage Optimization WG	Committee Meeting	Transmission and Distribution	Bayhill 21
11:30 AM	2:00 PM	CIGRE UNSC Luncheon	Luncheon	Other	Orlando Ballroom L
12:00 PM	1:00 PM	PSDP Task Force on Power System Restoration with Renewable Energy Sources	Committee Meeting	Power System Dynamic Performance	Windermere Z
12:00 PM	1:00 PM	ICHQP Executive Committee	Committee Meeting	Transmission and Distribution	Bayhill 28
12:00 PM	1:00 PM	TF: Power System Analysis on GPU and Heterogeneous Computing Architectures	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 19
12:00 PM	1:30 PM	DMS Advanced Application Integration WG	Committee Meeting	Transmission and Distribution	Windermere W
12:00 PM	2:00 PM	PSOPE—Power System Economics	Committee Meeting	PSOPE— Power System Economics Subcommittee	Bayhill 22
12:00 PM	3:00 PM	Hydroelectric Power Subcommittee working groups	Committee Meeting	Energy Development and Power Generation	Bayhill 18
12:00 PM	3:00 PM	ICA (mobile and transportable ESS)	Committee Meeting	Other	Columbia 36
12:30 PM	4:30 PM	Chapters and Membership Leadership Team Meeting	Committee Meeting	Admin	Bayhill 25
1:00 PM	2:00 PM	Excitation and Control System 421.5 Standard Revision	Committee Meeting	Energy Development and Power Generation	Bayhill 33
1:00 PM	2:00 PM	ESMOL SC   ESMOL Draft Papers—Minimum Approach Distance and Mechanical Equipment Grounding	Committee Meeting	Transmission and Distribution	Bayhill 27
1:00 PM	2:00 PM	PSOPE—Task Force on Electrification Issues on Native Lands	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Columbia 34
1:00 PM	2:00 PM	PSOPE—Task Force on Future TSO-DSO Interaction: Challenges, Business Cases and Solutions	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Bayhill 30

Start	End	Session Name	Session Type	Sponsoring Committee	Room
1:00 PM	2:00 PM	WG on Power System Modeling and Integration Using CIM Standards	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 26
1:00 PM	2:00 PM	PES GM Steering Committee	Committee Meeting	Admin	Columbia 37
1:00 PM	2:30 PM	OHL SC   Design & Construction WG	Committee Meeting	Transmission and Distribution	Bayhill 31
1:00 PM	3:00 PM	Benchmarking of artificial intelligence methods for energy generation and consumption forecasting	Panel	(AMPS) Intelligent Systems	Celebration 5
1:00 PM	3:00 PM	Developing AI/ML applications for power system protection & control—Opportunities and Challenges	Panel	Power Systems Relaying & Control	Celebration 14
1:00 PM	3:00 PM	Developments in Ocean Wave and Marine Renewable Energy	Panel	Energy Development and Power Generation	Celebration 4
1:00 PM	3:00 PM	Integrating Relay Models with RMS Dynamic Simulations—Stability Perspective	Panel	Power System Dynamic Performance	Celebration 12
1:00 PM	3:00 PM	PES Student Meetings Subcommittee	Committee Meeting	Power & Energy Education	Challenger 39
1:00 PM	3:00 PM	Gap Analysis of any Inverter Based Resource (IBR) Related Issues Facing Electric Power Industry	Panel	Transmission and Distribution	Celebration 6
1:00 PM	3:00 PM	PSDP Working Group on Voltage Stability	Committee Meeting	Power System Dynamic Performance	Bayhill 29
1:00 PM	3:00 PM	Addressing Grid Reliability & Resilience through Energy Storage	Panel	Energy Storage & Stationary Battery	Windermere Y
1:00 PM	3:00 PM	PSOPE—Working Group on Asset Management	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Bayhill 20
1:00 PM	3:00 PM	Al-enabled Architectural Solutions for Coordinated Operation of Smart Buildings and DERs	Panel	Smart Buildings, Loads & Customer Systems	Celebration 1

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
1:00 PM	3:00 PM	Grid forming machine impact on physical machines	Panel	Electric Machinery	Celebration 2
1:00 PM	3:00 PM	European energy projects and grid development activities	Panel	Energy Development and Power Generation	Celebration 16
1:00 PM	3:00 PM	Innovative Transmission Planning Approaches for an Uncertain and Volatile Grid	Panel	PSOPE—Bulk Power System Planning Subcommittee	Celebration 3
1:00 PM	3:00 PM	Transactions Paper Session 3	Transactions Paper Session	Admin	Celebration 11
1:00 PM	3:00 PM	Transmission Advancement For Decarbonization	Super Session	Super Session	Windermere X
1:00 PM	4:30 PM	Technical Council, Technical Sessions Committee	Committee Meeting	Admin	Columbia 35
1:00 PM	5:00 PM	STATCOM and Enhanced STATCOM Technology	Panel	Substations	Celebration 7
1:00 PM	5:00 PM	Grid and Customer System Emerging Technologies	Paper Forum	Admin	Rainbow Spring
1:00 PM	5:00 PM	Power System Operation, Planning, & Economics—1	Paper Forum	Admin	Silver Spring
1:30 PM	2:30 PM	Transactions on Power Systems Editorial Board	Committee Meeting	Admin	Windermere Z
1:30 PM	3:00 PM	Distributed Resources Integration WG	Committee Meeting	Transmission and Distribution	Windermere W
1:30 PM	3:00 PM	Grid-Enhancing Technologies WG	Committee Meeting	Transmission and Distribution	Bayhill 21
1:30 PM	3:00 PM	Flicker TF (IEEE Std 1453)	Committee Meeting	Transmission and Distribution	Bayhill 28
1:30 PM	3:30 PM	Cap SC   Guide for Application & Specification of Harmonic Filter WG	Committee Meeting	Transmission and Distribution	Bayhill 23
2:00 PM	3:00 PM	Excitation and Control System Dynamics Technical Report	Committee Meeting	Energy Development and Power Generation	Bayhill 33
2:00 PM	3:00 PM	ESMOL SC   ESMOL 1307 Fall Protection Study Group	Committee Meeting	Transmission and Distribution	Bayhill 27
2:00 PM	3:00 PM	2023 GTD Asia Turkey	Committee Meeting	Admin	Columbia 37
2:00 PM	3:00 PM	TASS Dynamic Phasor Modeling Technique TF	Committee Meeting	(AMPS) Transient Analysis and Simulation	Bayhill 30
2:00 PM	3:00 PM	RRPA TF on Reliability Consideration in Emerging Cyber-Physical Electrical Energy Systems	Committee Meeting	(AMPS) Reliability and Risk Analysis	Columbia 34
2:00 PM	3:30 PM	WG on Cybersecurity for Power Systems	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 26
2:00 PM	4:00 PM	CIGRE UNSC Executive Committee Meeting	Committee Meeting	Other	Bayhill 24
2:30 PM	4:00 PM	OHL SC   Conductors and Accessories WG	Committee Meeting	Transmission and Distribution	Bayhill 31

	Start	End	Session Name	Session Type	Sponsoring Committee	Room
	2:30 PM	4:30 PM	Transactions on Sustainable Energy Editorial Board Meeting	Committee Meeting	Admin	Windermere Z
	3:00 PM	4:00 PM	BDA Application of Big Data Analytics on Transmission System Dynamic Security Assessment TF	Committee Meeting	(AMPS) Big Data Analytics	Bayhill 18
	3:00 PM	4:00 PM	BDA Big Data Webinar Series Task Force	Committee Meeting	(AMPS) Big Data Analytics	Columbia 37
	3:00 PM	4:00 PM	Datasets for Machine Learning of Dynamic Stability Prediction	Committee Meeting	Power System Dynamic Performance	Columbia 34
	3:00 PM	4:00 PM	Excitation and Control System PSS Tutorial	Committee Meeting	Energy Development and Power Generation	Bayhill 33
	3:00 PM	4:00 PM	Grid Modernization TF	Committee Meeting	Transmission and Distribution	Bayhill 28
	3:00 PM	4:00 PM	PSOPE—Working Group on Assessment of Power System Flexibility	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Manatee Spring
	3:00 PM	4:00 PM	ESMOL SC   ESMOL TC 78 Support	Committee Meeting	Transmission and Distribution	Bayhill 27
	3:00 PM	4:00 PM	PSOPE—Task Force on Control and Operation of Distributed Energy Resources	Committee Meeting	PSOPE— Distribution System Operation and Planning Subcommittee	Bayhill 20
	3:00 PM	4:00 PM	PSOPE—Task Force on Equity and Energy Justice in Power Systems	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
	3:00 PM	4:00 PM	Transactions on Smart Grid Editorial Board Meeting	Committee Meeting	Admin	Bayhill 17
]	3:00 PM	4:00 PM	TASS Use of Real-Code in EMT Models for Power System Analysis TF	Committee Meeting	(AMPS) Transient Analysis and Simulation	Bayhill 29
	3:00 PM	4:00 PM	TASS IBR SSO TF	Committee Meeting	(AMPS) Transient Analysis and Simulation	Bayhill 19
	3:00 PM	4:30 PM	Switching and Overcurrent WG	Committee Meeting	Transmission and Distribution	Windermere W

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
3:00 PM	4:30 PM	Transmission Subcommitee	Committee Meeting	Transmission and Distribution	Bayhill 21
3:00 PM	5:00 PM	Integrating Relay Models with RMS Dynamic Simulations—Protection Perspective	Panel	Power Systems Relaying & Control	Celebration 12
3:00 PM	5:00 PM	Multi-agent decision support in local electricity markets	Panel	(AMPS) Intelligent Systems	Celebration 5
3:00 PM	5:00 PM	Protection of VSC-based HVDC Transmission Systems, Requirements, Challenges and Recent Advancements	Panel	Transmission and Distribution	Celebration 2
3:00 PM	5:00 PM	Hydrogen power system integration: opportunities and challenges	Panel	PSOPE— Technologies & Innovation Subcommittee	Celebration 6
3:00 PM	5:00 PM	Energy Storage Integration for Power System	Panel	Energy Storage & Stationary Battery	Celebration 13
3:00 PM	5:00 PM	Outstanding Doctoral Dissertations in Power and Energy Systems	Panel	Power & Energy Education	Celebration 8
3:00 PM	5:00 PM	Grid-interactive Efficient Buildings (GEBs) and Connected Communities for Grid Resilience and Decarbonization: Challenges, Opportunities and Lessons Learned	Panel	Smart Buildings, Loads & Customer Systems	Celebration 1
3:00 PM	5:00 PM	Best Practices for Wildfire Mitigation and Adaptation	Panel	Industry Technical Support Leadership Committee	Celebration 3
3:00 PM	5:00 PM	Open Access Journal of Power and Energy Editorial Board Meeting	Committee Meeting	Admin	Bayhill 22
3:00 PM	5:00 PM	Fellow Nomination Resource Meeting	Panel	Admin	Celebration 16
3:00 PM	5:00 PM	High Renewable Energy Penetrations within Isolated and Remote Area Power Systems	Panel	Energy Development and Power Generation	Celebration 4
3:00 PM	5:00 PM	Transactions Paper Session 4	Transactions Paper Session	Admin	Celebration 11
3:00 PM	5:00 PM	Offshore wind developments	Panel	Electric Machinery	Celebration 14
3:30 PM	5:00 PM	Cap SC   Low Voltage Shunt Capacitor Application TF	Committee Meeting	Transmission and Distribution	Bayhill 23
3:30 PM	5:00 PM	TF meeting	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 26
4:00 PM	5:00 PM	BDA Application of Cloud Computing in Power System TF	Committee Meeting	(AMPS) Big Data Analytics	Bayhill 18
4:00 PM	5:00 PM	BDA Data-Driven Modeling, Monitoring, and Control in Power Distribution Networks WG	Committee Meeting	(AMPS) Big Data Analytics	Bayhill 17
4:00 PM	5:00 PM	OHL SC   HVDC Lines WG	Committee Meeting	Transmission and Distribution	Bayhill 31
4:00 PM	5:00 PM	PEEC Awards Subcommittee	Committee Meeting	Power & Energy Education	Challenger 39

Start	End	Session Name	Session Type	Sponsoring Committee	Room
4:00 PM	5:00 PM	PSDP Power System Stability Controls Subcommittee	Committee Meeting	Power System Dynamic Performance	Windermere Y
4:00 PM	5:00 PM	Microgrid Applications and Implementation Working Group Meeting	Committee Meeting	Energy Development and Power Generation	Bayhill 33
4:00 PM	5:00 PM	Power Quality Interest Group	Committee Meeting	Transmission and Distribution	Bayhill 28
4:00 PM	5:00 PM	PSOPE—Working Group on Business Models for Energy Storage	Committee Meeting	PSOPE— Power System Economics Subcommittee	Bayhill 24
4:00 PM	5:00 PM	PSOPE—Task Force on Advanced Methods for Computational Intensive Power System Planning Applications	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Manatee Spring
4:00 PM	5:00 PM	PSOPE—Task Force on Risk Mitigation for Bulk Power System Operation	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
4:00 PM	5:00 PM	Grid Edge Conference Organizing Committee	Committee Meeting	Admin	Columbia 37
4:00 PM	6:00 PM	PES Publications Authors' Forum	Panel	Admin	Celebration 10
5:00 PM	6:00 PM	Distributed Energy Resources Sub Committee	Committee Meeting	Energy Development and Power Generation	Bayhill 33
5:00 PM	7:00 PM	SBLC Architecture Subcommittee	Committee Meeting	Smart Buildings, Loads & Customer Systems	Bayhill 21
5:00 PM	8:00 PM	NEMA CP8 Section (Members Only)	Committee Meeting	Transmission and Distribution	Bayhill 23
5:30 PM	7:00 PM	Pre-Awards Dinner Reception (Separate Awards Dinner Ticket Required)	Reception	Admin	Orlando Ballroom Foyer
7:00 PM	10:00 PM	Awards Dinner (separate ticket required)	Dinner	Admin	Orlando Ballroom

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			Session	Sponsoring	
Start	End	Session Name	Туре	Committee	Room
6:30 AM	8:00 AM	Presenter Breakfast	Breakfast	Admin	Orlando Ballroom
6:30 AM	8:00 AM	Attendee Breakfast	Breakfast	Admin	Regency Ballroom
6:30 AM	4:00 PM	Registration	Committee Meeting	Admin	Registration Counters
8:00 AM	9:00 AM	OHL SC   Std C135.80 TF—Standard for Fasteners for OHL Construction	Committee Meeting	Transmission and Distribution	Bayhill 31
8:00 AM	9:00 AM	OHL SC   Std P2954 TF—Recommended Practice OH T-Line Design	Committee Meeting	Transmission and Distribution	Bayhill 18
8:00 AM	9:00 AM	PSDP Power System Stability Subcommittee	Committee Meeting	Power System Dynamic Performance	Windermere Z
8:00 AM	9:00 AM	Asian and Australasian Electricity Infrastructure Working Group Meeting	Committee Meeting	Energy Development and Power Generation	Bayhill 27
8:00 AM	9:00 AM	HVDC & FACTS Education WG	Committee Meeting	Transmission and Distribution	Bayhill 19
8:00 AM	9:00 AM	Voltage Unbalance (P2844)	Committee Meeting	Transmission and Distribution	Bayhill 20
8:00 AM	9:00 AM	PSOPE—Working Group on Energy Forecasting and Analytics	Committee Meeting	PSOPE— Power System Economics Subcommittee	Barrel Spring
8:00 AM	9:00 AM	PSOPE—Working Group on Energy Internet	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Bayhill 23
8:00 AM	9:00 AM	AMPS AdCom	Committee Meeting	Analytic Methods for Power Systems	Bayhill 21
8:00 AM	10:00 AM	Transmission Operation and Planning Evolution for Integration of Renewable Generation	Panel	Transmission and Distribution	Celebration 2
8:00 AM	10:00 AM	Cyber-Physical Security Education, Training and Employment: Challenges and Potential Solutions	Panel	Power & Energy Education	Celebration 1
8:00 AM	10:00 AM	DER & DER Aggregator Cyber Security, IEEE 1547.3, Certifications: Where we go from here?	Panel	Industry Technical Support Leadership Committee	Celebration 14
8:00 AM	10:00 AM	EDPG Committee-AdCom meeting	Committee Meeting	Energy Development and Power Generation	Columbia 35
8:00 AM	10:00 AM	Energy Development & Power Generation AdCom	Committee Meeting	Energy Development and Power Generation	Bayhill 17
8:00 AM	10:00 AM	Public Data Repositories for Power Systems Operation and Machine Learning Applications	Panel	(AMPS) Big Data Analytics	Celebration 9

Start	End	Session Name	Session Type	Sponsoring Committee	Room
8:00 AM	10:00 AM	Synchronous condenser applications for a weak grid	Panel	Electric Machinery	Celebration 3
8:00 AM	10:00 AM	Challenges of Data Use in the Evolving Smart Grid	Panel	Power Systems Communications & Cyber Security	Celebration 12
8:00 AM	10:00 AM	Modeling Equity in Power Systems	Panel	(AMPS) Computer Analytical Methods	Celebration 7
8:00 AM	10:00 AM	Transactions on Energy Conversion Editorial Board Meeting	Committee Meeting	Admin	Bayhill 22
8:00 AM	10:00 AM	Advanced DMS: Enabling Interoperability for Advanced Distribution system Applications	Panel	PSOPE— Distribution System Operation and Planning Subcommittee	Celebration 13
8:00 AM	10:00 AM	Mitigating Gas Uncertainty in Power Grid Operation	Panel	PSOPE—Bulk Power System Operations Subcommittee	Celebration 8
8:00 AM	10:00 AM	Transactions Paper Session 8	Transactions Paper Session	Admin	Celebration 16
8:00 AM	10:00 AM	Transactions Paper Session 11	Transactions Paper Session	Admin	Celebration 11
8:00 AM	10:00 AM	Communications and Cybersecurity	Super Session	Super Session	Windermere X
8:00 AM	10:00 AM	Women in Power Panel Improving energy efficiency—Technologies, policies and motivations	Panel	Admin	Celebration 5
8:00 AM	10:00 AM	Energy Storage (ES) Standards Updates and ES Roles in Grid Applications	Panel	Energy Storage & Stationary Battery	Celebration 10
8:00 AM	11:30 AM	IEEE PES Scholarship Plus Initiative	Committee Meeting	Admin	Columbia 34
8:00 AM	12:00 PM	Distribution Reliability WG	Committee Meeting	Transmission and Distribution	Windermere W
8:00 AM	12:00 PM	Future electricity systems How to handle millions of power electronic-based devices and other emerging technologies	Panel	Power System Dynamic Performance	Celebration 6
8:00 AM	12:00 PM	Power Electronics-Dominated Power Grid: EMT Simulations, Modeling	Panel	Energy Development and Power Generation	Celebration 4

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
8:00 AM	12:00 PM	Power System Operation, Planning, & Economics-2	Paper Forum	Admin	Rainbow Spring
8:00 AM	12:00 PM	Power System Dynamic Performance	Paper Forum	Admin	Silver Spring
8:00 AM	5:00 PM	Plaintalk: Distribution System—Delivering Power to the Customer	Plaintalk	Admin	Celebration 15
8:00 AM	5:00 PM	IEEE PES Project on Electrification History	Committee Meeting	Admin	Challenger 40
9:00 AM	9:30 AM	OHL SC   Std 1829 TF—Guide for Conducting Corona Tests on Hardware for OHL	Committee Meeting	Transmission and Distribution	Bayhill 18
9:00 AM	10:00 AM	OHL SC   Std P1218 TF—Guide for Maintenance of Wood TL Structures	Committee Meeting	Transmission and Distribution	Bayhill 31
9:00 AM	10:00 AM	Economic Evaluation of Voltage Sags (IEEE P2938)	Committee Meeting	Transmission and Distribution	Bayhill 20
9:00 AM	10:00 AM	PSOPE—Task Force on Dynamic Parameter Visibility: Identifiability, Algorithms and Uncertainty Quantification	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
9:00 AM	10:00 AM	AMPS Committee	Committee Meeting	Analytic Methods for Power Systems	Bayhill 29
9:00 AM	10:00 AM	ISGT Asia Committee	Committee Meeting	Admin	Columbia 37
9:00 AM	11:00 AM	ESMOL Subcommittee	Committee Meeting	Transmission and Distribution	Bayhill 27
9:00 AM	12:00 PM	Cap SC   Shunt Capacitor App Guide P1036 WG	Committee Meeting	Transmission and Distribution	Bayhill 23
9:30 AM	10:30 AM	OHL SC   Std 2819 TF—Recommended Practice for Measuring EMF in AC/DC Corridors	Committee Meeting	Transmission and Distribution	Bayhill 18
10:00 AM	10:30 AM	OHL SC   Std 1808 TF—Guide for Collecting and Managing Transmission Line Inspection and Maintenance Data	Committee Meeting	Transmission and Distribution	Bayhill 31
10:00 AM	11:00 AM	PSOPE—Task Force on Advanced Intelligence Techniques for Resilient Power System Restoration	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
10:00 AM	11:00 AM	APPEEC Conference Meeting	Committee Meeting	Admin	Columbia 37
10:00 AM	11:00 AM	TASS Distributed Energy Resource Islanding Detection TF	Committee Meeting	(AMPS) Transient Analysis and Simulation	Bayhill 29
10:00 AM	12:00 PM	Machine Learning and Modern Heuristic Optmization Optimization for Planning and Operation of Active Distribution Networks	Panel	(AMPS) Intelligent Systems	Celebration 9
10:00 AM	12:00 PM	Application of Big Data and AI/ML in monitoring, operations, planning and protection	Panel	(AMPS) Big Data Analytics	Celebration 5
10:00 AM	12:00 PM	Learning for Power Distribution System Optimization, Control, and Protection	Panel	PSOPE— Distribution System Operation and Planning Subcommittee	Windermere X

Start	End	Session Name	Session Type	Sponsoring Committee	Room
10:00 AM	12:00 PM	Transmission Planning Challenges in High IBR-Penetrated Grids and Modeling Practices	Panel	PSOPE—Bulk Power System Planning Subcommittee	Celebration 7
10:00 AM	12:00 PM	Microgrids as Hands-On Experiential Learning Mediums for Power Engineers of the 21st Century	Panel	Power & Energy Education	Celebration 1
10:00 AM	12:00 PM	Harmonics WG (IEEE Std 519)/(519.1)	Committee Meeting	Transmission and Distribution	Bayhill 20
10:00 AM	12:00 PM	Loads Subcommittee	Committee Meeting	Smart Buildings, Loads & Customer Systems	Barrel Spring
10:00 AM	12:00 PM	Network code requirements for HVDC systems in High RES environments	Panel	Transmission and Distribution	Celebration 2
10:00 AM	12:00 PM	Ensemble OT Cybersecurity Model for EMS, ADMS, and DERMS in Control Center and Substation	Panel	Power Systems Communications & Cyber Security	Celebration 12
10:00 AM	12:00 PM	Integrating Transmission and Distribution Planning on a Path towards Decarbonization	Panel	Renewables Systems Integration Coordinating	Windermere Y
10:00 AM	12:00 PM	Transactions on Power Delivery Editorial Board Meeting	Committee Meeting	Admin	Bayhill 22
10:00 AM	12:00 PM	Technical Council, Standards Coordination Committee	Committee Meeting	Admin	Bayhill 17
10:00 AM	12:00 PM	Marine Hydrokinetics	Panel	Electric Machinery	Celebration 3
10:00 AM	12:00 PM	Storm Preparation and Restoration	Panel	Local Organizing Committee	Celebration 8
10:30 AM	12:00 PM	OHL SC   Insulator Performance and Applications WG	Committee Meeting	Transmission and Distribution	Bayhill 31
11:00 AM	12:00 PM	ESMO Conference Executive Committee (Private)	Committee Meeting	Transmission and Distribution	Bayhill 27
11:00 AM	12:00 PM	PSOPE—Task Force on Impacts of IBR and DER Integration on Operations	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
11:00 AM	12:00 PM	TASS Geomagnetic disturbance and Geomagnetically Induced Current WG	Committee Meeting	(AMPS) Transient Analysis and Simulation	Bayhill 29
11:30 AM	1:30 PM	Student Faculty Industry Luncheon (separate ticket required)	Luncheon	Admin	Orlando Ballroom

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
11:30 AM	6:00 PM	Technical Council/Lunch and Meeting	Committee Meeting	Admin	Windermere Z
12:00 PM	1:00 PM	PSOPE—Task Force on BPS-Connected Inverter-Based Resource (IBR) Operation Challenges	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
12:00 PM	1:30 PM	OHL SC Admin (by invite only)	Committee Meeting	Transmission and Distribution	Bayhill 31
12:00 PM	1:30 PM	CEP Luncheon	Luncheon	Industry Technical Support Leadership Committee	Coral Spring
12:00 PM	2:00 PM	ESMOL SC   ESMOL Steering Committee Follow-up (Private)	Committee Meeting	Transmission and Distribution	Bayhill 27
12:00 PM	3:00 PM	Power & Energy Magazine Editorial Board	Committee Meeting	Admin	Bayhill 22
12:30 PM	1:30 PM	CAMS Computer and Analytical Methods Subcommittee	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 21
1:00 PM	2:00 PM	PSOPE—Task Force on Standard Test Cases for Power System State Estimation	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
1:00 PM	2:00 PM	RRPA TF on Power System Resilience Metrics and Evaluation Methods	Committee Meeting	(AMPS) Reliability and Risk Analysis	Barrel Spring
1:00 PM	2:00 PM	RRPA Composite System Reliability (CSR) Task Force	Committee Meeting	(AMPS) Reliability and Risk Analysis	Celebration 16
1:00 PM	3:00 PM	Facilitating DERs and Services Using Operating Envelopes—Insights from Real Implementations	Panel	(AMPS) Distribution System Analysis	Windermere Y
1:00 PM	3:00 PM	Synchrophasors-based Grid Enhancing Technologies	Panel	PSOPE— Technologies & Innovation Subcommittee	Celebration 10
1:00 PM	3:00 PM	PSOPE Main	Committee Meeting	Power System Operation, Planning & Economics	Manatee Spring
1:00 PM	3:00 PM	Research and Educational Experiences of NSF CAREER Awardees in Power Systems	Panel	Power & Energy Education	Celebration 1
1:00 PM	3:00 PM	IEEE/NERC Security Integration Report: Next Steps	Panel	Power Systems Communications & Cyber Security	Celebration 12
1:00 PM	3:00 PM	Many uses of AC Optimal Power Flow in the Changing Industry	Panel	Transmission and Distribution	Celebration 2
1:00 PM	3:00 PM	Wind and Solar Interconnection and Design SC	Committee Meeting	Energy Development and Power Generation	Bayhill 17

Start	End	Session Name	Session Type	Sponsoring Committee	Room
1:00 PM	3:00 PM	Supporting Climate Adaptation and Mitigation Policy Analysis through Power Engineering	Panel	Industry Technical Support Leadership Committee	Celebration 5
1:00 PM	3:00 PM	Advanced Clustering Techniques for Power System Data Analysis: Beyond k-Means	Panel	(AMPS) Intelligent Systems	Celebration 6
1:00 PM	3:00 PM	Electrification of Transportation	Panel	Electric Machinery	Celebration 3
1:00 PM	3:00 PM	Advances in HVDC Grid development and related grid transformation in Europe	Panel	Energy Development and Power Generation	Celebration 4
1:00 PM	3:00 PM	Is Marginal Cost Pricing still the ideal electricity market design?	Panel	PSOPE— Power System Economics Subcommittee	Celebration 8
1:00 PM	3:00 PM	Transactions Paper Session 5	Transactions Paper Session	Admin	Celebration 11
1:00 PM	3:00 PM	Novel approaches and emerging technologies to support system operation	Super Session	Super Session	Windermere X
1:00 PM	5:00 PM	SUB WG I10	Committee Meeting	Substations	Bayhill 29
1:00 PM	5:00 PM	Past, Present, and Future with Synchrophasor Technology	Panel	Power System Dynamic Performance	Celebration 7
1:00 PM	5:00 PM	Advancements in transmission and distribution systems	Paper Forum	Admin	Rainbow Spring
1:00 PM	5:00 PM	Cyber security and energy internet	Paper Forum	Admin	Silver Spring
1:30 PM	3:00 PM	OHL SC   OHL Subcommittee Meeting	Committee Meeting	Transmission and Distribution	Bayhill 31
1:30 PM	3:00 PM	Distribution Resiliency WG	Committee Meeting	Transmission and Distribution	Windermere W
1:30 PM	3:00 PM	Power Quality Standards Coorination Committee 22 (SCC22)	Committee Meeting	Transmission and Distribution	Bayhill 20
1:30 PM	3:30 PM	Student Job Fair	Reception	Admin	Orlando Ballroom
1:30 PM	4:30 PM	HVDC & FACTS Subcommittee	Committee Meeting	Transmission and Distribution	Bayhill 19

\*Please check the IEEE PES GM mobile app for the latest program and event updates.

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
2:00 PM	3:00 PM	PSOPE—Task Force on Operational Tools for Enabling Resiliency	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
2:00 PM	3:30 PM	Subcommittee meeting	Committee Meeting	(AMPS) Computer Analytical Methods	Bayhill 21
2:00 PM	4:00 PM	Capacitor Subcommittee	Committee Meeting	Transmission and Distribution	Bayhill 23
3:00 PM	4:00 PM	PSDP Working Group on Power System Dynamic Modeling	Committee Meeting	Power System Dynamic Performance	Bayhill 31
3:00 PM	4:00 PM	PSOPE—Task Force on Cyber-Physical Interdependence for Power System Operation and Control	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Columbia 36
3:00 PM	4:00 PM	TASS Interfacing Techniques for Simulation Tools in Smart Grid TF	Committee Meeting	(AMPS) Transient Analysis and Simulation	Bayhill 22
3:00 PM	4:30 PM	Distribution Subcommittee	Committee Meeting	Transmission and Distribution	Windermere W
3:00 PM	5:00 PM	Power Grid Resilience Enhancement: Tools and Investment for Automated Operation	Panel	(AMPS) Reliability and Risk Analysis	Celebration 9
3:00 PM	5:00 PM	Updates on FERC Order 881 and Implementation of AAR	Panel	Transmission and Distribution	Celebration 2
3:00 PM	5:00 PM	Big Data & Analytics (BDA) Subcommittee	Committee Meeting	(AMPS) Big Data Analytics	Barrel Spring
3:00 PM	5:00 PM	Panel Session Title Challenges and Opportunities in Power Engineering Education at Primarily Undergraduate Institutions	Panel	Power & Energy Education	Celebration 1
3:00 PM	5:00 PM	Synchro-Waveforms: Principles, Data-Analytics, and Applications	Panel	PSOPE— Technologies & Innovation Subcommittee	Celebration 10
3:00 PM	5:00 PM	Power Quality Subcommittee	Committee Meeting	Transmission and Distribution	Bayhill 20
3:00 PM	5:00 PM	PSOPE—Bulk Power System Planning Subcommittee	Committee Meeting	PSOPE—Bulk Power System Planning Subcommittee	Bayhill 17
3:00 PM	5:00 PM	Energy storage market participation: market design challenges and regulatory barriers	Panel	PSOPE— Power System Economics Subcommittee	Celebration 6
3:00 PM	5:00 PM	Resilient Control and Operation of Power Grids against Cybersecurity Threats: Challenges and Solutions	Panel	Power Systems Communications & Cyber Security	Celebration 12
3:00 PM	5:00 PM	The synergy of multi-agent systems and machine learning in power system applications	Panel	(AMPS) Intelligent Systems	Windermere Y

Start	End	Session Name	Session Type	Sponsoring Committee	Room
3:00 PM	5:00 PM	Fast-Tracked Power Electronics Standards for Decarbonizing Power Systems	Panel	Industry Technical Support Leadership Committee	Celebration 8
3:00 PM	5:00 PM	Publications Board Meeting	Committee Meeting	Admin	Columbia 34
3:00 PM	5:00 PM	Towards Autonomous Grid Operation	Panel	Energy Development and Power Generation	Celebration 4
3:00 PM	5:00 PM	Transactions Paper Session 6	Transactions Paper Session	Admin	Celebration 11
3:00 PM	5:00 PM	Transactions Paper Session 9	Transactions Paper Session	Admin	Celebration 16
3:00 PM	5:00 PM	Women in Power Social Session	Panel	Admin	Celebration 5
5:00 PM	7:00 PM	PSDP AdComm Meeting	Committee Meeting	Power System Dynamic Performance	Bayhill 21
5:00 PM	7:00 PM	Women in Power & Young Professionals Reception	Reception	Admin	Orlando Ballroom M
5:00 PM	7:00 PM	ACPE-Australasian committee for Power Engineering Universities	Committee Meeting	Other	Bayhill 22
5:00 PM	8:00 PM	OHL SC   NEMA Insulators	Committee Meeting	Transmission and Distribution	Bayhill 23
6:00 PM	7:30 PM	Power Professionals—India Group	Panel	Other	Celebration 5
7:00 PM	8:30 PM	Women in Power Faculty Meeting	Committee Meeting	Admin	Bayhill 22



\*Please check the IEEE PES GM mobile app for the latest program and event updates.

	Start	End	Session Name	Session Type	Sponsoring Committee	Room
]	6:30 AM	8:00 AM	Attendee Breakfast	Breakfast	Admin	Regency Ballroom
	6:30 AM	12:00 PM	Registration	Committee Meeting	Admin	Registration Counters
]	8:00 AM	9:00 AM	OHL SC   Std 987 TF—Polymer Insulator Application Guide	Committee Meeting	Transmission and Distribution	Bayhill 31
]	8:00 AM	9:00 AM	OHL SC   Std 1724 TF—Guide for the Preparation of a T-Line Design Criteria Document	Committee Meeting	Transmission and Distribution	Bayhill 21
	8:00 AM	9:30 AM	WG P2681 Smart Grid Sensor Systems Accuracy Testing Guide	Committee Meeting	Power System Instrumentation & Measurements	Bayhill 18
	8:00 AM	10:00 AM	Data-Driven Distribution System State Estimation: Challenges and Solutions	Panel	(AMPS) Distribution System Analysis	Celebration 16
	8:00 AM	10:00 AM	Big Data for Enhanced Grid Performance with Considerations of Data Barriers and Privacy	Panel	(AMPS) Big Data Analytics	Celebration 3
	8:00 AM	10:00 AM	Harmonics Modeling and Simulation of Large Wind and Solar Power Plants	Panel	Transmission and Distribution	Celebration 2
	8:00 AM	10:00 AM	Emerging Internet of Things (IoT) Applications in Power Systems	Panel	PSOPE— Technologies & Innovation Subcommittee	Celebration 7
	8:00 AM	10:00 AM	Role of Minority Serving Institutions (MSIs) on Power and Energy Research and Education	Panel	Power & Energy Education	Celebration 1
	8:00 AM	10:00 AM	Flexibility based new economic models for distribution systems	Panel	PSOPE— Power System Economics Subcommittee	Celebration 8
]	8:00 AM	10:00 AM	PES Roadmap Task Force	Committee Meeting	Admin	Bayhill 22
	8:00 AM	10:00 AM	Stability-constrained System Scheduling for Future Power Systems with High Penetration of IBRs	Panel	Energy Development and Power Generation	Celebration 4
	8:00 AM	10:00 AM	Transactions Paper Session 7	Transactions Paper Session	Admin	Celebration 11
]	8:00 AM	10:00 AM	Integration of DERs, EVs, and BTM resources	Super Session	Super Session	Windermere X
	8:00 AM	11:00 AM	T&D Administrative Subcommittee	Committee Meeting	Transmission and Distribution	Bayhill 27
	8:00 AM	11:00 AM	EDPG Committee—Main meeting	Committee Meeting	Energy Development and Power Generation	Silver Spring
	8:00 AM	11:00 AM	Energy Development & Power Generation Committee Meeting	Committee Meeting	Energy Development and Power Generation	Manatee Spring
]	8:00 AM	5:00 PM	Plaintalk: Transmission System—The Interconnected Bulk Electric System	Plaintalk	Admin	Celebration 15

Start	End	Session Name	Session Type	Sponsoring Committee	Room
9:00 AM	10:00 AM	OHL SC   Std 1368 TF—Guide for Aeolian Vibration Field Measurement	Committee Meeting	Transmission and Distribution	Bayhill 31
9:00 AM	10:00 AM	PSOPE—Working Group on Power System Static and Dynamic State Estimation	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Bayhill 23
9:00 AM	10:00 AM	OHL SC   Std 691 TF—Guide for Transmission Structure Foundation Design and Testing	Committee Meeting	Transmission and Distribution	Bayhill 21
9:00 AM	11:00 AM	iGET meeting	Committee Meeting	Grid & Emerging Technologies Coordinating Committee	Bayhill 17
9:00 AM	12:00 PM	The Renewable Systems Integration Coordinating Committee (RSICC) meeting	Committee Meeting	Renewables Systems Integration Coordinating	Windermere W
9:00 AM	12:00 PM	PSDP Committee Meeting	Committee Meeting	Power System Dynamic Performance	Windermere Y
9:00 AM	12:00 PM	Electric Machinery Committee Meeting	Committee Meeting	Electric Machinery	Windermere Z
10:00 AM	11:00 AM	PSOPE—Working Group on Power System Restoration	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Bayhill 23
10:00 AM	11:30 AM	OHL SC   Corrosion Management WG	Committee Meeting	Transmission and Distribution	Bayhill 31
10:00 AM	11:30 AM	Sensors Subcommittee	Committee Meeting	Power System Instrumentation &Measurements	Bayhill 18
10:00 AM	12:00 PM	Do future power and energy systems require a rethink of power engineering education?	Panel	Power & Energy Education	Celebration 1
10:00 AM	12:00 PM	Online computing technologies for power system control centers	Panel	PSOPE— Technologies & Innovation Subcommittee	Celebration 7
10:00 AM	12:00 PM	OHL SC   Std 3132 TF—Guide for Spacers and Spacer-Dampers on Bundled Conductors	Committee Meeting	Transmission and Distribution	Bayhill 21
10:00 AM	12:00 PM	Inverter-based Resource Oscillations: Real-World Events and Root Cause Analysis	Panel	(AMPS) Transient Analysis and Simulation	Celebration 3
10:00 AM	12:00 PM	IEEE 519-2022: Update on recent changes	Panel	Transmission and Distribution	Celebration 2

\*Please check the IEEE PES GM mobile app for the latest program and event updates.

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Start	End	Session Name	Session Type	Sponsoring Committee	Room
10:00 AM	12:00 PM	Performance Specifications for Grid-forming Inverters—Status and Paths Forward	Panel	Energy Development and Power Generation	Celebration 6
10:00 AM	12:00 PM	Intentional and unintentional islanding of IBR	Panel	(AMPS) Transient Analysis and Simulation	Celebration 4
10:00 AM	12:00 PM	Coordinating power and communication system planning to support an evolving grid	Panel	Power Systems Communications & Cyber Security	Celebration 16
10:00 AM	12:00 PM	Emerging High Performance Computing (e.g. Quantum Computing) Applications in Power Grid	Panel	(AMPS) Computer Analytical Methods	Celebration 11
10:00 AM	12:00 PM	Lessons learned in Integrated Resource Planning for Rapid Decarbonization of Power Grids	Panel	PSOPE—Bulk Power System Planning Subcommittee	Celebration 8
10:00 AM	12:00 PM	Standards on Smart Cities Terminology	Panel	Energy Development and Power Generation	Celebration 5
11:00 AM	12:00 PM	PSOPE—Bulk Power System Operations Subcommittee	Committee Meeting	PSOPE—Bulk Power System Operations Subcommittee	Bayhill 22
1:00 PM	2:00 PM	OHL SC   Std 977 TF—Guide to Installation of Foundations	Committee Meeting	Transmission and Distribution	Bayhill 21
1:00 PM	2:30 PM	OHL SC   Corona and Field Effects WG	Committee Meeting	Transmission and Distribution	Bayhill 31
1:00 PM	2:30 PM	Electricity Metering Subcommittee	Committee Meeting	Power System Instrumentation & Measurements	Bayhill 18
1:00 PM	3:00 PM	Composite System Reliability Challenges for Grid Decarbonization Efforts	Panel	(AMPS) Reliability and Risk Analysis	Celebration 11
1:00 PM	3:00 PM	Reliability Based Impact of Inverter-Based Resource Adoption	Panel	Transmission and Distribution	Celebration 2
1:00 PM	3:00 PM	Utility Scale Demonstrations: Lessons learned from US-India Joint UIASSIST Project	Panel	PSOPE— Distribution System Operation and Planning Subcommittee	Celebration 1
1:00 PM	3:00 PM	Advanced pumped-storage hydro providing ancillary services	Panel	Power System Dynamic Performance	Celebration 16
1:00 PM	3:00 PM	Machine Learning Applications in Power Distribution System Operation	Panel	(AMPS) Big Data Analytics	Celebration 3
1:00 PM	3:00 PM	Hydrogen toward multiple energy delivery pathways and grid services	Panel	PSOPE— Power System Economics Subcommittee	Celebration 7

Start	End	Session Name	Session Type	Sponsoring Committee	Room
1:00 PM	3:00 PM	Trustworthy Machine Learning for Power System Planning and Operation	Panel	PSOPE—Bulk Power System Operations Subcommittee	Celebration 5
1:00 PM	3:00 PM	Green hydrogen developments in Latinamerica and beyond	Panel	Energy Development and Power Generation	Celebration 4
1:00 PM	3:00 PM	Challenges of DER Penetration on Voltage Stability for Distribution and Transmission Systems	Panel	Local Organizing Committee	Celebration 8
1:00 PM	5:00 PM	Governing Board Meeting	Committee Meeting	Admin	Barrel Spring
2:00 PM	3:00 PM	OHL SC   Std 751 TF—Guide for Wood Structures Used for Overhead Transmission Lines	Committee Meeting	Transmission and Distribution	Bayhill 21
2:30 PM	5:30 PM	OHL SC   ANSI C29 Committee	Committee Meeting	Transmission and Distribution	Bayhill 18
3:00 PM	5:00 PM	Full EMT Simulation of Large Power Systems	Panel	(AMPS) Transient Analysis and Simulation	Celebration 5
3:00 PM	5:00 PM	State-of-the-art Review on TSO-DSO Coordination Models and Solution Techniques	Panel	PSOPE— Technologies & Innovation Subcommittee	Celebration 1
3:00 PM	5:00 PM	Microgrid Applications and Demonstrations: Lessons Learned	Panel	Energy Development and Power Generation	Celebration 4
3:00 PM	5:00 PM	ADMS Integration: Incorporating DERs, Microgrids, EVs, and DERMS into ADMS	Panel	Transmission and Distribution	Celebration 2
3:00 PM	5:00 PM	Emerging Computational Methods for Planning with Transient Stability Constraints	Panel	PSOPE—Bulk Power System Planning Subcommittee	Celebration 8
3:00 PM	5:00 PM	Speeding up dynamic security assessment	Panel	Power System Dynamic Performance	Celebration 16

Friday, July 21							
Start	End	Session Name	Session Type	Sponsoring Committee	Room		
8:00 AM	2:00 PM	Governing Board Meeting	Committee Meeting	Admin	Barrel Spring		

# 2023 IEEE PES ELECTIONS

The PES Governing Board has approved the following candidates for the offices of 2024/2025 PES President-Elect, PES Treasurer and PES Secretary. The ballot will be presented to the membership Monday, 17 July. To be counted, the ballot must be received at the designated location by twelve o'clock noon in the Eastern Time zone on 1 October 2023.

# CANDIDATES FOR PES-PRESIDENT-ELECT:

# **CLAUDIO CAÑIZARES**

University of Waterloo, Waterloo, ON, Canada



#### **Candidate Statement**

"I have unique experiences and broad knowledge of the PES and IEEE, given my multiple successful activities and leadership positions in my 37 years of active member and volunteer. Based on my open and transparent approach as PES leader, witnessed by many members and volunteers with whom I've had the pleasure of collaborating, and on my recent experience as IEEE Division Director, I believe that I can provide the required stewardship of the PES to properly serve its broad academic, industry, and world-wide membership."

"I appreciate President Jessica Bian's inclusive, transparent, and generous leadership style, and thus, if honored by being elected PES President, I plan to follow a similar approach. Furthermore, besides facilitating and supporting all the great ongoing work by PES members and volunteers, I'll focus on enhancing the impact and relevance of PES to the world's Net-Zero future for which the power grid will be the backbone, as well as increasing the growing PES relevance and leadership role within the IEEE, properly reflecting its size, for which I've been pushing as Director."

# **Biography**

I have been at the University of Waterloo since 1993, where I am a University Professor, Hydro One Chair, and WISE Executive Director. My highly-cited research with industry and government partners has focused on relevant and practical aspects of power and energy systems in the context of markets and grid-edge technologies like microgrids. I am the IEEE Trans. Smart Gird EIC; IEEE Division VII Director; a Fellow of the IEEE, Royal Society of Canada, and Canadian Academy of Engineering; and has received multiple awards and recognitions from Waterloo and the PES.

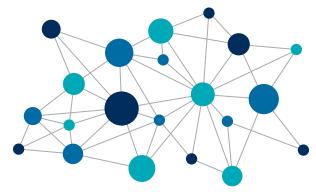
I have been a very active member of PES since 1986, contributing significant to its technical activities and holding technical leadership positions in multiple committees, WGs and TFs. I now play a leadership role in the PES and the IEEE as an active member of the PES GB and ExcCom, IEEE TAB and BOD, and several associated committees.

#### I have held 52 PES and IEEE membership and leadership positions, in particular:

- Member, TAB N&A Committee, 2023–2024.
- Member, Fellow Committee Strategic Advisory Working Group, 2023.
- Director and Director-Elect, Division VII, 2021–2023.
- Member, Ad Hoc Committee to Coordinate's Response to Climate Change, 2022–2023.
- Member, Ad Hoc Committee on Fellows Processes, 2022.
- Editor in Chief, Transactions on Smart Grid, 2020–today.
- Chair, Electrification Magazine Steering Committee, 2019–today.
- Past-Chair, Chair, Vice-Chair, and Secretary, Power System Dynamic Performance Committee, 2013–2020.
- Chair, Task Force "Microgrid Dynamic Modeling," Power System Stability Subcommittee, 2018–today.
- Editor and Lead, Smart Grid Technical Activities Committee's white paper "Microgrids: Utility Challenges and Opportunities," 2018–2022.
- Editor in Chief, Proceedings Special Issue "Electricity for All: Access to Electricity Issues and Solutions for Energydisadvantaged Communities," 2018–2019.
- Technical Program Chair, ISGT Latin America, 2016–2017.
- Member, Editorial Board of the Proceedings of the IEEE, 2016–2021.
- Co-Chair, Task Force "Microgrid Stability Analysis and Modeling," Power System Stability Subcommittee, 2014–2018.
- Chair, Task Force "Microgrid Control," Power System Stability Controls Subcommittee, 2010–2014.
- Chair and Secretary, Power Systems Stability Controls Subcommittee, 2006–2011.
- Fellow (2007), Senior Member (2000), Member (1991), and Student Member (1986).
- Chair, Task Force "Impact of Industry Restructuring on System Dynamic Performance," Power System Stability Subcommittee, 2005–2010.
- Chair, Voltage Stability Focus Group of the Power System Stability Subcommittee, 1997–2002.
- Secretary, Voltage Stability and Long-Term Stability Working Group, 1994–1997.

#### I have received 20 IEEE-PES awards and recognitions, in particular:

- Best Paper Award, 2022
- Technical Council Outstanding Technical Report Award, 2020
- Technical Committee Service Award, 2019
- Outstanding Power Engineering Educator Award, 2017
- Technical Committee Distinguished Service Award, 2017
- IEEE Canada Electric Power Medal, 2016
- PowerTech Best Student Paper Award, 2015
- IEEE Fellow, 2007
- Technical Council Outstanding Technical Report Award, 2005





#### **Candidate Statement**

As we tackle climate change through decarbonization of power and energy systems, our industry faces significant challenges and opportunities. PES stands at the forefront of innovation and progress, leading the way in cutting-edge technologies.

I am eager to outline my goals for PES: fostering global collaboration, innovation, and inclusion. These target a sustainable, reliable, and equitable energy future with special attention to boosting the role of Women in Engineering and underprivileged regions.

My vision leverages PES's strengths to lead the global transition towards decarbonization, digitalization, and decentralization of power and energy systems. I propose a five-step plan: establishing stronger local partnerships, internationalizing PES through diverse connections, developing targeted marketing and outreach, boosting region- and minority-tailored membership development, and enhancing member support. I am committed to working with PES members to achieve these goals, ensuring PES remains a vital resource worldwide.

I bring extensive experience based on numerous IEEE and PES leadership positions and collaborations with renowned institutions. I am deeply motivated to serve as PES President and partner with the organization to achieve its mission.

# **Biography**

Prof. C.Y. Chung is the Head of Department and Chair Professor of Power Systems Engineering in the Department of Electrical Engineering at The Hong Kong Polytechnic University (HKPolyU). He received his B.Eng. (with First Class Honors) and Ph.D. degrees in electrical engineering from HKPolyU. He has worked in Canada for the University of Saskatchewan; Powertech Labs, Inc.; and the University of Alberta. His research interests include smart grid, micro grid, and renewable energy. His research work not only generated three US patents and over 300 publications, but also resulted in successful transference of three new commercial software packages developed for power system analysis. He has provided consultancy services to both government agencies and well-known private companies. He has also served as an editor for nine international power and energy systems journals. He is a Fellow of the IEEE, CAE, EIC, IET, HKIE, and AAIA.

I have served the IEEE PES in various leadership positions. I am an IEEE Fellow and recipient of the 2021 IEEE Canada P. Ziogas Electric Power Award. I also led the IEEE PES Hong Kong Chapter to receive the 2008 IEEE PES Outstanding Small Chapter and IEEE IAS Outstanding Small Joint Chapter awards in the capacity of Chapter Chair. Some of my IEEE and PES activities are highlighted below.

#### **IEEE PES**

- Governing Board Member-at-large (Global Outreach) (2016–2018).
- Governing Board Member-at-large (Smart Grid) (2015).
- Long Range Plan Subcommittee Member (Future directions) (2016–2018).
- Distinguished Lecturer (2016-present).
- Fellows Nomination Resource Committee Member (2023–present).
- Fellows Evaluation Committee Member (2019–2021).
- Region 10 North Chapter Representative (2014–2015).
- IEEE Hong Kong Joint Chapter of PES/IAS/PELS/IES: Chair (2007-2009); Vice-Chair (2006); Honorary Treasurer (2004–2005); and Honorary Secretary (2002–2003).
- Counselor of the IEEE PES Student Branch Chapter at the University of Saskatchewan (2018–2022).

#### IEEE

- IEEE Canada Conference Advisory Committee (2016–2017).
- IEEE Hong Kong Section: Chair (2011); Chair-elect (2010); Honorary Secretary (2009); and Executive Committee Member (2007-2008).

#### **IEEE Transactions**

- IEEE Transactions on Sustainable Energy: Consulting Editor (2022-present); Associate Editor (2014–2020); and Guest Editor (2015) for Special Section on "Integration of Electrochemical Energy Storage in Sustainable Energy Systems".
- IEEE Transactions on Power Systems: Senior Editor (2020–2022); and Associate Editor (2017–2019).
- IEEE PES Letters: Associate Editor (2017-present).

#### **IEEE International Conferences**

- General Chair, IEEE EPEC (2017).
- Chair, IEEE PES APPEEC (2014).
- Co-Chair, IEEE TENCON (2015).
- Co-Chair, IEEE PES APPEEC (2013).
- Co-Chair, IEEE ICHQP (2012).
- Technical Program Co-Chair, IEEE SmartGridComm (2023).
- Honorary Secretary, IEEE IAS Annual Meeting (2005).
- Honorary Secretary, IEEE DRPT (2004).

#### **IEEE PES Committees**

- IEEE PES Power System Dynamic Performance (PSDP) Committee: Technical Committee Program Chair (2022); and Member (2016-present).
- IEEE PES Prabha S. Kundur Power System Dynamics and Control Award Committee: Member (2015–2019)

#### FARNOOSH RAHMATIAN

NuGrid Power Corp, Vancouver, BC, Canada



#### **Candidate Statement**

The global energy infrastructure demands a greater level of resiliency and flexibility, and PES offers an ideal platform for embracing and addressing this challenge. As a candidate for the IEEE PES President-Elect, I am honored to have the opportunity to contribute to this crucial mission.

With three decades of involvement in various PES activities, I have witnessed firsthand the passion, expertise, and mentorship shared among PES members. These core values epitomize PES and make our membership a driving force for serving our communities.

My primary objective is to increase member engagement in solving the greatest challenges of our time, including mitigating and adapting to climate change, while simultaneously developing members' careers. We must nurture young and innovative minds and foster collaborations with experienced professionals, both locally and globally, to develop the right solutions for tomorrow.

We must also cherish and leverage the existing synergy between industry and academia, one of the core strengths of PES, to address power and energy-related challenges and achieve a more resilient and sustainable energy future "for the benefit of humanity.

# **Biography**

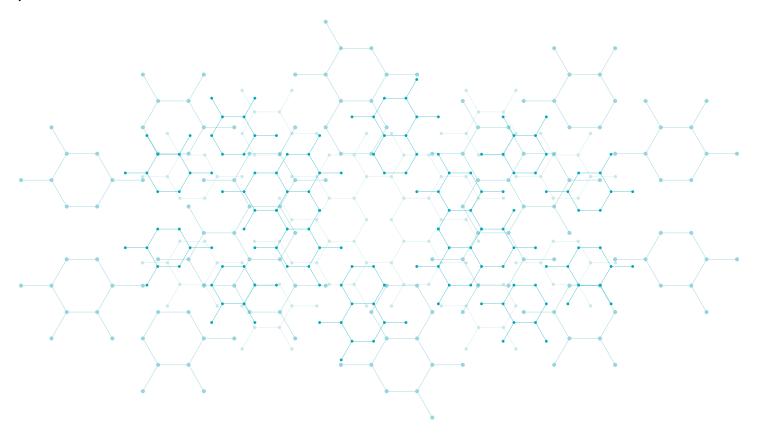
Dr. Rahmatian is a co-founder and president of NuGrid Power Corp. He has contributed to several techniques for power system measurement and automation over the past 30 years. He is a Professional Engineer and a Fellow of the IEEE for contribution to optical voltage and current sensors. He is a past Chair of the IEEE Power & Energy Society's (PES) Technical Council, active at PES Power System Relaying and Control as well as Power System Instrumentation and Measurements committees. He is also active in CIGRE (Distinguished Member), IEC, CSA (Canadian Standards Association) and NASPI (North American Synchrophasor Initiative). His present technical focus is on wideband optical sensors, synchronized measurement systems, digital substations, integration challenges of distributed energy resources, high-speed measurement of voltage and current, travelling-wave-based fault location, and grid resiliency efforts. Farnoosh has over 100 technical papers and 12 patents to his credit.

I have served on the PES Governing Board as VP of Technical Activities (2018 and 2019) and on the PES Technical Council for 10 years (various leadership/officer roles including the Chair). For the past three decades, I have been heavily involved in PES technical committees, chaired the Power System Instrumentation and Measurements Committee, and have contributed to technical standards and reports through various PES technical committees, including having chaired three working groups. I established various process improvements for the PES Technical Council and contributed to re-organizing PES technical committees in the 2015–2016 timeframe. I have been active in the PES Industry Technical Support Leadership Committee for the past 4 years, currently chairing the PES Corporate Engagement Program. I have also been active at PES LRP (Long Range Planning) committee for several years, currently chairing subcommittee 5 on Climate Change.

I have a strong track record for working well and efficiently with all PES leaders/volunteers—a team first approach.

I have been a member of IEEE Photonics Society, IEEE Instrumentation and Measurement Society, and IEEE Standards Association. Currently, I serve as the PES Technical Council liaison to CIGRE Technical Council and helped establish the MOU in place between IEEE (PES) and CIGRE. I also currently serve as the liaison between PES and IEEE Sensors Council.

I am a Fellow of the IEEE for my technical contributions. I have participated and presented at numerous IEEE and PES conferences and panels over the past 30 years. I have served as the PES Technical Council's Technical Program Coordinator for IEEE PES General Meetings 2015 through 2017, managing the technical panels (~100) and the conference paper review process (> 1000). I have also served as a reviewer for several IEEE and PES journals and conferences.



### **CANDIDATES FOR PES SECRETARY:**

#### MAZANA ARMSTRONG

British Columbia Hydro, BC, Canada



#### **Candidate Statement**

"Power and energy industry is facing significant challenges to meet emerging needs for electrification and reduction in carbon emissions. At the same time, we are experiencing an unprecedented increase in the frequency and severity of the climate change related weather events impacting the power system infrastructure. Supply chain disruptions and workforce decline triggered by the pandemic and political conflicts are further contributing to the criticality of the situation."

"In my position with a large North American utility, I see the challenges that lie ahead for our industry and I believe IEEE PES plays a major role in helping us work together to find solutions. I am passionate about shaping the future direction of IEEE PES and I am enthusiastic about our visibility to the public and remaining relevant to the future generations."

"If elected as Secretary, my goal is to revive activities of the PES History Committee, help reshape our IEEE PES brand in view of the major changes that are upon us, and strengthen IEEE PES position within the industry for generations to come."

# **Biography**

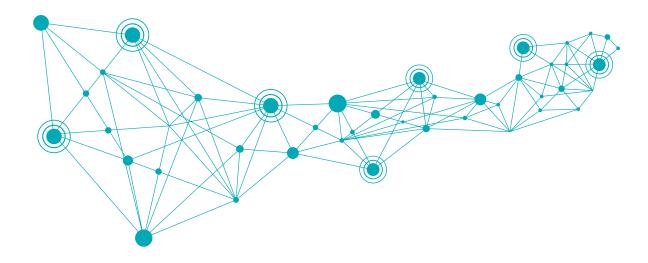
Dr. Mazana Armstrong is the Manager of Transmission Stations Engineering Division at BC Hydro. She has over 25 years of professional experience in operations, maintenance, and design of high voltage electric power systems, specifically electrical aspects of 69 kV to 500 kV transmission systems. Mazana's professional contributions include standards development addressing electrical safety of the public, power utility workers and facilities in close proximity of electric power systems.

Mazana holds a degree in Electrical Engineering from the University of Zagreb, Croatia, and a M.A.Sc. and Ph.D. in Electrical Engineering from the University of British Columbia, Canada. She is a registered Professional Engineer in British Columbia, and a Senior Member of IEEE. Mazana has been an IEEE PES volunteer for over 20 years. Most recently she served as IEEE PES Vice President for Chapters. Mazana is an IEEE Power and Energy Society Distinguished Lecturer and a Member of IEEE Standards Association.

IEEE PES has over 800 professional and student chapters worldwide, delivering technical presentations and networking events to over 40,000 members. As IEEE PES Vice President Chapters (2018–2022), I led several important initiatives within the PES Chapters organization:

- Implementation of health tracking for professional and student chapters to enable growth of high performing chapters delivering outstanding service to the membership.
- Establishing student chapters leadership organization in all IEEE Regions, mirroring the organization of professional chapters.
- Establishing the High Performing Student Branch Chapter Program and Outstanding Student Chapter Award, both providing financial assistance to student chapters.
- Annual student chapter chair training was launched virtually in 2021 and in person in 2022 for the first time
  in all IEEE Regions. Professional and student chapter chair training is essential in ensuring the health and
  longevity of PES chapters.
- Initiation of the PES Mentoring Program by PES Student Chapters Committee has been a major success. Student chapter activities and their growth support student retention and successful transition of students to professional members. Student chapters are the key to the future of PES as a volunteer organization.

My past accomplishments include the role of PES Regional Representative for US and Canada and chairing the local organizing committee for 2013 IEEE PES General Meeting in Vancouver. In 2011, I was the IEEE Vancouver Section Chair and the centennial committee chair to mark 100 years of IEEE in Vancouver. Efforts included a significant public outreach, with the City of Vancouver declaring the Engineering Week and unveiling of the IEEE Monument at Science World. We published 100 years of Vancouver Section history book for the occasion, raising public awareness of the IEEE brand. Prior to that, I held the roles of Section Treasurer, Secretary and Vice-Chair. I actively participate with IEEE PES Technical Committees in development of technical standards.



#### RAMAKRISHNA KAPPAGANTU

Eficaa Ensmart Solutions Private Limited, Telangana, India



#### **Candidate Statement**

"Secretary's key responsibility is to work with PES President, staff and other leaders to ensure smooth order of business and maintain PES governance documents at all levels clear, specific and consistent."

"Having served as member of IEEE BoD, MGA Board, Region 10 Director, PES Governing Board, MGA chair of MELCC and in other leadership roles, I have an understanding on breadth of IEEE. Having responsibly run Region10 and other meetings, I understand the advance work needed to construct an agenda, develop and provide supporting material, read and act on governance documents and ensure proper documents maintenance. I have significant R10 experience in keeping governance documents current and update when necessary. I am serving on IEEE Governance Committee in 2023-24."

"I work well with staff and believe that a strong partnership between staff and volunteers can get work done efficiently and effectively. As Secretary I will work with PES Board and staff to place appropriate items on board agenda. Additionally, I will provide overall supervision of keeping meeting records, activities, membership for submission to PES Governing Board."

# **Biography**

Ramakrishna Kappagantu graduated in Electrical from MNIT-Jaipur, did Masters in Automation & Control from PG School, JNTU-Hyderabad and obtained PhD(Electrical) from NIT-Tiruchirappalli, India.

With over 39 years leadership/managerial experience in Indian Power Sector i.e; NTPC and POWERGRID, currently Ramakrishna is Chief Technical Advisor at Eficaa EnSmart Solutions Private Limited for Technical, Strategic and New Initiatives. He earlier made significant contributions towards management of 55 Gigawatt Southern Regional Grid, its complex real time operations, Power Markets, SCADA-EMS and Smart Grid development in India.

Actively volunteering for over 30 years in IEEE and PES, he served many leadership roles viz. IEEE Board Member & Delegate in 2015-16 as R10 Director, PES Governing Board and MGA Boards. Currently Ramakrishna is PES Region10 Representative and serving in IEEE Governance Committee, IEEE Service Awards and MGA Awards.

An eminent speaker, Ramakrishna publish in reputed journals, conferences and steered many IEEE International Conferences and PES workshops.

#### My major accomplishments in PES & IEEE include:

- As PES MAL, spearheaded in R10, PES Global Workshops for member development. Brought together
  members, non-members, industry, research & academia with policy makers, regulators and government
  agencies to discuss challenges/opportunities with all stake holders on local needs and emerging technologies.
  These workshops triggered signing five PES corporate partnership agreements ensuring sustained technical
  activities and membership growth.
- As MAL for PES Philanthropic initiatives, streamlined PES funding pattern and selection of Smart Village Projects. Introduced engagement of PES students and YPs from local chapters for internships, academic projects and entrepreneurship opportunities in ISV projects.
- As PES Region10 Representative introduced bi-weekly review meetings and new volunteer roles in the five
  zones of PES R10 for member development and technical activities coordination that engage chapter leads
  and ensure member satisfaction.
- As R10 Director, rejuvenated R10 YP and WIE affinity groups by classifying regional activities into Zones, starting off self-sustainable events like Hard-Tech Summit, SYWL Congress. Introduced YP & WIE tracks in all R10 Flagship events.
- Created an AdHoc in Region 10 to assess requirements and needs of Industry members, YPs and Graduate Students with focus on Entrepreneurship, Innovation, Internships and skill development.
- Sustained R10 Membership growth, best in IEEE Regions is example of my volunteer leadership efforts.
   Introduced Regional Member Benefits like Member Medical Insurance (India), Membership Dues Payment in local Currency, Discounted entry to Visvesvaraya Technological and Birla Museums. Helped Council and Section leadership to build membership in China.
- Mandated review and revision of section/council/region governing documents across R10.
- My industry experience and classic interpersonal relations helped converting IEEE strategies into tangible and tactical actions like co-ordination with local sections/chapters to kick-off IEEE/PES Smart City Workshop Series, Global Sister Society Agreements' & JANS Awards' co-ordination, IEEE-HKN new Chapter Installations, etc.



### **CANDIDATES FOR PES TREASURER:**

#### JUAN CARLOS MONTERO

ICE Operation and Control Division of the Costa Rican Electrical System (DOCSE)



#### **Candidate Statement**

"I am Juan Carlos Montero and I work at the System Operator in Costa Rica. From my homeland, I have seen the value of IEEE PES as a global organization, and I am proud to be part of a great community. For the last 2 years, I have been working on the IEEE PES Treasurer position looking to promote a use of them with a global focus and following the IEEE PES Governing Board vision."

"I have been an active IEEE PES Governing Board Member for seven years giving me the opportunity to participate on the identification of the hot topics for IEEE PES and the energy industry. We should promote IEEE PES as global organization so our members and volunteers can continue creating amazing technical activities that improved our life."

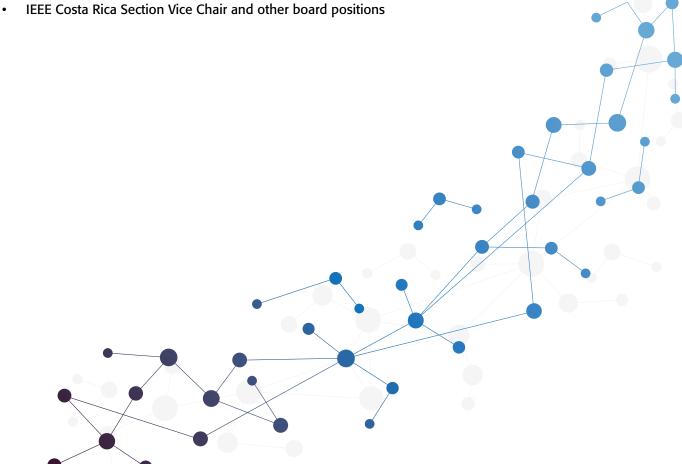
"If elected as IEEE PES Treasurer, I will continue working to seek a growth on the support of our volunteers worldwide. IEEE PES makes grates thing through their volunteers, and we should provide them the tools to make their activities easier for them."

# **Biography**

Juan Carlos Montero is the current IEEE PES Treasurer and the former IEEE PES Vice President of Membership & Image. He has previously held several other volunteer leadership roles within the IEEE Power & Energy Society at the local and international levels. He currently is the IEEE CAPANA Council Chair. He works on the Costa Rican Power System Operator and has more than 20 years' experience at his company. He is currently the Electrical Operational Planning Coordinator at the Costa Rican National Power Control Center (CENCE). He also has been Part-time professor at the University of Costa Rica for more than 10 years. Mr. Montero received the Bachelor and Licentiate degree on Electrical Engineering from the University of Costa Rica. He is an IEEE Senior Member.

#### Mr. Montero has participated on several IEEE and IEEE PES roles on an international level:

- Current IEEE PES Treasurer 2022–2023
- IEEE Chair 2022–2023 Central America and Panama Council
- IEEE Elected Chair 2020–2021 Central America and Panama Council
- IEEE Spoke Person on Global Power System Transformation Consortium
- IEEE PES Vice President Membership and Image 2016–2020
- IEEE PES Long Range Planning Committee Member 2014–2020
- IEEE PES Power System Operation, Planning, and Economics (PSOPE) Committee Member
- IEEE PES Nominations and Appointments
- Committee Member
- IEEE PES Social Media Committee Chair 2012–2015
- IEEE PES Central America Chapters Representative 2011–2015
- IEEE PES Costa Rica Outstanding Engineer Award 2011.
- IEEE PES Costa Rica Chapter Chair 2007–2008



#### **DEAN SHARAFI**

Australian Energy Market Operator, Perth Australia



#### **Candidate Statement**

Dear members of the IEEE PES,

I am honored to present my candidacy for a position on the governing board of the IEEE PES. With over 3 decades of experience in the power and energy industry and a deep understanding of the latest trends and challenges facing our field, I am confident that I can make valuable contributions to the society.

If elected, I will support society's mission to advance the knowledge and expertise in power and energy sector. Working diligently to strengthen our society's connections with industry and academic communities, I will promote sustainability, innovation and collaboration, and ensure that the society remains at the forefront of technological advancement. I will also foster diversity, equity, and inclusion and work actively to create a welcoming environment for members from all backgrounds, and to ensure that diverse perspectives are represented in all decision-making processes.

Thank you for considering my candidacy. If elected, I promise to work hard to uphold the values and mission of the IEEE PES and to serve our community with integrity and dedication.

# **Biography**

Dean Sharafi is heading up the System Design and Transformation Group of the Australian Energy Market Operator (AEMO). Dean holds a degree in Applied Physics, a degree in Electrical Engineering and a degree in Business Management. He has around 30 years of experience in power system engineering including Power System Protection, HV Systems, Asset Management and Power System and Electricity Market Operation.

He is a member of Australian Institute of Management, Cigre, Engineers Australia and a senior member the IEEE. Dean has been also a sessional academic and actively involved with IEEE PES initiatives and Cigre Working Groups over the last decade and has served as a member of the Governing Board of the IEEE PES from 2017 to 2022.

Dean has published many papers on power system protection, condition monitoring, asset management and power system operations.

Dean is also the author of his memoire "The Unwilling Revolutionary."

I have contributed to the PES in different roles performing as the Chair of Western Australian Chapter, Chapter Representative for Australia and New Zealand, chair of the Scholarship Plus initiative from 2007 to 2017; and serving on the Governing Board as the Region Representative for Asia Pacific from 2017 to 2022. I have also been the chair of PES Conferences in Region 10, supporting these events and ensuring they are successful and a foundation for membership growth in the region. I have attended most of these events and presented as a Keynote speaker or a panellist and have supported them with setting up international advisory committees and finding speakers from the industry.

Furthermore, I have been active on the technical activities of the PES contributing to white papers and podcasts. I have presented IEEE PES globally leading to important agreements such as signing of corporate membership programs with organisations on behalf of PES. I have contributed to identification and selection of Distinguished Lecturers for the IEEE PES DL program.

Cooperating and attending the editorial board of PES magazine, I have served as the Guest Editor for Sep/Oct 2021 of Power and Energy magazine bringing the Australian perspective on energy transition and renewable energy integration. I am also a regular contributor to the magazine on different topics related to our industry.







# IEEE Power Energy Society Awards

At IEEE PES, we are incredibly proud to recognize and highlight the exceptional efforts of those making a significant impact in the power and energy industry through our society-level awards. Award recipients are recognized across 19 categories, including Excellence in Power Distribution, Outstanding Young Engineer, Lifetime Achievement, and more. Nominations are generally accepted starting in mid-September through the end of January of the following fiscal year.



# **Know Before You Submit Nominees**



# Candidate Profile Information\*

Including education, professional history, proposed citation & notable academic or industry recognition.



# Significant Contributions

List of nominee's compelling contributions to the power & energy sector and to the IEEE Power & Energy Society (PES).



# Reference Letters\*\*

Requests will need to be initiated by the nominator and the final recommendations can be typed or an uploaded PDF letter.



<sup>\*</sup> Active PES Membership may be required for PES awards eligibility.

<sup>\*\*</sup> Nominations can be submitted without reference letters.

# **SAVE THE DATE!**

# **2024 IEEE PES General Meeting**



21-25 JULY 2024 | SEATTLE, WASHINGTON

# **Call For Papers Opens**

4 October 2023



pes-gm.org





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