



# 2023

## “Disaster Recovery and Network Transformation in Times of Climate Change”

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***IEEE - Innovative Smart Grid Technology Conference***

San Juan, Puerto Rico • November 6-9, 2023

[iee-isgt-latam.org](https://iee-isgt-latam.org) 



*Last updated: October 31, 2023, subject to change, see the website for most current information*



*Welcome to our beautiful La Isla del Encanto where energy thought leaders collaborate to leverage technology to fight climate crisis by making the grid of the future a reality.*

*Shay*



*Dr. Shay Bahramirad,  
2022-2023 IEEE PES President Elect  
Sr. VP Engineering & Asset Management  
and Capital Programs | LUMA Energy*

WELCOME

The theme of this year's conference is: "Disaster recovery and network transformation in times of climate change." This event will serve as a critical collaborative forum, bringing together various industry perspectives and experiences. Discussions sharing industry best practices and lessons learned will be a hallmark of the event. You will have the opportunity to hear from and interact with peers from other utilities along with some of the most innovative industry thought leaders.



#### *Executive Chair*



**Aleks Paaso**  
LUMA Energy

#### *Conference Chair*



**Alexandre Nassif**  
LUMA Energy

#### *Conference Vice-Chair*



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#### *IEEE PES VP of Conferences and Meetings*



**Wayne Bishop**  
Quanta Technology

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University of Campinas  
(Brazil)



**Fabio Andrade**  
University of Puerto Rico at  
Mayaguez (UPRM)

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**Adha Pavani**  
University ABC (Brazil)

**The LOC also recognizes all other contributors not listed on this page who dedicated their time to help make the conference a success.**

# LOCAL ORGANIZING COMMITTEE





Puente Natural de Piedra, Cabo Rojo

**Tuesday, November 7**

**Miramar Ballroom**

**8:30AM-9:45AM**

**Grid Transformation and Resilience: Are We There Yet?**

Moderator: Marianna Vaiman, CEO, V&R Energy

- Shay Bahramirad, Senior Vice President, LUMA Energy
- Damir Novosel, President and Founder, Quanta Technology
- Ali Yari, Director of Engineering, San Diego Gas and Electric
- Michael Pesin, Deputy Assistant Secretary, Department of Energy
- Fermín Fontanés, Executive Director, Puerto Rico Public-Private Partnerships Authority (P3)

**10:15AM-11:15AM**

**Experiences and Challenges with Integrating Renewable Energy**

Moderator: Chris Root, Industry Advisor, Quanta Technology

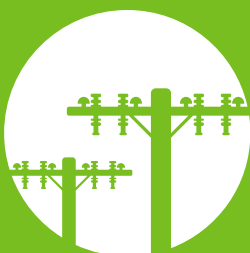
- Darcy Immerman, Senior Vice President, NORESO
- Mark Carpenter, Senior Vice President, ONCOR
- Tom Dunn, CEO, VELCO
- Vic Suchodolski, President & CEO, Sargent & Lundy

**11:30AM-12:30PM**

**Planning for a Resilient and Decarbonized Grid, Hosted by Industry Technical Support Leadership Committee (ITS-LC)**

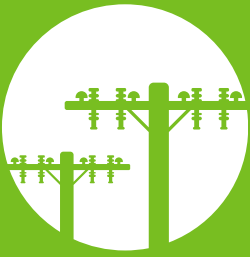
Moderator: Shikhar Pandey, Manager of DER Engineering, ComEd

- Juan Castaneda, Principal Manager, Southern California Edison
- Andrea Harper, Assistant General Counsel, Pepco Holdings
- Aleksis Paaso, Vice President, LUMA Energy
- Dale Player, Director, ComEd



**SUPER SESSIONS**





Viejo San Juan, San Juan

**Wednesday, November 8**

**Miramar Ballroom**

**8:00AM-9:00AM**

**Perspectives on Resilience Plans for Extreme Weather Conditions**

Moderator: Wayne Bishop, Vice President Industry Outreach, Quanta Technology

- Matthew Gardner, Vice President, Dominion Energy
- Dan Smith, Vice President, Lower Colorado River Authority
- Patrick Arns, Vice President, LUMA Energy
- Rafael Flores, Head of Networks, ENGIE Peru
- Alfonso Mugueta, Vice President, Avangrid

**10:00AM-11:00AM**

**Grid Technologies, Methods, Implementations**

Moderator: Farnoosh Rahmatian, President, NuGrid

- Thierry Godard, VP and General Manager Energy Automation Solutions, EATON
- Murali Baggu, Laboratory Program Manager – Grid Integration, NREL
- Sakis Meliopoulos, Professor, GeorgiaTech
- Stacy O'Brien, Vice President, LUMA Energy

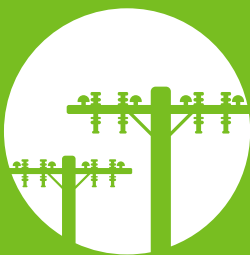
**11:15AM-12:00PM**

**Keynote Super Session – Resilience and Recovery in Puerto Rico**

Moderator: Shay Bahramirad, Senior Vice President, LUMA Energy

- Lillian Mateo Santos, Associate Commissioner, Puerto Rico Energy Bureau
- Julio Romero, Senior Vice President, Quanta Technology
- Elizabeth Zimmerman, Senior Executive Advisor, IEM (former appointee to FEMA)

**SUPER SESSIONS**



Cueva Ventana, Arecibo

# SUPER SESSIONS

**Thursday, November 9**

**Miramar Ballroom**

**8:30AM-9:30AM**

**Digitalization in Electrification and Grid Resiliency**

Moderator: Kaveh Aflaki, Executive Board Member, IEMS Solution

- Hamed Heyhat, President, Honeywell Global Smart Energy
- Fabio Mantovani, Vice President, New York Power Authority
- Agustín F. Carbó, DOE Director of the PR Grid Recovery and Modernization Team
- Nora Brownell, President, Espy Energy, and Former FERC Commissioner

**10:00AM-11:00AM**

**Microgrids for Enhanced Grid Resilience and Economics**

Moderator: Farrokh Rahimi, Executive Vice President, OATI

- Carlos Silva, Professor, Universidad Adolfo Ibáñez, Santiago, Chile
- Erik Hall, Director Energy Services, North Carolina's Electric Cooperatives
- Matt Huber, CEO, LithTech
- Don Bowman, Vice President, Wake Electric
- Mohammad Shahidehpour, Professor, Illinois Institute of Technology

**11:10AM-12:10PM**

**Clean Energy, Electrification, Renewables Integration, and Other 3 AM Topics That Keep Our Latin American Executives Awake: A Multicountry and Multidisciplinary Perspective**

Moderator: David Elizondo, Vice President, Quanta Technology

- Manuel Lopez, OC-SENI, Dominican Electric Power System Operator
- Mark Carpenter, Senior Vice President, ONCOR
- Ernesto Huber, Executive Director, Coordinador Eléctrico Nacional, Chile
- Juan Saca, CEO, LUMA





# PANEL SESSIONS

El Yunque National Rainforest, Río Grande

**November 7 | 1:30pm - 2:30pm**

## **Climate Change and the Electric Power Industry - Miramar Ballroom**

Moderator: Dr. Farnoosh Rahmatian (NuGrid)

Panelists: Prof. Mohammad Shahidehpour (Illinois Institute of Technology), Dr. Eli Ntakou (Eversource), Dr. Bobby Jeffers (National Renewable Energy Lab), Andre Begosso (Kearney), Dr. Yannan Sun (Oncor Electric Delivery)

## **Outcomes of PR100: Puerto Rico Grid Resilience and Transitions to 100% Renewable Energy Study - Laguna Room**

Moderator: Dr. Murali Baggu (National Renewable Energy Lab)

Panelists: Dr. Nate Blair (National Renewable Energy Lab), Dr. Marcelo Elizondo (Pacific Northwest National Lab), Dr. Summer Ferreira (Sandia National Lab), Dr. Pete Cappers (Lawrence Berkley National Lab – LBNL)

## **Energy Transition: A Latin America Perspective - Bahia Room**

Moderator: Prof. Fernanda Trindade (Unicamp)

Panelists: Prof. Alejandro Navarro (University of Chile), Prof. Luis Ochoa (University of Melbourne), Prof. Denis Coury (USP-Brazil), Wendell W. Teixeira, (Re-energisa, Renewable Energy Power Generation - Brazil).





# PANEL SESSIONS

**November 7 | 2:40pm - 3:40pm**

**A Latin American and International Overview of Battery Energy Storage System Operational Experiences for Different Applications—a Perspective from Utilities, Developers, and Manufacturers - Miramar Ballroom**

Moderator: Dr. David Elizondo (Quanta Technology)

Panelists: Ernesto Huber, Executive Director (Coordinador Electrico Nacional, Chile), Rafael Flores (Engie, Peru), Pedro Elizondo (LS Energy Solutions)

**Challenges and Opportunities in Smart Grid: A Pragmatic View - Laguna Room**

Moderator: Prof. Paras Mandal (University of Texas at El Paso)

Panelists: Prof. Sara Eftekharnjad (Syracuse University), Dr. Brian Pierre (Sandia National Labs), Prof. Sumit Paudyal (Florida International University), Prof. Javier Quintana (Universidad Interamericana de Puerto Rico)

**Equitable Resilience Pathways in Power Systems - Bahia Room**

Moderator: Dr. Miguel Heleno (Lawrence Berkeley National Laboratory)

Panelists: Anjali Jain Figueroa, Chief of the Energy Justice Analysis Division (Department of Energy), Summer Ferreira (Sandia National Labs), C.P. Smith, President (Cooperativa Hidroeléctrica de la Montaña), Prof. Masood Parvania (University of Utah), Robin Burton (National Renewable Energy Lab), Daniel Hernandez (Genera)

**November 7 | 3:50pm - 4:50pm**

**Innovative Technologies for Building Resilient T&D Grids - Miramar Ballroom**

Moderator: Dr. Mariana Vaiman (V&R Energy)

Panelists: Steven Prsha, Grid Operations Services Manager (San Diego Gas and Electric), Prof. Qiuhua Huang, Colorado School of Mines, Dr. Omid Alizadeh (LUMA Energy).



# PANEL SESSIONS



**November 7 | 3:50pm - 4:50pm**

**Data-enriched Grid Modeling of End-user Profiles, Energy Equity, and Situational Preparedness - Laguna Room**

Moderator: Dr. Xiaoyuan Fan (PNNL)

Panelists: Prof. Liang Du (Temple University), Dr. Kendall Parker, (Pacific Northwest National Lab – PNNL), Prof. Adriana Luna Hernandez (University of Puerto Rico – Mayaguez – UPRM), Prof. Marcel J. Castro-Sitiriche (University of Puerto Rico – Mayaguez – UPRM)

**Grid Resilience and Community Impact Planning – Approaches and Lessons - Bahia Room**

Moderator: Prof. Jeff Schlegelmilch (LUMA Energy)

Panelists: Prof. Jeff Schlegelmilch (LUMA Energy), Prof. Erick Jones (University of Texas at Arlington), Prof. Qendresa Krasniqi (Columbia University), Shala - The Movement Worldwide

**November 8 | 1:00pm - 2:00pm**

**Offshore Wind Integration (Corporate Engagement Program Panel – CEP) - Miramar Ballroom**

Moderator: Sharma Kolluri (Entergy)

Panelists: Dr. Xiaodong Liu (Eversource), Dr. Jay Liu (PJM Interconnection), Dr. Henry Huang (Argonne National Lab)

**AMI 2.0 and its Role in the Evolving Grid - Laguna Room**

Moderator: David G. Hart (Quanta Technology)

Panelists: Oscar San Martín, General Manager (CEPM), Shawn Mundy, Vice President, Grid Transformation and Investment Strategy (CenterPoint Energy), Aleksi Paaso, Vice President (LUMA), Matt Reno, Principal Engineer (Sandia National Lab)



# PANEL SESSIONS

**November 8 | 1:00pm - 2:00pm**

**Extreme Events and Their Impact on Power Systems - Bahia Room**

Moderator: Dr. Srijib Mukherjee (Oakridge National Laboratory – ORNL)

Panelists: Melanie Bennet (Univ of Tennessee, Knoxville), Dr. Fangxing Li (University of Tennessee, Knoxville), Dr. Melissa Dumas (Oakridge National Laboratory – ORNL), Dr. Jibonanda Sanyal (National Renewable Energy Lab – NREL)

**November 8 | 2:10pm - 3:10pm**

**Automated Distribution Systems – Technologies, Trend, Need and Challenges - Miramar Ballroom**

Moderator: Rajarshi Roychowdhury (AES US Utilities)

Panelists: Dr. Henry Huang (ANL), Dr. Xuan Wu (AES), Dr. Di Shi (New Mexico State University – NMSU), Dr. Zhaoyu Wang (Illinois State University – ISU), Daniel Arden (Eaton)

**Resiliency Improvement Through Hydrogen Asset Integration – From Planning To Field Deployment - Laguna Room**

Moderator: Kumaraguru Prabakar

Panelists: Indo Manogaran (National Renewable Energy National Lab – NREL), Robert Flores (U of California Irvine), Deepthi Vaidhynathan (National Renewable Energy National Lab – NREL), Laurence Adcede (San Diego Gas and Electric – SDG&E).

**Decentralization of Power Generation: The New Paradigm - Bahia room**

Moderator: Dr. Farrokh Albuyeh

Panelists: Juan Benavides, Fedesarrollo (Bogotá), Lorenzo Kristov, Raphael Gignac (LUMA), Erik Amundson (OATI), Manuel Atanacio (ESTA).





# PANEL SESSIONS



**November 8 | 3:40pm - 4:40pm**

**Building Community Resilience as the Bedrock for Network Transformation - Miramar Ballroom**

Moderator: Elnaz Nazemi (IEMS Solution)

Panelists: Jeff Ricketts (Charge Knowledge), Ethan Lipman (EV-PV), Larisa Dobriansky (General MicroGrids, Inc.), Dr. Kaveh Aflaki (IEMS Solution), Francisco Berrios Portela (La Fortaleza)

**Exploring the Current Landscape and Future of Microgrid Control and Protection: Advancements, Obstacles, and Strategies - Laguna Room**

Moderator: Dr. Farhad Elyasi (Quanta Technology)

Panelists: Juan Castaneda (Southern California Edison – SCE), Dr. Amin Zamani (Quanta), Dr. Alex Nassif (LUMA Energy), Dr. Matthew Reno (Sandia National Lab)

**Microgrid Operation (Adjuntas Case) - Bahia Room**

Moderator: Dr. Eve Tsybina (Oakridge National Lab – ORNL)

Panelists: Arturo Massol (University of Puerto Rico), Marcelo Elizondo (Pacific Northwest National Lab), Fabio Andrade (University of Puerto Rico – Mayaguez), Max Ferrari (Oakridge National Lab – ORNL)

**November 8 | 4:40pm - 5:40pm**

**Towards a Resilient Power System Under Climate Extremes: Risk Analysis and Resilience Enhancement - Miramar Ballroom**

Moderator: Dr. Luo Xu (Princeton University)

Panelists: Prof. Junbo Zhao (University of Connecticut), Prof. Sambuddha Chakrabarti (Princeton University), Prof. Masoud Ghandehari (New York University – NSU), Prof. Chee-Wooi Ten (Michigan Technological University).

**Workforce Need for Equitable and Resilient Energy Transition - Laguna Room**

Moderators: Prof. Masood Parvania (University of Utah), Michelle Nassif (LUMA Energy)

Panelists: Prof. Mohammad Shahidehpour (Illinois Institute of Technology), Marianna Vaiman (V&R), Prof. Jeff Schlegelmilch (LUMA Energy), Anjuli Figueroa (DOE).



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## TABLE 1

### GridMind® DEMONSTRATION

**November 08, 2023 | 2:10 PM to 3:10 PM**

**Decentralization of Power Generation: The New Paradigm**

**November 09, 2023 | 10:00 AM to 11:00 AM**

**Super Session 7: Microgrids For Enhance Grid Resilience & Economics**

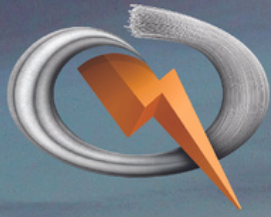
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**Table 3**



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## ABOUT US

## Table 9

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### LONG-TERM ORIENTED

With significant investments in our manufacturing capacity, TAPP sacrifices short-term gains to guarantee long-term results, both for our clients and our company.

### QUALITY OBSESSED

Quality means delivering products that are built to last a lifetime. With strict attention to specification details and holding to customer scheduling demands, TAPP's quality products rise above the competition.

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- Tapered & Non-Tapered Tubular Steel Structures (Polygonal & Round)
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### Market



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- Distribution
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### Experience



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## Table 5

“Prime TPS, Inc. is a 10-year-old distribution/VAR and services company. We specialize in multiple disciplines, such as microgrids, power, microwave radios, fiber network design, construction, and maintenance. Our personnel have over 25 years of experience and are OSHA-certified with different technical capabilities. We have worked with top companies such as AT&T, Liberty, Columbus Networks, Cable and Wireless, Claro, and LUMA. Our services include new site builds, hurricane network recovery, customer installations, maintenance, optimization, and other customized projects. We have all the necessary vehicles, tools, and miscellaneous to complement our human resources. We are committed to providing reliable network solutions that connect people. We build networks that last.”

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**Table 17**

# Power

*Solutions for Modernizing the Grid*



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**Table 7**

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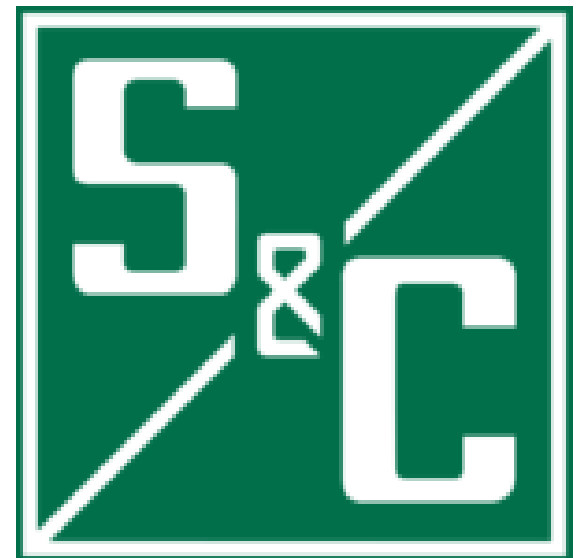
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Table 12

Table 10



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