



台灣電力公司  
TAIWAN POWER COMPANY

## Preliminary Announcement

### Call for Presentations

### 2025 IERE-TPC Taipei Net-Zero Workshop

Towards Net-Zero: Strategies and Innovations in the Power Industry

### In-Person Event



Downtown Taipei, Taiwan

Taipei, Taiwan  
May 26–29, 2025

Organized by TPC and IERE



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## **Towards Net-Zero: Strategies and Innovations in the Power Industry**

### **About the theme**

To meet the challenges of a world moving toward net-zero emissions, the power industry must accelerate the adoption of innovative strategies. This conference will focus on how low-carbon technologies, digital transformation, smart energy management, and renewable energy integration can drive industry-wide change. It will also explore ways to maintain the resilience and stability of power systems in the face of extreme climate conditions. Topics such as circular economy practices and sustainability in the energy sector are also key, aiming to reduce carbon footprints and enhance resource efficiency. Participants will share the latest advancements, innovations, and policy trends to contribute to the global net-zero transition, driving the sustainable development of future energy systems.

### **Who should attend?**

The workshop is intended for experts actively involved in the selected themes, from IERE members and non-members, as well as all those interested in the evolution of the electrical power industry and the technology development and business development opportunities associated to this evolution. IERE and TPC will invite prominent speakers for keynote speeches.

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## Schedule Outline:

Monday,	May 26, 2025	Welcome Reception
Tuesday,	May 27, 2025	2025 IERE-TPC Taipei Net-Zero Workshop Official Dinner
Wednesday,	May 28, 2025	2025 IERE-TPC Taipei Net-Zero Workshop
Thursday,	May 29, 2025	Technical Tour (Optional)

## Program and Session Themes:

Session structure and speakers are subject to change according to the submission of contributions.

### Opening Session:

- Opening Address: Details to be announced
- Welcome Address: Details to be announced
- Keynote Addresses: Details to be announced

### Technical Session 1: Innovations in Low-Carbon Technologies

As the global shift towards net-zero intensifies, low-carbon technology innovation is pivotal in driving the energy sector forward. This session highlights advancements in carbon capture and storage (CCS), hydrogen and ammonia power generation, and the integration of renewable energy sources like geothermal, wind, and solar energy.

Potential topics include:

- Carbon Capture and Storage (CCS)
- Hydrogen and Ammonia in Power Sector
- Geothermal Energy
- Onshore and Offshore Wind Energy
- Solar Photovoltaic (PV)

### Technical Session 2: Resilience and Stability of Power Systems under Extreme Climate Conditions

Increasingly frequent extreme weather events challenge power systems, requiring new approaches to ensure resilience and stability. This session focuses on strategies for enhancing grid resilience and system stability, including disaster recovery and the use of advanced energy storage systems and distributed energy resources.

Potential topics include:

- Grid Resilience,
- System Stability
- Disaster Recovery

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- Energy Storage Systems
  - Microgrids
  - Distributed Energy Resources
  - Grid Hardening
  - Predictive Maintenance
  - Natural Disaster Prediction and Management

### **Technical Session 3: Smart Energy Management and Optimization**

Efficient energy management is crucial for maximizing the use of available resources. This session explores smart grid technologies, energy efficiency practices, and demand response, including the role of advanced energy management systems (xEMS), predictive analytics, and virtual power plants (VPP) in optimizing energy distribution.

Potential topics include:

- Smart Grid
- Energy Efficiency
- Demand Response
- Predictive Analytics
- Energy Dispatch
- Deep Energy Saving
- xEMS
- Virtual Power Plant (VPP)

### **Technical Session 4: Environmental Sustainability Practices in the Power Industry**

To reduce the environmental impact of power generation, this session covers key sustainability topics such as circular economy principles, sustainable supply chain management, waste-to-energy initiatives, and the adoption of green energy policies and practices to minimize the industry's carbon footprint.

Potential topics include:

- Circular Economy
- Sustainable Supply Chain
- Carbon Footprint
- Waste-to-Energy
- Green Energy Policy
- Green Building and Sustainable Construction Engineering

### **Technical Session 5: Digital Transformation and AI Applications in Power Systems**

This session explores how digital technologies—including AI analytics, digital twin technology, IoT, automation, and advanced telecommunications and robotics—are transforming the power industry to enhance efficiency and optimize operations.



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Potential topics include:

- AI Analytics
- Digital Twin
- Internet of Things (IOT)
- Data-Driven Operations
- Automation
- Advanced Telecommunications
- Robotic Technology

## **Panel Session**

Details to be announced

## **Special Session**

Details to be announced

## **Poster Session**

Details to be announced

## **Closing Remarks**

Details to be announced

## **Technical Tour (Optional)**

Details to be announced



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## Call for Presentations

<<Abstract Submission: No later than February 17, 2025>>

You are kindly invited to submit abstracts for the Oral Session or Poster Session for the 2025 Taipei Net-Zero Workshop by e-mail.

to: **register (at) iere.jp** [Please substitute “ (at) ” with “@”]

As for the **format of the Abstract**, please refer to “Events” page on IERE website.

<https://www.iere.jp/events/workshop/2025-taipei/forspeakers.html>

- Change of presentation session (oral or poster) may be requested depending on the number of submitted abstracts.
- Abstract will be posted on the IERE website and open to the public.
- Presentation Slides will be posted on the IERE website and open to IERE members and Workshop participants.
- The official language of the IERE Workshop is English.

## Registration

Detailed information on Registration will be announced in the First and Second Announcements, which will be delivered later.

## Registration Fee

The Registration fee will be informed later.

- Accommodation and travel costs will be borne by the participants.

Details including cancellation policy will be announced in the First and Second Announcements.

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## Conference Venue & Accommodations

### Conference Venue

Taipei Marriott Hotel, Taipei, Taiwan

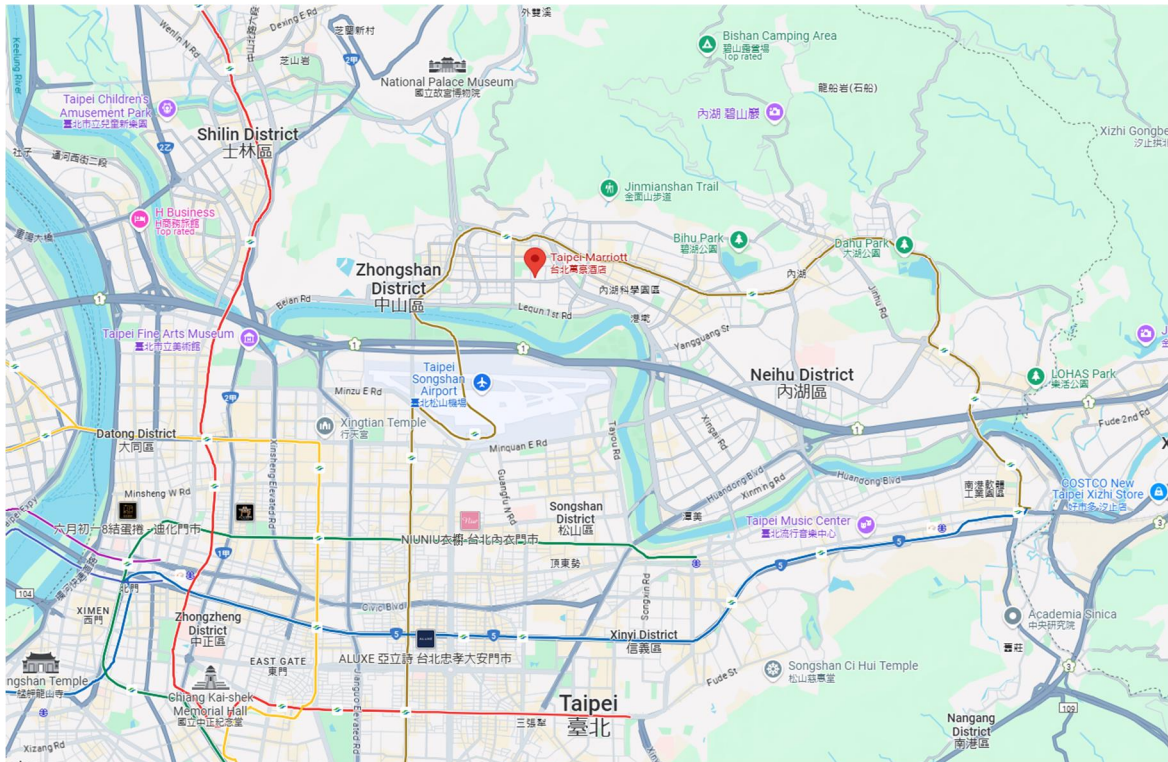
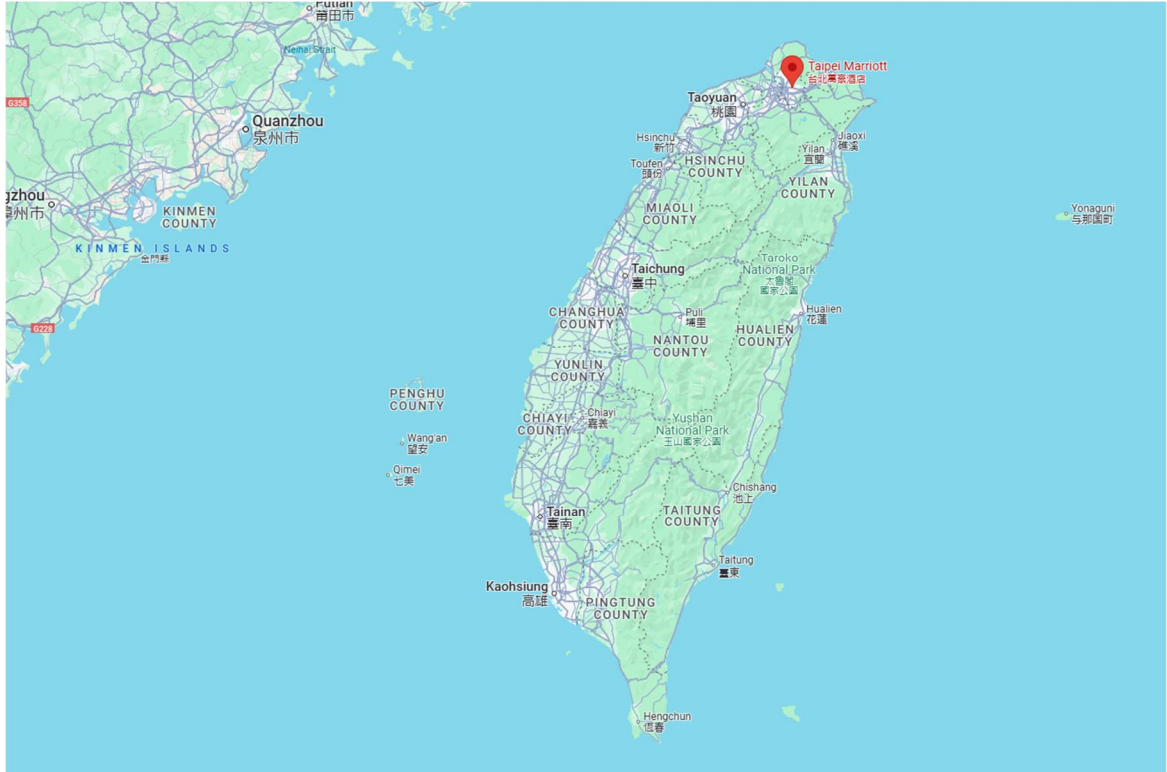
Location: No. 199, Lequn 2nd Rd, Zhongshan District, Taipei City, Taiwan 10491

website: <https://www.marriott.com/en-us/hotels/tpetm-taipei-marriott-hotel/overview/>



## Location of Taipei Marriott Hotel

[Link:place/Taipei Marriott Hotel](#)







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## Accommodations

Taipei Marriott Hotel, Taipei, Taiwan

Location: No. 199, Lequn 2nd Rd, Zhongshan District, Taipei City, Taiwan 10491

website:

<https://www.marriott.com/en-us/hotels/tpetm-taipei-marriott-hotel/overview/>

Rooms at special rates will be prepared for conference participants by the Hotel. These will be allocated on a first come first served basis. Details will be announced in the First and Second Announcements.



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## About IERE

IERE is an organization for exchanging electricity and energy related cutting-edge technologies and R&D information among its members from the electricity and energy supply industry, equipment provider businesses, academic research, government, etc. This unique platform is of great help for executives, senior managers, engineers, and researchers who are responsible for R&D and solutions. It is a worldwide, non-profit organization, established as “International Electric Research Exchange” in 1968.

<https://www.iere.jp>

## About TPC

Established on May 1, 1946, TPC operates in generation, transmission, distribution, and the sale of electricity. According to the Electricity Act, TPC is responsible for providing a stable electricity supply. Revenue from electricity sales accounted for 91.7% of the total revenue in 2023. As of 2023, the installed capacity in the TPC System (including independent power producers) was 55.43 GW, consisting mainly of thermal power generation with hydroelectricity and renewable energy. In terms of transmission and distribution, TPC's system has 622 substations, and its total length of power transmission lines reached 18,230.3 circuit kilometers while its total length of distribution lines reached 422,640 circuit kilometers in 2023.

In response to the recent global trends toward sustainability and the development of future electricity markets, TPC has promoted an organizational transformation. In January 2016, the Company established four business divisions: the Power Generation Division, the Nuclear Power Division, the Transmission System Division, and the Distribution and Service Division. Following the establishment of these divisions, the headquarters and business divisions adopted a policy of centralization and management decentralization, in an effort to transform from a government agency into a highly efficient enterprise. In the future, TPC will continue to abide by the requirements of the Electricity Act and transform itself into a holding company with subsidiaries, which aims to promote market competition, enhance business operation efficiency, and promote corporate sustainability. This will allow TPC to become a prestigious and world-class power utility group that provides its customers with services of the highest quality.

<https://www.taipower.com.tw/>

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