Preliminary Announcement

Call for Presentations

2026 IERE-KEPCO Seoul Energy Equation Workshop

"The Energy Equation: Clean, Safe, Reliable, and Digital Future"

In-Person Event

Downtown, Seoul, South Korea

The Ambassador Seoul - A Pullman Hotel, Seoul, South Korea
May 19 – 22, 2026

Organized by KEPCO and IERE

“The Energy Equation: Clean, Safe, Reliable and Digital Future”

About the theme

The 2026 IERE-KEPCO International Workshop, under the theme *“The Energy Equation: Clean, Safe, Reliable and Digital Future”*, aims to explore the balanced solutions that will define the next generation of the global power industry. As the world accelerates its transition toward carbon neutrality, achieving harmony among energy security, environmental sustainability, and the technological innovation has become the central equation to solve.

The workshop will bring together experts from utilities, academia, and industry to discuss emerging strategies and technologies shaping this transformation. Sessions will focus on the Future Power Grid, highlighting digitalization and smart-grid innovation; Stable Power Supply and Efficiency Management, emphasizing reliability and system optimization; Towards Carbon Neutrality, addressing clean fuels, renewable integration, and low carbon technologies; and Safety, Disaster and Environmental Response, exploring risk management and system resilience in an evolving climate era.

Through global collaboration and open dialogue, the workshop seeks to redefine how the energy equation can be balanced-ensuring that the future of power remains clean, safe, reliable, and digitally empowered.

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 KEPCO will invite prominent speakers for keynote speeches.

Schedule Outline:

Tuesday,	May 19, 2026	Welcome Reception
Wednesday,	May 20, 2026	2026 IERE-KEPCO Seoul Energy Equation Workshop
		Official Dinner
Thursday,	May 21, 2026	2026 IERE-KEPCO Seoul Energy Equation Workshop
Friday,	May 22, 2026	Technical Tour (Optional)

Program and Session Themes:

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

● Opening Session

Opening Address:	IERE Chair
Welcome Speech:	KEPCO
Keynote Speeches:	Details to be announced

● Technical Session 1: Future Power Grid

This session explores the technological backbone of the next-generation electric power system. The focus is on Grid Modernization and Digital Transformation, utilizing smart hardware and advanced communications to build a highly intelligent and observable network. A key area is High-Penetration Renewables Integration, addressing the technical challenges of managing massive, variable clean energy sources. We will delve into innovations in Advanced Transmission Technologies like High Voltage Direct Current (HVDC) and Flexible AC Transmission System (FACTS) to enhance capacity and stability. The program includes presentations on strategies for Cyber Resilience to safeguard critical Operational Technology (OT) and discussions on developing Next-Generation Market Structures that facilitate transactions across a decentralized grid. This session offers critical insights into the architecture of a smarter, more dynamic, and interconnected power system.

Potential topics include:

- Digital Grid Upgrade (e.g. Smart substations, digital twins)
- Renewables Integration
- DC-grids (i.e. HVDC, MVDC, LVDC)
- Resilience
- Market Innovation (i.e. platforms or markets for decentralized and decarbonized grids)

● Technical Session 2: Stable Power Supply and Efficiency Management

This session is dedicated to the technologies that ensure reliability, power quality, and operational efficiency in complex power networks. A primary focus is on Grid-Scale Energy Storage Systems (ESS), examining their role in frequency regulation, stability, and load leveling. We will explore the development of Microgrids and Advanced Grid Control using Artificial Intelligence/Machine Learning (AI/ML) to optimize power flow, manage voltage, and ensure quick response to disturbances. Crucial topics feature Smart Load & Demand-Side Management (DSM) for actively shaping consumption patterns, and leveraging high-resolution AMI Data Analytics for loss reduction and system intelligence. This session highlights achieving cost-effective dispatch through Asset Performance Management (APM) and sophisticated operational planning, maintaining continuous, high-quality power delivery.

Potential topics include:

- Energy Storage System (ESS)
- Microgrid Control
- Demand Optimization (DSM)
- AI Grid Control (AI/ML implementation)
- Asset Performance Management (APM)
- Virtual Power Plant (VPP)
- Fault Diagnosis

● Technical Session 3: Towards Carbon Neutrality

This session addresses the transformative technologies required to achieve net-zero emissions within the energy sector. We will examine holistic Decarbonization Pathways and System Modelling to guide the transition process. A significant focus is on Power-to-X (P2X) and Green Hydrogen, exploring the production, storage, and utilization of hydrogen as a clean energy carrier and dispatchable power source. The program welcomes presentations on Carbon Capture, Utilization and Storage (CCUS) for hard-to-abate emissions. Furthermore, the session explores Sector Coupling and Electrification, where the power grid integrates with transportation and industry to drive broader emission reductions. This session showcases the innovative solutions driving the energy transition toward a sustainable, low-carbon future.

Potential topics include:

- Decarbonization Pathways (Solar, Wind)
- Carbon Capture, Utilization and Storage (CCUS)
- Fuel Diversification in Power Generation (Hydrogen and Ammonia)
- Sustainable Sources (e.g. Bioenergy)
- Sector Coupling
- Smart Power Plants (e.g. IDPP, Intelligent Digital Power Plant)

● Technical Session 4: Safety, Disaster and Environmental Response

This session centers on technologies and strategies that enhance the resilience, safety, and environmental responsibility of the energy industry. Am major theme is Extreme Weather and Climate Change Adaptation, focusing on safety of employees at Work (Occupational Health and Safety) by the engineering for “hardening” critical infrastructure against increasing physical threats. We will examine Intelligent Asset Health Management (I-AHM), utilizing AI and sensors for predictive maintenance and enhanced worker safety. Essential for rapid recovery are Disaster Response Automation and Wide Area Monitoring System/Phasor Measurement Unit (WAMS/PMU) Integration, enabling quick fault isolation and operational continuity. Finally, the session covers Environmental Monitoring and Impact Mitigation to ensure regulatory compliance and responsible operations, alongside the critical topic of Integrated Cyber-Physical Security for control systems OT.

Potential topics include:

- Occupational Health and Safety
- Infrastructure Hardening (i.e. advanced monitoring and sensors)
- Predictive Maintenance
- Disaster Response Automation
- Environmental Compliance
- Cyber Security and Robotics/Drone
- AI enhanced Safety

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

Call for Presentations

<<Abstract Submission: No later than February 13, 2026>>

You are kindly invited to submit abstracts for the Oral Session or Poster Session for the 2026 IERE-KEPCO Seoul Energy Equation Workshop by email. In addition, please submit the Speaker's Information.

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/2026-seoul/forspeakers.html

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

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. Speakers are also required to pay the registration fee.
Accommodation and travel costs will be borne by the participants.
Details including cancellation policy will be announced in the First and Second Announcements.

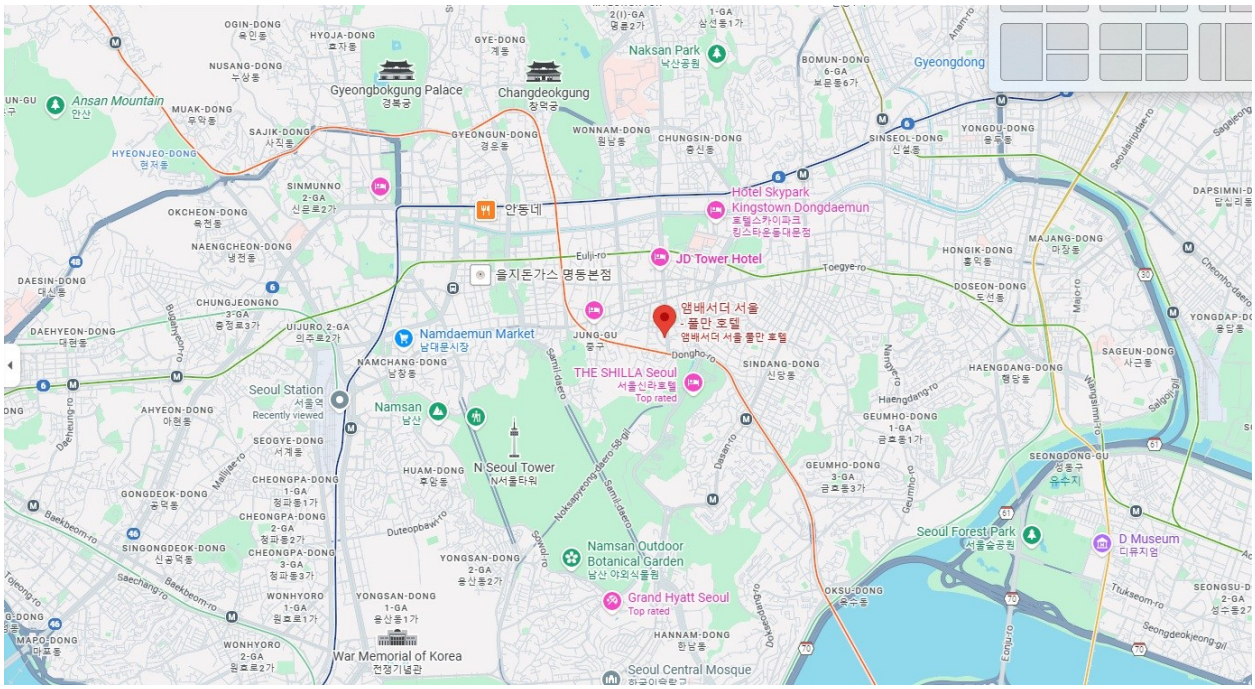
Conference Venue & Accommodations

Conference Venue

The Ambassador Seoul - A Pullman Hotel, Seoul, South Korea
Location: 287, Dongho-ro, Jung-gu, Seoul, South Korea
website: https://www.ambatel.com/theambassador/seoul/en/main.do

Location of The Ambassador Seoul - A Pullman Hotel

Link:place/ The Ambassador Seoul - A Pullman Hotel



Accommodations

The Ambassador Seoul - A Pullman Hotel, Seoul, South Korea
Location: 287, Dongho-ro, Jung-gu, Seoul, South Korea
website: https://www.ambatel.com/theambassador/seoul/en/main.do

If hotels offer special rates for participants, they will be announced in the first announcement.

About KEPCO

KEPCO, founded in 1898 (as the Hanseong Electric Company) and formally re-constituted in 1961, has grown into South Korea's largest electric utility and a key player in the global energy industry. With total assets of KRW 246 trillion and annual revenue of approximately KRW 94 trillion in 2024, KEPCO serves a central role in sustaining the country's energy security and industrial growth, supplying over 96 percent of the nation's electricity. The company oversees generation, transmission, and distribution networks, operating an installed capacity exceeding 83 GW through its six power generation subsidiaries – spanning nuclear, coal, LNG, hydro, and renewables.

Driven by its vision to become a "Global Integrated Energy Leader", KEPCO is accelerating the transition toward low-carbon and digital energy systems. It is actively expanding renewable generation and smart-grid technologies, targeting 49 GW of renewable capacity by 2035 and carbon neutrality by 2050. Beyond domestic operations, KEPCO engages in more than 40 overseas projects across 28 countries, including power generation, grid construction, and engineering services.

Through innovation, global collaboration, and sustainable growth strategies, KEPCO continues to lead the evolution of the energy industry – balancing reliability, environmental responsibility, and technological advancement to deliver value for future generations.

https://home.kepco.co.kr/

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.

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