



# CEPSI

## SINGAPORE 2025

Empowering the Energy Transition



## PROVISIONAL AGENDA



## Introduction

The Conference of the Electric Power Supply Industry (CEPSI) is the flagship event of AESIEAP, bringing together over 4,000 electricity supply industry professionals from East Asia and the Western Pacific region. Held biennially, CEPSI serves as a platform for thought leadership, collaboration, and action in shaping the energy future.

With the theme **Empowering the Energy Transition**, CEPSI 2025 calls on leaders across the energy value chain to accelerate regional collaboration, strengthen system resilience, and advance meaningful action towards a net-zero energy future.

## Quick Links

Click on each section to explore the agenda:

### CONFERENCE PROGRAMME

[Delegates access]

### 3<sup>rd</sup> ASEAN ENERGY REGULATORY FORUM (AERF)

[Delegates access]

### TECHNICAL PAPER PRESENTATION PROGRAMME

[Delegates access]

### TECHNICAL SITE VISITS

[Delegates access, by RSVP]

### EXHIBITION STAGE PROGRAMME

[Delegates and Visitors access]

- This agenda is a working draft and subject to change. Session timings, topics, speakers, and moderators may be updated as the programme is further developed.
- Speakers marked as “Invited” have not yet confirmed their participation. The final line-up will be confirmed closer to the event date.
- Confirmed speakers are listed in accordance with the programme agenda, with plenary speakers presented in alphabetical order by first name.
- The organisers reserve the right to amend the agenda, including its format, schedule, and list of speakers, as appropriate.



# CEPSI 2025 Programme Overview

|           | 28 OCT - TUES                              | 29 OCT - WED                                                                                                                                                                                                                                                                                                                                                                    | 30 OCT - THURS                                                                                                                                                                                                                                                                                        | 31 OCT - FRI                                                        | 1 NOV - SAT                                |
|-----------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------|
|           |                                            | CEPSI 2025 Exhibition                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                       |                                                                     |                                            |
| Morning   |                                            | <b>CEPSI 2025 Opening Ceremony</b><br><br>Networking Break<br><b>Day One Keynote Address</b><br><br><b>Plenary 1</b><br><i>Getting to Net Zero: The Grid as an Enabler of a Sustainable Future</i><br><br>Lunch Break                                                                                                                                                           | <b>Day Two Keynote Addresses</b><br><br><b>Plenary 4</b><br><i>Revolutionising the Grid: AI in Operation</i><br><br>Networking Break<br><br><b>Plenary 5</b><br><i>Sustainable Generation: System Stability in a Changing Energy Mix</i><br><br><b>Best Technical Paper Awards</b><br><br>Lunch Break | <b>Technical Paper Presentations</b><br><br>(Tracks A, B, C, E & F) | 9:00 – 12:00 pm<br><b>Technical Visits</b> |
|           |                                            | <b>Plenary 2</b><br><i>From Ambition to Action: Transition Strategies towards a Low-carbon Economy</i><br><br>Networking Break<br><br><b>Plenary 3</b><br><i>The Way Forward for Grid Modernisation: Digitalisation, Technology and Innovation</i><br><br><b>AESIEAP ExCo and 50<sup>th</sup> Council Meeting</b><br>(By Invite Only)<br><br>Pre-dinner Networking and Cocktail | <b>Plenary 6</b><br><i>Rethinking Capital for the Transition: Financing and Innovation</i><br><br><b>3<sup>rd</sup> ASEAN Energy Regulatory Forum (AERF)</b>                                                                                                                                          |                                                                     |                                            |
| Afternoon |                                            |                                                                                                                                                                                                                                                                                                                                                                                 | <b>Technical Paper Presentations</b><br>(Tracks B, D, E & F)                                                                                                                                                                                                                                          | <b>Technical Paper Presentations</b><br>(Tracks A, B, C, E & F)     | 1:00 – 5:00 pm<br><b>Technical Visit</b>   |
| Evening   | 5:00 – 8:00 pm<br><b>Welcome Reception</b> | 7:00 – 9:00 pm<br><b>CEPSI Dinner &amp; Handover Ceremony</b>                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                       |                                                                     |                                            |

## Guest of Honour:

**Dr Tan See Leng**, Singapore's Minister for Manpower and Minister-in-charge of Energy and Science & Technology in the Ministry of Trade and Industry

## Speakers:

- **Mr Stanley Huang**, AESIEAP President and Group CEO, **SP Group**
- **Mr Xin Bao'an**, AESIEAP Immediate Past President, President of **China Electricity Council**, and Chairman of **Global Energy Interconnection Development and Cooperation Organization (GEIDCO)**
- **Mr Joseph Law**, AESIEAP Vice President and Managing Director, **CLP Power Hong Kong Limited**
- **Mr Puah Kok Keong**, Chief Executive, **Energy Market Authority, Singapore**
- **Mr Pan Jingdong**, Executive Vice President, **State Grid Corporation of China (SGCC)**
- **Mr Mark McAllister**, Chairman, **Office of Gas and Electricity Markets (OFGEM)**
- **Mr Dean Sharafi**, Governing Board Member, **IEEE Power & Energy Society (PES)**
- **Ms Sims Witherspoon**, Climate Action Lead, **Google DeepMind**
- **Mr Eugene Toh**, Assistant Chief Executive, **Energy Market Authority, Singapore**
- **Mr Jimmy Khoo**, Chief Executive Officer, SP Powergrid, **SP Group**
- **Dr Arshad Mansoor**, President and Chief Executive Officer, **Electric Power Research Institute (EPRI)**
- **Mr Edwin Nugraha Putra**, Director of Transmission and System Planning, **PT PLN (Persero)**
- **Mr Francis C. Y. Cheng**, Managing Director, **The Hongkong Electric Company Limited**
- **Datuk Ir. Megat Jalaluddin bin Megat Hassan**, President and Chief Executive Officer, **Tenaga Nasional Berhad**
- **Mr Ronnie L. Aperocho**, Executive Vice President and Chief Operating Officer, **Manila Electric Company (Meralco)**
- **Mr Michael Gibbs**, Chief Operating Officer, Network, **Northpower**
- **Mr Zhen-Hui Eng**, Director of Power Markets, APAC, **Baringa Partners**
- **Dato' Ir. Ts. Abdul Razib Dawood**, Executive Director, **ASEAN Centre for Energy**
- **Dato' Ir. James Ung Sing Kwong**, Group Chief Operating Officer, **Sarawak Energy Berhad**
- **Mr Fortunato C. Leynes**, President and Chief Executive Officer, **National Transmission Corporation (TransCo)**
- **Mr Li Qizhao**, Vice President, **China Huaneng Group Co., Ltd.**
- **Mr Venu Nuguri**, Managing Director and CEO, India and South Asia,, **Hitachi Energy**; Managing Director, **Hitachi India**
- **Mr Dean Cher**, Managing Director, SP Mobility, **SP Group**
- **Mr Edward Zhao**, Global Senior Vice President, Renewables, **Univers**
- **Mr Jason Li**, President of Global Marketing & Solutions, Electric Power Digitalization Business Unit, **Huawei**



- **Mr Koji Kawakita**, Fellow, **Chubu Electric Power Grid Co., Inc.**
- **Dr Matthew Rowe**, Director of the Renewables and Power Grids, APAC Energy Systems, **DNV**
- **Ms Sara El Fanidi**, Head of Power & Grid, **Schneider Electric**
- **Mr Manminder Takhar**, Global Chief Technology Officer – Smart Cities, **Dell Technologies**
- **Mr Geoff Childs**, Chief Revenue Officer, **Gentrack**
- **Mr Carlos Aggio**, Managing Director, AI, **Accenture**
- **Mr Kevin Koh**, Head of Digital Services, **SP Group**
- **Dr Nien-Mien Chung**, General Manager of Taiwan Power Research Institute (TPRI), **Taiwan Power Company**
- **Mr Tony Kwok**, Associate Director, Smartgrid & Innovation, **CLP Power Hong Kong Limited**
- **Mr Jim Bullock**, Managing Director, Power Utilities & Energy Transition, Asia, **Microsoft**
- **Dr Allen Wang**, Executive Director of APAC Power and Renewables, **S&P Global**
- **Mr Yu Tat Ming**, Chief Executive Officer, **PacificLight**
- **Mr Eka Satria**, President Director & CEO, **Medco Power**
- **Mr Toshiro Kudama**, Head of Asia Pacific Operations, **JERA Co**
- **Mr Daniel Oehling**, Managing Director & Partner, **Boston Consulting Group (BCG)**
- **Mr Jackie B. Surtani**, Regional Director, Singapore Office, **Asian Development Bank (ADB)**
- **Mr Seb Henbest**, Group Head of Climate Transition, **HSBC**
- **Mr Munib Madni**, Chief Executive Officer, **Financing Asia's Transition Partnership (FAST-P)**
- **Mr Srinivasan Nagarajan**, Managing Director and Head of Asia, **British International Investment**
- **Mr Rob Genieser**, Managing Partner, **ETF Partners**
- **Ms Judy Chang**, Commissioner, **US Federal Energy Regulatory Commission**
- **Puan Siti Safinah Salleh**, Chief Executive Officer, **Energy Commission, Malaysia**
- **Mr Tatsuya Shinkawa**, Secretary General, **Electricity and Gas Market Surveillance Commission, Japan**
- **Mr Detlev Waimann**, Chief Commercial Officer & Senior Vice President, Projects, **Prysmian**
- **Mr Jean-Louis Neves Mandelli**, Partner, **Ashurst LLP**
- **Ms Audra Low**, Group Head, Client Coverage; Chief Executive Officer, **Clifford Capital Credit Solutions**
- **Mr Justin Oliver**, Deputy Chair, **Australian Energy Regulator (AER)**
- **Mr Ganesh Padmanabhan**, Head of Project Finance, Institutional Banking Group, **DBS Bank**
- **Mr Yatin Premchand**, Managing Director, Infrastructure Advisory, **Black & Veatch**
- **Dr Peerapat Vithayasrichareon**, Senior Energy Analyst, **International Energy Agency (IEA)**
- **Ms Georgie Skipper**, Chief Executive Officer, **Lucetia Group**
- **Mr Maxime Toulotte**, Markets & New Solutions Director, **Nexans**
- **Mr Rui Luo**, Director, **Bloomberg Philanthropies**



## Tuesday, 28 October (Day 0)

1:00 – 5:00pm

### Registration and Badge Collection

All delegates | Level 5 Foyer

5:00 – 8:00pm

### Welcome Reception

All delegates | Flower Field Hall, Gardens by the Bay

## Wednesday, 29 October (Day 1)

8:00 – 9:00am

### Registration and Coffee

All delegates | Level 5 Foyer

## | Opening Ceremony

All delegates | Level 5 Sands Grand Ballroom

Guests to be seated by 8:45am

|                 |                                                                                                                                                                                                                                                          |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:00 am         | <b>Arrival of Guest of Honour</b><br><b>Dr Tan See Leng</b> , Singapore's Minister for Manpower and Minister-in-charge of Energy and Science & Technology in the Ministry of Trade and Industry                                                          |
| 9:05 – 9:10 am  | <b>Opening Performance</b>                                                                                                                                                                                                                               |
| 9:10 – 9:20 am  | <b>Welcome Address</b><br><b>Mr Stanley Huang</b> , <i>President of AESIEAP</i> and Group CEO, <b>SP Group</b>                                                                                                                                           |
| 9:20 – 9:30 am  | <b>Guest of Honour Opening Address</b><br><b>Dr Tan See Leng</b> , Singapore's Minister for Manpower and Minister-in-charge of Energy and Science & Technology in the Ministry of Trade and Industry                                                     |
| 9:30 – 9:40 am  | <b>Group Photo</b>                                                                                                                                                                                                                                       |
| 9:40 – 9:55 am  | <b>Congratulatory Address</b><br><b>Mr Xin Bao'an</b> , <i>AESIEAP Immediate Past President</i> , President of <b>China Electricity Council</b> , and Chairman of <b>Global Energy Interconnection Development and Cooperation Organization (GEIDCO)</b> |
| 9:55 – 10:05 am | <b>Congratulatory Address</b><br><b>Mr Joseph Law</b> , <i>AESIEAP Vice President</i> , and Managing Director, <b>CLP Power Hong Kong Limited</b>                                                                                                        |

**10:10 – 11:00am****Coffee Break and Tour of Exhibition**

All delegates | Level 5 Foyer

**11:00 – 11:10am****| Keynote Addresses**

All delegates | Level 5 Sands Grand Ballroom

Speaker: **Mr Pan Jingdong**, Executive Vice President, **State Grid Corporation of China****11:10 – 12:00pm****| Plenary 1:****Getting to Net Zero: The Grid as an Enabler of a Sustainable Future**

All delegates | Level 5 Sands Grand Ballroom

*As the global energy transition accelerates, the role of power grids has never been more crucial. This panel will explore how modernising and expanding the grid infrastructure can enable a cleaner, more sustainable energy future while ensuring reliability, resilience and affordability.*

- **Grid as the backbone of energy transition**
  - How are grids evolving to support integration of renewables?
  - What are the technical, financial and policy challenges in grid modernisation?
- **The balancing act: Reliability, Sustainability and Affordability**
  - How do grid operators manage the trilemma of reliability, sustainability and affordability?
  - The role of storage, demand response and digitalisation in maintaining reliability and resiliency?
- **Investing in the future grid**
  - What innovations and technologies are shaping the future of grid?
  - How can we accelerate the energy transition?

Moderator: **Dr Arshad Mansoor**, President and Chief Executive Officer, **Electric Power Research Institute (EPRI)**

Confirmed Speakers:

- **Mr Edwin Nugraha Putra**, Director of Transmission and System Planning, **PT PLN (Persero)**
- **Mr Francis C. Y. Cheng**, Managing Director, **The Hongkong Electric Company Limited**
- **Datuk Ir. Megat Jalaluddin bin Megat Hassan**, President and Chief Executive Officer, **Tenaga Nasional Berhad**
- **Mr Ronnie L. Aperoch**, Executive Vice President and Chief Operating Officer, **Manila Electric Company (Meralco)**
- **Mr Michael Gibbs**, Chief Operating Officer, Network, **Northpower**

**12:00 – 12:10pm****| Keynote Address:**

All delegates | Level 5 Sands Grand Ballroom

Speaker: **Mr Puah Kok Keong**, Chief Executive, **Energy Market Authority, Singapore**

**CEPSI 2025 Exhibition Tour**

Level 5 Exhibition Hall

**12:10 – 1:30pm****Lunch**

All delegates | Level 5 Foyer

**1:30 – 2:30pm****| Plenary 2:*****From Ambition to Action: Transition Strategies towards a Low-carbon Economy***

All delegates | Level 5 Sands Grand Ballroom

*The race to a low-carbon economy calls for alignment across sectors, leadership, and collective action. From policy to technology, from planning to delivery, the transition depends on our collective ability to translate ambition into tangible outcomes, decisively and at scale, on the road to 2050.*

- **Grounding Net Zero Commitments in Reality**
  - How are utilities and system operators translating national decarbonisation pledges into actionable transition roadmaps? What are the operational and regulatory implications of these commitments?
- **Aligning Decarbonisation Levers Across the Value Chain**
  - How can low-carbon technologies, energy-efficient infrastructure, and district cooling systems be integrated into transition roadmaps?
  - What capabilities are needed across organisations and supply chains to scale decarbonisation, from workforce transformation to technology adaptation?
  - How can demand-side strategies — such as prosumer participation and urban energy optimisation — accelerate deeper decarbonisation?
- **Redesigning the Enablers: Policy, Capital and Collaboration**
  - How are cross-border and cross-sector partnerships reshaping the investment landscape for low-carbon infrastructure?
  - What role do governments, regulators and multilateral platforms play in derisking the energy transition?

Moderator: **Mr Zhen-Hui Eng**, Director of Power Markets, APAC, **Baringa Partners**

Confirmed Speakers:

- **Dato' Ir. Ts. Abdul Razib Dawood**, Executive Director, **ASEAN Centre for Energy**
- **Dato' Ir. James Ung Sing Kwong**, Group Chief Operating Officer, **Sarawak Energy Berhad**
- **Mr Fortunato C. Leynes, P.E.E.**, President and Chief Executive Officer, **National Transmission Corporation (TransCo)**
- **Mr Li Qizhao**, Vice President, **China Huaneng Group Co., Ltd.**
- **Mr Venu Nuguri**, Managing Director and CEO, India and South Asia, **Hitachi Energy**; Managing Director, **Hitachi India**

**2:30 – 3:00pm****Coffee Break**

All delegates | Level 5 Foyer

**3:00 – 4:00pm****| Plenary 3:*****The Way Forward for Grid Modernisation: Digitalisation, Technology and Innovation***

All delegates | Level 5 Sands Grand Ballroom

*The grid of the future is not just about delivering electricity. It is about enabling transformation across the entire energy system. While the grid is central to enabling energy transition, its technical evolution is a challenge in its own right. With growing demand, decentralised generation and dynamic loads, this session focuses on the technologies, systems and collaborations needed to modernise the grid and keep it reliable, adaptive and intelligent.*

- **Driving collaboration for innovation and customisation in evolving grid technologies.**
  - What is the roadmap for integrating emerging technologies into existing infrastructures?
  - How is the evolving Utility-OEM relationship shaping new innovation models and ecosystems?
- **Smart grid is here; what's next in digitalisation?**
  - How are utilities currently leveraging the vast amounts of grid data? What untapped potential exists for automated analysis and digital tools to realise a more efficient grid?
  - What are the challenges in transitioning from a smart grid to a fully digitalised grid, and how are utilities addressing them?
- **Preparing the grid for transport electrification**
  - How are utilities responding to infrastructure needs and managing new demand patterns at the grid edge?
  - What strategies are being developed for smart charging, load optimisation and vehicle-to-grid integration?

Moderator: **Dr Matthew Rowe**, Director of the Renewables and Power Grids, APAC Energy Systems, **DNV**

Confirmed Speakers:

- **Mr Dean Cher**, Managing Director, SP Mobility, **SP Group**
- **Mr Edward Zhao**, Global Senior Vice President, Renewables, **Univers**
- **Mr Jason Li**, President of Global Marketing & Solutions, Electric Power Digitalization Business Unit, **Huawei**
- **Mr Koji Kawakita**, Fellow, **Chubu Electric Power Grid Co., Inc.**
- **Ms Sara El Fanidi**, Head of Power & Grid, **Schneider Electric**

**4:00 – 5:00pm****AESIEAP Executive Committee and 50<sup>th</sup> Council Meeting** [Invitation Only]**5:30 – 6:30pm****Pre-Dinner Cocktail & Networking**

All delegates | Level 5 Foyer

**6:30 – 9:00pm****CEPSI Dinner and Handover Ceremony**

## Thursday, 30 October (Day 2)

**8:00 – 8:45am****Registration and Coffee**

All delegates | Level 5 Foyer

**8:45 – 9:30am****| Day Two Keynote Addresses**

All delegates | Level 5 Sands Grand Ballrooms

8:45 – 9:00am **Keynote Address: Building Systems for a Net Zero Future****Mr Mark McAllister**, Chairman, **Office of Gas and Electricity Markets (OFGEM)**9:00 – 9:15am **Keynote Address****Mr Dean Sharafi**, Governing Board Member, **IEEE Power & Energy Society (PES)**9:15 – 9:30am **Keynote Address: Unlocking the Grid: How Can AI Accelerate ASEAN's Energy Transition?****Ms Sims Witherspoon**, Climate Action Lead, **Google DeepMind****9:30 – 10:30am****| Plenary 4:****Revolutionising the Grid: AI in Operation**

All delegates | Level 5 Sands Grand Ballroom

Artificial intelligence is becoming one of the most significant technologies of our era. From grid operations to asset management and workforce automation, AI is making a measurable impact across utility operations today. How are organisations preparing and securing critical infrastructures for what comes next?

- **Developing a comprehensive strategy for AI integration.**
  - How can utilities secure near-term AI ROI while preparing for end-to-end implementation across the energy system – from generation, transmission, distribution to consumption?
  - What governance and control structures are needed to embed cybersecurity into each phase of AI deployment across critical energy systems?
- **Putting theory into practice.**
  - What key use cases are driving AI's impact on grid operations, asset management, and workforce automation?
  - How are utilities overcoming the challenges in legacy system integration with intelligence?
  - What measures are being implemented to protect OT environments and real-time control systems from cybersecurity risks from AI integration?
- **Advancing a more powerful grid with AI.**
  - The role of AI in enhancing system performance and real-time decision-making.
  - New kids on the block? – What potential do AI agents have in transforming energy management?
  - What new competencies must the workforce develop to manage AI-driven systems while maintaining cyber-resilient operations?

Moderator: **Mr Manminder Takhar**, Global Chief Technology Officer – Smart Cities, **Dell Technologies**

Confirmed Speakers:

- **Mr Geoff Childs**, Chief Revenue Officer, **Gentrack**
- **Mr Carlos Aggio**, Managing Director, AI, **Accenture**
- **Mr Kevin Koh**, Head of Digital Services, **SP Group**
- **Dr Nien-Mien Chung**, General Manager, Taiwan Power Research Institute (TPRI), **Taiwan Power Company**
- **Mr Tony Kwok**, Associate Director, Smartgrid & Innovation, **CLP Power Hong Kong Limited**
- **Mr Jim Bullock**, Managing Director, Power Utilities & Energy Transition, Asia, **Microsoft**

**10:30 – 11:00am**

**Coffee Break**

All delegates | Level 5 Foyer

**11:00 – 12:00pm**

**| Plenary 5:**

***Sustainable Generation: System Stability in a Changing Energy Mix***

All delegates | Level 5 Sands Grand Ballroom

*As power producers navigate the transition away from fossil fuels, the challenge is no longer just about adding renewables — it is about keeping the system stable as the generation mix evolves. This session explores how utilities and generators are rethinking portfolios, technologies and fuels to support system resilience while racing toward global net zero targets.*

- **Rethinking Generation Portfolios: Reliable, Affordable and Future-Ready**
  - What role will transitional fuels (e.g. LNG, hydrogen-ready gas) play in future capacity buildout?
  - How are retirement timelines and reinvestment decisions being shaped by evolving demand and national energy transition roadmaps?
- **Power Imports and Regional System Resilience**
  - How are interconnectors and multilateral power trade supporting low-carbon portfolios and reducing curtailment risk?
  - What are the planning and investment considerations in leveraging imports for grid stability and renewable integration?
- **Enabling Decarbonisation through Technology Innovation**
  - As emissions reduction becomes non-negotiable, which technologies can scale fast enough across Asia?
  - What are the commercial and regulatory conditions needed to de-risk and scale decarbonisation technologies like CCUS?
  - Where are innovations such as nuclear SMRs and hybrid renewable systems being positioned in long-term strategies?

Moderator: **Dr Allen Wang**, Executive Director of APAC Power and Renewables, **S&P Global**

Confirmed Speakers:

- **Mr Dean Sharafi**, Governing Board Member, **IEEE Power & Energy Society (PES)**

- **Mr Yu Tat Ming**, Chief Executive Officer, **PacificLight**
- **Mr Eka Satria**, President Director and Chief Executive Officer, **Medco Power**
- **Mr Toshiro Kudama**, Head of Asia Pacific Operations, **JERA Co**

**12:00 – 12:45pm****| Best Paper Awards Ceremony**

All delegates | Level 5 Sands Grand Ballroom

12:00 – 12:05pm

**Opening Remarks****Dr Sivaneasan Bala Krishnan**, Treasurer, **IEEE Power & Energy Society (PES)**

12:05 – 12:10pm

**Introduction of Paper Categories****Best Paper Awards Presentation**Presented by: **Dr Sivaneasan Bala Krishnan**, Treasurer, **IEEE Power & Energy Society (PES)**

- Track A: Transmission and Distribution Networks Technologies and Strategies
- Track B: Green Energy Technologies

12:10 – 12:40pm

Presented by: **Er Kane Neo**, Chairman, **CEPSI 2025 Technical Programme Committee**, SP Group

- Track C: Smart Grid, Microgrid and Distributed Energy
- Track D: Electricity Sales & Customer Experience
- Track E: ICT & Innovation in the Power Sector
- Track F: Developments in Sustainable Power

**12:45 – 2:00pm****Lunch**

All delegates | Level 5 Foyer

**2:00 – 2:50pm****| Plenary 6:****Rethinking Capital for the Transition: Financing and Innovation**

All delegates | Level 5 Sands Grand Ballroom

*The energy transition is accelerating, but the capital behind it is not. Grid infrastructure must scale fast, yet critical funding gaps continue to slow progress across the region. How can financial strategies keep pace with market realities and unlock the capital needed to build resilient and future-ready systems?*

- **Mobilising Capital through Innovative Financial Mechanisms**
  - What financial instruments are gaining traction in channelling institutional capital into grid modernisation?
  - How can ESG mandates, impact investment frameworks, and net-zero financing pathways be leveraged to align investor priorities with national decarbonisation targets?
- **Creating Enabling Conditions for Bankable and Scalable Energy Transition Projects**
  - What makes grid investment attractive and replicable across ASEAN markets?
  - What policy and structural adjustments are needed to bring energy transition projects to market, especially in emerging economies?

- **Aligning the Transition Trifecta: Finance, Policy and Technology**
  - How should financing models adapt to emerging grid technologies and decentralised systems?
  - How can innovation, regulation, and capital be harmonised to enable long-term infrastructure investment?
  - What is the role of public-private capital collaboration in scaling innovation while ensuring system reliability and equity?

Moderator: **Mr Daniel Oehling**, Managing Director and Partner, **Boston Consulting Group (BCG)**

Confirmed Speakers:

- **Mr Jackie B. Surtani**, Regional Director and Head of the Singapore Office, **Asian Development Bank**
- **Mr Seb Henbest**, Group Head of Climate Transition, **HSBC**
- **Mr Munib Madni**, Chief Executive Officer, **FAST-P Office**
- **Mr Srinivasan Nagarajan**, Managing Director and Head of Asia, **British International Investment**
- **Mr Rob Genieser**, Managing Partner, **ETF Partners**

**2:50 – 4:35pm**

### **3<sup>rd</sup> ASEAN Energy Regulatory Forum (AERF)**

All delegates | Level 5 Sands Grand Ballroom

Southeast Asia has committed to accelerate the realisation of the ASEAN Power Grid by 2045. Against this backdrop, the ASEAN Energy Regulatory Forum (AERF) is a high-level platform that brings together leading energy regulators, policymakers and industry leaders to strengthen cooperation on regulatory best practices, policy planning, energy markets and regional interconnectivity.

As the region moves to develop an interconnected ASEAN Power Grid, the Forum provides a timely and influential platform for energy regulators to exchange best practices and policy insights for a low-carbon energy future.

**2:50 – 2:55pm**

### **| Opening Remarks**

All delegates | Level 5 Sands Grand Ballroom

Speaker: **Mr Eugene Toh**, Assistant Chief Executive, **Energy Market Authority, Singapore**

**2:55 – 3:00pm**

### **| Keynote Address**

All delegates | Level 5 Sands Grand Ballroom

Speaker: **Mr Jimmy Khoo**, Chief Executive Officer, SP Powergrid, **SP Group**

**3:00 – 3:40pm**

### **| Regulators Panel 1: Advancing Regional Interconnectivity**

All delegates | Level 5 Sands Grand Ballroom

*Regional power integration is a key lever for ASEAN's energy transition and achieving the region's ambitious decarbonisation goals. The ASEAN energy landscape consists of a spectrum of technical standards, regulatory frameworks and market structures. To facilitate effective and efficient development of cross-border power*

*interconnections, regulators, utilities, and industry are working to align on common frameworks that govern third-party access, pricing, and emissions accounting.*

*This session will explore how regulatory authorities and industry stakeholders are addressing technical, regulatory, and policy challenges, and the coordination mechanisms required to enable a reliable, efficient, and equitable regional power grid.*

- Bridging gaps between diverse nations in Southeast Asia
- Which regulatory frameworks must converge to enable multilateral electricity trading?
- How can regional emissions accounting be standardised to support renewable energy imports?
- What tools or mechanisms can facilitate trust and verification across national systems?
- Can ASEAN regulators jointly define minimum standards for open access and system reliability?

Moderator: **Mr Jean-Louis Neves Mandelli**, Partner, **Ashurst LLP**

Confirmed Speakers:

- **Ms Judy Chang**, Commissioner, **US Federal Energy Regulatory Commission**
- **Mr Eugene Toh**, Assistant Chief Executive, **Energy Market Authority, Singapore**
- **Mr Tatsuya Shinkawa**, Secretary General, **Electricity and Gas Market Surveillance Commission, Japan**
- **Puan Siti Safinah Salleh**, Chief Executive Officer, **Energy Commission, Malaysia**
- **Mr Detlev Waimann**, Chief Commercial Officer & Senior Vice President, Projects, **Prysmian**

**3:40 – 4:20pm**

### **| Regulators Panel 2: Regulatory Frameworks and Financing Pathways for Electricity Interconnections**

All delegates | Level 5 Sands Grand Ballroom

*Across Southeast Asia, the growing demand for clean and reliable electricity is accelerating the development of cross-border interconnectors. From subsea cables to high-voltage transmission systems (HVDC), these assets are key to enhancing system flexibility, optimising generation portfolios, and enabling large-scale renewable energy integration across borders. Yet despite technological feasibility, progress is often slowed by permitting delays, financing risks, and regulatory misalignment.*

*This session will convene regulators, industry leaders, and financial experts to explore the regulatory frameworks, coordination models, and financing mechanisms required to deliver bankable, cross-border interconnector projects.*

- What regulatory frameworks can unlock long-term capital for cross-border interconnectors?
- How can joint licensing and coordinated regulatory processes reduce approval delays?
- What role do risk-sharing arrangements and financing structures play in accelerating interconnector delivery?
- How can regulators balance investor certainty with national policy needs?

Moderator: **Mr Yatin Premchand**, Managing Director, Infrastructure Advisory, **Black & Veatch**

Confirmed Speakers:

- **Mr Justin Oliver**, Deputy Chair, **Australian Energy Regulator (AER)**
- **Mr Mark McAllister**, Chairman, **Office of Gas and Electricity Markets (OFGEM)**
- **Ms Audra Low**, Group Head, Client Coverage; Chief Executive Officer, **Clifford Capital Credit Solutions**

- **Mr Ganesh Padmanabhan**, Head of Project Finance, Institutional Banking Group, **DBS Bank**

**4:20 – 4:40pm****| Closing Spotlight: Fireside Chat on Subsea Power Cables for the ASEAN Power Grid**

Subsea power cables are becoming a critical component of ASEAN's future energy system. These interconnections enhance regional power reliability, enable greater renewable energy exchange, and support national energy transition targets. With multiple cross-border projects now progressing, subsea cables are rapidly moving from concept to construction.

This closing spotlight will examine how ASEAN can strengthen coordination for subsea interconnections, including planning, licensing, and management across multiple jurisdictions, to ensure these projects form a secure and lasting foundation for the ASEAN Power Grid.

- Strengthening cross-border coordination among ASEAN regulators and utilities
- Technical and operational standards for reliability and grid stability
- Lessons from emerging cross-border cable projects and what they mean for ASEAN's wider Power Grid vision

Moderator: **Mr Rui Luo**, Director, **Bloomberg Philanthropies**

Confirmed Speakers:

- **Dr Peerapat Vithayasrichareon**, Senior Energy Analyst, **International Energy Agency (IEA)**
- **Ms Georgie Skipper**, Chief Executive Officer, **Lucetia Group**
- **Mr Maxime Toulotte**, Markets & New Solutions Director, **Nexans**

**2:00 – 3:30pm****Technical Paper Presentations**

All delegates | Level 5 Meeting Rooms | Tracks B, D, E and F

[Explore Technical Paper Presentation Agenda](#)

**3:30 – 4:00pm****Coffee Break**

All delegates | Level 5 Foyer

**4:00 – 5:30pm****Technical Paper Presentations**

All delegates | Level 5 Meeting Rooms | Tracks B, D, E and F

[Explore Technical Paper Presentation Agenda](#)



## Friday, 31 October (Day 3)

8:00 – 8:45am

### Registration and Coffee

All delegates | Level 5 Foyer

8:45am – 10:30am

### Technical Paper Presentations

All delegates | Level 4 & 5 Meeting Rooms | Tracks A, B, C, E and F

[Explore Technical Paper Presentation Agenda](#)

10:30 – 11:00am

### Coffee Break

All delegates | Level 4 & 5 Foyer

11:00am – 12:30pm

### Technical Paper Presentations

All delegates | Level 4 & 5 Meeting Rooms | Tracks A, B, C, E and F

[Explore Technical Paper Presentation Agenda](#)

12:30 – 1:30pm

### Lunch

All delegates | Level 4 & 5 Foyer

1:30 – 3:45pm

### Technical Paper Presentations

All delegates | Level 4 & 5 Meeting Rooms | Tracks A, B, C, E and F

[Explore Technical Paper Presentation Agenda](#)

3:30pm onwards

### Networking and Refreshments

All delegates | Level 4 & 5 Foyer

**1:00 – 5:00pm**  
**| Technical Visit****Site #1****Energy  
Market  
Company****Operating Asia's First Liberalised Electricity Market Operator**

Energy Market Company (EMC) operates the wholesale electricity market of the National Electricity Market of Singapore (NEMS), Asia's first liberalised electricity market. EMC manages real-time market operations including price calculation, generation scheduling, settlement and governance. The platform ensures transparent, competitive and secure electricity transactions to meet Singapore's national energy needs.

**Learning objectives:** *Insights into the structure and operation of Singapore's liberalised electricity market, which include how electricity is centrally dispatched, competitively traded and priced in the National Electricity Market of Singapore (NEMS). Participants will gain an understanding of how transparency, efficiency and governance are maintained in a highly urbanised and demand-driven power system.*

- **Limited Slots:** Up to 70 participants.
- **Dress Code:** Covered walking shoes and long pants are required.

**Saturday, 1 November (Day 4)****9:00 – 12:00pm**  
**| Technical Visits****Site #2****Singapore  
District  
Cooling****World's Largest Underground District Cooling Network**

The Marina Bay District Cooling Network, operated by SP Group, is the world's largest underground district cooling system. Located beneath Singapore's central business district, the system delivers centrally chilled water for air-conditioning to 23 buildings through a closed-loop network. It is designed to maximise energy efficiency and reduce environmental impact by integrating thermal energy storage, high-performance chillers and real-time optimisation controls. The system has maintained uninterrupted operation since 2006 and is projected to serve 32 buildings by 2027, contributing to Singapore's long-term sustainable urban development.

**Learning objectives:** *How large-scale district cooling supports energy efficiency and urban sustainability. Real-world example on how centralised cooling systems are designed, scaled and maintained in densely populated cities to support long-term carbon reduction goals.*

- **Limited Slots:** Up to 80 participants.
- **Dress Code:** Covered walking shoes and long pants are required. Safety helmets will be provided.

|                |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Site #3</b> | <b>Labrador Underground Substation</b> | <h3>Southeast Asia's Largest Underground Substation Rises</h3> <p>The Labrador Underground Substation, developed by SP Group, is Southeast Asia's first large-scale underground 230kV substation. Situated beneath a future 34-storey development, the site demonstrates how high-voltage electrical infrastructure can be integrated below ground in land-scarce urban environments. It showcases engineering solutions such as low-fire-risk equipment, integrated cooling systems and vibration-controlled construction techniques. Therefore, enabling reliable power distribution while optimising surface land use for city planning.</p> <p><b>Learning objectives:</b> <i>How high-voltage underground substations can be integrated into urban cities, demonstrating how engineering solutions can address spatial, safety and reliability challenges. Showcase how land use can be optimised to support the development of future-ready grid.</i></p> <ul style="list-style-type: none"> <li>• <b>Limited Slots:</b> Up to 100 participants.</li> <li>• <b>Dress Code:</b> Fire-retardant clothing (FRC) and safety boots are required.<br/><i>*Only 20 safety helmets available on site – participants are encouraged to bring their own</i></li> </ul> |
| <b>Site #4</b> | <b>Sembcorp Tengeh Floating Solar</b>  | <h3>Singapore's First Utility-Scale PV on Inland Reservoirs</h3> <p>The Sembcorp Tengeh Floating Solar Farm, located on Tengeh Reservoir, is Singapore's first utility-scale inland floating solar PV system. With a generation capacity of 60MWp across 45 hectares, the installation supports the operation of five national water treatment plants, supporting a fully green waterworks system. The system integrates floating structures designed for reservoir conditions, high-efficiency solar modules, advanced monitoring technologies such as drone-based electroluminescence imaging for asset diagnostics under tropical conditions.</p> <p><b>Learning objectives:</b> <i>Gain insights into system design, operations and maintenance considerations, and environmental integration strategies for reservoir-based floating solar infrastructure.</i></p> <ul style="list-style-type: none"> <li>• <b>Limited Slots:</b> Up to 30 participants.</li> <li>• <b>Dress Code:</b> Covered walking shoes and long pants</li> </ul>                                                                                                                                                                                                                        |
| <b>Site #5</b> | <b>iTrust SUTD Campus</b>              | <h3>Cyber-Physical Security at the iTrust Research Facility</h3> <p>The iTrust facility at the Singapore University of Technology and Design (SUTD) is a specialised environment for studying and testing of cyber-physical vulnerabilities in industrial systems. The facility features interconnected equipment used to simulate cyberattacks on operational technology, helping researchers and engineers understand risk scenarios across sectors in water, power, and manufacturing.</p> <p><b>Learning objectives:</b> <i>Gain insights into system design, operations and maintenance considerations, and environmental integration strategies for reservoir-based floating solar infrastructure.</i></p> <ul style="list-style-type: none"> <li>• <b>Limited Slots:</b> Only 30 participants can join this site visit.</li> <li>• <b>Dress Code:</b> Covered walking shoes and long pants</li> </ul>                                                                                                                                                                                                                                                                                                                                                       |

**Site #6****Huawei  
OpenLab****Collaborating for a Smarter Future: Insights from Huawei OpenLab Asia Pacific**

OpenLab Asia Pacific in Singapore is a regional facility centre of joint innovation and research, solution development and applied testing of advanced ICT systems. Its four specialised labs – Smart Campus, Intelligent Collaboration, Intelligent Sensing and Converge Command & Control, provide environments to trial applications such as AI-driven monitoring, IoT-enabled asset management and integrated emergency response platforms. The facility supports the design and validation of solutions for complex infrastructure, including power grids, substations and control centres.

**Learning objectives:** How solutions are jointly developed, tested and validated to address energy needs. Offers a unique opportunity to explore practical applications of advanced ICT systems in real-world scenarios. Learn how utilities companies can adapt to evolving energy systems and accelerate the transition to a low-carbon future through collaboration and technology.

- **Limited Slots:** Up to 30 participants.
- **Dress Code:** Covered walking shoes and long pants



# TECHNICAL PAPER PRESENTATION PROGRAMME

| Time               | Sands Expo & Convention Centre, Singapore                                    |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
|--------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|
|                    | Level 5                                                                      |                                                                            |                                                                      |                                                       |                                                             | Level 4                                            |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| Meeting Room       | 5001                                                                         | 5002                                                                       | 5003                                                                 | 5101                                                  | 5102                                                        | 4711                                               | 4712                                                        | 4713                                                                  | 4611                                     | 4612                                                             | 4613                                                            |
| Day 2 - 30 October |                                                                              |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 12:30 - 2:00 PM    | Lunch                                                                        |                                                                            |                                                                      |                                                       | NOT IN USE                                                  |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 2:00 - 3:30 PM     | B6-8                                                                         | D1                                                                         | E2                                                                   | F6-7                                                  |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
|                    | Low-carbon Technologies and Transition Strategies                            | Customer Experience and Retail Digital Transformation                      | ICT Innovation and Integrated Systems for Utility Operations         | ESG, Sustainable Financing and Stakeholder Engagement |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 3:30 - 4:00 PM     | Coffee Break (30 mins)                                                       |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 4:00 - 5:30 PM     | B3                                                                           | D2                                                                         | E3                                                                   | F2.1                                                  |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
|                    | Energy Efficiency, Circular Economy and Conservation Technologies            | Operational Efficiency and Smart Energy Technologies                       | Cybersecurity and Secure Communications for Power Systems            | Decarbonisation and Renewable Transition Strategies   |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| Day 3 - 31 October |                                                                              |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 8:00 - 8:45 AM     | Registration and Coffee                                                      |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 8:45 - 10:30 AM    | A1.1                                                                         | A1.3                                                                       | A5.1                                                                 | A6.1                                                  | F4                                                          | B1.1                                               | C2.1                                                        | C3                                                                    | C6                                       | E1                                                               | E5.1                                                            |
|                    | Integrated Condition Monitoring and Predictive Maintenance for Power Systems | Condition Assessment and Reliability Testing of Cables and Power Equipment | Advances in HVDC, Underground Transmission and Power Quality Systems | Upgrading and Managing Ageing Infrastructure          | Grid Flexibility Requirements and Solutions                 | Low-Carbon Energy Production and Carbon Capture I  | DER Integration and Grid Modernisation                      | Advances in Substation Digitalisation, Automation, and Cybersecurity  | AMI and Smart Meter Applications         | Industry 4.0 Applications in Power Systems                       | AI Applications in Power System Operations and Asset Management |
| 10:30 - 11:00 AM   | Coffee Break (30 min)                                                        |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 11:00 - 12:30 PM   | A1.2                                                                         | A1.4                                                                       | A5.2                                                                 | A6.2                                                  | F3                                                          | B1.2                                               | C2.2                                                        | C1                                                                    | C8                                       | E4                                                               | E5.2                                                            |
|                    | Asset Health Monitoring and Management                                       | Next-Generation Monitoring and Fault Detection Technologies                | Flexible AC/DC Systems and Protection Strategies                     | Asset Sustainability and Lifecycle Management         | Integration of Variable Renewable Energy                    | Low-Carbon Energy Production and Carbon Capture II | Smart Grid Control, Stability and Optimisation Technologies | Digitalisation and Data Analytics for Grid Management and Reliability | Microgrid Design, Operation, and Control | Digitalisation, IoT and Data Integration for Power Networks      | Generative and Knowledge-Based AI in Utilities                  |
| 12:30 - 1:30 PM    | Lunch                                                                        |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |
| 1:30 - 3:30 PM     | A2.1                                                                         | A2.2                                                                       | A7-8                                                                 | A9                                                    | F2.2                                                        | B2                                                 | B5                                                          | C10                                                                   | C7                                       | E5-7                                                             |                                                                 |
|                    | Digital Intelligence and Predictive Technologies for Power System Operations | Equipment Monitoring, Diagnostics and Predictive Maintenance Technologies  | Advanced Grid Protection and Power Flow Optimisation                 | Workforce Development and Organisational Practices    | System Planning, Optimisation and Infrastructure Resilience | Emerging Energy Generation Technologies            | Advanced Energy Storage Solutions                           | Renewable Integration and Grid Stability                              | EV Charging and V2G Technologies         | Intelligent Systems, Field Assistance and Operational Innovation |                                                                 |
|                    | End of Technical Paper Presentation Sessions                                 |                                                                            |                                                                      |                                                       |                                                             |                                                    |                                                             |                                                                       |                                          |                                                                  |                                                                 |

**Legend Reference**

- A T&D Networks Technologies and Strategies
- B Green Energy Technologies
- C Smart Grid, Microgrid & Distributed Energy Technologies
- D Electricity Sales & Customer Experience
- E ICT's Innovation
- F Developments in Sustainable Power

| Legend Reference |                                                         |
|------------------|---------------------------------------------------------|
| A                | T&D Networks Technologies and Strategies                |
| B                | Green Energy Technologies                               |
| C                | Smart Grid, Microgrid & Distributed Energy Technologies |
| D                | Electricity Sales & Customer Experience                 |
| E                | ICT's Innovation                                        |
| F                | Developments in Sustainable Power                       |



## Track A: T&D NETWORKS TECHNOLOGIES AND STRATEGIES

Friday, 31 October

| Time             | Session                                                                            | Meeting Room |
|------------------|------------------------------------------------------------------------------------|--------------|
| 8:45 – 10:30 am  | A1.1: Integrated Condition Monitoring and Predictive Maintenance for Power Systems | 5001         |
|                  | A1.3: Condition Assessment and Reliability Testing of Cables and Power Equipment   | 5002         |
|                  | A5.1: Advances in HVDC, Underground Transmission and Power Quality Systems         | 5003         |
|                  | A6.1: Upgrading and Managing Ageing Infrastructure                                 | 5101         |
| 11:00 – 12:30 pm | A1.2: Asset Health Monitoring and Management                                       | 5001         |
|                  | A1.4: Next-Generation Monitoring and Fault Detection Technologies                  | 5002         |
|                  | A5.2: Flexible AC/DC Systems and Protection Strategies                             | 5003         |
|                  | A6.2: Asset Sustainability and Lifecycle Management                                | 5101         |
| 1:30 – 3:30 pm   | A2.1: Digital Intelligence and Predictive Technologies for Power System Operations | 5001         |
|                  | A2.2: Equipment Monitoring, Diagnostics and Predictive Maintenance Technologies    | 5002         |
|                  | A7-8: Advanced Grid Protection and Power Flow Optimisation                         | 5003         |
|                  | A9: Workforce Development and Organisational Practices                             | 5101         |

## Track B: GREEN ENERGY TECHNOLOGIES

Thursday, 30 October

| Time           | Session                                                               | Meeting Room |
|----------------|-----------------------------------------------------------------------|--------------|
| 2:00 – 3:30 pm | B6-8: Low-carbon Technologies and Transition Strategies               | 5001         |
| 4:00 – 5:30 pm | B3: Energy Efficiency, Circular Economy and Conservation Technologies | 5001         |

Friday, 31 October

| Time             | Session                                                  | Meeting Room |
|------------------|----------------------------------------------------------|--------------|
| 8:45 – 10:30 am  | B1.1: Low-Carbon Energy Production and Carbon Capture I  | 4711         |
| 11:00 – 12:45 pm | B1.2: Low-Carbon Energy Production and Carbon Capture II | 4711         |
| 1:30 – 3:30 pm   | B2: Emerging Energy Generation Technologies              | 4711         |
|                  | B5: Advanced Energy Storage Solutions                    | 4712         |

## Track C: SMART GRID, MICROGRID & DISTRIBUTED ENERGY TECHNOLOGIES

Friday, 31 October

| Time             | Session                                                                   | Meeting Room |
|------------------|---------------------------------------------------------------------------|--------------|
| 8:45 – 10:30 am  | C2.1: DER Integration and Grid Modernisation                              | 4712         |
|                  | C3: Advances in Substation Digitalisation, Automation, and Cybersecurity  | 4713         |
|                  | C6: AMI and Smart Meter Applications                                      | 4611         |
| 11:00 – 12:30 pm | C2.2: Smart Grid Control, Stability and Optimisation Technologies         | 4712         |
|                  | C1: Digitalisation and Data Analytics for Grid Management and Reliability | 4713         |
|                  | C8: Microgrid Design, Operation, and Control                              | 4611         |
| 1:30 – 3:30 pm   | C10: Renewable Integration and Grid Stability                             | 4713         |
|                  | C7: EV Charging and V2G Technologies                                      | 4611         |

## Track D: ELECTRICITY SALES & CUSTOMER EXPERIENCE

Thursday, 30 October

| Time           | Session                                                   | Meeting Room |
|----------------|-----------------------------------------------------------|--------------|
| 2:00 – 3:30 pm | D1: Customer Experience and Retail Digital Transformation | 5002         |
| 4:00 – 5:45 pm | D2: Operational Efficiency and Smart Energy Technologies  | 5002         |

## Track E: ICT'S INNOVATION IN THE POWER SECTOR

Thursday, 30 October

| Time           | Session                                                          | Meeting Room |
|----------------|------------------------------------------------------------------|--------------|
| 2:00 – 3:30 pm | E2: ICT Innovation and Integrated Systems for Utility Operations | 5003         |
| 4:00 – 5:30 pm | E3: Cybersecurity and Secure Communications for Power Systems    | 5003         |

Friday, 31 October

| Time             | Session                                                                | Meeting Room |
|------------------|------------------------------------------------------------------------|--------------|
| 8:45 – 10:30 am  | E1: Industry 4.0 Applications in Power Systems                         | 4612         |
|                  | E5.1: AI Applications in Power System Operations and Asset Management  | 4613         |
| 11:00 – 12:30 pm | E4: Digitalisation, IoT and Data Integration for Power Networks        | 4612         |
|                  | E5.2: Generative and Knowledge-Based AI in Utilities                   | 4613         |
| 1:30 – 3:00 pm   | E5-7: Intelligent Systems, Field Assistance and Operational Innovation | 4612         |



## **Track F: DEVELOPMENTS IN SUSTAINABLE POWER**

### **Thursday, 30 October**

| <b>Time</b>    | <b>Session</b>                                              | <b>Meeting Room</b> |
|----------------|-------------------------------------------------------------|---------------------|
| 2:00 – 3:30 pm | F6-7: ESG, Sustainable Financing and Stakeholder Engagement | 5102                |
| 4:00 – 5:30 pm | F2.1: Decarbonisation and Renewable Transition Strategies   | 5102                |

### **Friday, 31 October**

| <b>Time</b>      | <b>Session</b>                                                    | <b>Meeting Room</b> |
|------------------|-------------------------------------------------------------------|---------------------|
| 8:45 – 10:30 am  | F4: Grid Flexibility Requirements and Solutions                   | 5102                |
| 11:00 – 12:45 pm | F3: Integration of Variable Renewable Energy                      | 5102                |
| 1:30 – 3:00 pm   | F2.2: System Planning, Optimisation and Infrastructure Resilience | 5102                |

## Track A: T&D Networks Technologies and Strategies

### Session A1.1: Integrated Condition Monitoring and Predictive Maintenance for Power Systems

#### Sub-track: A.1 Advanced Monitoring and Maintenance for Power Equipment

**Session Chair: Dr Er Lai Kai Xian, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:30 am

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5001

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                     |
|------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 186 | <b>Holistic Strategy for Vacuum Circuit Breaker Maintenance at Transmission and Distribution Network</b><br>Presenter: Joseph Chan, The Hongkong Electric Co., Ltd. [on behalf of Sheung Chan]                                  |
| 9:00 – 9:15 AM   | 33  | <b>On Site Partial Discharge Measurement of Mineral Oil Distribution Transformer Using Single Phase Induced Voltage Source</b><br>Presenter: Jia Ming Khor [ON Engineers Pte Ltd]                                               |
| 9:15 – 9:30 AM   | 285 | <b>On-site IVPD Measurement: A Practical Approach to Evaluating Partial Discharge Severity in Distribution Transformers in Singapore</b><br>Presenter: Jun Li [SP Group]                                                        |
| 9:30 – 9:45 AM   | 154 | <b>Practical Approach for Distribution Transformers Incipient Fault Monitoring with Health Assessment</b><br>Presenter: Tik Lam Yip [SP Group]                                                                                  |
| 9:45 – 10:00 AM  | 112 | <b>Pilot Wire Supervision [PWS] Enhancement to Monitor Pilot Wire Short Circuit in the Distribution Network</b><br>Presenter: Alvin Koh [SP Group]                                                                              |
| 10:00 – 10:15 AM | 280 | <b>Optimization of Maintenance Management in Hydroelectric Plants: Implementing Oil Steam, Brake Dust, and Slip Ring Dust Collector Extraction Systems</b><br>Presenter: Wilbert Álvarez [China Three Gorges Corporation [CTG]] |
| 10:15 – 10:30 AM | 337 | <b>Integration of IoT to Work Management System &amp; Asset Analytics Towards Enabling Predictive Maintenance Implementation</b><br>Presenter: Nursyahira Binti Sharif [Tenaga Nasional Berhad]                                 |
| 10:30 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                      |

## Track A: T&D Networks Technologies and Strategies

### Session A1.2: Asset Health Monitoring and Management

#### Sub-track: A.1 Advanced Monitoring and Maintenance for Power Equipment

**Session Chair: Dr Er Lai Kai Xian, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5001

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                        |
|------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 459 | <b>Optimising Asset Lifecycle through Data-Driven Asset Insights</b><br>Presenter: Afifah Binti Mohd Zahid [Tenaga Nasional Berhad]                                                |
| 11:15 – 11:30 AM | 185 | <b>Development of Asset Health Management System to Embrace Digital Asset Management</b><br>Presenter: Kwong Shing, Anson Lo [CLP Power Hong Kong Limited]                         |
| 11:30 – 11:45 AM | 130 | <b>Proactive Infrastructure Asset Health Management with A Hybrid Condition-Aware Probabilistic Approach</b><br>Presenter: Ziming Yan [Nanyang Technological University]           |
| 11:45 – 12:00 PM | 319 | <b>Centralized On-Line Monitoring System [COMS] as O&amp;M's tool in Equipment Maintenance Management</b><br>Presenter: Dennis Jose Gan [National Grid Corporation of Philippines] |
| 12:00 – 12:15 PM | 523 | <b>Substation Equipment Data Integration Platform for Grid Assets Utilization Management</b><br>Presenter: Kittipob Patanavanich [Electricity Generating Authority of Thailand]    |
| 12:15 – 12:30 PM | 116 | <b>Application of PDC Test on Health Condition Monitoring of Distribution Cables in Singapore</b><br>Presenter: Alvin Koh, SP Group [on behalf of Bobby Goh]                       |
| 12:30 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                         |



## Track A: T&D Networks Technologies and Strategies

### Session A1.3: Condition Assessment and Reliability Testing of Cables and Power Equipment

#### Sub-track: A.1 Advanced Monitoring and Maintenance for Power Equipment

**Session Chair: Dr Cao Hongyan, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:15 AM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5002

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                               |
|------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 86  | <b>The Study of On-line Partial Discharge Diagnostics Test on Underground Cable</b><br>Presenter: Somkiat Puangkaew [Metropolitan Electricity Authority]                                  |
| 9:00 – 9:15 AM   | 8   | <b>Towards Optimised Distribution Asset Sensing and Analytics</b><br>Presenter: Nor Fazlinda Binte Mohd Affandi [SP Group]                                                                |
| 9:15 – 9:30 AM   | 563 | <b>Online Transformer DGA Monitoring – Modern Trends in Condition Assessment</b><br>Presenter: Brian Chiam [GE Vernova]                                                                   |
| 9:30 – 9:45 AM   | 244 | <b>Optimising Partial Discharge Testing Strategies for High Voltage Asset Reliability</b><br>Presenter: Andrew Suan, EA Technology Asset Management Pte Ltd (on behalf of Weng Heng Yuen) |
| 9:45 – 10:00 AM  | 32  | <b>Partial Discharge Localization in 22kV Cables using Single-end and Dual-end Methods</b><br>Presenter: Muhammad Fadzil Bin Jaffar [ON Engineers Pte Ltd]                                |
| 10:00 – 10:15 AM | 214 | <b>Study on Gas Analysis Method and Electrical Characteristics of 77kV XLPE Cable Terminations</b><br>Presenter: Ryohei Suzuki [Chubu Electric Power Grid Co., Inc.]                      |
| 10:15 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                |

## Track A: T&D Networks Technologies and Strategies

### Session A1.4: Next-Generation Monitoring and Fault Detection Technologies

#### Sub-track: A.1 Advanced Monitoring and Maintenance for Power Equipment

**Session Chair: Dr Cao Hongyan, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5002

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                           |
|------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 133 | <b>Advanced Vibration Monitoring Systems for Overhead Transmission Lines: Enhancing Grid Reliability and Maintenance Strategies</b><br>Presenter: Alban Cotte (Sicame Group)                                                          |
| 11:15 – 11:30 AM | 150 | <b>Automated Fault Detection and Response in Radial Sub-Transmission Lines Supplying Industrial and Commercial Customers Using Smart Mapping and Alerts</b><br>Presenter: Esel Alyssa Dimapilis (Manila Electric Company (MERALCO))   |
| 11:30 – 11:45 AM | 281 | <b>Comprehensive Analysis of Lightning-Induced Faults and SOTF Protection Malfunctions in 220 kV Transmission Lines: Case Study of Chaglla Hydroelectric Plant</b><br>Presenter: Arnold Medina (China Three Gorges Corporation (CTG)) |
| 11:45 – 12:00 PM | 302 | <b>Hybrid Applications of Broadband Over Power Line Communication (BPLC) and Wireless 5.5G in MV Substation Power Communication Fiber Network</b><br>Presenter: Chan Hou In, Oscar (Companhia de Electricidade de Macau)              |
| 12:00 – 12:15 PM | 200 | <b>Multimodal Fusion and Bidirectional Knowledge Distillation for Online Partial Discharge Monitoring</b><br>Presenter: Li Hongqun, SP Group (on behalf of Jinsheng Ji)                                                               |
| 12:15 – 12:30 PM | 90  | <b>Utilization of IoT Technology for Maintenance of Substation Equipment</b><br>Presenter: Hiroko Isaji (Chubu Electric Power Grid Co., Inc.)                                                                                         |
| 12:30 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                            |



## Track A: T&D Networks Technologies and Strategies

### Session A2.1: Digital Intelligence and Predictive Technologies for Power System Operations

#### Sub-track: A.2 Digital Solutions for Diagnostics and Maintenance

**Session Chair: Dr Er Lai Kai Xian, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:15 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5001

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                          |
|----------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 9   | <b>Machine Learning Application on Medium Voltage Asset Sensing through High Frequency Current Transformer</b><br>Presenter: Kai Xian Lai [SP Group]                                                 |
| 1:45 – 2:00 PM | 572 | <b>Multi-source Information Fusion for Substation Hidden Disease Detection</b><br>Presenter: Yuewei Tian [Guizhou Power Grid Co Ltd]                                                                 |
| 2:00 – 2:15 PM | 13  | <b>Variable Fault Simulator to Identify Potential Asset Failure for Distribution Power Equipment</b><br>Presenter: Li Xin Ng [SP Group]                                                              |
| 2:15 – 2:30 PM | 505 | <b>A CNN-BiLSTM Distribution Network Ground Fault Phase Selection Method Incorporating Attention Mechanisms</b><br>Presenter: Xiang Lun Nie [Guizhou Power Grid Co., Ltd. Bijie Power Supply Bureau] |
| 2:30 – 2:45 PM | 409 | <b>The Need of Fleet Management – How to Manage Thousands of Intelligent Devices Like RTUs and Cellular Modems in a Distribution Grid</b><br>Presenter: Peter Noglik [Hitachi Energy Germany AG]     |
| 2:45 – 3:00 PM | 549 | <b>Automating Commissioning Tests, Accepting Remote Maintenance and Guaranteeing Inventory Integrity Using a Device Management System</b><br>Presenter: Chirag Mistry [GE Vernova]                   |
| 3:00 – 3:15 PM | 132 | <b>New Developments for Testing and Evaluation of Distribution Cables</b><br>Presenter: Markus John [HIGHVOLT Prüftechnik Dresden GmbH]                                                              |
| 3:15 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                           |

## Track A: T&D Networks Technologies and Strategies

### Session A2.2: Equipment Monitoring, Diagnostics and Predictive Maintenance Technologies

#### Sub-track: A.2 Digital Solutions for Diagnostics and Maintenance

**Session Chair:** Lorenzo Paschini, Doble Engineering

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:00 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5002

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                       |
|----------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 119 | <b>Development of Automated Inspection Technology for Overhead Transmission Lines Using Drones</b><br>Presenter: Michiharu Ueki, Chubu Electric Power Grid Co., Inc. [on behalf of Shunsuke Ishida]               |
| 1:45 – 2:00 PM | 339 | <b>UV Live Detection System for Aging and Fracture of Composite Insulator Core Rods</b><br>Presenter: Wei Guo [CSG Guangdong Dongguan Power Supply Bureau]                                                        |
| 2:00 – 2:15 PM | 209 | <b>Online Partial Discharge Monitoring on Medium Voltage Three Core Underground Cables: Experiences on Detection, Elaboration and Localization</b><br>Presenter: Lorenzo Paschini [Doble Engineering]             |
| 2:15 – 2:30 PM | 240 | <b>Accurate Setting-Free Fault Locator for Power Transmission Networks Using Synchronized and Unsynchronized Data</b><br>Presenter: OD Naidu [Hitachi Energy]                                                     |
| 2:30 – 2:45 PM | 127 | <b>Thermal Models for Transformer Overload Management: Implementation Challenges and Solutions</b><br>Presenter: Christian Haselbeck, Maschinenfabrik Reinhausen GmbH [on behalf of Andreas Dreger]               |
| 2:45 – 3:00 PM | 128 | <b>Addressing Key Limitations in DGA Interpretation: An Implementation Case Study for Online OLTC Monitoring</b><br>Presenter: Christian Haselbeck, Maschinenfabrik Reinhausen GmbH [on behalf of Andreas Dreger] |
| 3:00 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                        |

## Track A: T&D Networks Technologies and Strategies

### Session A5.1: Advances in HVDC, Underground Transmission and Power Quality Systems

Sub-track: A.3 Digital Solutions for Diagnostics and Maintenance, A.4 Flexible AC/DC Transmission Systems (FACTS and FDCTS) & A.5 Underground Transmission & Distribution Networks and Substations

**Session Chair:** Chern Wen Kwang, SP Group

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5003

### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                 |
|------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 565 | <b>A review of HVDC cable systems configurations for long distance submarine power transmission</b><br>Presenter: Davide Pietribiasi [Prysmian]                                                             |
| 9:00 – 9:15 AM   | 295 | <b>Superconductor Material Cable in High Voltage Direct Current Systems using Yttrium Barium Copper Oxide</b><br>Presenter: Sheng Choon Er [SP Group]                                                       |
| 9:15 – 9:30 AM   | 23  | <b>Optimization of Green Hydrogen Electrolyser Plant Efficiency and Required Power Quality Solution</b><br>Presenter: Satyajit Pandya [Reinhausen India Pvt. Ltd.]                                          |
| 9:30 – 9:45 AM   | 89  | <b>Residential Area LV Distribution Imbalance Problem Solution Based on Power Quality Compensator (PQC)</b><br>Presenter: Thanawin Yuenyongsuwan [Metropolitan Electricity Authority]                       |
| 9:45 – 10:00 AM  | 320 | <b>Synergistic Development and Opportunities of Underground Power Cable and Common Service Tunnel in Macau</b><br>Presenter: Fong Chi Pui, Companhia de Electricidade de Macau [on behalf of Wai Hang Fong] |
| 10:00 – 10:15 AM | 463 | <b>Strategies for Distribution Cable Remediation: Lessons from Singapore's Power Grid</b><br>Presenter: Chun Sern Yiong [SP Group]                                                                          |
| 10:15 – 10:30 AM | 539 | <b>Labrador Underground Substation Power Cable Circuit Cooling Design</b><br>Presenter: Wen Kwang Chern [SP Group]                                                                                          |
| 10:30 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                  |

## Track A: T&D Networks Technologies and Strategies

### Session A5.2: Flexible AC/DC Systems and Protection Strategies

#### Sub-track: A.5 Underground Transmission & Distribution Networks and Substations & A.8 Addressing Network Congestion

**Session Chair:** Er Danny Quek Kai Hock, SP Group

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5003

### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                       |
|------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 396 | <b>Technical Challenges of Transmission Equipment in a 230kV Underground Transmission Substation in Singapore</b><br>Presenter: Danny Quek Kai Hock [SP Group]                    |
| 11:15 – 11:30 AM | 12  | <b>Statistical Impact Analysis of Underground Medium Voltage Network Switching Through Applied Load Flow Model</b><br>Presenter: Bryan Lee, SP Group [on behalf of Sian Ming Goh] |
| 11:30 – 11:45 AM | 18  | <b>Assessing Feasibility of Deploying Distance Protection within Underground Medium Voltage Distribution Network</b><br>Presenter: Ng Li En [SP Group]                            |
| 11:45 – 12:00 PM | 114 | <b>Design Policy and Verification Results for PACS Applying IEC 61850 Process Bus</b><br>Presenter: Takashi Kobayashi [Chubu Electric Power Grid Co., Inc.]                       |
| 12:00 – 12:15 PM | 156 | <b>Enhancing Feeder Protection Relay Settings in Urban Areas Due to Inrush Current Issues</b><br>Presenter: Phethai Nimsanong [Metropolitan Electricity Authority]                |
| 12:15 – 12:30 PM | 236 | <b>Setting-free, Intelligent Auto-Reclosing Scheme for Protection of Mixed Power Lines</b><br>Presenter: Vedanta Pradhan [Hitachi Energy]                                         |
| 12:30 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                        |

## Track A: T&D Networks Technologies and Strategies

### Session A6.1: Upgrading and Managing Ageing Infrastructure

#### Sub-track: A.6 Managing Ageing Infrastructure

**Session Chair:** Tiran Fernando, DNV

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:15 AM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5101

### Programme

| TIME            | ID  | PAPER TITLE                                                                                                                                                                                         |
|-----------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM  | 135 | <b>Integrated Asset Health Index (AHI) and Asset Risk Model: A Practical Tool to Guide Capital Planning and Maintenance Investments of T&amp;D Assets</b><br>Presenter: Farah Hanani (DNV AS)       |
| 9:00 – 9:15 AM  | 27  | <b>Recent Development and Advancements in Asset Management Systems Enable Power Utilities in Addressing Challenges</b><br>Presenter: Kang Seng Seow (Verixiom Pte. Ltd.)                            |
| 9:15 – 9:30 AM  | 401 | <b>Reconfiguration of Busbar Protection System During Renewal</b><br>Presenter: Der Chyuan Chung (SP Group)                                                                                         |
| 9:30 – 9:45 AM  | 548 | <b>Software and Hardware Considerations for Virtualized Protection and Control System</b><br>Presenter: Krishnakumar Venkataraman, GE Vernova (on behalf of Chirag Mistry)                          |
| 9:45 – 10:00 AM | 120 | <b>Interchanging Traditional Power Transformer Medium-Voltage Condenser Type Bushings with Modern Composite Polymeric Bushings</b><br>Presenter: Augusto Carletto (Maschinenfabrik Reinhausen GmbH) |
| 10:00 AM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                          |

## Track A: T&D Networks Technologies and Strategies

### Session A6.2: Asset Sustainability and Lifecycle Management

#### Sub-track: A.6 Managing Ageing Infrastructure

**Session Chair: Tiran Fernando, DNV**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:45 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5101

### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                               |
|------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 533 | <b>Adopting Sustainability Management in Asset End of Life &amp; Asset Disposal Process Using Digital Systems</b><br>Presenter: Jun Nian Lim (Tenaga Nasional Berhad)                                     |
| 11:15 – 11:30 AM | 255 | <b>Effective Sulphur Hexafluoride Cycle Management: Climate Protection, Reliability and Cost Reduction Hand in Hand</b><br>Presenter: Ulrich Ammer (DILO GmbH)                                            |
| 11:30 – 11:45 AM | 45  | <b>Implementing a Transformer Fleet Management Strategy Combining Reliability and Sustainability Dimensions: A German Utility Case Study</b><br>Presenter: Lando Peters (Maschinenfabrik Reinhausen GmbH) |
| 11:45 – 12:00 PM | 217 | <b>Transformer Oil Regeneration – Transformer Life Extension Program</b><br>Presenter: Adrian Sie Wei Hoe & Chiong Ching Ping (Sarawak Energy Berhad)                                                     |
| 12:00 – 12:15 PM | 257 | <b>Realization of Maintenance-Free OH Lines with Highly Corrosion Resistant Specifications of Coating and Plating</b><br>Presenter: Yuma Hayashi (Chubu Electric Power Grid Co., Inc.)                    |
| 12:15 - 12:30 PM | 73  | <b>How to Extend the Life Cycle of Ageing Cables in HV/MV Grids</b><br>Presenter: Klaus Winter (Holmgren Institute)                                                                                       |
| 12:30 – 12:45 PM | 460 | <b>Managing Ageing Power Transformers in Distribution Systems Using Artificial Intelligence</b><br>Presenter: Muhammad Rasyidi Bin Zainal Abidin (Tenaga Nasional Berhad)                                 |
| 12:45 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                |

## Track A: T&D Networks Technologies and Strategies

### Session A7-8: Advanced Grid Protection and Power Flow Optimisation

Sub-tracks: A.7 power Flow Control and Dynamic Equipment Ratings & A.8 Addressing Network Congestions

**Session Chair: Chung Der Chyuan, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:15 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5003

### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                   |
|----------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 66  | <b>Grid Sustainability: The First 5-Terminal Protection Scheme for Managing Complex Power System</b><br>Presenter: Nur Ismahani Mohd Zamri (Tenaga Nasional Berhad)                           |
| 1:45 – 2:00 PM | 28  | <b>Symmetrical Components Theory for Calculation of Fault Current Using Simple Drawings</b><br>Presenter: Sheng Hong Lim (ON Engineers Pte Ltd)                                               |
| 2:00 – 2:15 PM | 507 | <b>Load Modelling for Volt-Var Optimization Control in Limited Network Visibility</b><br>Presenter: Calvin Ku Shong Ching (Tenaga Nasional Berhad)                                            |
| 2:15 – 2:30 PM | 11  | <b>Medium Voltage Switching Optimization Using Time-Based Load Variation Study for Underground Electrical Network with High Current Flow</b><br>Presenter: Ryan Weien Ravichandran (SP Group) |
| 2:30 – 2:45 PM | 61  | <b>Comprehensive Approach to Distribution Network Efficiency with Advanced Conductor Accessories and HTLS Solutions</b><br>Presenter: Lionel Bastos (Sicame Group)                            |
| 2:45 – 3:00 PM | 404 | <b>A Smart System Protection Scheme (SPS) for a Resilient Sarawak State Grid, Malaysia</b><br>Presenter: Jacqueline Ban & Lo Thuan Kai (Sarawak Energy Berhad)                                |
| 3:00 – 3:15 PM | 550 | <b>Dynamic System Rating for Transmission Corridors</b><br>Presenter: Chirag Mistry (GE Vernova)                                                                                              |
| 3:15 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                    |



## Track A: T&D Networks Technologies and Strategies

### Session A9: Workforce Development and Organisational Practices

#### Sub-track: A.9 Workforce and Knowledge Management in Energy Sector

**Session Chair: Bryan Lee Zhen Yuan, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:00 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5101

### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                                                             |
|----------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 419 | <b>Beyond Incentives: Implementing the Eight-For Framework to Enhance Employee Engagement</b><br>Presenter: Han Zhang (Shenzhen Power Supply Co., Ltd)                                                                                                                  |
| 1:45 – 2:00 PM | 443 | <b>Driving Operational Excellence Through Workforce Empowerment at Sabah Electricity Transmission Division</b><br>Presenter: Ahmad Nassaruddin Kamaruzaman, Sabah Electricity Sdn Bhd (on behalf of Racheal Lim Pui Lang)                                               |
| 2:00 – 2:15 PM | 485 | <b>Innovative Research and Practice of Digital Job Evaluation in the Power Industry Based on Multimodal Fusion and Knowledge Graph</b><br>Presenter: Jin Teng Ge, China Southern Power Grid Co., Ltd. (on behalf of Cheng Liu)                                          |
| 2:15 – 2:30 PM | 19  | <b>Ensuring a Future Ready and Future Oriented Workforce Through Specialized Essential Courseware for Knowledge Management Amongst Technical Staff</b><br>Presenter: Bryan Lee, SP Group (on behalf of Kok Tee Lim)                                                     |
| 2:30 – 2:45 PM | 392 | <b>Empowering the Future: Nuclear Education and Awareness for Sustainable Energy in the Philippines</b><br>Presenter: TBC, Manila Electric Company (MERALCO) (on behalf of A. Cruz)                                                                                     |
| 2:45 – 3:00 PM | 431 | <b>Cross Cultural Synergistic Development of Labour and Knowledge in Global Energy Cooperation: Governance Mechanisms and Innovative Practices in the Sahiwal Project of China Pakistan Economic Corridor</b><br>Presenter: Binxiang Liu (China Huaneng Group Co., Ltd) |
| 3:00 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                              |

## Track B: Green Energy Technologies

### Session B1.1: Low-Carbon Energy Production and Carbon Capture I

#### Sub-track: B.1 Low-Carbon Energy Production and Carbon Capture

**Session Chair: Dr Dong Jiaxin, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:30 am

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4711

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                                                                   |
|------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 30  | <b>Gaseous Fuels for Distributed Power Complementing Renewables</b><br>Presenter: Klaus Payrhuber (INNIO Jenbacher GmbH & Co OG)                                                                                                                                              |
| 9:00 – 9:15 AM   | 529 | <b>Techno-economic Analysis of Three Low-carbon Transformation Methods in Coal-fired Power Plants Under the Background of Dual Carbon in China</b><br>Presenter: Bo Ling (China Energy Technology and Economics Research Institute, China Energy Investment Corporation Ltd.) |
| 9:15 – 9:30 AM   | 371 | <b>Decarbonization Trailblazer: Engineering and Natural Carbon Management at Stesen Janakuasa Tuanku Muhriz (SJTM)</b><br>Presenter: Muhammad Asyraf Ridzuan (Tenaga Nasional Berhad)                                                                                         |
| 9:30 – 9:45 AM   | 144 | <b>Technical and Regulatory Insights on Fuel Changeover for Hydrogen-Firing Gas Turbines</b><br>Presenter: Mohammad Nurizat Rahman (DNV AS)                                                                                                                                   |
| 9:45 – 10:00 AM  | 524 | <b>Techno-Economic Assessment of Pilot-Scale Synthetic Methane Production</b><br>Presenter: Nurul Noramelya binti Zulkefl (Tenaga Nasional Berhad)                                                                                                                            |
| 10:00 – 10:15 AM | 83  | <b>Demystifying Carbon Capture, Utilization and Storage: A Power Utility Corporate Academy Journey of Energy Transition Capability Uplifting</b><br>Presenter: Mohd Firdaus Mad Karim (Tenaga Nasional Berhad)                                                                |
| 10:15 – 10:30 AM | 267 | <b>Design and Upgrade of DC Excitation System with Advanced Digital AVR in Hydro-Power Plant</b><br>Presenter: Hariharan Balan & Raajabairavi Sivaprakas (Tenaga Nasional Berhad)                                                                                             |
| 10:30 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                                    |

## Track B: Green Energy Technologies

### Session B1.2: Low-Carbon Energy Production and Carbon Capture II

#### Sub-track: B.1 Low-Carbon Energy Production and Carbon Capture & B.5 Advanced Energy Storage Solutions

**Session Chair: Dr Dong Jiaxin, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:45 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4711

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                |
|------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 58  | <b>Energy-Storage-Based Grid-Forming Converters: Technology Review and Future Trends</b><br>Presenter: Liang Xian [DNV AS]                                                                 |
| 11:15 – 11:30 AM | 379 | <b>Analysis of the Development of the CCUS against the Background of the Low-carbon Transformation of Coal-fired Power Generation</b><br>Presenter: Nan Li [China Huaneng Group Co., Ltd]  |
| 11:30 - 11:45 AM | 124 | <b>Research on the Innovative Development Path of Independent Shared Energy Storage</b><br>Presenter: Lin Wang [China Three Gorges Corporation [CTG]]                                      |
| 11:45 – 12:00 PM | 125 | <b>Optimization of Energy Storage Requirements in High-Penetration Renewable Power Systems: A Simulation-Based Approach</b><br>Presenter: Yin Likun [China Three Gorges Corporation [CTG]] |
| 12:00 – 12:15 PM | 513 | <b>Beyond amines: Industrial feasibility of solvent-free CO<sub>2</sub> capture in power plants</b><br>Presenter: Fatin Nuraliya binti Muziadi [Tenaga Nasional Berhad]                    |
| 12:15 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                 |

## Track B: Green Energy Technologies

### Session B2: Emerging Energy Generation Technologies

#### Sub-track: B.2 Emerging Energy Generation Technologies

**Session Chair: Dr Tan Kuan Tak, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:15 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4711

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                        |
|----------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 92  | <b>Adoption of Hydrogen for Power Generation to Support Decarbonisation in Hong Kong</b><br>Presenter: Nok Ching Lau Cyrus, CLP Power Hong Kong Limited (on behalf of Wai Ip Ho)                                   |
| 1:45 – 2:00 PM | 192 | <b>Introducing a Second Gas Source for Gas-fired CCGTs in Lamma Power Station</b><br>Presenter: Kent Choy (The Hongkong Electric Company)                                                                          |
| 2:00 – 2:15 PM | 199 | <b>Challenges from Migration of Carbon Free Fuel – Hydrogen in Macau</b><br>Presenter: Chang Lu (Companhia de Electricidade de Macau)                                                                              |
| 2:15 – 2:30 PM | 315 | <b>Progress of Comprehensive Utilization Technology for Agricultural and Forestry Biomass Waste in China</b><br>Presenter: Song Jinghui (China Southern Power Grid Co., Ltd.)                                      |
| 2:30 – 2:45 PM | 364 | <b>Development of Site Assessment Criteria for Integration of Hybrid Hydropower Floating Solar Project: Case Studies for Peninsular Malaysia</b><br>Presenter: Jansen Luis Luis Alexander (Tenaga Nasional Berhad) |
| 2:45 – 3:00 PM | 421 | <b>Operation And Maintenance Experience in Managing the World's First Gas Turbine 9HA.02 Fleet Combined Cycle Power Plant in Malaysia</b><br>Presenter: Mohd Syazwan Othman (Tenaga Nasional Berhad)               |
| 3:00 – 3:15 PM | 475 | <b>Requirements, Design and Qualification of Transformers equipped with On-Load Tap-Changer for Floating Offshore Substations</b><br>Presenter: Sebastian Rehkopf (Maschinenfabrik Reinhausen GmbH)                |
| 3:15 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                         |

## Track B: Green Energy Technologies

### Session B3: Energy Efficiency, Circular Economy and Conservation Technologies

#### Sub-track: B.3 Energy Efficiency and Conservation Technologies & B.7 Circular Economy and Sustainable Material Use

**Session Chair: Dr Dhivya Sampath Kumar, IEEE PES**

**Date:** 30 October 2025, Thursday

**Time:** 4:00 – 5:35 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5001

#### Programme

| TIME                   | ID         | PAPER TITLE                                                                                                                                                                                                                |
|------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Opening Remarks</b> |            |                                                                                                                                                                                                                            |
| <b>4:00 – 4:05 PM</b>  |            | <b>Dr. Ng Sing Muk, GM R&amp;D, Sarawak Energy Berhad</b>                                                                                                                                                                  |
| <b>4:05 – 4:20 PM</b>  | <b>159</b> | <b>Power Station Technology Innovations in Sustainable Power Generation</b><br>Presenter: Yin Likun, China Three Gorges Corporation (CTG) (on behalf of Zeang Guo)                                                         |
| <b>4:20 – 4:35 PM</b>  | <b>282</b> | <b>Study of Heat Distribution in Penstock Pipes Due to Solar Radiation: Case Study of Chaglla Hydropower Plant</b><br>Presenter: Brian Arias Llaja (China Three Gorges Corporation (CTG))                                  |
| <b>4:35 – 4:50 PM</b>  | <b>346</b> | <b>Research on Self-cleaning Technology for Photovoltaic Modules Based on a Multidisciplinary Collaborative Innovation System</b><br>Presenter: Ruiyang Ma (Beijing Energy International Holding Co., Ltd.)                |
| <b>4:50 – 5:05 PM</b>  | <b>423</b> | <b>Application Study on Ammonia Production by Urea Direct-injection Pyrolysis in SCR Denitration Technology of Gas Steam Combined Cycle Unit</b><br>Presenter: Chen Dong (Xi'an Thermal Power Research Institute Co., Ltd) |
| <b>5:05 – 5:20 PM</b>  | <b>465</b> | <b>Capacity building in energy efficiency and sustainability for net-zero transition</b><br>Presenter: Lock Kai Sang (Singapore Institute of Technology)                                                                   |
| <b>5:20 – 5:35 PM</b>  | <b>512</b> | <b>Advancing mineral carbonation in the circular economy: A sustainable pathway for power industry decarbonization</b><br>Presenter: Afif Izwan Abd Hamid (Tenaga Nasional Berhad)                                         |
| <b>5:35 PM</b>         |            | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                 |



## **25<sup>th</sup> Conference of the Electric Power Supply Industry**

28 October to 1 November 2025  
Sands Expo & Convention Centre, Singapore





## Track B: Green Energy Technologies

### Session B5: Advanced Energy Storage Solutions

#### Sub-track: B.5 Advanced Energy Storage Solution

**Session Chair: Dr Tommy Halim, Maschinenfabrik Reinhausen GmbH**

**Date:** 31 October 2025, Friday

**Time:** 1:30– 2:45 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4712

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                  |
|----------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 313 | <b>Application of Mobile Battery Energy Storage System for Critical Events at Macau</b><br>Presenter: Cheng Tai Wu [Companhia de Electricidade de Macau]                                                     |
| 1:45 – 2:00 PM | 137 | <b>Development of An Innovative Control &amp; Monitoring System for BESS to Spearhead Malaysia's NETR</b><br>Presenter: Mohamed Fau'ad Bin Faisal [Tenaga Nasional Berhad]                                   |
| 2:00 – 2:15 PM | 193 | <b>Online Module Active Balancing of BESS with Mixed-Type Modules</b><br>Presenter: Donghan Shi [DNV AS]                                                                                                     |
| 2:15 – 2:30 PM | 264 | <b>Study on the Development and Application of Energy Efficiency Products Based on Distributed Compressed Air Energy Storage Technology</b><br>Presenter: Chao Tian [State Grid Corporation of China (SGCC)] |
| 2:30 – 2:45 PM | 569 | <b>Overview of Performance of First Utility-Scale BESS in Singapore Grid</b><br>Presenter: Yanqin Zhan [Sembcorp Utilities]                                                                                  |
| 2:45 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                   |

## Track B: Green Energy Technologies

### Session B6-8: Low-carbon Technologies and Transition Strategies

**Sub-track: B.6 Decarbonisation Technologies for Power Grids & B.8 Green Hydrogen, Fuel Cells, and Distributed Energy Resources (DER)**

**Session Chair: Dr Dhivya Sampath Kumar, IEEE PES**

**Date:** 30 October 2025, Thursday

**Time:** 2:00 – 3:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5001

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                                |
|----------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:00 – 2:15 PM | 42  | <b>Design of Green Hydrogen-Based Energy Storage System For Microgrid Pilot Project at EGAT Learning Center, Headquarter</b><br>Presenter: Prem Chutiampaiwong (Electricity Generating Authority of Thailand)                              |
| 2:15 – 2:30 PM | 65  | <b>Life Cycle Assessment for Substations and Activities for Reduction of Greenhouse Gas Emissions</b><br>Presenter: Tatsuya Watanabe (Chubu Electric Power Grid Co., Inc.)                                                                 |
| 2:30 – 2:45 PM | 87  | <b>Navigating a Sustainable Future for Sub and Transmission Substations Without SF: High-voltage EconIQ Portfolio, Towards a Carbon-Neutral Future</b><br>Presenter: Terrence Neo (Hitachi Energy)                                         |
| 2:45 – 3:00 PM | 134 | <b>Factors Influencing the Development of a Hydrogen Economy</b><br>Presenter: Tiran Fernando (DNV AS)                                                                                                                                     |
| 3:00 – 3:15 PM | 355 | <b>Electricity-Hydrogen Integration for Advancing Carbon Peak and Neutrality in China</b><br>Presenter: Si Jipeng (China Huaneng Group Co., Ltd)                                                                                           |
| 3:15 – 3:30 PM | 414 | <b>Challenges of Thermal Power Dominated Power System to Achieve Carbon-Neutral</b><br>Presenter: Zongtai Li (Xi'an Thermal Power Research Institute Co., Ltd.)                                                                            |
| 3:30-3:45 PM   | 108 | <b>Research on prominent issues and optimization pathways in the development of shared energy storage systems</b><br><b>Presenter: Yi Liu (State Nuclear Power Engineering Planning and Design Research Institute Chongqing Co., Ltd.)</b> |
| 3:30 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                 |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C1: Digitalisation and Data Analytics for Grid Management and Reliability

#### Sub-track: C.1 Energy and Distribution Management Systems (EMS, DMS, SCADA) & Data Analytics

**Session Chair: Sandeep Singh, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:00 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4713

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                     |
|------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 162 | <b>Adopting Digital Technology in Legacy Substation Automation through DNP/IP Communication</b><br>Presenter: John Paul Borito [Manila Electric Company (MERALCO)]                              |
| 11:15 – 11:30 AM | 10  | <b>Maintaining Medium Voltage Network Reliability Using Distribution Control Multi-Disciplinary Approach for Fault Identification and Rectification</b><br>Presenter: Yeow Leong Yeo [SP Group] |
| 11:30 – 11:45 AM | 213 | <b>Enhancing Low-Voltage Network Resilience through Grid-Edge Computing and Advanced Monitoring</b><br>Presenter: Sebastian Lindmark [EA Technology]                                            |
| 11:45 – 12:00 PM | 136 | <b>Modernising Grid Operations: A CIM-Based Model Approach Leveraging Graph Databases and Generative AI</b><br>Presenter: Stephen Najor [Oracle Corporation]                                    |
| 12:00 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                      |



## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C3: Advances in Substation Digitalisation, Automation, and Cybersecurity

Sub-track: C.3 Power Plant Digitalisation, Automation, and Cybersecurity & C.4 Integrated, Self-Healing Systems

**Session Chair:** Sandeep Singh, SP Group

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:00 am

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4713

#### Programme

| TIME            | ID  | PAPER TITLE                                                                                                                                                                                                                                                                                                                          |
|-----------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM  | 325 | <b>Experiences and Lessons Learned from Deploying Singapore's Pilot IEC 61850-Based Digital Substation Project</b><br>Presenter: Max Zheng (SP Powergrid Ltd)                                                                                                                                                                        |
| 9:00 – 9:15 AM  | 342 | <b>Improving Reliability and Maintainability of IEC61850-based Digital Control Systems for Power Substations: A Review of Maintenance Records, Operation Challenges, Integration of Advanced Remote Terminal Units, and Standardization Efforts</b><br>Presenter: Chao Chi Man & Yuen Kin Tong (Companhia de Electricidade de Macau) |
| 9:15 – 9:30 AM  | 449 | <b>Hybrid CNN-LSTM-Transformer Model for Governor Oil Pump Load Duration Forecasting of Pumped Storage Power Station</b><br>Presenter: Gong Yu (China Southern Power Grid Co., Ltd.)                                                                                                                                                 |
| 9:30 – 9:45 AM  | 406 | <b>LoRa Terminal Network Access Authentication Technology Based on Radio Frequency Fingerprint</b><br>Presenter: Sun Hao (Kunming Bureau of CSG EHV Transmission Company)                                                                                                                                                            |
| 9:45 – 10:00 AM | 95  | <b>Self-Healing by Remote Terminal Unit of SCADA</b><br>Presenter: Herman Man Tsun Yin (CLP Power Hong Kong Limited)                                                                                                                                                                                                                 |
| 10:00 AM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                                                                                           |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C2.1: DER Integration and Grid Modernisation

Sub-track: C.2 Smart Grid and Microgrid Applications and Technologies & C.9 Demand Response (Demand Side Management) and Flexible Load Management

**Session Chair:** Er Tan Ru Chen, SP Group

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:30 am

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4712

### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                              |
|------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 47  | <b>Improving the Integration of Distributed Energy Resources (DERs) in Thailand's Power Grid Using Automatic Voltage Regulator Distribution Transformers (AVRDT)</b><br>Presenter: Suphanut Satarworn (Provincial Electricity Authority) |
| 9:00 – 9:15 AM   | 180 | <b>Flexibility-Driven DERMS: A Multi-Agent Approach for Optimized Distributed Energy Resource Integration in Modern Power Grids</b><br>Presenter: Kin Hey Chu (SP Group)                                                                 |
| 9:15 – 9:30 AM   | 225 | <b>Research on Multi-type Resource Coupling Operation and Scheduling Strategy for Distributed Photovoltaic Intelligent Distribution Network</b><br>Presenter: Ge Wang (State Grid Corporation of China [SGCC])                           |
| 9:30 – 9:45 AM   | 338 | <b>Optimizing DER Integration with a Smarter Grid: Distribution Network's Approach to Energy Transition, Smart Communities, and Grid Modernization</b><br>Presenter: Komal Deep Kaur Hardial Singh (Tenaga Nasional Berhad)              |
| 9:45 – 10:00 AM  | 104 | <b>NextGen GridOps Framework Accelerates Utilities' Smart Grid Transformation</b><br>Presenter: Xiaoning Liang (DNV AS)                                                                                                                  |
| 10:00 - 10:15 AM | 327 | <b>Introduction of Regional Power Grid Battery Storage Project</b><br>Presenter: Yu-Hsuan Tai (Taiwan Power Company)                                                                                                                     |
| 10:15 – 10:30 AM | 344 | <b>Supporting the Decarbonisation of Hong Kong: The Role of Battery Energy Storage System for a Resilient Low Voltage Grid</b><br>Presenter: Michael Tsz Him Kwong (CLP Power Hong Kong Limited)                                         |
| 10:30 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                               |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C2.2: Smart Grid Control, Stability and Optimisation Technologies

**Sub-track: C.2 Smart Grid and Microgrid Applications and Technologies & C.9 Demand Response (Demand Side Management) and Flexible Load Management**

**Session Chair: Dr Tommy Halim, Maschinenfabrik Reinhausen GmbH**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4712

### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                      |
|------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 94  | <b>Analysis on the Operation Scenarios and Test Procedure of Green Island Microgrid Moving Towards a Zero-Carbon Island</b><br>Presenter: Chen-Yu Chien (Taiwan Power Company)                                   |
| 11:15 – 11:30 AM | 296 | <b>Research on Green Micro-grid Dispatching Based on the Integration of Diversified Resources</b><br>Presenter: Fan Guoqi, State Grid Corporation of China (SGCC) (on behalf of Ren CHong)                       |
| 11:30 – 11:45 AM | 297 | <b>Research on the dispatching of virtual power plants for the aggregation of multiple flexible resources</b><br>Presenter: Fan Guoqi (State Grid Corporation of China (SGCC))                                   |
| 11:45 – 12:00 PM | 53  | <b>Implementation Techniques of Flexible Overload-shedding Function for Transmission Transformers in MEA's Power Distribution System</b><br>Presenter: Pichit Jintagasonwit (Metropolitan Electricity Authority) |
| 12:00 – 12:15 PM | 457 | <b>Research on Power Stability Control Technology of Smart Grid Under Security Reinforcement Learning</b><br>Presenter: Yingda Chen (China Southern Power Grid Co., Ltd)                                         |
| 12:15 – 12:30 PM | 50  | <b>SOGI-Based Virtual Flux Oriented Control for Grid-Forming Converters</b><br>Presenter: Yun Yang (Nanyang Technological University)                                                                            |
| 12:30 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                       |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C6: AMI and Smart Meter Applications

#### Sub-track: C.6 Smart Metering and Advanced Metering Infrastructure (AMI)

**Session Chair: Er Tan Teck Lee, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:15 am

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4611

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                                                           |
|------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 97  | <b>Application of Bluetooth Interface for Smart Meter Operations: A Multi-Layered Security Approach</b><br>Presenter: Che-I Lin (Taiwan Power Company)                                                                                                                |
| 9:00 – 9:15 AM   | 158 | <b>Enabling AMI Connectivity by Specially Designed Antenna</b><br>Presenter: Ho Homan (CLP Power Hong Kong Limited)                                                                                                                                                   |
| 9:15 – 9:30 AM   | 207 | <b>Use of Smart Meter Data to Detect Open Neutral Statuses</b><br>Presenter: Chi Fai Chan (The Hongkong Electric Company)                                                                                                                                             |
| 9:30 – 9:45 AM   | 299 | <b>Leveraging Advanced Metering Infrastructure for Enhanced Network Visibility and Distributed Energy Resource Integration: TNB's Strategic Approach Towards Malaysia's Energy Transition</b><br>Presenter: Syed Ahmad Fuad Syed Abdul Hamid (Tenaga Nasional Berhad) |
| 9:45 – 10:00 AM  | 353 | <b>Exploration of Smart Services and Smart Grid in Macau based on CEM AMI</b><br>Presenter: Wong Hou Wa, Oscar & Ho Chon Hei, Henry (Companhia de Electricidade de Macau)                                                                                             |
| 10:00 – 10:15 AM | 402 | <b>Handling Large-Scale Smart Meter Data in a Low-Resource Environment: A Scalable Machine Learning Pipeline for Fault Detection and Predictive Maintenance</b><br>Presenter: Farhana binti Abdul Hadi (Tenaga Nasional Berhad)                                       |
| 10:15 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                            |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C7: EV Charging and V2G Technologies

**Sub-track: C.7 Electric Vehicles (EVs), Charging Infrastructure, and Vehicle-to-Grid (V2G) Technologies & C.9 Demand Response (Demand Side Management) and Flexible Load Management**

**Session Chair: Dr Sivaneasan Bala Krishnan, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4611

### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                           |
|----------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 203 | <b>Securing Commercial Distributed Electric Vehicle Charge Point Operation</b><br>Presenter: Sukoco, DNV AS (on behalf of Wei Ming Quek)                                                                                              |
| 1:45 – 2:00 PM | 259 | <b>Research on Design Technology of Mobile Charging Robots for Autonomous Driving Scenarios</b><br>Presenter: TBC State Grid Corporation of China [SGCC] (on behalf of Q. L. Qin)                                                     |
| 2:00 – 2:15 PM | 300 | <b>Building a Reliable and Secure Communication Environment for Electric Vehicles Charging Network in MACAU</b><br>Presenter: Lei Sao Ha, Maggie, & Leong Lan Lan Kitty, Companhia de Electricidade de Macau (on behalf of Hang Chan) |
| 2:15 – 2:30 PM | 445 | <b>Optimization Scheduling of Electric Vehicle Charging Stations Based on Multi-Agent Reinforcement Learning</b><br>Presenter: Qingchan Liu, China Southern Power Grid Co., Ltd. (on behalf of Qi Wang)                               |
| 2:30 – 2:45 PM | 509 | <b>Off-Grid Solar-Powered EV Charging: Enhancing Energy Independence and Sustainability for Electric Fleets</b><br>Presenter: Shafirah Binti Nor Din (Tenaga Nasional Berhad)                                                         |
| 2:45 – 3:00 PM | 123 | <b>Construction and Application of the Interactive System between Electric Vehicles and Distribution Network Based on "Cloud-Edge" Collaboration</b><br>Presenter: Xinyang Wang (State Grid Corporation of China [SGCC])              |
| 3:00 – 3:15 PM | 520 | <b>EleX by EGAT, EV Charge Point Operator in Thailand</b><br>Presenter: Surisa Sangdee, Electricity Generating Authority of Thailand (on behalf of Pichit Phongprasert)                                                               |
| 3:15 – 3:30 PM | 526 | <b>BackEN EV, EV Charging Management Platform in Thailand</b><br>Presenter: Phawini Naksila, Electricity Generating Authority of Thailand (on behalf of Warangkana In-lao)                                                            |
| 3:30 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                            |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C8: Microgrid Design, Operation, and Control

#### Sub-track: C.8 Microgrid Design, Operation, and Control

**Session Chair: Dr Sivaneasan Bala Krishnan, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:15 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4611

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                  |
|------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 31  | <b>Microgrids for Resilient Distributed Power</b><br>Presenter: Fathur R Handoko, INNIO Jenbacher GmbH & Co OG (on behalf of Klaus Payrhuber)                                                |
| 11:15 – 11:30 AM | 106 | <b>Trial of grid storage batteries control for rural microgrid areas to reduce the impact of renewable energy</b><br>Presenter: Yosuke Higashi (Chubu Electric Power Grid Co., Inc.)         |
| 11:30 – 11:45 AM | 351 | <b>Challenges And Successful Completion Of Upgrading Emergency Generator System Into Microgrid</b><br>Presenter: Lin Meng Chua (Singapore Polytechnic)                                       |
| 11:45 – 12:00 PM | 416 | <b>Coordinated Optimal Scheduling Method for Distribution Systems Based on the Analytic Target Cascading (ATC) Method</b><br>Presenter: Nan Ning (China Southern Power Grid Co., Ltd.)       |
| 12:00 – 12:15 PM | 546 | <b>Collaborative Operation of Electric Sales Business and Park-Level Integrated Energy System Under the New Market Environment</b><br>Presenter: Shaomin Wang (China Huaneng Group Co., Ltd) |
| 12:15 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                   |

## Track C: Smart Grid, Microgrid & Distributed Energy Technologies

### Session C10: Renewable Integration and Grid Stability

#### Sub-track: C.10 Renewable Integration and Grid Compatibility

**Session Chair: Er Tan Ru Chen, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:05 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4713

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                              |
|----------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:35 PM |     | <b>Opening Remarks</b>                                                                                                                                                                   |
| 1:35 – 1:50 PM | 46  | <b>Mr Stephen Yee, SM SCD, Sarawak Energy Berhad</b>                                                                                                                                     |
| 1:50 – 2:05 PM | 56  | <b>RE Forecasting Implementation and Challenges for Distribution System Operator</b><br>Presenter: Chanon Phaepilin (Metropolitan Electricity Authority)                                 |
| 2:05 – 2:20 PM | 75  | <b>Short-term voltage stability analysis of hybrid renewable energy systems with composite loads</b><br>Presenter: Ming Yang Hng (SP Group)                                              |
| 2:20 – 2:35 PM | 194 | <b>Increasing PV Hosting Capacity by using Voltage Support of Smart Inverters in MEA's LV Distribution Systems</b><br>Presenter: Wuttichai Saranrom (Metropolitan Electricity Authority) |
| 2:35 – 2:50 PM | 292 | <b>Grid Code Compliance and Performance Optimization in Utility-Scale Solar PV Plants Using On-Load Tap-Changers</b><br>Presenter: Waqas Hussain (Maschinenfabrik Reinhausen GmbH)       |
| 2:50 – 3:05 PM | 238 | <b>Best Practices and Lessons in LV DERMS Implementation</b><br><b>Presenter:</b> Nicholas Phillips (Itron)                                                                              |
| 3:05 PM        |     | <b>Practical approach on protection coordination of medium voltage network with embedded generation</b><br><b>Presenter: K.P.J. Prabhath Premathilake (Ceylon Electricity Board)</b>     |
| 3:05 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                               |

## Track D: Electricity Sales & Customer Experience

### Session D1: Customer Experience and Retail Digital Transformation

Sub-tracks: D.1 Customer-Side Energy Efficiency Management, D.2 Demand Response and Customer Interaction, D.3 Innovation in Retail Electricity and Customer Services, D.4 Integrated Customer Energy Management Solutions & D.5 Decentralised and Peer-to-Peer (P2P) Energy Trading

**Session Chair: Matthew Gleeson, Oracle**

**Date:** 30 October 2025, Thursday

**Time:** 2:00 – 3:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5002

### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                                                                       |
|----------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:00 – 2:15 PM | 110 | <b>CLP ONE - Customer Smart Energy Management Transformation in Hong Kong</b><br>Presenter: Tracey Chan, CLP Power Hong Kong Limited (on behalf of C. H. Yuen)                                                                                                                    |
| 2:15 – 2:30 PM | 387 | <b>From Data to Decisions: Enhancing Customer Experience with Data Driven Energy Insights</b><br>Presenter: Nur Shuhada Abdullah (Tenaga Nasional Berhad)                                                                                                                         |
| 2:30 – 2:45 PM | 166 | <b>Meralco's Customer Experience Index: Enhancing CX through Innovative Measurement Programs</b><br>Presenter: Aldrich Salen (Manila Electric Company (MERALCO))                                                                                                                  |
| 2:45 – 3:00 PM | 438 | <b>Construction and Application of Customer Services Satisfaction Index Model of Electric Vehicle Charging Infrastructure: An Empirical Study of Five Provinces in Southern China</b><br>Presenter: Junmin Zhang (China Southern Power Grid Industrial Investment Group Co., Ltd) |
| 3:00 – 3:15 PM | 557 | <b>Transforming Electricity Billing and Contracting for Seamless Solar Adoption: The TNBX Approach</b><br>Presenter: Sharifah Salwah Binti Syed Othman (Tenaga Nasional Berhad)                                                                                                   |
| 3:15 – 3:30 PM | 444 | <b>VEM: Enabling Smart Energy Ecosystem</b><br>Presenter: Muhammad Ibrahim Rozman (Tenaga Nasional Berhad)                                                                                                                                                                        |
| 3:30 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                                        |

## Track D: Electricity Sales & Customer Experience

### Session D2: Operational Efficiency and Smart Energy Technologies

Sub-track: D.1 Customer-Side Energy Efficiency Management, D.2 Demand Response and Customer Interaction, D.3 Innovation in Retail Electricity and Customer Services & D.4 Integrated Customer Energy Management Solutions

**Session Chair: Matthew Gleeson, Oracle**

**Date:** 30 October 2025, Thursday

**Time:** 4:00 – 5:45 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5002

### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                |
|----------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4:00 – 4:15 PM | 100 | <b>Identification and Replacement of High Energy-Consuming Home Appliances</b><br>Presenter: Li-Hsin Chang [Taiwan Power Company]                                          |
| 4:15 – 4:30 PM | 54  | <b>5G-based Cooling Load Prediction Information System of Air Conditioning for Decarbonisation in Shopping Mall</b><br>Presenter: Simon Tsui [CLP Power Hong Kong Limited] |
| 4:30 – 4:45 PM | 466 | <b>Demand Response in Malaysia: Strategic Implementation and Regulatory Considerations</b><br>Presenter: Aznan Ariffin [Tenaga Nasional Berhad]                            |
| 4:45 – 5:00 PM | 283 | <b>The Application of Three-Phase Inverters for Solar Power Generation and Energy Management</b><br>Presenter: Palakorn Jukseda [Provincial Electricity Authority]         |
| 5:00 – 5:15 PM | 101 | <b>MEA Test Data Generator for Government Discount Calculation</b><br>Presenter: Sayompoo Pieamsang [Metropolitan Electricity Authority]                                   |
| 5:15 – 5:30 PM | 44  | <b>GIS Mobile Workforce Application for Enhancing MEA's Customer Service</b><br>Presenter: Paphawee Tungduangdee [Metropolitan Electricity Authority]                      |
| 5:30 – 5:45 PM | 564 | <b>Enhancing Field Service Efficiency through Mobile Workforce Management: A Case Study of Sabah Electricity</b><br>Presenter: Aminah Ahmad [Sabah Electricity Sdn Bhd]    |
| 5:45 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                 |

## Track E: ICT's Innovation in the Power Sector

### Session E1: Industry 4.0 Applications in Power Systems

#### Sub-track: E.1 Emerging Technologies and Industry 4.0 in the Power Sector

**Session Chair: Bryan Lee Zhen Yuan, SP Group**

**Date:** 31 October 2025, Friday

**Time: 8:45 – 10:30 am**

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4612

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                                                |
|------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | 286 | <b>Visualizing the Future of a Modern Distribution Control Centre as a Central Digital Hub of Information for Control Operators within Singapore</b><br>Presenter: Bryan Lee [SP Group]                                                                    |
| 9:00 – 9:15 AM   | 479 | <b>Application of Smart Utility Maturity Assessment (SUMA) Model in Distribution Network of Tenaga Nasional Berhad (TNB), In Support of Malaysia's Energy Transition Journey</b><br>Presenter: Malveen Kaur A/P Madan Mohan Singh [Tenaga Nasional Berhad] |
| 9:15 – 9:30 AM   | 301 | <b>Trustable AI Framework for Intelligent Meter Monitoring: A Multi-Agent, LLM-Driven Approach</b><br>Presenter: Tiantian Guo [SP Group]                                                                                                                   |
| 9:30 – 9:45 AM   | 287 | <b>Real-Time Risk Alarm Detection System: A Case Study in Meralco Distribution System Addressing Power Reliability and Safety on Building Work Sites (BWS)</b><br>Presenter: Ryannel Sy [Manila Electric Company (MERALCO)]                                |
| 9:45 – 10:00 AM  | 43  | <b>Research and Development of Switching Operation Robot for High-Voltage Power Systems</b><br>Presenter: Zihuang Lin [China Three Gorges Corporation (CTG)]                                                                                               |
| 10:00 – 10:15 AM | 568 | <b>Utilizing Drone for High-Voltage Transmission and Distribution Line Inspection and Regulatory Compliance Challenges</b><br>Presenter: Chai Kim Thai [Sarawak Energy Berhad]                                                                             |
| 10:15 – 10:30 AM | 126 | <b>Invertnity: Automated Application for Solar PV Inverter Testing</b><br>Presenter: Pannawat Charoenwithu [Metropolitan Electricity Authority]                                                                                                            |
| 10:30 AM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                 |

## Track E: ICT's Innovation in the Power Sector

### Session E2: ICT Innovation and Integrated Systems for Utilities Operations

#### Sub-track: E.2 ICT Innovations in Corporate Management

**Session Chair: Dr Sheik Fareed Muhammad Musthafa Roomi , IEEE PES**

**Date:** 30 October 2025, Thursday

**Time:** 2:00 – 3:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5003

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                    |
|----------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:00 – 2:15 PM | 570 | <b>Fusion Centre: An Integrated Approach to Security Operations</b><br>Presenter: Steve Lee Hee Kwang, SP Group (on behalf of Y. C. Wong)      |
| 2:15 – 2:30 PM | 167 | <b>Brightstream App: Revolutionizing Meralco's Streetlight Management</b><br>Presenter: Yvonne Jazzey Melo (Manila Electric Company (MERALCO)) |
| 2:30 – 2:45 PM | 175 | <b>Flying Connection Detection and Recovery</b><br>Presenter: Clairol Sagaysay (Manila Electric Company (MERALCO))                             |
| 2:45 – 3:00 PM | 483 | <b>Innovative Enterprise Think Tank Enhancing Value Creation Mechanisms</b><br>Presenter: Yaqiong Tan (China Shenhua Energy Company Limited)   |
| 3:00 – 3:15 PM | 189 | <b>Overcoming Key Challenges in HK Electric's GIS Transformation Journey</b><br>Presenter: Chris Poon (The Hongkong Electric Company)          |
| 3:15 – 3:30 PM | 551 | <b>Implementation of a Blackstart Cranking Path Sequence Operation through PMU</b><br>Presenter: Chirag Mistry (GE Vernova)                    |
| 3:30 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                     |

## Track E: ICT's Innovation in the Power Sector

### Session E3: Cybersecurity and Secure Communications for Power Systems

#### Sub-track: E.3 Telecommunications and Cybersecurity for Critical Infrastructure

**Session Chair: Dr Sheik Fareed Muhammad Musthafa Roomi , IEEE PES**

**Date:** 30 October 2025, Thursday

**Time:** 4:00 – 5:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5003

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                              |
|----------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4:00 – 4:15 PM | 29  | <b>A Practical Way of Defending Critical Infrastructure in the Power Sector Against Cyber Attacks</b><br>Presenter: Ethan Seow (Practical Cyber)                                         |
| 4:15 – 4:30 PM | 393 | <b>Research on Cybersecurity Situational Awareness Technology for New-generation Power Systems</b><br>Presenter: TBC (on behalf of B. Yu)                                                |
| 4:30 – 4:45 PM | 103 | <b>Reevaluating the Role of Data Diodes in Modern OT Security</b><br>Presenter: Wei Ming Quek (DNV AS)                                                                                   |
| 4:45 – 5:00 PM | 164 | <b>Our Initiatives to Visualization of Cybersecurity Skills and Penetration Testing for Control Systems</b><br>Presenter: Kakeru Kashima (Chubu Electric Power Co., Inc.)                |
| 5:00 – 5:15 PM | 304 | <b>Hitless redundancy protection for line differential protection communications with active multipath pseudowire over IP/MPLS</b><br>Presenter: Dominique Verhhulst, & Ali Emam (Nokia) |
| 5:15 – 5:30 PM | 429 | <b>450 MHz Spectrum for Power Utilities: Unlocking the Potential of Wide-Area Private Networks</b><br>Presenter: Khairul Azhar Bin Ishak (Tenaga Nasional Berhad)                        |
| 5:30 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                               |

## Track E: ICT's Innovation in the Power Sector

### Session E4: Digital Utilities, IoT and Data Integration for Power Networks

#### Sub-track: E.4 Digital Utilities and the Internet of Things (IoT)

**Session Chair: Dr Can Berk Saner, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4612

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                     |
|------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 312 | <b>Digital Transformation of Power Network Work Management with Modern Work</b><br>Presenter: Wai Kit Eric So (Companhia de Electricidade de Macau)                                             |
| 11:15 – 11:30 AM | 190 | <b>Automating the Distribution Switchgear Operation Time Measurement in DMS RTU</b><br>Presenter: Benny Cheung, The Hongkong Electric Company (on behalf of J. Chung)                           |
| 11:30 – 11:45 AM | 258 | <b>Data Accessibility as a Driver for Remote HV Asset Monitoring</b><br>Presenter: Stephan Sehestedt (Hitachi Energy)                                                                           |
| 11:45 – 12:00 PM | 527 | <b>Toward Seamless IoT Interoperability for Energy and Mobility Integration: A Systemic Perspective</b><br>Presenter: Wen Hanguan (China Southern Power Grid Co., Ltd.)                         |
| 12:00 – 12:15 PM | 293 | <b>Space Technology Approach for Catchment Area Surveillance in Peninsular Malaysia</b><br>Presenter: Mohd Syazuan Kamarulzaman (Tenaga Nasional Berhad)                                        |
| 12:15 – 12:30 PM | 226 | <b>Uberization of Electric Service Application: The Private Electric Contractors Certified By Meralco (PECCBM) Platform</b><br>Presenter: Virgo Ramil Ruaro (Manila Electric Company (MERALCO)) |
| 12:30 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                      |

## Track E: ICT's Innovation in the Power Sector

### Session E5.1: AI Applications in Power System Operations and Asset Management

Sub-track: E.5 Artificial Intelligence (AI) and Large Language Models (LLMs) & E.7 Virtual Reality (VR) and Augmented Reality (AR)

**Session Chair: Dr Sivaneasan Bala Krishnan, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:20 am

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4613

### Programme

| TIME                    | ID         | PAPER TITLE                                                                                                                                                                                                  |
|-------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>8:45 – 8:50 AM</b>   |            | <b>Opening Remarks</b><br>Jacky Wang, Vice President, Electric Power Digitalization BU, Huawei                                                                                                               |
| <b>8:50 – 9:05 AM</b>   | <b>373</b> | <b>AI-Driven Acoustic Analysis for Partial Discharge Detection</b><br>Presenter: Nicholas Liang Yung Wong, [SP Group]                                                                                        |
| <b>9:05 – 9:20 AM</b>   | <b>243</b> | <b>Enhancing Transformer Condition Monitoring with AI: A Hybrid Approach Using Offline and Online Data</b><br>Presenter: Tommy Halim [Maschinenfabrik Reinhausen GmbH]                                       |
| <b>9:20 – 9:35 AM</b>   | <b>138</b> | <b>Optimizing System Loss Reduction through Data-Driven Inspection Deployment: A Cluster-Level Electricity Theft Analysis Approach</b><br>Presenter: Juan Miguel Bunagan [Manila Electric Company (MERALCO)] |
| <b>9:35 – 9:50 AM</b>   | <b>98</b>  | <b>Uncovering Hidden Electric Vehicle Loads by Transfer Learning Technique</b><br>Presenter: Binnie Wai Keung Yiu [CLP Power Hong Kong Limited]                                                              |
| <b>9:50 – 10:05 AM</b>  | <b>82</b>  | <b>GEOAI–Automated Detection of Solar Panels Using Deep Learning for Detecting Unregistered On-Grid Solar Panels</b><br>Presenter: Thitiporn Intarabamroong [Metropolitan Electricity Authority]             |
| <b>10:05 – 10:20 AM</b> | <b>415</b> | <b>Application of Artificial Intelligence in Hydropower Operation Automation</b><br>Presenter: Ming Li, China Huaneng Group Co., Ltd (on behalf of Bo Zhang)                                                 |
| <b>10:20 AM</b>         |            | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                   |

## Track E: ICT's Innovation in the Power Sector

### Session E5.2: Generative and Knowledge-Based AI in Utilities

#### Sub-track: E.5 Artificial Intelligence (AI) and Large Language Models (LLMs)

**Session Chair:** Dr Koh Ngiap Tiam, IEEE PES

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:30 pm

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4613

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                      |
|------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 486 | <b>A Large Model of Modal Perception of Power Technology Practical Operation Status Based on Knowledge Graph</b><br>Presenter: Peiyang Li [China Southern Power Grid Co., Ltd.]                                                  |
| 11:15 – 11:30 AM | 476 | <b>Research on an Ontology-Enhanced Intelligent Query System for Power Equipment Based on IEC61970/61968 Standards</b><br>Presenter: Hongyi Chen [China Southern Power Grid Co., Ltd.]                                           |
| 11:30 – 11:45 AM | 528 | <b>Success and learnings from use of Large Language models in Power sector</b><br>Presenter: Bailing Zhang, CLP Power Hong Kong Limited (on behalf of Hiok Song Er)                                                              |
| 11:45 – 12:00 PM | 48  | <b>Enhanced Retrieval-Augmented Generation for Intelligent Customer Service in Electricity Utility Sector: A Case Study of MEA's DTD Doc Insight System</b><br>Presenter: Panisit Fuangfung [Metropolitan Electricity Authority] |
| 12:00 – 12:15 PM | 131 | <b>Domain-Specific Contract Analysis: LLMs vs. Engineers in Power Plant TOR Review</b><br>Presenter: Krit Kongurai [Electricity Generating Authority of Thailand]                                                                |
| 12:15 – 12:30 PM | 146 | <b>Task Assignment AI Assistant: Enhancing Administrative Staff and Fieldworker Efficiency with Reasoning LLMs and Speech Interaction</b><br>Presenter: Denise Ann Mayores [SP Group]                                            |
| 12:30 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                       |

## Track E: ICT's Innovation in the Power Sector

### Session E5-7: Intelligent Systems, Field Assistance and Operational Innovation

Sub-track: E.4 Digital Utilities and the Internet of Things (IoT), E.5 Artificial Intelligence (AI) and Large Language Models (LLMs), E.6 Digital Twins for Energy Systems & E.7 Virtual Reality (VR) and Augmented Reality (AR)

**Session Chair: Dr Koh Ngiap Tiam, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 1:30 – 3:00 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 4612

### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                                |
|----------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 345 | <b>AI-Driven Training and Decision Support for Nuclear Power Plant Operators</b><br>Presenter: Shu Wang (Fujian Ningde Nuclear Power Co.,Ltd)                                                                                              |
| 1:45 – 2:00 PM | 68  | <b>AI Buddy - Concept of Using AI/AR Assistance for Switching Operations on Distribution Assets</b><br>Presenter: Tiong Hee Peh (SP Group)                                                                                                 |
| 2:00 – 2:15 PM | 85  | <b>Emerging Risks of Electricity Theft in Bitcoin Mining: A Case Study of MEA</b><br>Presenter: Phitiwat Lopyim (Metropolitan Electricity Authority)                                                                                       |
| 2:15 – 2:30 PM | 540 | <b>Success and Learnings from Use of Large Language Models in Power Sector</b><br>Presenter: Mingjie Xu (Nari Technology)                                                                                                                  |
| 2:30 – 2:45 PM | 441 | <b>Research on the Synergistic Effect of Precise Quantitative Management of Coal and Dynamic Early Warning Intelligent System for Spontaneous Combustion Disasters</b><br>Presenter: Sun Zhe (China Energy Investment Corporation Limited) |
| 2:45 – 3:00 PM | 140 | <b>Decoupling Human-AI Collaboration for the Application of Large Models in the Power Industry</b><br>Presenter: Haidan Wang, State Power Investment Corporation Limited (SPIC) (on behalf of Wentao Mo)                                   |
| 3:00 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                 |

## Track F: Developments in Sustainable Power

### Session F2.1: Decarbonisation and Renewable Transition Strategies

#### Sub-track: F.2 Power Generation Planning and Energy Transition Goals

**Session Chair: Dr Lee Sze Sing, IEEE PES**

**Date:** 30 October 2025, Thursday

**Time:** 4:00 – 5:45 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5102

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                            |
|----------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4:00 – 4:15 PM | 256 | <b>Feed-in Tariff (FIT) System To Green Energy Auction Program (GEAP): The Philippines' Strategic Move Toward Competitive Renewable Energy Market</b><br>Presenter: Rogelyn T. Ronquillo [National Transmission Corporation [TransCo]] |
| 4:15 – 4:30 PM | 496 | <b>Leading a renewable energy revolution: MGreen's role in accelerating the Philippines' RE ambitions</b><br>Presenter: George Jaime Esmeralda [Manila Electric Company [MERALCO]]                                                     |
| 4:30 – 4:45 PM | 78  | <b>Pathways to Decarbonise Power Generation in Hong Kong through Potential Technologies to Achieve Carbon Neutrality by 2050</b><br>Presenter: Man Yuk Leong [CLP Power Hong Kong Limited]                                             |
| 4:45 – 5:00 PM | 155 | <b>Powering the Philippine Energy Transition Program Through Distribution Utilities' Energy Sourcing</b><br>Presenter: Wesley Navarro [Manila Electric Company [MERALCO]]                                                              |
| 5:00 – 5:15 PM | 160 | <b>Feasibility Study of Nearshore Offshore Wind Power Development in Macau Under Dual Carbon Targets</b><br>Presenter: Jimmy Leong [Companhia de Electricidade de Macau]                                                               |
| 5:15 – 5:30 PM | 215 | <b>Suitability and Investment Map of Variable Renewable Energy Power Plants in Thailand</b><br>Presenter: Naraset Sinsang [Electricity Generating Authority of Thailand]                                                               |
| 5:330 PM       |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                             |

## Track F: Developments in Sustainable Power

### Session F2.2: System Planning, Optimisation and Infrastructure Resilience

Sub-track: F.1 Cross-Border Power Interconnection and Power Trading & F.2 Power Generation Planning and Energy Transition Goals

**Session Chair: Sandeep Singh, SP Group**

**Date:** 31 October 2025, Friday

**Time:** 1:30 - 3:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5102

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                                                       |
|----------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 – 1:45 PM | 488 | <b>Cross-Border Power Interconnection: Lesson Learn from the Thailand–Laos Experience</b><br>Presenter: Anucha Lekkrusawan (Electricity Generating Authority of Thailand)                                                                                         |
| 1:45 – 2:00 PM | 534 | <b>Fly Ash Carbon Content Prediction and Combustion Optimization Adjustment Based on Artificial Intelligence</b><br>Presenter: Ruwei Hou (China Huaneng Group Co., Ltd)                                                                                           |
| 2:00 – 2:15 PM | 57  | <b>Seismic Hazard Assessment for Hydropower Dams in Peninsular Malaysia</b><br>Presenter: Mohd Rashid bin Mohd Radzi (Tenaga Nasional Berhad)                                                                                                                     |
| 2:15 – 2:30 PM | 145 | <b>Study on Island Grid Interconnection Masterplan</b><br>Presenter: Jomel Cristobal (National Transmission Corporation [TransCo])                                                                                                                                |
| 2:30 – 2:45 PM | 380 | <b>Research on the Hydropower Group Clearing Model of Southern Regional Electricity Spot Market</b><br>Presenter: Hongqiao Peng (China Southern Power Grid Co., Ltd.)                                                                                             |
| 2:45 – 3:00 PM | 427 | <b>Integrating Data Centers into Scenario Planning for a Resilient Power System Planning in Peninsular Malaysia</b><br>Presenter: Jusey Reccla Mojingku (Tenaga Nasional Berhad)                                                                                  |
| 3:00 – 3:15 PM | 395 | <b>Integrating Climate Change Effects on Energy Systems Infrastructure Planning Models</b><br>Presenter: Vijay Naga Mohan Krishna P Pothabathula (Hitachi Energy)                                                                                                 |
| 3:15 – 3:30 PM | 122 | <b>Research on Optimal Allocation of Integrated Cooperative System of Source Network and Load Storage Under Dual Carbon Target</b><br><b>Presenter: Zhaoxian Nie (State Nuclear Power Engineering Planning and Design Research Institute Chongqing Co., Ltd.)</b> |
| 3:30 PM        |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                                                        |

## Track F: Developments in Sustainable Power

### Session F3: Integration of Variable Renewable Energy

#### Sub-track: F.3 Integration of High Shares of Variable Renewable Energy (VRE)

**Session Chair: Dr Tan Kuan Tak, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 11:00 – 12:45 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5102

#### Programme

| TIME             | ID  | PAPER TITLE                                                                                                                                                                                                                |
|------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 AM | 305 | <b>Advancing Malaysia's Energy Transition through Responsible Variable Renewable Energy Integration</b><br>Presenter: Zhao Liang Wee (Tenaga Nasional Berhad)                                                              |
| 11:15 – 11:30 AM | 506 | <b>Optimizing Wind Energy Deployment in Malaysia: A Techno-Economic Perspective</b><br>Presenter: Mohd Azimin Elias (Tenaga Nasiona Berhad)                                                                                |
| 11:30 – 11:45 AM | 289 | <b>Enhancing Power Quality in Renewable Energy through Hybrid Solutions</b><br>Presenter: C M Kumar (Hitachi Energy)                                                                                                       |
| 11:45 – 12:00 PM | 366 | <b>Battery Energy Storage System Optimization in the Philippine Grid Operations with Significant Level of Variable Renewable Energy</b><br>Presenter: Neil Martin E. Modina (National Grid Corporation of the Philippines) |
| 12:00 – 12:15 PM | 129 | <b>Digital Twin for Inverter-Based Power Grids</b><br>Presenter: Thiraphat Likitkumjorn (Electricity Generating Authority of Thailand)                                                                                     |
| 12:15 – 12:30 PM | 405 | <b>Challenges and Suggestions for China's Distributed Photovoltaic Participation in the Electricity Market</b><br>Presenter: Tong Guo (China Huaneng Group Co., Ltd)                                                       |
| 12:30 – 12:45 PM | 254 | <b>Beijing Yizhuang's Exploration and Practice of Piloting a New Smart Energy Ecology for Future Cities</b><br><b>Presenter: Bing Yuan (State Grid Corporation of China (SGCC))</b>                                        |
| 12:45 PM         |     | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                 |

## Track F: Developments in Sustainable Power

### Session F4: Grid Flexibility Requirements and Solutions

Sub-track: F.4 Flexibility Requirements and Solutions for Enhanced Grid Flexibility & F.5 Decentralised and Distributed Energy Systems (VPP)

**Session Chair: Dr Can Berk Saner, IEEE PES**

**Date:** 31 October 2025, Friday

**Time:** 8:45 – 10:45 AM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5102

### Programme

| TIME             | ID         | PAPER TITLE                                                                                                                                                                                                                              |
|------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:45 – 9:00 AM   | <b>363</b> | <b>Exploration on the Planning and Development Technologies of Source-Grid-Load-Storage Integration and Multi-Energy Complementation</b><br>Presenter: Junjie Kang [China Huaneng Group Co., Ltd]                                        |
| 9:00 – 9:15 AM   | <b>62</b>  | <b>Flexible Energy Systems: “Consumer centricity is the key”</b><br>Presenter: Santhosh Sivaraman Nair [Oracle Corporation]                                                                                                              |
| 9:15 – 9:30 AM   | <b>64</b>  | <b>Grid-scale Hong Kong Battery Energy Storage System (HKBESS) to Smooth out the Demand Peak in a Green Manner</b><br>Presenter: Kaushal Vaishnav [CLP Power Hong Kong Limited]                                                          |
| 9:30 – 9:45 AM   | <b>347</b> | <b>Mobile Substations: A Critical Asset for Emergency Power Grid Solutions</b><br>Presenter: Claudio Spella [Hitachi Energy]                                                                                                             |
| 9:45 – 10:00 AM  | <b>113</b> | <b>A Private-Public Partnership Practice for the Grid Resilience Enhancement: Taiwan’s Ancillary Service Market</b><br>Presenter: Yen-Chi Huang [Taiwan Power Company]                                                                   |
| 10:00 – 10:15 AM | <b>208</b> | <b>Implementation Consideration for Customer-side DERMS</b><br>Presenter: Ivan Christian [DNV AS]                                                                                                                                        |
| 10:15 – 10:30 AM | <b>224</b> | <b>Strategy for the Dispatch of Virtual Power Plants in Industrial Zones Based on a Quantitative Assessment Model of Adjustment Costs</b><br>Presenter: Zhao Wanying, State Grid Corporation of China [SGCC] (on behalf of QiZhao Zhang) |
| 10:30 – 10:45 AM | <b>60</b>  | <b>Generation Units Dispatch Optimisation to Enable Fuel Cost Savings</b><br>Presenter: Leo Shing Ho Yu [CLP Power Hong Kong Limited]                                                                                                    |
| 10:45 AM         |            | <b>Closing and Attendance Photo Taking</b>                                                                                                                                                                                               |

## Track F: Developments in Sustainable Power

### Session F6-7: ESG, Sustainable Financing and Stakeholder Engagement

#### Sub-track: F.6 Sustainable Power Financing and Policy F.7 Environmental and Social Impacts of Renewable Power Development

**Session Chair: Dr Koh Ngiap Tiam, IEEE PES**

**Date:** 30 October 2025, Thursday

**Time:** 2:00 – 3:30 PM

*\*Please note that the timing is subject to final confirmation.*

**Venue:** Meeting Room 5102

#### Programme

| TIME           | ID  | PAPER TITLE                                                                                                                                                                                                                 |
|----------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:00 – 2:15 PM | 55  | <b>Enhancing Stakeholder Engagement for Sustainable Success in Power Utility Projects: A Case Study of the Metropolitan Electricity Authority</b><br>Presenter: Rojana Suvarnapunya (Metropolitan Electricity Authority)    |
| 2:15 – 2:30 PM | 235 | <b>Navigating Power Sector Decarbonisation: HK Electric's Journey and Future Regulatory Challenges</b><br>Presenter: Shing Hei, Garfield Lau (The Hongkong Electric Company)                                                |
| 2:30 – 2:45 PM | 198 | <b>ESG: A Global Cooperation Path for Sustainable Power Generation</b><br>Presenter: Gu Yawen (China Three Gorges Corporation [CTG])                                                                                        |
| 2:45 – 3:00 PM | 36  | <b>The Perception of Stakeholders on The Alternate Design Options For Solar Rooftop Self-Consumption Schemes in Thailand</b><br>Presenter: Pasapong Gamonwet (Provincial Electricity Authority)                             |
| 3:00 – 3:15 PM | 426 | <b>Radiance of Progress: Managing Social Acceptability and Community Engagement of the 3,500MW MTerra Solar Project in Nueva Ecija and Bulacan, Philippines</b><br>Presenter: Jun Jun San Juan (MGen Renewable Energy Inc.) |
| 3:15 – 3:30 PM | 77  | <b>Balancing Environment and Energy Needs: Environmental and Social Impacts of Hydro, Solar and Wind Power Development in Sri Lanka</b><br>Presenter: Geetha Udayakanthi (Ceylon Electricity Board)                         |
| 3:30 PM        |     | Closing and Attendance Photo Taking                                                                                                                                                                                         |

## Exhibition Stage Programme

### Theme A: Power Systems Foundations: Generation and High-Voltage Networks

**Date:** 29 October 2025, Wednesday

**Time:** 12:40– 3:00 PM

#### Exhibition Show Stage Presentation Programme:

| TIME            | Agenda                                                                                                                                                                        |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12:40 – 1:00 PM | <b>Accelerating Clean Energy Adoption through Innovation &amp; Policy</b><br><b>Aqmal Syafiq Anis</b> , Senior Manager, Corporate SVD Venture <b>(Tenaga Nasional Berhad)</b> |
| 1:00 – 1:20 PM  | <b>HVDC Technology Enabling Grids of the Future</b><br><b>Shanthakumar Ms</b> , Market Product Manager – HVDC, India and SAS Region <b>(Hitachi Energy)</b>                   |
| 1:20 – 1:40 PM  | <b>Addressing Changing Grid Requirements using Grid forming HVDC and STATCOM Technologies</b><br><b>Septimus Boshoff</b> , Head of Growth and Technology FACTS <b>(DNV)</b>   |
| 1:40 – 2:00 PM  | <b>From Diagnostics to Recovery for Power Cable System</b><br><b>Taekyoung Yook</b> , Deputy General Manager, Team Leader <b>(LS Cable)</b>                                   |
| 2:00 – 2:20 PM  | <b>HV and EHV Submarine Cable</b><br><b>Zhao Yingrong</b> , Senior Engineer and Chief Engineer <b>(CIWE)</b>                                                                  |
| 2:20 – 2:40 PM  | <b>Roadmap Towards Net-Zero Targets for the Grid</b><br><b>Bertrand Portal</b> , Marketing Leader, Power Transmission Grid Solutions <b>(GE Vernova)</b>                      |
| 2:40 – 3:00 PM  | <b>Digital Service for Energy - Smarter Wind and Solar Energy</b><br><b>Jing Kong</b> , CMO of Beijing Yueneng Technology Co., Ltd <b>(Huawei)</b>                            |

## Theme B: Intelligent Grids: Digital Systems, AI and Cybersecurity

**Date:** 30 October 2025, Thursday

**Time:** 10:00 – 12:40 PM

### Exhibition Show Stage Presentation Programme:

| TIME             | Agenda                                                                                                                                                                                              |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00 – 10:20 AM | <b>Intelligent Grids: Autonomous Monitoring and Inspection Robot in Grid Infrastructure</b><br><b>Li Kan</b> , General Manager, EGP Vision <b>[EGP]</b>                                             |
| 10:20 – 10:40 AM | <b>Securing the AI-Ready Grid: IP/MPLS for Digital Substations and Field Operations</b><br><b>Dominique Verhulst</b> , Global Energy Practice Leader <b>[Nokia]</b>                                 |
| 10:40 – 11:00 AM | <b>Smart Grids, Smarter Defenses: Building OT Resilience Against Evolving Cyber Threats</b><br><b>Eddy Lek</b> , Regional Product Marketing Manager - Operational Technology Asia <b>[Fortinet]</b> |
| 11:00 – 11:20 AM | <b>How Digital can Support Detecting Switchgear Performance</b><br><b>Stephan Sehestedt</b> , Software Architect <b>[Hitachi Energy]</b>                                                            |
| 11:20 – 11:40 AM | <b>Next-Generation AI Fiber Sensing Safeguards Perimeters</b><br><b>Leo Zhang</b> , Vice President of Huawei Enterprise Optical Network Domain <b>[Huawei]</b>                                      |
| 11:40 – 12:00 PM | <b>AI Services for Energy Market</b><br><b>Costi Manda</b> , CEO, AI Cloud Services BV <b>[Calibr8 Systems Inc.]</b>                                                                                |
| 12:00 – 12:20 PM | <b>CX Excellence at a Turning Point: How AI and New Operating Models are Transforming Utility Retailers</b><br><b>Jason Ong</b> , VP of Sales <b>[Gentrack]</b>                                     |
| 12:20 – 12:40 PM | <b>From Intelligence to Flexibility: Building the Digital Grid for the AI Era</b><br><b>Martin Hauske</b> , Distinguished Utilities Advisor, Oracle Asia Pacific <b>[Oracle]</b>                    |



## Theme C: Intelligent Grids: Digital Systems, AI and Emerging Technologies

**Date:** 30 October 2025, Thursday

**Time:** 2:20 – 3:20 PM

### Exhibition Show Stage Presentation Programme:

| TIME           | Agenda                                                                                                                                                                                                   |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2:20 – 2:40 PM | <b>Rethinking the Grid in the Age of AI</b><br><b>Mark Peng</b> , Global Head of Solution- Edge & Microgrid ( <b>Univers</b> )                                                                           |
| 2:40 – 3:00 PM | <b>Shaping Perceptions, Driving Change: The Role of Communication in Energy Transition</b><br><b>Samsul Ariffin Zainuddin</b> , Head of Group Corporate Communications ( <b>Tenaga Nasional Berhad</b> ) |
| 3:00 – 3:20 PM | <b>From Lab to Startup: Inspection Robots for Substations and Power Plants</b><br><b>Dr. Yanliang Zhang</b> , Chief Scientist ( <b>Weston Robot</b> )                                                    |