Preliminary Announcement

Call for Presentations

25th IERE General Meeting and RWE TI Germany Forum

"Growing Green"

In-Person Event

Rheinturm, Düsseldorf, Germany

Düsseldorf, Germany
December 2–5, 2025

Organized by RWE TI and IERE

“Growing Green”

About the theme

As the world accelerates its shift toward carbon neutrality, the power sector stands at a critical juncture. Under the theme “Growing Green,” this conference explores the technologies, strategies, and policy innovations driving decarbonization across both the supply and demand sides of the energy system. From flexible, low-carbon power generation to the electrification of heat and integration of thermal energy storage, the discussions will address how to ensure reliable, resilient, and sustainable energy delivery in a rapidly evolving landscape.

The conference also examines the optimization of power grids with high shares of variable renewables and the transformative role of demand-side sectors through electrification and digitalization. By highlighting cross-sector collaboration, advanced control systems, and supportive market mechanisms, “Growing Green” serves as a platform to share solutions that balance environmental goals with operational performance and economic viability. Through technical sessions and expert dialogue, participants will contribute to shaping a sustainable energy future rooted in innovation and practical progress.

Who should attend?

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

Schedule Outline:

Tuesday,	December 2, 2025	Welcome Reception
Wednesday,	December 3, 2025	25th IERE General Meeting and RWE TI Germany Forum
		Official Dinner
Thursday,	December 4, 2025	25th IERE General Meeting and RWE TI Germany Forum
		Social Event (Optional, TBD)
Friday,	December 5, 2025	Technical Tour (Optional)

Program and Session Themes:

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

December 2, 2025

Welcome Reception

December 3, 2025

Opening Session

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

Panel Session: "Growing Green"

Details to be announced

Technical Session 1: Flexible Power Generation for a Decarbonized Future

Description

This session explores innovative generation technologies that enhance flexibility in power supply while enabling decarbonization. It covers conventional and renewable-based solutions that can rapidly respond to demand fluctuations and support grid stability in the transition to low-carbon energy systems.

Potential topics include:

- Flexible Generation with Renewable Integration
- Fast-Ramping and Peaking Power Plants
- Operational Flexibility

- Hybrid Systems and Sector Coupling
- Decentralised Production and Virtual Power Plants
- Flexible Demand Solutions
- Challenges and Solutions for Electrification
- …

Technical Session 2: Pathways to Net Zero: Strategies for a Decarbonized Energy Future

Description

This session explores innovative strategies and technologies driving the transition to a low-carbon energy future. Key topics include Carbon Capture and Storage (CCS), low-carbon fuels, and their integration into existing energy systems. The session will also highlight decarbonization strategies, economic and market considerations, and the role of electrification solutions in reducing emissions across the energy sector.

Potential topics include:

- Carbon Capture and Storage (CCS) Technologies and Projects
- Low-carbon Fuels including e.g., Hydrogen, Ammonia or Bioenergy for Decarbonization of Industry
- Power to X – Technologies and Electrification of Sectors
- Decarbonization Strategies in Different Countries including Political Frameworks, Market Mechanisms and Regulations
- …

Technical Session 3: Beyond the Peak: Storage Solutions for Resilience and Reliability

Description

This session addresses different technologies for storage and how to combine and integrate those solutions in the future energy grid.

Potential topics include:

- Current Status and Latest Developments of diverse Energy Storage Technologies, which includes Battery Energy Storage System (BESS) Technologies, Hydrogen Based Solutions, Thermal and Mechanical Energy Storage, …
- Integrating Short-, Medium-, and Long-duration Storage Technologies into the Grid
- Storage Solutions for Industrial and Auxiliary Use
- Hybrid Energy Storage
- …

December 4, 2025

IERE General Meeting

Report on IERE Activities by IERE Chair and IERE Central Office

Report on IERE R&D Projects

Special Lecture (Tentative)

Technical Session 4: Grid Interaction, Optimization with Variable Renewables and Demand-Side Management

Description

This session explores technical and operational strategies for integrating high shares of variable renewable energy into the power system, focusing on grid flexibility, optimization, and digital control as well as the role of demand-side sectors and management.

Potential topics include:

- Advanced Grid Forecasting and Scheduling Tools
- Virtual Power Plants and Aggregated DER Control
- Inverter-Based Resource Grid Support Functions
- Curtailment Minimization Strategies
- Grid Forming and Grid Following Inverters
- Dynamic Line Rating and Grid Monitoring
- Role of AI and Machine Learning in Grid Management
- Integrating Power-to-Heat (-to-Power) Solutions & Thermal Energy Storage (TES) for Grid Flexibility
- Electrification of Industrial Processes
- Demand-Side Management
- Sector Coupling: Electricity and Heat Integration
- …

Technical Session 5: Transforming the Past: The Future of Existing Infrastructure & Assets

Description

This session explores innovative pathways for transforming existing power infrastructure and assets, including co-firing and conversion technologies. It also addresses technical and economic challenges of fossil plant decommissioning, strategies for managing end-of-life risks, and regenerating industrial sites for sustainable reuse.

Potential topics include:

- Gas Turbines with Hydrogen or Ammonia Co-Firing and 100% Hydrogen Capable Gas Turbines

- Coal to Biomass Transformation of Power Plants and Coal-Biomass Co-Firing
- Technical and Economic Challenges When Decommissioning Fossil Fuel Plants
- Re-Use of Existing Storage and Infrastructure Solutions
- End-of-Life Risk Management
- Repurposing, Site Regeneration and Recultivation
- Operational Flexibility in Existing Infrastructure
- …

Technical Session 6: vgbe-TENPES Workshop (Tentative)

Description

This session explores innovative technologies and strategies for achieving carbon neutrality in Europe and Japan. It is a joint event held by vgbe* and TENPES* (TENPES is an association for Thermal and Nuclear Power Generation Technology in Japan).
(*:vgbe and TENPES are MOU partners of IERE)

Potential topics include:

- National and Company Strategies for Achieving Carbon Neutrality
- Update of Recent CCUS Projects
- Carbon Capture Technologies
- Carbon Utilization Technologies
- Effective Use of Thermal Power Generation Facilities to Stabilize Power Grids Following the Large-Scale Introduction of Renewable Energy
- …

Special Session

Details to be announced

Poster Session

Details to be announced

Exhibition

Details to be announced

Closing Remarks

Details to be announced

Social Event (Optional)

To be determined

December 5, 2025

Technical Tour (Optional)

RWE Innovation Centre (Tentative)

Call for Presentations

<<Abstract Submission: No later than September 5, 2025>>

You are kindly invited to submit abstracts for the Oral Session or Poster Session for the RWE TI Germany Forum by email. In addition, please submit the Speaker's Information.

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

As for the **format of the Abstract**, please refer to "Events" page on IERE website.
https://www.iere.jp/events/forum/2025-germany/forspeakers.html

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

Registration

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

Registration Fee

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

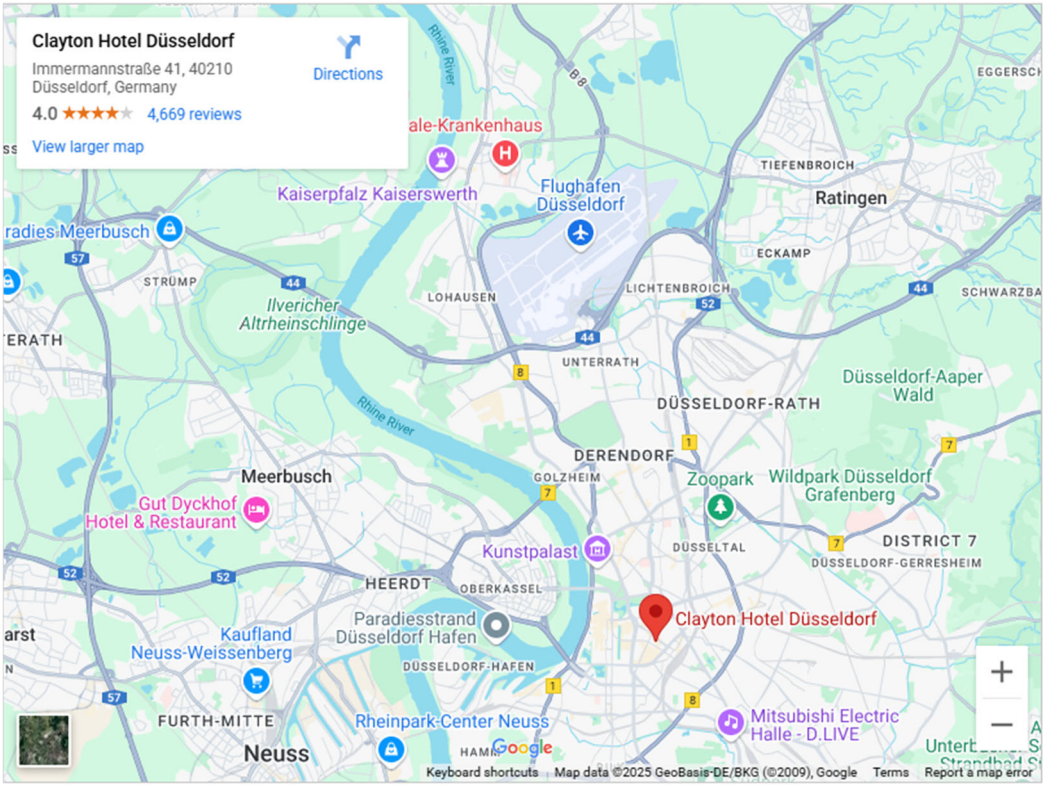
Conference Venue & Accommodations

Conference Venue

Clayton Hotel, Düsseldorf, Germany
Location: Immermannstraße 41, 40210 Düsseldorf, Germany
website: https://www.claytonhotels.com/duesseldorf/en/

Location of Clayton Hotel Düsseldorf

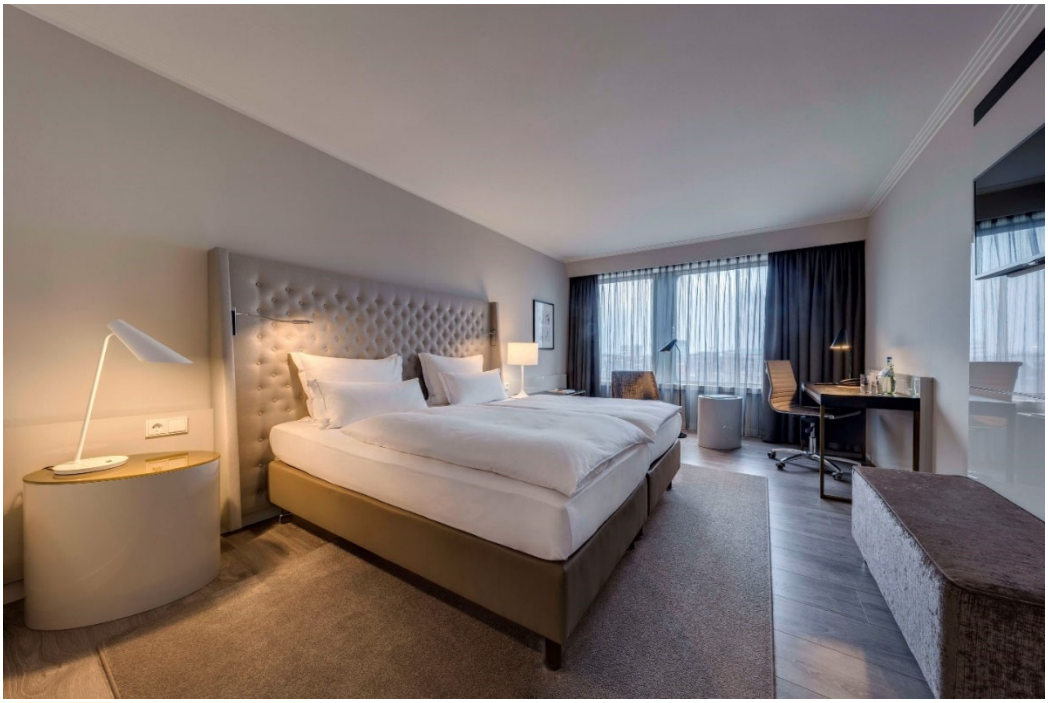
https://maps.app.goo.gl/54cNHSsG9F7mddEk9



Accommodations

Clayton Hotel, Düsseldorf, Germany
Location: Immermannstraße 41, 40210 Düsseldorf, Germany
website: https://www.claytonhotels.com/duesseldorf/en/

Special accommodation rates for conference participants are being arranged and will be announced in the First Announcement.



About RWE TI

RWE Technology International GmbH is an integral part of RWE Group and a fully owned daughter company of RWE Generation.

With a successful history spanning more than 125 years, the RWE Group is a leading provider of energy worldwide.

RWE Generation is responsible for power generation based on gas, hard coal, hydropower and biomass within the RWE Group and operates power plants in Germany, the UK, the Netherlands and Turkey. With a flexible and efficient power plant fleet, RWE Generation bridges the gap to the new age of renewables. Our hydrogen activities play also an important role in this context. RWE is also represented in many core markets with hydropower plants.

By converting our power plants, focusing on flexible generation and successfully developing new storage technologies, RWE Generation is making a key contribution to the ambitious goal of RWE as a whole – to be carbon-neutral by 2040.

The expertise of RWE Technology International as part of RWE Generation goes beyond just delivering energy projects. To ensure that our clients' plants and projects achieve maximum performance, we offer customized, innovative solutions across the entire life cycle.

Through our deep understanding of plant technology, design, construction, operation and optimization, we minimize risks and total costs for our clients and increase their return. We work as a strategic business partner, helping you optimize profit and risk in your business.

We support worldwide in energy transition activities and with our engineering, we deliver tailor-made, client-specific solutions across the entire value chain of energy projects.

We offer decades of experience with extensive expertise in engineering services and technical consulting, backed by the operating experience of the RWE Group.

We have over 600 engineers and project managers with in-depth operating experience at B-to-B level and broad expertise across the energy sector. This enables us to offer our clients independent technical consulting services as well as operational and maintenance advice.

We are your strategic business partner with a mission to support you in reducing your CO2 footprint and improving your security, profitability and sustainability in the energy and mining sectors.

https://www.rwe.com/en/the-group/rwe-ti/
https://www.rwe.com/en/the-group/rwe-generation/

About IERE

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

https://www.iere.jp

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