



# **First Announcement**

"Growing Green"

In-Person Event



Rheinturm, Düsseldorf, Germany

Düsseldorf, Germany December 2–5, 2025

Organized by RWE TI and IERE





# Message from IERE Chair

I invite you all to the 25th IERE General Meeting and RWE TI Germany Forum, which will take place from December 2 to 5, 2025, in Düsseldorf, Germany. Co-hosted by RWE Technology International, this important gathering will be held under the theme "Growing Green."

As the world accelerates its shift toward carbon neutrality, the energy sector will stand at the center of this transformation. The conference will explore the technologies, strategies, and policy innovations that will drive decarbonization across both the supply and demand sides of the energy system. Discussions will address flexible, low-carbon power generation, the electrification of heat, the integration of thermal energy storage, and the optimization of power grids with high shares of renewable energy. The role of digitalization and demand-side sectors will also be highlighted, demonstrating how innovation will help us to combine environmental ambitions with operational reliability and economic viability.

This forum will provide an invaluable opportunity to exchange knowledge and experience among experts from across the globe. The energy transition will not follow a single path—solutions will differ from country to country, from system to system. Yet, through international collaboration and open dialogue, we will amplify our collective progress. IERE is proud to serve as a unique global platform where technical expertise, research, and innovation converge to accelerate the transformation of our industry.

As Chair of IERE, I believe our role must be twofold: we must enable business by delivering solutions, but also challenge the industry to go further. Incremental improvements alone will not achieve our climate goals. Radical innovation, bold ideas, and the willingness to learn from each other will be essential. The 25th General Meeting and Forum will serve as a meeting place to foster discussions among attendees and provide ample time for debate during presentations, Q&As, and breakout sessions.

I warmly welcome you to join us in Düsseldorf. It will be a platform to strengthen collaboration, to engage in forward-looking dialogue, and to contribute to shaping a sustainable energy future. I am confident that this event will be fruitful for all participants and will help advance our shared mission of "Growing Green."

Munib Amin Chair of IERE E.ON, Germany







# Message from RWE TI

It is a great honour for RWE to co-host the 25th IERE General Meeting and Forum and we sincerely welcome all participants to Düsseldorf.

The last few years have been an intense period for the energy industry. Ensuring the supply of secure, affordable, and sustainable energy has become more critical for our economies and societies.

Numerous wars and crises have turned international and global supply chains upside down, while many economies are on the path towards climate neutrality with ambitious goals for reducing harmful emissions. In every scenario, securing energy supply plays a key role in finding solutions.

Renewable energy remains central to achieving mid- and long-term goals set by governments and businesses alike.

With its flexible and efficient power plant fleet, RWE Generation is building a bridge to the age of renewable energies. RWE Generation is a major player in storage technologies such as batteries and hydropower, in providing green hydrogen and flexible power generation from gas.

By transforming and decarbonizing power plants, focusing on flexible generation and successfully developing storage technologies, RWE Generation is making a decisive contribution to RWE's ambitious goal of becoming climate neutral by 2040.

In our home market of Germany, we have been experiencing a fundamental transformation towards renewable energy for some time now, to which we at RWE are happy to contribute. For the future, it will need steady political support and a reliable legal framework not only in Germany but in many countries of the world on the way to climate neutrality.

To achieve our goals, we rely on our strong and constantly growing network of companies, associations, and many other institutions.

IERE is one of our partners we have relied on for many years. With its wide range of expertise and the trusting and intensive exchange of knowledge, particularly in the field of research and development, IERE makes an important contribution to our daily work.

We as RWE are delighted to welcome you all to Düsseldorf and to discuss the future of the energy sector with you.

Ingo BIRNKRAUT
Director Strategic Development
RWE Generation SE







# "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)

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: Munib AMIN, IERE Chair

Welcome Speech: RWE TI

Keynote Speeches: Oliver THEN

(Executive Managing Director, vgbe energy e.V., Germany)

Rüdiger-A. EICHEL

(Forschungszentrum Jülich, Director of the Institute for Climate and Energy Systems / RWTH Aachen: Chair of Materials and Processes for Electrochemical Energy Conversion and Storage,

Germany)

**Tobias RAMMEL** 

(RWE Head of EU Representative Office Brussels, Belgium)

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
- ...

#### **Poster Session**

Details to be announced

### **December 4, 2025**

## **IERE General Meeting**

Report on IERE Activities by IERE Chair and IERE Central Office Report on IERE R&D Collaboration Projects Special Lecture

Special Session: Featured Company Overviews, Strategies, and Roadmaps etc.

Details to be announced

# 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**

#### Description

This session explores innovative technologies and strategies for achieving carbon neutrality in Europe and Japan. It is a joint event held by vgbe energy\* and TENPES (TENPES is an association for Thermal and Nuclear Power Generation Technology in Japan, vgbe energy is the international association for power plant and energy asset operators).

(\*vgbe energy is MOU partner of IERE)

#### Potential topics include:

- National and Company Strategies for Achieving Carbon Neutrality
- Hydrogen Combustion Technology for Gas turbine
- Ammonia Combustion Technology for Gas turbine and boiler





- Hydrogen Production Technologies
- 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
- Geothermal Power Generation Technologies
- Opportunities for hybridising existing and repurposing former power plant sites
- ...

## **Closing Remarks**

Details to be announced

## **Social Event (Optional)**

Visit of the Brewery "Im Goldenen Kessel" in Düsseldorf with traditional German dinner/ buffet "Welcome to "Im Goldenen Kessel"

In the middle of the Altstadt (old town), in "IM GOLDENEN KESSEL", businessman meets postman, the long-time resident meets the globetrotter. Family-owned for over 120 years, this is our most traditional brewpub.

In the heart of Düsseldorf's old town you'll find the historically most important brewery bar IM GOLDENEN KESSEL on Bolkerstrasse. This house has been a living Düsseldorf cultural hotbed for over 120 years.

For example, the first bust of the Düsseldorf-born poet Heinrich Heine was placed here for public viewing. Today he still looks upon the happy goings-on in the Golden Kettle. The medical faculty of the Heinrich Heine University was also founded here with one or two SCHUMACHER ALT as well as many (traditional) associations.

Anyone who comes to visit us in the IM GOLDENEN KESSEL can look at the history of the city in many original pictures from the Düsseldorf School of Painting. Altbier was also brewed in this house until 1925. Today, our traditionally witty and friendly Köbesse (waiters) serve – as is typical for breweries – businessmen, workers, foreigners, people from Düsseldorf, men, women, or simply friends with one, two, three (...) 1838s or SCHUMACHER ALT. <a href="https://schumacher-alt.de/en/brewery-and-brewing-process/">https://schumacher-alt.de/en/brewery-and-brewing-process/</a>

https://schumacher-alt.de/en/restaurants/

#### **December 5, 2025**

### **Technical Tour (Optional)**

Visiting RWE Innovation Center

"The RWE Innovation Center in Niederaussem serves as a hub for pioneering research and development focused on the future of energy supply. Key questions addressed at the center include





how CO2 scrubbing works and how carbon dioxide can be transformed into a valuable raw material. The Innovation Center is equipped with advanced testing and demonstration facilities, such as CO2 and methanol filling stations, CCU testing plants, a demonstration plant for mercury mitigation, multi-fuel conversion units, and thermocatalytic reforming (TCR) systems. It also features specialized rigs for gas cleaning, synthesis, and fluidised-bed drying.

RWE's commitment to innovation is reflected in the investment of over 100 million euros in recent years at the Niederaussem site. Through its Info Centre, RWE fosters transparency and engagement, helping the public understand complex energy topics while providing an international platform for expert exchanges on leading-edge technologies."

https://www.rwe.com/en/research-and-development/rwe-innovation-centre/





# **Program**

The program may be subject to change according to the registration of speakers and participants.

## Tuesday, December 2, 2025

## Welcome Reception

Registration and Welcome Reception in the evening

### Wednesday, December 3, 2025

## **Opening Session**

Opening Address: Details to be announced Welcome Speech: Details to be announced Keynote Speeches: Details to be announced

**Panel Session** 

**Technical Session 1: Flexible Power Generation for a Decarbonized Future** 

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

**Energy Future** 

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

Reliability

#### **Poster Session**

To be determined

#### **Official Dinner**

# Thursday, December 4, 2025

**IERE General Meeting** 

Technical Session 4: Grid Interaction, Optimization with Variable

**Renewables and Demand-Side Management** 

**Technical Session 5: Transforming the Past: The Future of Existing** 

**Infrastructure & Assets** 

**Technical Session 6: vgbe-TENPES Workshop** 

**Special Session**: Featured Company Overviews, Strategies, and

Roadmaps etc.

#### **Social Event (Optional)**

The Brewery "Im Goldenen Kessel" in Düsseldorf with traditional German dinner/buffet





# Friday, December 5, 2025 Technical Tour (Optional)

RWE Innovation Center





## **Call for Presentations**

Abstract Submission: No later than September 2, 2025 >>

Abstract Submission: No later than October 2, 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. <a href="https://www.iere.jp/events/forum/2025-germany/forspeakers.html">https://www.iere.jp/events/forum/2025-germany/forspeakers.html</a>

- 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 General Meeting and Forum participants.

# Presentation Slides Submission: No later than <u>November 17, 2025</u> >>

You are kindly requested to submit presentation slides (PowerPoint) via email.

- The official language of the IERE Workshop is English.

Note: Presentation Slides will be open to all participants of this workshop and IERE members on the IERE website. If you do not wish to have your presentation slides made public, please contact the IERE Central Office.





# Registration

**Deadline: November 17, 2025** 

Total number of participants is limited to 100 people.

If possible, please register using the method (a) below. If you are unable to use Google Forms due to limitations in your system environment or other reasons, please register using method (b) below.

Please be informed that, for this Forum, only the Keynote Speeches and the Special Session will be delivered in a hybrid format.

One account complimentary online access will be provided for each **on-site participant from IERE members**.

Details regarding online access will be communicated later.

(a) On-Line Registration (Google Forms)

URL: https://forms.gle/U67FB2w73QFhmw6R6

or

(b) Submit a Registration Form (Format 1-1) to IERE Central Office via Email

**Note:** Photographs and videos may be taken by the IERE during this event. These images may be used for promotional purposes on the IERE's website and social media platforms etc.

# **Registration Fee**

The Registration fee will cover attendance at both forum days (including lunches & refreshments at coffee breaks), welcome reception on December 2, official dinner on December 3 and conference package:

IERE Members: EUR 700 per person
Non-IERE Members: EUR 1,100 per person
Academic Participants: EUR 700 per person
Student Participants: EUR 550 per person

**Recommended Options** 

Social Event (Optional) December 4: EUR 50 per person Technical Tour (Optional) December 5: EUR 55 per person

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





# **Payment**

On-Line Credit Card Payment and Bank Transfer are available.

Deadline: November 17, 2025

#### (a) On-Line Credit Card Payment

URL: https://www.iere.jp/Payment/paypal 25GM.html

#### (b) Bank Transfer

Name of the Bank: MUFG Bank, Ltd.

Name of the Branch: Seijo branch

Name of the account: IERE Account Number: 0091344

Bank address: 15-1 Seijo 6-chome, Setagaya-ku, Tokyo, 157-0066 JAPAN

SWIFT code: BOTKJPJT

## **VISA**

For participants from some countries needing a VISA to enter Germany, please check the below or consult with travel agent in your country for the details.

URL: https://www.auswaertiges-amt.de/en/visa-service/visabestimmungen-node

If you need an Invitation Letter\*, please send 'Invitation Letter for VISA Request Form' to IERE Central Office via Email by October 31, 2025.

\* RWE TI will be able to issue an invitation letter for participants who need to apply for Visa. It will take approximately 1–2 weeks for RWE TI to prepare this after receiving all information, so please submit the form as soon as possible.

Disclaimer: RWE TI reserves the right to fulfill or decline, at RWE TI's discretion, requests for letters of invitation for visa application support purpose.





# **Submission Items & Deadlines**

For Participants [including Technical Session Speakers]

Items	Format No.	Deadline/ Limitation	То:
Registration Form	1-1	November 17, 2025	register(at)iere.jp [Please substitute (at) with @]
Invitation Letter for VISA Request Form (If necessary)	2	October 31, 2025 (It takes 1–2 weeks to issue)	Ditto
Registration Fee		November 17, 2025 Please refer to Page 13	
Social Event Fee [optional]	_	November 17, 2025 Ditto	
Technical Tour Fee [optional]	_	November 17, 2025	Ditto

The format No.1-1 is not required for On-line Registration.

The formats (No. 1-1 and 2) can be downloaded from IERE website.

URL: <a href="https://www.iere.jp/events/forum/2025-germany/register.html">https://www.iere.jp/events/forum/2025-germany/register.html</a>

For Speakers

Items	Format No.	Deadline	То:	
Abstract & Speaker's Information	3	<b>October 2, 2025</b>	register(at)iere.jp [Please substitute (at) with @]	
Presentation Slides ( <u>PowerPoint File</u> )	-	November 17, 2025		

The formats (No. 3) can be downloaded from IERE website.

URL: https://www.iere.jp/events/forum/2025-germany/forspeakers.html

Speakers are kindly requested to submit their Presentation Slides (PowerPoint File) by November 17, 2025.

Note: Presentation Slides will be open to all participants of this workshop and IERE members on the IERE website. If you do not wish to have your presentation slides made public, please contact the IERE Central Office.





# **Conference Venue & Accommodations**

## **Conference Venue**

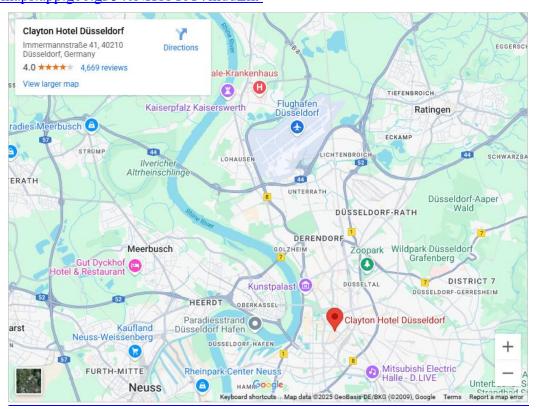
Clayton Hotel, Düsseldorf, Germany

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: <a href="https://www.claytonhotels.com/duesseldorf/en/">https://www.claytonhotels.com/duesseldorf/en/</a>

NOTE: There is no special accommodation arrangements with the venue hotel for conference participants.







# **IERE Members List (as of August 1, 2025)**

Australia	CSIRO		
Canada	Powertech Labs		
China	CEPRI	NARI	XJ Group
Czech	CEZ		
Finland	Vaisala		
France	ENGIE		
Germany	E.ON	EnBW	RWE TI
Hong Kong SAR	CLP		
Indonesia	PLN		
Israel	IEC		
Japan	Chubu EPCO	Chugoku EPCO	CRIEPI
	FEPC	Fuji Electric	Hitachi
	Hokkaido EPCO	Hokuriku EPCO	IHI
	J-POWER	JAPC	Kansai EPCO
	Kyushu EPCO	MHI	Mitsubishi Electric
	NGK	Sumitomo Electric	Shikoku EPCO
	Tohoku EPCO	TEPCO	TOSHIBA
Malaysia	TNB		
Mexico	INEEL	Prolec GE	
Netherlands	TenneT		
Pakistan	Karachi Electric		
Philippines	APC	MERALCO	
Singapore	SPPA		
South Africa	Eskom	PIESA	
South Korea	KEPCO	HD Hyundai Electric	KERI
	KOWEPO	LS Electric	
Taiwan	TPC		
US	EPRI	SwRI	





#### **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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Phone/Fax: +81-3-5438-1717 https://www.iere.jp

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