HIGREEW

The crucial role of energy transition: redox-flow batteries and their future in energy storage

2 & 3 March 2022

Online / in-person at Pilsen, Czech Republic

More information on this hybrid event?
Visit www.higreew-project.eu

What to Expect

The HIGREEW workshop will offer insights on redox-flow batteries (RFB), energy storage and their crucial role in the energy transition, with focus on organic electrolytes. It will be hosted by partner *University of West Bohemia* in the Czech Republic.

Technical aspects of RFB and comparison with alternatives (natural gas hydrogen, Li-Ion) will be presented and discussed by experts in the field.

Some of the questions that will be addressed:

- What are the performances of organic redox flow batteries? (lifetime, efficiency, energy density, maintenance, cost)
- What is their level of 'maturity'?
- What is the potential for up-scaling?

Announced speakers

- Adam Whitehead - Head of Research at Invinity Energy Systems.
- Anthony Price - Secretary-General of Flow Batteries Europe.
- Jan Fousek - Chief Executive Officer at AKU-BAT.
- Petr Mazúr - Principal Researcher of Laboratory of Energy Storage, NCT UWB and UCT Prague
- Eduardo Sanchez Diez - Associate Researcher in CIC energiGUNE and coordinator of HIGREEW
- Pekka Peljo - Associate Professor of Materials Engineering, University of Turku
- Thomas Nann - founder of Allegro Energy.
- Vicente Vert Belenguer - Researcher and consultant of AIMPLAS Plastic Technology Centre

The workshop venue: Pilsner Urquell Hall

On day 1 and day 2 of the HIGREEW Workshop I, attendees are invited into the Pilsner Urquell Hall to participate in the event. This unique and beautiful venue is located right in the Pilsner Urquell Conference Centre and can accomodate up to 150 persons, so enough room to hold the workshop! The workshop will be also broadcasted on-line in this room.

Address: U Prazdroje 64/7, 301 00 Plzeň 3, Czech Republic

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 875613.

Preliminary programme

2 March

08:20 Registration

08:45 Welcome session

09:00 Electric power market

09:30 Renewable sources and energy storage

10:00 Energy transition and storage

10:30 *Coffee & electrolyte break*

11:00 Fundamentals of redox flow batteries

11:20 Applications of redox flow batteries

11:40 Case studies

12:00 Case studies

12:30 *Lunch break*

13:30 Overview of organic redox flow batteries

13:50 Projects on organic redox flow batteries: achievements

14:30 Organic redox-flow batteries, case studies and companies

15:30 *Coffee & electrolyte break - ending workshop online*

In-person activities after Workshop day 1

16:30 Excursion: Pilsner Urquell brewery tour

17:50 End of tour: *break*

19:30 Meeting by the main entrance to the Cathedral of St. Bartholomew on the Main square

20:00 *Dinner in the city centre for attendees*

3 March

08:20 Registration

08:45 Welcome to the second day of the Workshop

08:55 Chemistry (CIC energiGUNE)

09:15 Membranes (UAM)

09:35 Electrodes in RFB (CNRS)

09:55 Components in RFB (UWB)

10:15 Testing of RFB (PFES)

10:35 *Coffee & electrolyte break*

11:05 Up-scaling of RFB (FRAUNHOFER)

11:25 Up-scaling of RFB (C-TECH)

11:45 Demonstration of organic RFB (GAMESA)

12:05 Demonstration of organic RFB (SIEMENS GAMESA)

12:40 *Lunch break and ending Workshop*

Partner acronyms

- *CIC energiGUNE* Centro de Investigación Cooperativa de Energías Alternativas Fundación, CIC energiGUNE Fundazioa
- *GAMESA* Gamesa Electric Sociedad Anonima
- *UAM* Universidad Autónoma de Madrid
- *CNRS* Centre National de la Recherche Scientifique
- *C-TECH* C-Tech Innovation Limited
- *UWB* University of West Bohemia New Technologies – Research Centre
- *PFES* Pinflow energy storage, s.r.o.
- *UNR* Uniresearch B.V.
- *SIEMENS GAMESA* Siemens Gamesa Renewable Energy Innovation & Technology S.L
- *FRAUNHOFER* Fraunhofer Institute for Chemical Technology

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