

International Workshop on Energy Storage in the Grid: Low, Medium and Large Scale Requirements

Wednesday 8th January

8:30-9:00	Registration
9:00-9:25	Welcome X. Granados ICMAB-CSIC & J. R. Morante IREC –UB
9:25-9:45	COST Action MP10004 “Hybrid energy storage devices and systems for mobile and stationary applications” Dalik Sojrev, Berlin, Germany
	Smart cities and Storage in transports
9:45-10:15	EVs 2nd life batteries applications N. Vidal, Endesa. Spain
10:15-10:45	Storage in the railway José Conrado Martínez, ADIF, Madrid, Spain
10:45-11:15	Coffee break+ Poster Time & Networking
	Quality and storage in grids
11:15-11.45	Energy storage needs for Rural Smart Grids Santiago Martínez, Ramón Gallart, Estabanell Energy, Granollers. Spain
11:45-12:15	Reliable and Economic Island, Microgrid and Grid Supply with Renewable Energy using Electrochemical Storage Olaf Wollersheim, KIT, Karlsruhe. Germany
12:15-12:45	Evaluating the Economics, Social Benefits and Technology Needs of Energy Storage Peter Hall, Sheffield University, Sheffield. UK.
12:45-13:15	Interactions and Synergies in a Highly Renewable Pan-European Power System Stefan Weitemeyer, Next energy institute, Oldenburg. Germany
13:15-15:00	Lunch
	Storage models and methods
15:00:15:25	EV-Grid concept Gerard Coquery, IFFSTAR, France
15:25-15:50	Towards the development of the Na-ion technology: in search of suitable electrodes and electrolytes M.R. Palacín, Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)
15:50-16:15	Modelling and Validation of a Flywheel Energy Storage Lab-Setup F Díaz, IREC, Barcelona. Spain
16:15-16:35	Integration of Energy Storage systems in Microgrids Jordi Pegueroles, IREC, Barcelona. Spain
16:35-16:55	Vanadium redox flow battery for smart grid application: Nano-structured carbon-

	based electrode materials Cristina Flox, IREC, Barcelona. Spain
16:55-17:15	Coffee break+ Poster Time & Networking
17:15-17:45	Think tank Table The role of the low level storage in the grid stability Coordinators: Peter Hall and Dalik Sojrev
17:45-18:00	Closing remarks

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Thursday 9th January

	Storage projects
9:00-9:30	Improvements in Redox Flow Battery Technology. Project REDOX2015 Luis Manuel Santos Moro, EDP energía. Spain
9:30-10:00	Mechanical energy storage with focus on hydropower – status and future development Atle Harby, Centre for Environmental Design of Renewable Energy (CEDREN), SINTEF Energy Research, Trondheim. Norway.
10:00-10:30	Superconductors for efficient and robust hybrid storage systems Xavier Granados. ICMAB-CSIC, Barcelona, Spain
10:30-11:00	Coffee break+ Poster Time & Networking
11:00-11:30	Chemical Energy Storage based on CO2 Plasmolysis Adelbert Goede. Dutch Institute for Fundamental Energy Research, Nieuwegein. The Netherlands
11:30-12:00	Electrical storage for power system applications: Needs and Challenges Luciano Martini, RSE, Milan, Italy
	European networks for energy
12:00-12:30	EERA Joint Programme Energy Research – Status and outlook EERA Eberhard Diegele, KIT, Karlsruhe. Germany
12:30-13:00	t.b.a Peter Verboven, VITO, Belgium
13:00-13:30	t.b.a. Acció10/CDTI, Spain
13:30-15:00	Lunch
	Storage methods: strong and drawback Contributions of the COST & XARMAE members
15:00-15:25	Parallels between bio- and hybrid energy storage systems Paul Borza. University of Transilvania, Romania
15:25-15:50	Hybrid energy storage solutions for stationary applications João Martins, Universidade Nova de Lisboa-FCT-DEE, Portugal
15:50-16:10	A glance at the possibilities for improving efficiency in grid energy storage by superconducting technology Alfredo Alvarez, UNEX, Badajoz, Spain
16:10-16:30	Fast response energy storage systems for wind power smoothing JL Domínguez, IREC, Barcelona. Spain
16:30-17:00	Coffee break+ Poster Time & Networking
17:00-17:30	Think Tank Table Energy research in EU, Networks trends & Funding Opportunities

	Moderator: Eberhard Diegele and Peter Verboven
17:30-17:45	Closing remarks
21:00	Gala Dinner at Balthazar Restaurant

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Friday 10th

	Storage & Generation
9:00-9:30	The Current Development of Compressed Air Energy Storage Technologies and IMAGES Project Jihong Wang, CAES, University of Warwick, Warwick, U.K.
9:30-10:00	Kinetic energy storage potential for wind turbine ancillary services Iñigo Etxaniz, Teckniker, Gipuzkoa. Spain
10:00-10:30	Energy storage systems for wind power applications Francisco Díaz, IREC, Barcelona. Spain
10:30-11:00	Coffee break+ Poster Time & Networking
	Role of Hydrogen / power to gas
11:00-11:30	Nanocrystalline Mg-based hydrides for energy storage Fermín Cuevas, CNRS/ICMPE, Paris. France
11:30-11:50	The implication of renewable power variation for large scale energy storage Fokko Mulder, Natural Sciences Faculty, TU Delf, The Netherlands
11:50-12:10	Cost-effective Processing of Hydrogen Storage Alloys from their Oxides Tayfur Öztürk, Middle East Technical University, Ankara, Turkey
12:10-12:30	Fabricating nanostructured materials through Severe Plastic Deformation (SPD) Processing Aferdita Priftaj Vevecka, Polytechnic University of Tirana, Tirana. Albania
12:30-13:00	Unusual Materials for Hydrogen Storage: From Natural Diamond to Inorganic Nanotubes and Inorganic Fullerene-Like Nanoparticles Alex Laikhtman. Holon Institute of Technology, Holon. Israel
12:50-13:20	Power to gas and Solar Fuels for Chemical Storage Joan Ramón Morante, IREC-UB, Barcelona. Spain
14:30-16:30	MC- COST MEETING