

Energy Storage in Power Systems: Technologies, Applications and Future needs

February 4th (2:00 pm) to 7th (1:00 pm), 2014

Swiss Federal Institute of Technology (EPFL), 1015 Lausanne

Auditorium ELA 1

Agenda

Tuesday February 4th, 2014

<i>Registration</i>	12:30 – 13:45
<i>Welcome and opening session (R. Cherkaoui)</i>	13:50 – 14:00

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The need of balancing power with storage (G. Andersson)	14:00 – 15:00
Modern Compound and Reversible Units for Pumped Storage Power Plants (F. Avellan)	15:00 – 16:00
Coffee Break	16:00 – 16:30
Hydrogen: production, storage, applications and safety (A. Zuetzel)	16:30 – 18:00

Wednesday February 5th, 2014

Controlling and managing V2G and V2H (J. Peças Lopes)	09:00 – 10:30
Coffee Break	10:30 – 11:00
Large pumped storage hydro power plants (T. Aschwanden)	11:00 – 12:30
Lunch	12:30 – 14:00
Battery energy storage systems: BESS (C. A. Nucci)	14:00 – 15:30
Coffee Break	15:30 – 16:00
Electro-thermal electricity Storage Systems (F. Marechal)	16:00 – 17:30

Thursday February 6th, 2014

Energy storage systems properties - case of Compressed Air Energy, Vanadium Redox flow Battery, Supercaps, etc. (A. Rufer)	09:00 – 10:30
Coffee Break	10:30 – 11:00
Applications of BESS in electric power systems with renewable generation (A. Oudalov)	11:00 – 12:30
Lunch	12:30 – 14:00
Grid Operation and Flexibility with Energy Storage and Demand Response - Implementation and Economics (T. Borsche/ A. Ulbig)	14:00 – 15:30
Requirements and possibilities for energy storage applications in railway power supply (M. Aeberhard, N. Cherix)	15:30 – 16:30
Coffee break	16:30 – 17:00
Distribution networks support (voltage control, islanding) (A. Borghetti)	17:00 – 18:00
<i>Buffet dinner</i>	<i>19:00</i>

Friday February 7th, 2014

Seal-healing operation of microgrids with BESS (M. Paolone)	09:00 – 10:30
Coffee break	10:30 – 11:00
Storage versus demand side management: issues and opportunities from a TSO perspective (W. Sattinger)	11:00 – 12:00
Conclusions	12:00 – 12:30