Pre-Conference Workshop on DYMONDS-Based General Purpose Smart Grid in a Room Simulator (SGRS) – Theoretical Foundations, Modelling and Demonstrations

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Agenda (1/3)

- 1:00-1:45 p.m. – "Models and Functionality of the SGRS Simulator based on DYMONDS," Marija Ilic

- 1:45-2:15 p.m. – "Introduction to SGRS Multi-Layered Simulation Platform Design," Martin Wagner, Jovan Ilic, Franz Franchetti

Part I: Examples of applications of the SGRS

- 2:15-2:35 p.m. – "Simulation of Electric Vehicle Participation in Electric Power Markets Using the ALM Framework and the Smart Grid in a Room Simulator" Jonathan Donadee, Hadi Amini

- 2:35–3 p.m. – "Adaptive Load Management/Transactive Energy – Demonstration on the SGRS" Martin Wagner
Agenda (2/3)

Part I: Examples of applications of the SGRS (cont.)

- 3:15-3:35 p.m. – "Towards Feasible Power Delivery in AC Electric Networks Using Smart Wires; Demonstration" Andrew Hsu, Marija Ilic
- 3:35-3:55 p.m. – "Enhanced AGC (E-AGC) for Quality of Response (QoR) Control in Dynamic Electric Power Systems" Qixing Liu, Xia Miao, Marija Ilic
  3:55-4:15 p.m. – "Transient Stabilization using FACTS; Demonstration" Milos Cvetkovic
- 4:15-4:35 p.m. – "Simulation of Power System Dynamics and Transient Stabilization Using Flywheel Energy Storage; Demonstration" Kevin Bachovchin

Part II: Examples of multilayered applications of the SGRS

- 4:35-4:55 p.m. – "Multi-layered Simulation using the SGRS Simulator; Interaction of TE and Flywheel Controlled Dynamic System" K. Bachovchin, M. Wagner, M. Ilic
Agenda (3/3)

Part III: Emerging applications

- 4:55-5:10 p.m. – "Designing Incentives for Flexibility in the Transmission Sector" Chin Yen Tee
- 5:10-5:25 p.m. – "Making the Case for Locational Allocation and Pricing of Power Systems Operating Contingency Reserves" Jose Fernando Prada
- 5:25-5:45 p.m. – "Novel Control Schemes for Wind DFIGs with Integrated Energy Storage and their Application to IBAs" Stefanos Baros
- 5:45-6:00 p.m.– "Implications on Standards" Marija Ilic