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CYCLE DE FORMATION ÉNERGIE – ENVIRONNEMENT

SÉMINAIRE 2014-2015

Grid integration of renewables: Dispatching and exploitation of virtual power plants

Karl Werlen

General manager, Misurio AG

jeudi 11 décembre 2014 à 17h.15

Auditoire D 185 - Bâtiment D - Uni Battelle
7, route de Drize, 1227 Carouge

PROGRAMME DES PROCHAINES CONFÉRENCES :

Février 2015

L’orateur

Dr. Karl Werlen is co-owner and general manager of the Misurio AG. Today the company employs 11 people and belongs to the EnergyOn Group of which Dr. Karl Werlen is delegate of the board of directors.
Dr. Karl Werlen has studied and graduated electrical engineering at the ETH in Zurich. For more than 20 years his team is dealing with the energy-efficient optimization of power plants, storage units and flexible loads. For this purpose a holistic approach for operation optimization, optimal scheduling and optimal purchase and sale of energy, as well as ancillary services, are paramount. At the moment his team is building a virtual power plant consisting of a pool of flexible energy systems in Switzerland.

La conférence

Power grids play an important role with regard to the energy transition. The feed-in of wind and solar power creates an additional need for storage units. Depending on whether further storage capacity is installed central or decentralized, completely different requirements regarding the grid will result. It can be expected that decentralized storage units will play an increasingly significant role and therefore the requirements for low-voltage and medium-voltage grids will increase. Smart Grid is the magic word. The talk shows how flexibility out of energy systems can be harvested and how business models will arise thereof. For the functioning of such business models, power grids will become essential. Thereby not only physical limits but also accurate tariff systems will either allow or prevent Smart Grid solutions. The talk demonstrates how an improved framework can make innovations in the field of Smart Grid possible.