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CYCLE DE FORMATION ÉNERGIE – ENVIRONNEMENT

SÉMINAIRE 2018-2019

A business model based on the real-time distribution of renewable electricity : insights and retrospections

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Salle 1 (rez-de-chaussée) – Uni Carl Vogt
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L'orateur

Mr. Thomas Schluck studied physics at the University of Konstanz. After an academic year in Shanghai, he completed his studies with a thesis on conductance fluctuations in metallic nanowires.
A doctoral thesis at the University of Zurich followed, which was at the interface of systems biology and the physics of soft matter. In his PhD, he investigated the mechanical properties of epithelial tissue and the influence of its mechanics on its growth.

Since 2014, Mr. Schluck has been working as a researcher at the "Center for Integral Building Technology" (since 2017 the "Institute for Building Engineering and Energy"). He started in the field of modelling and simulation of thermal networks and soon added the development of regional energy concepts to his tasks.

In 2016, he concluded his Master of Advanced Studies in "Building Energy Engineering". In his final thesis, he deepened his knowledge and understanding on the methodological aspects of energy concept development.

Today, Mr. Schluck is project leader of several projects or involved in projects that range from energy concept development, the foundations of project assessments, modelling and simulation of thermal networks or the assessment of innovative business models.
A special interest of Mr. Schluck lies in statistics and data analysis, which is the current focus of his postgraduate studies at the ETH Zurich.

La conférence

Most renewable energy sources (like photovoltaics) are inherently volatile in their energy production and spatially more distributed then centralized solutions. Integrating such sources in the existing electricity grid bears new challenges and requires some kind of adapted load-management.

Today most utilities and energy providers are searching for new business models, especially since the announcement of the coming liberalization of the Swiss electricity market.

Such a new business model is proposed by "Change38". Their business model aims for establishing a common market for local producers and consumers. In this market the produced electricity is distributed among its participants in real-time and incentives are given to accelerate the further addition of power supplies and storage systems.

In this talk we will take a broader look on the development of "Change38" and, more closely, its business model. We will take a tour through the simulation approach that allowed to calculate and estimate all necessary monetary and physical indicators and develop the business model. Finally, we will have a look on some live-data sets and their implications.