

## **CITIES Seminar on Electricity Markets**

**This seminar on Electricity Markets will be held at DTU Compute on Tuesday November 22<sup>nd</sup> in Building 303B, Room 026, 2016 with the following talks:**

### **10:00 - 10:40 Professor Stein-Erik Fleten, NTNU, Trondheim:**

#### ***Policy Uncertainty and Real Options in Switching of Peak Generators***

##### **Abstract:**

This paper examines empirically how economic factors, government policy, and strategic interactions affect manager's decisions to switch between operating and stand-by states for peaking electric power generators. We model the switching decisions using a structural model of a dynamic optimal decision game. We focus on the power markets in the Northeastern United States, where annual observations of such decisions are available. The results indicate that regulatory uncertainty significantly increases firms' perception of switching costs, and that large power producers are noticeably more influenced by their economic environment during their decision-making than small firms.

### **10:50 - 11:30 Professor Erik Lindström, Lund University:**

#### ***A Stability Analysis of the Nord Pool System using Hourly Spot Price Data***

##### **Abstract:**

Electricity prices are known to spike during peak hours, only to revert to normal levels during off-peak hours. We introduce a generalization of the time varying independent spike model commonly used to model the electricity spot price from daily data to hourly data to cope with this feature.

We let the probability of extreme prices depend on several variables, such

as consumption, reserve margin or wind power. The model can then be used to forecast the risk of extreme prices.

More factors become relevant for predicting extreme events when moving to hourly data, but consumption is still the most important factor. The methodology is showcased by illustrating how extreme prices can be forecasted by predicting the consumption.