

Power Event

Public lecture by

Göran Andersson

Professor in Electric Power Systems, ETH Zürich, Switzerland

Tuesday, December 20, at 11:00

**The Technical University of Denmark
Building 101, Meeting room 1**

Research Challenges of the Future Electric Power System

This lecture will first give a brief historical overview of how research results have had a significant influence on the development of the electric power system. Second, the most salient challenges, according to the author, the power system is faced with will be discussed. Examples that will be presented are handling of uncertainties and risks, data management, interaction with other energy systems, consumer behavior, various implications of technical changes, and cyber security. Many of these challenges would require new approaches, system designs and controls, system and component models, or new analytical and computational techniques to be effectively resolved.

Further, a model for the cooperation and interaction between industry and research institutions will be sketched. Even if the overall goal of all the stakeholders is the same, they have different roles to play and this must be acknowledged in the set-up of the cooperative projects.

