

SUMMER COURSE ON ELECTRICITY MARKET DESIGN AND OPERATION: IN DEPTH INTRODUCTION

14TH-16TH SEPTEMBER 2011

CENTRE FOR ELECTRIC TECHNOLOGY
TECHNICAL UNIVERSITY OF DENMARK

In the last two decades, the electric power sector around the world has been restructured from a regulated monopoly into a deregulated and competitive industry. The restructuring of the electricity supply industry involves turning generation and retailing into competitive activities, and allowing open access to transmission and distribution grids. The main objectives of power system restructuring were to guarantee the electricity supply to all consumers, to guarantee the quality of this supply, and to reach the two previous objectives at the minimum cost for the end consumers. On the other hand, the increasing concerns on environmental issues, the depletion of fossil fuels, the integration of renewable and distributed energy sources, and the plausible participation of small consumers in the electricity market have turned the operation of power systems into an even more complicated issue that requires the coordination of experts from different fields to be solved.

This course is aimed to provide a comprehensive view of the main aspects of the electricity market, paying special attention to the new challenges to be faced. The course will address the following topics:

- Deregulation and evolution history of electric power markets
- Electricity pricing methods
- Optimization methods used in restructured power systems
- Nordic electricity markets
- Energy system security
- Effects of smart grid on electricity markets

This course has the invaluable participation of experts on electricity markets and operation of power systems from different prestigious universities around the world:

- Prof. Antonio J. Conejo (Full professor at Univ. of Castilla-La Mancha, Editor-in-Chief of IEEE Trans. on Power Systems)
- Prof. Enrico Zio (Full professor at Polytechnic of Milan, Chairman of the European Safety and Reliability Association)
- Prof. Jacob Østergaard (Full professor at Technical University of Denmark, Director of Centre for Electric Technology, DTU)
- Mr. Henning Parbo (Chief Economist of Market Development, Energinet.dk)
- Mr. Anders Plejdrup Houmøller (Houmøller Consulting, former General Manager of Nordic Spot Power Exchange)
- Dr. Mikael Togeby (Partner, Ea Energy Analyses)
- Dr. Furong Li (Reader at University of Bath, UK, EPSRC Advanced Research Fellow)
- Dr. Federico Milano (Associate Professor at Univ. of Castilla-La Mancha, Developer of PSAT)
- Dr. Preben Nyeng (Senior Engineer, Energinet.dk)
- Dr. Yi Ding (Associate Professor at Centre for Electric Technology, DTU)
- Dr. Salvador Pineda (Research Fellow at Centre for Electric Technology, DTU)
- Dr. Juan Miguel Morales (Research Fellow at DTU Informatics, DTU)

This course is intended for professional of energy companies and electric power utilities, consultants, researchers, and post-graduate students. The course fee is 450€ including lectures, documentation, coffee breaks, lunches, and course dinner. The fee for students is 225€ For PhD-students the course corresponds to 2.5 ECTS.

The coordinators of this course are Assoc. Prof. Yi Ding (yding@elektro.dtu.dk) and Dr. Salvador Pineda (spmo@elektro.dtu.dk) at the Centre for Electric Technology, DTU. The course is arranged in connection to the iPower platform. Registration can be done by e-mail to Assoc. Prof. Yi Ding (yding@elektro.dtu.dk).