

Investment and Trading in Electricity Markets

Zagreb | Tuesday, 24 May 2011

One day training course

Outline

The understanding of the electricity markets requires both technical and economical backgrounds. Of particular interest are the investment decisions in the power sector, the trading of electricity in organized markets, and the analysis of the risk faced by the agents that operate in these markets.

The one day training course in **Investment and Trading in Electricity Markets** gives the participants the opportunity to understand the main features of liberalized electricity markets and the challenges faced by market participants in their short term trading strategies and in their long term investment decisions.

The course includes a practical module where participants are organized in teams, each representing a power company that compete in a simulated market environment where investment and trading decisions are made interactively.

Program

Part 1

- ❖ Major issues related to liberalized electricity markets and the policies for energy and environment on sustainability, competitiveness and security of supply
- ❖ Technical aspects of electricity generation: nuclear, coal, and CCGT thermal power plants; hydro (including pumping), wind and photovoltaics.

Part 2

- ❖ Evaluation of electricity generation costs of investment, fuel, O&M and CO₂ emissions. The background of portfolio dispatch optimization
- ❖ Challenges in trading electricity in the futures/forwards, spot and ancillary services markets
- ❖ Hedging strategies in investment and trading of electricity

Part 3

- ❖ Application using the Electricity Market Game where participants will be organized in teams, each representing a power company, to make investment and trading decisions interactively

Schedule

The course will take place on Tuesday, 24 May 2011 with the following schedule:

12:00 – 13:30	Part 1
13:30 – 14:30	Lunch
14:30 – 16:00	Part 2
16:15 – 16:30	Coffee Break
16:30 – 19:00	Part 3

Lecturers

Jorge de Sousa is Professor at the Lisbon Engineering Superior Institute (ISEL) where he is the head of the Energy Systems Unit. He is invited Professor at the New University at Lisbon in the Renewable Energies Master course. He holds a PhD in Economics (Energy Markets), from the New University at Lisbon, and a Master degree and Graduation in Electrical Engineering and Computer Science (Power Systems), from the Technical University of Lisbon. He is a researcher at the Cie3 / Energy and Environmental Policy Group at the Technical University of Lisbon and International Associate Researcher at the MIT Centre for Energy and Environmental Policy Research. His areas of research include power systems economics, renewable energies, risk management in energy markets, market integration, emissions trading impact on the power sector, electricity markets modeling and simulation, and the integration of the electric vehicle in power systems. For the last 17 years he has participated in several projects as a consultant for institutions in the energy sector, from which he was the team leader of 15.

Paulo Trigo is Professor at the Lisbon Engineering Superior Institute (ISEL) where he teaches courses on Artificial Intelligence and Information Systems and he is co-responsible for the Informatics and Multimedia Master course. He holds a PhD in Computer Science / Artificial Intelligence from the Faculty of Sciences of the University of Lisbon (FSUL), a Master degree in Electrical Engineering and Computer Science from the Technical University of Lisbon and a Graduation in Applied Mathematics (Computer Science) from the FSUL. He is a senior researcher in the Laboratory of Agent Modelling (LabMAg) at the FSUL, a research unit dedicated to computational models of multi-agents systems. His research interests are in the fields of Distributed Artificial Intelligence, Autonomous Multi-Agent Systems, Simulation and Decision-Making and the Semantic Web approaches. For the last 4 years he has participated in several multidisciplinary projects involving the energy sector.

Registration

Participants are invited to register at the course with a fee of 350 €. This includes access to all the materials needed for the course and the participation in the Electricity Market Game.

Participants of the EEM 11 conference will benefit of a 50% discount if registered until April 30th, 2011.

Registrations can be made at following link:

<http://www.congressos.abreu.pt/item2011/>