

## CEVI Energy School

Organized by:

Center For Energy and Value Issues (CEVI)

Sponsors

TEIAS

Amsterdam Power Exchange ( APX-ENDEX)

TenneT

### Objective

Europe has been engaged in a debate aimed at building an integrated and competitive energy market since the early 1990s. Leaving the previous nationally oriented energy frameworks models aside, the European Union has taken up the responsibility to develop a strategic policy to change current trends. A truly competitive, single European electricity and gas market is expected to be a free market and open to competition of Europe-wide operating companies. Financial markets have responded to these changes by developing new financial products and markets. The market characteristics of physical energy markets that are opening up are fundamentally different from financial markets which are often rather mature. Although physical energy markets and financial energy markets are closely related, they behave differently. The differences in their characteristics and behavior are substantial, and the effects on price formation and exchange processes are complex. Both risk managers and investment managers need to understand what these differences are and how these differences impact both on investment decision-making and effective risk management approaches. As energy supply is still seen as being vital at a country level, the same counts for regulatory body staff.

Who should attend?

This intensive and interactive training course is designed for practitioners active in energy markets, both the physical market and financial markets. As its primary objective, the course aims to provide a practical understanding of the behavior of energy markets and the risk management implications of physical and financial markets.

The target group of students are employees working in the energy area, such as energy companies, energy markets, regulatory bodies, governments, etc. They will be interested in

the finance perspective that CEVI attaches to energy issues . The applicants should will hold, as a minimum, a bachelor's degree.

Date of the Courses

The courses will take in September 20-24, 2010 in Ankara and in February 7-11, 2011 in Istanbul.

### Course Program

Bilkent Hotel, Ankara

September 20-24

Monday September 20

9.00-9.30 hours Opening

Prof. Mehmet Karan, vice-president of CEVI

Prof. Andre Dorsman, president CEVI

9.30-12.30 hours Development of Energy Markets in Europe

Prof. Andre Dorsman

- Liberalization and Integrations of European Energy Markets
- Barriers on Competitive Energy Markets
- Developments of EU Energy Markets
  - Electricity Market
  - Gas Market
- Financial Aspects of Energy Trading in Europe
  - Power Exchanges and OTC Trading
  - Gas Exchanges and OTC Markets
- Market Functioning and Efficiency of the Regional Markets
  - State Control
  - Market Structure
  - Unbundling
  - Market Efficiency
- Future of The European Energy Markets

12.30 –13.30 hours Lunch

13.30 –17.00 hours Competition Policy and Regulation in Electricity Market

- Features of electricity provision
- Structure of electricity market
- Regulatory framework for electricity
- Essentials of electricity market reform
- European perspective
- Turkish experience

Tuesday September 21

9.00-12.30 hours Energy Risk Management

Prof. André Dorsman, president of CEVI

- Risk measurement
- Interest rate risk
- Duration
- Immunization
- Energy risk
- Developments in time
- Hedging or managing
- Research ahead
- Conclusions

12.30 –13.30 hours Lunch

13.30 –17.00 hours Coupling

Paul Pottuijt, Tennet (Dutch TSO)

- Perfect markets and coupling
- Technical aspects of coupling for the day ahead markets
- Interconnectors between grids
- Coupling and the role of the TSO

Wednesday September 22

9.00-12.30 hours Trading Principles of Turkish Electricity Market I

Turkish Electricity Transmission Company (TEIAS)

- Balancing and Reconciliation
- Principles of Day Ahead Planning
- Market for Balancing

12.30 –13.30 hours Lunch

13.30 –16.30 hours Trading Principles of Turkish Electricity Market II

Turkish Electricity Transmission Company (TEIAS)

- Measurement System
- Reconciliation of Day Ahead Balancing Operations
- Reconciliation of Power Market

Thursday September 23

9.00-12.30 hours Trading Principles for Power and Gas

Matthijs Nijpels –APX-ENDEX

- Auction trade
- Continuous trade
- Market coupling
- Nomination

12.30 –13.30 hours Lunch

13.30 –16.30 hours Development of an Energy Exchange

Matthijs Nijpels –APX-ENDEX

- Principles of an Energy Exchange
- Organization
- Definition of Tradable Products
- Specification and acquisition of IT Systems
- Define Settlement and Clearing Rules

- Define Member Trading Rules
- Member Accession Conditions
- Member Contracts
- Member Training Program
- Creation of a Reference Group
- Liquidity and Market Makers
- Daily Operation
- TSO Nomination

Friday September 24

9.00-12.30 hours Monte Carlo Simulations and Probabilistic Modeling for the Oil Industry

Dr. Andre Koch, Stachanov

- What is Monte Carlo simulation and how does it work?
- Calculating the NPV of an investment project relevant to the oil industry
- Calculating NPVs under uncertain planning conditions
- Create time series forecasts on production yields
- Portfolio optimization in investment and exploration
- Baye's theorem in the oil and gas industry.

12.30 –13.30 hours Lunch

13.30 –16.30 hours Electricity Portfolio Management

Cengiz Gunes ( Güneş Consulting)

- What is power of electricity, power distribution and the case of Turkey
- Fuel Types, working principles of power generations
- Sales opportunities in power markets
- Basic components of power cost
- Models for price forecasting
- Portfolio Management for power companies
  - Basic objectives
  - Risks in electricity market
  - Derivative market for power

16.30 hour Closing