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Given the applied nature of the program other instructors have been selected from outstanding professionals of the energy sector from the following firms ENAGAS, OMIE and REE.

Expert Degree in Economics of Regulated Markets
Universidad Carlos III de Madrid
Campus Madrid-Puerta de Toledo
Ronda de Toledo, 1
Tlf. 91624 98 32
e-mail: ceemr@postgrado.uc3m.es



Specialization Degree on Energy Economics

This course is part of:

Expert Degree in Economics of Regulated Markets
Master in Industrial Organization and Markets



AIMS

This Specialization Course on Energy Economics covers a variety of theoretical and empirical topics related to energy demand, energy supply, energy prices, environmental consequences of energy consumption and production, and various public policies affecting energy demand, supply, prices, and environmental effects.

The course is structured in to main groups of lectures: in the first part, participants get an introduction to the economic fundamentals of Energy, while in the second part, they will get an overview of the the Spanish energy sector, mainly power and gas, within the context of a global liberalization and competition.

Such an ambitious and applied goal justifies that the course program is designed jointly with professional of the energy companies and institutions involved in the various stages of production and distribution as well with the system and market operators. The course is divided in modules whose contents neatly covers the economic, technical and institutional aspects of the energy activities of production, transportation, distribution and marketing, using the fundamental tools provided by economic theory of the markets, the structure of the prices and regulatory principles.

In summary, this course offers a comprehensive and updated overview on the past, present and future of the challenging energy economic sector.

ORGANIZATION

The Specialization Course in Energy Sector Economics is part of the Expert Degree Courses in Economics of Regulated Markets of the University Carlos III of Madrid (UC3M). The lectures cover a total of 81 teaching hours, distributed over the course between the months of October and June. Classes will be held from 16:00 to 19:30, in Campus Madrid-Puerta de Toledo of the Universidad Carlos III de Madrid.

The applied nature of the course will be enhanced through seminars and practical sessions, simulations of market management and evaluation of business initiatives, visits to production facilities, control centers and market institutions, as well as roundtables.

REGISTRATION

Registration fees (including seminars and practical classes) is 3.000 euros. Total fees can be divided in two payments due at the beginning of each quarter.

Diploma

A Diploma will be given to all students who complete the course requirements, including class assistance, participation in visits and practical sessions, and adequate performance in periodic exams.

Program

Economics of Energy I: General Aspects

I. Basic Concepts and Tools

- Topic 1. Energy Concepts and Relevant Economic Theorems
- Topic 2. Energy Demand Estimation: Useful Econometric Tools

II. Energy Policy

- Topic 3. Energy and Growth
- Topic 4. Energy and Climate Change
- Topic 5. Energy Efficiency and Security of Supply
- Topic 6. Renewable Energy

III. The Economic of Power Sector

- Topic 7. Power Sector Economics
- Topic 8. Power Sector Economics

IV. Gas and Oil Economics

- Topic 9. Gas Sector Economics Issues. Markets and Hubs
- Topic 10. Oil Markets. The Economics of the Refining Industry

V. Energy and Competition

- Topic 11. Energy and Competition
- Topic 12. Presentation

Economics of Energy II : The Spanish Case

- Topic 1: Perspectives of the Spanish Electricity Sector
- Topic 2: Generation: Electricity/Gas
- Topic 3: Iberian Market Operator: Market Processes
- Topic 4: The European Market Coupling in Electricity Risk Management
- Topic 5: Settlement and Clearing of Electricity
- Topic 6: Transmission and System Operation I: The Spanish System
- Topic 8: Transmission and System Operation III: An International Perspective
- Topic 9: Introduction to the Gas System/Access to the Gas System
- Topic 10: Visit to the Control Center (CECOEL)
- Topic 11: The Spanish and European Gas System. Gas System Operation in Spain
- Topic 12: Round Table: Public Deficit and Energy
- Topic 13: Smart Grid Comercialization
- Topic 14: Tariffs / Distribution
- Topic 15: Closing Ceremony