

Energy Economics I and II

This course is part of:

Specialization Degree in Economics of Regulated Markets

Master in Industrial Economics and Markets

Board of Directors:

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Faculty

Energy Economics I: General aspects

- Prof. Paulina Beato (Catedrática de Análisis Económico)
- Dr. Juan Delgado (Managing Director Global Economics Group)
- Prof. Álvaro Escribano (Catedrático de Economía - UC3M)
- Dr. Nemesio Fernández-Cuesta (Economista del Estado/Técnico Comercial)
- Prof. Isabel Sánchez (IE University)

Energy Economics II: The Spanish Sector

- Lecturers of REE, OMIE, ENAGAS, KPMG

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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 and Specialization Degrees Courses in Economics of Regulated Markets of the University Carlos III of Madrid (UC3M). The lectures cover a total of 12 ECTS (6 ECTS each part), distributed over the course between the months of September 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

- Full tuition fee 3.200 euros
- Energy Economics I: 1.600 euros
- Energy Economics II only: 1.600 euros

Surname.....Name DNI/Passport

Address.....

Phone Fax E-mail

Degree Granted University

Company Address

Phone E-mail

Wish to enrol in (Underline as applicable):

BLOCK I

BLOCK II

BOTH BLOCKS

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. Oil and Gas

- Topic 3. Oil markets: The Economics of the Refining Industry
- Topic 4. Gas: Markets and Hubs

III. The Economics of the Power Sector

- Topic 5. Power Sector: General Economic Issues
- Topic 6. Power Sector: Regulation

IV. Challenges of the Energy Industry

- Topic 7. Energy and Climate Change
- Topic 8. Energy and Growth

V. Energy policies

- Topic 9. Energy Efficiency and Security of Supply
- Topic 10. Renewable Energy
- Topic 11. Energy and Climate Transition
- Topic 12. Energy and Competition

Economics of Energy II: The Spanish Sector

Topic 1: Perspectives of the Spanish Electricity Sector

Topic 2: Generation: Electricity/Gas

Topic 3: The European Market Coupling in Electricity Risk Management

Topic 4: Iberian Market Operator: Market Processes and clearing of the daily and intraday market

Topic 5: Transmission and System Operation:

5.1.The Spanish Power System

5.2 Renewable Energy Integration

Topic 6.1 An International Perspective

6.2 Settlement of Electricity and Consumer Final Price

Topic 7: Settlement and Metering of Electricity (in Spain)

7.1 Metering of Electricity

7.2 System Development

Topic 8: Introduction to The Gas System/ Access to the Gas System

Topic 9: The Spanish and European Gas System. Gas System Operation in Spain

Topic 10: Ancillary services and European Platforms

10.1 Commercialization

Topic 11: Visit to the Control Center (CECOEL)

Topic 12: Round Table

Topic 13: Harmonisation and Convergence with Europe

13.1 European Framework: Networkcodes

13.2 Smart Grid

Topic 14: Closing Ceremony