uc3m Universidad Carlos III de Madrid

Energy Economics I

Academic Year: (2023 / 2024) Review date: 09-07-2020

Department assigned to the subject: Economics Department

Coordinating teacher: ESCRIBANO SAEZ, ALVARO

Type: Compulsory ECTS Credits: 6.0

Year: 2 Semester: 1

OBJECTIVES

Students become familiar with the economic characteristics of the Energy Sector, supply and demand. They will study the economic foundations of the sector. the They will be able to raise the common problems in the regulation of Energy, and recognize the problems of Enterprises decisions within the sector. Develop an ability to apply the techniques and tools of economic analysis to the study of Energy Sector economy, and prepare reports and documents on the evaluation of real projects analysis.

DESCRIPTION OF CONTENTS: PROGRAMME

- I. Basic Concepts and Tools
- 1. Useful Econometric Tools
- 2. Basic Energy Concepts
- 3. Relevant Economic Theorems
- 4. Energy Supply
- II. Policy Issues
- 1. Energy and Climate Change
- 2. Energy Efficiency and Security of Supply
- 3. Renewable Energy
- 4. Energy and Growth
- III. Power Sector: A more detailed Analysis
- 1. Power Sector Economics
- 2. Power Markets
- 3. Regulation of Power Sector
- 4. Competition in Power Sector

LEARNING ACTIVITIES AND METHODOLOGY

Theoretical lessons

Problem solving and case study in the classroom

Individual and group work to solve problems, simulations and case study

Presentation of individual and group work

Visits to leading centers in the sector.

Tests

ASSESSMENT SYSTEM

The course evaluation is continuous through tests, exercises, and class participation. Multiple choice tests will be carried out by students at the end of each of the three parts of the program.

% end-of-term-examination: 0

% of continuous assessment (assignments, laboratory, practicals...):