Energy Markets Strategy
Yale School of Management MGT 820
Cross-listed at Yale School of Forestry and Environmental Studies, FES 80186

Class semester: First half of fall 2009 semester (September 3 - October 15)
Class hours: Tuesdays and Thursdays 10:00 – 11:20 A.M.
Class location: A30

Course Syllabus

Overview

In the past 30 years, energy markets have changed from quiet, often heavily regulated, areas of the business landscape to some of the most dynamic markets in the world economy. Regulation of oil, natural gas, motor fuel, and electricity markets has been reduced dramatically in the U.S. and in many other countries. Electricity deregulation swept the industrialized and developing world, but it is now associated with the 2000-2001 California electricity crisis and the 2001-2002 Enron scandal. Oil prices have reached record levels with great uncertainty of where they are headed.

Drawing on the tools of economics, we study the business and public policy issues that these changes have raised. Topics include the political economy of deregulation, competition in wholesale electricity markets, market power and antitrust, and the transportation of energy commodities. We examine the economic determinants of industry structure and evolution of competition among firms in these industries, investigate successful and unsuccessful strategies for entering new markets and competing in existing markets, and analyze the rationale for and effects of public policies in energy markets.

Students will play strategy games to learn about the oil and electricity industries. They simulate OPEC countries in the oil industry and then for-profit firms in a restructured electricity market. The students solve for the collusive equilibria in the setting of a non-renewable resource and develop their own strategies given that monitoring oil production is imperfect. They will also have to consider how to operate in electricity markets given that there are capacity constraints, inelastic demand, and lack of storage.

Office Hours and Teaching Assistant

Professor: Erin Mansur (erin.mansur@yale.edu)
Office hours (OH): By appointment. 55 Hillhouse (Room 309)
Phone: (203) 432-6233
Class web site: https://classesv2.yale.edu/portal/site/fes80186_f09
Teaching assistant: JF Thye (frederick.thye@yale.edu)
TA OH/location: Hall of Mirrors, Thursdays 3-4 PM
Readings

Most readings are available on the class web site. However, some are in a course reader denoted [READER] in the list below or just list a web site’s URL. Please complete the readings before class.

Assignments

Grades will be determined based on performance on the final exam, each of the two strategy games, and class participation and attendance. The grades on the games will depend both on your team’s profits and your strategy memos. The final exam will be a take home, open note, open readings exam. The exams will be handed out on October 15 and will be due by October 26 (by 9:00 AM). Course grades will be determined as such:

- Final Exam: 40%
- OPEC Strategy Game: 20%
- Electricity Strategy Game: 20%
- Class attendance and participation: 20%

Rounds of Strategy Games

OPEC

Round a (Auction)  Friday  September 11  noon
Round b (Meeting)  Tuesday  September 15  In-class
Round 1  Wednesday  September 16  11:59 PM
Round 2  Thursday  September 17  11:59 PM
Round 3  Friday  September 18  11:59 PM
Round 4  Monday  September 21  11:59 PM
Round 5  Tuesday  September 22  11:59 PM
Round 6  Wednesday  September 23  11:59 PM
Strategy memo due  Thursday  October 1  In-class

Electricity Strategy Game (ESG)

Round a (Auction)  Tuesday  September 29  In-class
Round 1  Friday  October 2  noon
Round 2  Monday  October 5  11:59 PM
Round 3  Tuesday  October 6  11:59 PM
Round 4  Wednesday  October 7  11:59 PM
Round 5  Thursday  October 8  11:59 PM
Round 6  Friday  October 9  11:59 PM
Strategy memo due  Thursday  October 15  In-class
COURSE PLAN AND READING LIST

September 3. Lecture 1: Overview of Energy Markets
   OPEC Strategy Game Introduction
   OPEC Game Instructions.

September 8. Lecture 2: Pricing Exhaustible Resources

September 10. Lecture 3: Pricing with Market Power and Oil Industry

September 15. Lecture 4: OPEC Meeting

September 17. Lecture 5: Introduction to the Electricity Industry

September 22. Lecture 6: Scarcity Pricing and Electricity
   Instructions for the Electricity Strategy Game

September 24. Lecture 7: Introduction to the Gasoline Industry
   Electricity Strategy Game Introduction
September 29. Lecture 8: Vertical Integration and Gasoline

ESG auction


October 1. Lecture 9: Regulation and the Natural Gas Industry

OPEC game memo due


October 2, 10 am. Visit to Yale Central Power Plant

October 6. Lecture 10: Deregulation and the Enron Case Study

MacAvoy. 2000. The Natural Gas Market: Sixty Years of Regulation and Deregulation, 1-17. [READER]


October 8. Lecture 11: Incentive Based Regulation and Nuclear Power


Economics of Regulation and Antitrust, 429-64. [READER]

San Francisco Chronicle, May 15.

San Francisco Chronicle, June 28.

October 13. Lecture 12: Guest Lecture

Matt LeBlanc and Rob Howard, ArcLight Capital Partners, LLC.

October 15. Lecture 13: Renewables


