



## Department of Economics Course Outline

		<b>Term:</b>	Fall 2004
<b>Course:</b>	Economics 711.08 [Readings in Energy Economics]	<b>Section:</b>	01
<b>Time:</b>	By appointment	<b>Place:</b>	To be scheduled
<b>Instructor:</b>	Dr. D. V. Gordon/Dr. A.J. MacFadyen		
<b>Office:</b>	SS430/SS 540	<b>Telephone:</b>	220-5080/220-4094
<b>Office Hours:</b>	By appointment	<b>E-mail:</b>	<a href="mailto:dgordon@ucalgary.ca">dgordon@ucalgary.ca</a> <a href="mailto:macfadye@ucalgary.ca">macfadye@ucalgary.ca</a>

### Books on Reserve:

None.

### Textbook:

There is no textbook.

### Note:

This course consists of selected readings in Energy Economics. The Outline specifies four broad areas in energy economics, with several recommended readings for each, and a specific research issue. The student is expected to write a research paper on each issue, which will include a literature review and list of outstanding research questions.

Additional readings may be assigned.

### Topic One: Energy Utilization

#### Readings

Margaret E. Slade, G. Kolstad and R. Weiner, 1993. "Buying Energy and Non-fuel Minerals", in Allen. V. Kneese and

James L. Sweeney (editors), **Handbook of Energy and Resource Economics, Vol. III.** Amsterdam: North-Holland.

Ernst Berndt, Catherine Morrisson and G. Campbell Watkins, 1981. "Dynamic Models of Energy demand: An Assessment and Comparison" in Ernst Berndt and Barry Fields (eds.) **Measuring and Modeling Natural Resource Substitution** Cambridge MA: MIT Press. (Other chapters in this volume may also be of interest.)

Manuel Frondel and Christoph M. Schmidt, 2002. "The Capital-Energy Controversy: An Artifact of Cost Shares?" **The Energy Journal** 23(3): 53-79.

Specific Issue

The efficiency of energy use varies considerably across different nations. How would one explain the differences and investigate whether the differences are becoming smaller?

## **Topic Two: Nonrenewable Energy Production**

Readings

J. A. Krautkraemer, 1998. "Nonrenewable Resource Scarcity", **Journal of Economic Literature** XXXVI (4): 2065-2107.

Dennis Epple and, 1993. "Strategies for Modeling Exhaustible Resource Supply" in Allen. V. Kneese and James L. Sweeney (editors), **Handbook of Energy and Resource Economics, Vol. III.** Amsterdam: North-Holland.

Robert S. Pindyck, (ed.), 1979. **Advances in the Economics of Energy and Resources Vol 2: The Production and Pricing of Energy Resources.** Paper by M. A. Adelman and H. D. Jacoby, Paul Lee Eckbo, Russell S. Uhler, Geoffrey Heal, and Richard J. Gilbert.

Specific Issue

Discuss how models of conventional crude oil and natural gas exploration and development have addressed the issues of uncertainty and the nonrenewable nature of the resource.

## **Topic Three: Price Determination in Energy Markets**

Readings

William D. Nordhaus, 1973. "The Allocation of Energy Resources" **Brookings Papers on Economic Activity** 3 529-570.

Morris A. Adelman, 1995. **The Genie out of the Bottle: World Oil Since 1970.** Cambridge Ma: MIT Press.

Specific Issue

What factors determine the levels of quotas and quota adherence in OPEC?

## **Topic 4: Regulation of Energy Markets**

Readings:

Paul L. Joskow, 2000. "Deregulation and Regulatory Reform in the U.S. Electric Power Sector", in S. Peltzman and C. Winston (eds.) **Deregulation of Network Industries: The Next Steps.** Washington, D.C.: Brookings Press.

Clifford Winston, 1993. "Economic Deregulation: Days of Reckoning for Microeconomists" **Journal of Economic Literature** XXXI (3): 1263-1289.

Paul L. Joskow and Edward Kahn "A Quantitative Analysis of Pricing Behavior in California's Wholesale Electricity Market during Summer 2000" *The Energy Journal* 23(4): 1-35.

Specific Issue

Many jurisdictions have adopted measures to 'de-regulate' the electricity industry. Discuss the major economic questions associated with this.

### **Grade Determination and Final Examination Details:**

Four research papers (25% each) 100%

### **Notes:**

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor within two weeks of the work being returned to the class.

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2004-10-18