With gasoline prices and dependence on foreign oil near record levels, energy has become a big topic again in public policy circles. Americans consume a disproportionately large amount of energy by world standards, yet government leaders—Democrats and Republicans—have been unwilling or unable to craft coherent policies to ensure reliable sources of fuel at reasonable prices. Because of petroleum imports, government initiatives have often been directed toward securing stable supplies of foreign oil, even if that meant resorting to war (i.e., the two Gulf wars), according to some policy analysts. Of course, oil is not the only energy resource available to Americans, but alternatives such as domestic coal and nuclear power have encountered serious technical and political objections that reduce their availability for use. Meanwhile, the development of renewable energy resources has been hampered by lackluster political support.

This course will take an historical approach toward understanding the development of government regulatory policy toward energy in the United States. It will examine the origins of regulation at the end of the 19th century and trace the often-convoluted evolution of energy use and government policy in the 20th and 21st centuries. Regulation and deregulation of energy industries will also be studied to gain insights about the purposes and consequences of government intervention in the energy markets.

Offered only to upper level History students, this course differs from typical classes in which the professor stands in front of the class and lectures. Instead, this course will depend on students to make presentations and to participate heavily in class discussions of readings and case materials. Students will also be required to write several short papers in this writing-intensive course.

REQUIRED READINGS


Several articles and other readings, noted below, that are available on Blackboard, at http://www.edtech.vt.edu/ocs/login.htm.

RECOMMENDED READING (See Sept. 8 on syllabus)


TENTATIVE CLASS SCHEDULE

(A few changes may be made after consultation with students.)

Aug. 25. Introduction to course. Goal of course, explanations, fun stuff.

Sept. 1. Discussion of significance of technological change and government policy. Also, discussion of government regulation that deals with companies that employ large-scale technological systems.
Assignment 1: Very often, people think that government regulation is imposed on industries because those industries have acted in ways that exploit a powerless public or group of customers. Safety and price regulation in the early railroad industry can be viewed as having been established for this reason. However, as the McCraw book points out, regulation is often pursued by leaders of industries themselves as a way to enhance their own interests. Alternatively, while industry leaders sometimes oppose their imposition, regulations may nevertheless have the effect of saving an industry or helping it prosper.

Based on your reading of McCraw's book and the limited use of other resources, write a short paper (maximum length 300 words) explaining how regulation has been used by one or more industries to secure advantages to them. Provide examples and evaluate whether popular generalizations about regulations (such as "all regulation is bad" or "there is too much regulation in society") have much merit.

Due date: Today, Sept. 1.

Sept. 8. Social history of energy use in the United States from colonial times to the 1990s.

Reading: Nye book. Students will be assigned to be especially conversant with each chapter, and they will help lead the discussion. Locate at least one other article relating to your chapter, and write a summary of it.

OPTIONAL Assignment: Consuming Power is a social history of energy in the United States. Likewise, Freese's book, Coal: A Human History takes a social approach to understanding the origins and impacts of coal use on several societies throughout history.

For this optional, extra-credit assignment (worth up to 5 final points), read the Freese book after reading the Nye book. Identify a theme (or topic) that resonates with a theme (or topic) in the Nye book and provide a brief analysis of it. Explain how Freese’s interpretation helps one understand the subject better or how her study amplifies upon topics discussed in Nye’s book. Some of the broader themes include: notion of energy crises, environmental impact of using (and obtaining) energy, conditions of workers in energy industries, and government policies relating to energy.

Ideally, you should be prepared to talk about the Freese book the same day we discuss the Nye book. However, you can turn in this extra-credit assignment (having a limit of 350 words) any time up until October 20.

Sept. 15. The Electric Power System: Origins, Success, and Problems. Technological innovation and regulatory policies allowed the electric utility industry to expand and provide apparent benefits to all parties. But not forever… In the 1970s, technological problems limited the growth policies of utility companies, imperiling several firms and establishing the foundation for alternative approaches. At almost the same time, nuclear power went from being the environmental movement's favorite technology to its most despised power source.


For an in-depth view of the collapse of a nuclear power plant, and the regulatory problems that accompanied it, read the Shoreham case study. The Shoreham case presents a situation in which a utility may not be able to open a nuclear plant that had been approved years earlier through normal channels. New regulations and cost overruns have not helped the situation. Also see Alfred E. Kahn, “Who Should Pay for Power-Plant Duds?” Wall Street Journal (15 August 1985), and letter to the editor (attached in PDF file).


Assignment 2: Students will be broken into groups to prepare information for presentation to class about the impacts of the 1973 energy crisis. Groups will be asked to research and describe the way the energy crisis affected
a) the economy (inflation, consumer demand, new consumer choices, etc.)
b) the financial world (stock market, bond prices, etc.)
c) everyday life (driving, heating/cooling in homes, etc.)
d) government policies (laws passed immediately after the energy crisis)
e) popular opinion regarding the causes (and solutions) to the energy crisis.

Students working on the same general topic should coordinate their research so they investigate different subtopics. Short presentations (ideally using PowerPoint—see Edwards article for presentation advice) will be made by members of your group in today’s class. No written paper is due, but turn in a bibliography that contains at least 7 sources. Good sources for some of these topics include *Time* and *Newsweek* magazines (though issues from the 1970s are not online).

Sept. 29. *Energy Crisis II: The Carter and Reagan Energy Plans.* President Carter made energy policy a cornerstone of his first 2 years as president, though he ended up with much less than he expected. Soon after taking office, President Reagan reversed many of his predecessor’s efforts.


Assignment 3A (for some of class): Students will be broken into groups to prepare information for presentation to class about President Carter’s “National Energy Plan,” sent to Congress in 1977. Groups will be asked to research and describe elements of his plan, such as:
a) Carter’s overall philosophy about energy use in the US.
b) Carter’s views on the value of conservation.
c) Carter’s plan to stimulate the development of renewable, fossil, and nuclear fuels.
d) The politics of energy legislation.
e) Passage of laws in 1978 that sought to accomplish Carter’s goals.
Students working on the same general topic should coordinate their research so they investigate different subtopics.

Assignment 3B (for some of class): Some students will investigate President Reagan’s energy policy. Groups will examine the following:

a) Reagan’s philosophy about energy use and the role of government in the economy.

b) Steps taken by the Reagan administration to reverse some of Carter’s initiatives. (Consider Reagan’s appointments to relevant government agencies, such as the Dept. of the Interior, Dept. of Energy, etc. Also consider legislation that allowed Carter’s initiatives to lapse.)

c) Energy legislation that helped or hurt specific energy industries.

d) Energy prices and energy consumption during the Reagan (and G.H.W. Bush) years as presidents.

During today’s class, individuals will discuss the results of the research. Each student will write a 300-word paper on one of these topics (or sub-topics) that will be turned in today.


Energy Efficiency II: Government and Regulatory Policies to Encourage It. After the 1978 National Energy Policy provides some incentives for energy efficiency, the states pick up the ball and encourage more efficiency, especially in the electricity sector.


Students should also find at least one article dealing with the notion of conservation and energy efficiency from the 1960s through the 1980s. Turn in a one-paragraph summary of each source.

Oct. 13. To be announced.

Oct. 20. Growth of Renewable Energy Systems. Renewable energy hit its stride as a result of supportive federal legislation in 1978 and state policies. By the end of the 1980s, renewable energy was no longer a pipe dream, as some approaches sometimes became commercially competitive.

**Assignment 4**: Your job is to assess the viability and market acceptance of renewable energy technologies. You will make your assessment based on three criteria:

1) the technologies' technical feasibility.
2) the technologies' market feasibility (i.e., the cost of energy coming from the renewable technologies and the cost of energy produced by conventional technologies).
3) the effect of government and private R&D on those technologies.
4) the consequences of regulatory policies, tax incentives, as well as disincentives and impediments from government, industry, and other sources.

Because there are so many renewable technologies, I do not want you to evaluate all of them. Rather, choose two (or more) technologies and use a "compare and contrast" approach to evaluate their prospects. (Hint: A good first step is to review the DOE document "Profiles in Renewable Energy: Case Studies of Successful Utility-Sector Projects" at [http://www.nrel.gov/documents/profiles.html](http://www.nrel.gov/documents/profiles.html). But be aware that this is an old document—from 1993. See more recent information at [http://www.nrel.gov](http://www.nrel.gov), the Union of Concerned Scientists site, [http://www.ucsusa.org/clean_energy/renewable_energy/index.cfm](http://www.ucsusa.org/clean_energy/renewable_energy/index.cfm), and other web sites.)

To make the assignment even more interesting, I will ask you to team up with classmates to pursue this research. For the class, you will orally present a summary of your evaluation. All members of the group will be authors of a 500-word paper, and all will receive the same grade. Due dates: Presentation—today. Paper—Nov. 3.

**Oct. 27. Energy Policy and War: The Gulf War of 1991—War for democracy or for oil—or for both?** Though much of the rhetoric about pursuing the 1991 war in the Persian Gulf had to do with democracy, many people thought the war was more about securing the supply of foreign oil for several nations. After the first Gulf war, Congress passed the Energy Policy Act of 1992.


**Assignment 5**: Here’s a chance for you to do some fun analyses of a real law. Groups of two students each will jointly do research, present information, and write a paper that investigates one element ("title") of EPAct 1992. You will be asked to investigate:

a) The origins and goals of the title. Why did lawmakers feel the need to introduce legislation in the first place? What was the background of the title? What problems existed as a backdrop to this title? What were the goals of the title?

b) What incentives did Congress offer to reach the goals? (Tax incentives, revision of existing laws, etc.?)

c) How has the title achieved its goals since 1992? What has happened as a result of passage of the title? Have the goals been met? Has there been criticism of parts of the law?

The following titles (and subtitles) will be examined:

- Title I. Energy efficiency. Choose one subtitle.
- Title IV. Alternative Fuels, nonfederal program.
- Title VII. Electricity. Choose subtitle A or B.
- Title XII. Renewable Energy.
- Title XII. Coal. Choose subtitle A or B.
- Title XV. Oil.
- Title XXI. Energy and the Environment.
- Title XXII. Energy and Economic Growth
- Title XXVIII. Nuclear Plants.

Students will make presentations of their work for today’s class.
Nov. 3. To be announced.

Nov. 10. *An Era of Deregulation?*  Deregulation has become the mantra of many people in business and policy. What are the causes for this belief in market principles? Why have people become disillusioned with government regulation?

Vietor, chap. 4. (Chapters 1 and 4 are contained in the same PDF file.)

**Assignment 6.** Students will prepare class presentations that explore deregulation of the following industries: natural gas, petroleum, aviation, electric power, telecommunications, banking, cable TV, and securities (stocks). Questions to be answered include:

a) What was the rationale for regulation of the industry in the first place?
b) What were the motivations for deregulation of the industry?
c) What role did technological change play in deregulation?  (Did new technologies make obsolete the original reasons for regulation?)
d) What were the consequences of deregulation since the industries have been opened up to more competition and less government oversight?  Were expectations met?  Why or why not?

A 350-word analysis that answers these questions is due today.

Nov. 17. *Energy Policy in the 21st Century.*  Since almost the beginning of his first term in office, President Bush sought to develop a new energy policy.  Only in 2005 did a new Energy Policy Act win approval.  We’ll study the new law and see if we think it will meet the President’s goals.  We’ll also consider critics of the law.  In many ways, this analysis will parallel a similar analysis we performed on the 1992 Energy Policy Act.


**Assignment 7:** Groups of two students each will jointly do research, present information, and write a 400-word paper that investigates one element of EPAct 2005.  You will be asked to investigate:

a) Generally, why did the Bush administration seek to pass a new energy policy act?  What had changed (or remained the same) since President Bush’s father pursued an energy policy initiative more than a decade earlier?
b) What was left out of the law?  Why were these elements omitted?
c) For each element of the law (noted below), examine the reasons for its inclusion.  What economic/social/political reason existed for its inclusion?
d) Examine the criticisms made for the element you are studying.  What do you think motivates these criticisms?
e) Assess the outcomes of the law.  Do you think the initiatives will have the desired outcomes?  Will Congress (or the states) need to make new energy policy to deal with similar problems in the near future?  Go out on a limb and speculate.  In 3-5 years, send me an email and tell me if you were correct or incorrect with your assessments.

Here are the major elements of the new law that we will discuss:

1) The Repeal of the Public Utility Holding Company Act (PUHCA)
2) Development of Petroleum Resources
3) Energy Project Siting and Infrastructure Development
4) Nuclear Power Incentives
5) Provisions for Electric Transmission
7) Energy Efficiency Considerations
8) Clean Coal and Gasification Incentives


Nov. 24. Domestic Energy Use and Food Preparation lab. In this self-directed class, students will examine the use of energy in the preparation and delivery of food in domestic settings. Report to class next week on the factors that led you to develop your particular research methodologies. Explain the larger implications of energy use for domestic pleasures in American society. Feel free to bring leftovers to class.

Dec. 1. Expansion time, wrap up, etc.
Readings to be announced.

GRADING FORMULA:

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THE NATURE OF THIS COURSE

This senior seminar course requires maturity and discipline. The success of the course will depend largely on the interest, enthusiasm, and participation of students. Significant principles and issues surrounding energy, technology, law, and government policy will be discussed. Students will be in charge of making presentations and interpreting reading materials. As a designated “writing intensive” course, the class also requires students to undertake a fair amount of written assignments. Consequently, only students who have taken Historical Methods (HIST 2004) may take this course.

This is a seminar class, and its success depends largely on the participation of students. As noted by a colleague, Professor Robert Hatch of the University of Florida, “[s]eminar discussion has a long tradition and is based on criteria not far removed from those of the 'critique.'” Professor Hatch provides a set of guidelines that you need to consider in all aspects of seminar communication and when preparing reviews of commonly read texts in this class. Read his criteria at: http://www.clas.ufl.edu/users/rhatch/HIS-SCI-STUDY-GUIDE/0095_seminarCritiques.html (link available through Blackboard).

To obtain the most from the class, each student should attend all discussions and be prepared to participate fully. In fact, due to the small size of the class, participation will be necessary to avoid reliance on the professor to lecture.

WEEKLY GENERAL ASSIGNMENT

For each class, every student should be prepared to discuss all the readings. Moreover, each student will chose (or will be assigned) one reading (or one part of the readings). He or she should be especially well prepared to

- summarize the reading,
- discuss the major themes and significance of the reading,
- provide a critique of the reading, noting the author’s use of evidence and his/her success in arguing from it. (For more information on performing these tasks, see Robert Hatch’s web site, listed above.)
- speculate on how the themes and approaches could be used as the basis of a future research project.
Moreover, when noted in the assignment, each student will be required to locate a supplementary article or book that relates to an important theme (of your choice) of the reading assigned to you. He or she will use that reading to supplement the discussion of the chapter or article assigned to him or her. Please also submit a one-paragraph summary of the article’s main points, along with a full bibliographic citation of the article (including web site if relevant) when requested.

GENERAL WRITING REQUIREMENTS

As seniors, you are expected to be able to write clearly and effectively, without making petty grammatical and spelling errors. I therefore suggest that you have other students (or friends) read drafts of your papers before you turn them in. I further suggest that you read my “Writing Tips” (http://www.history.vt.edu/Hirsh/writtips.html) to get an idea of the type of writing I prefer. (I especially dislike the use of passive voice and will deduct points for its overuse.) If you need assistance with your writing skills, please seek help at the University’s Writing Center (http://www.english.vt.edu/%7Ewriting/center.html).

Include a word count at the end of each written assignment. (Penalty for none: 5 points.) Each assignment will ask you to limit your analysis to a certain number of words. By writing to a strict limit, you will learn to write clearly and concisely—something that the readers in the "real world" appreciate greatly. For extra assistance in reaching this goal, see Jacques Barzun, Simple and Direct (unfortunately unavailable electronically; call number: PE1408 .B436 1985), a wonderful and easy-to-read primer on good writing. (Penalty for papers +/- 10%: 5 points for each 10% increment.)

Moreover, in each of the assignments, you will lose 0.5 point for using the verb "to be" in any of its forms more than four times. ("To be" is the infinitival form of “am,” “is,” and “are” in all tenses.) By consciously avoiding the verb, you will choose more active verbs and produce more interesting papers. Also, make sure you read the chapter by C. Edward Good on “to be.” For more style tips, see Barzun’s book and Hirsh’s writing tips (web site above).

For each paper, include a bibliography (whose contents are NOT to be included in the word count). In historical documents, authors generally use the “Chicago style” of bibliographic (and note) citation. However, if you are more familiar with another style, you can use it, but please consult with me first. Also use footnotes or endnotes (NOT to be included in the word count) to provide evidence of the resources you used for your analyses. The lack of notes suggests laziness or plagiarism (an honor code violation).

Late Paper Policy: I will accept papers that are handed in late, but with the following penalty: Each calendar day after the due date, I will deduct 10 points. This policy may appear harsh, but you have known about due dates since the beginning of the term. Please begin work on papers early enough so that you do not incur this penalty.

OTHER STUFF

Students having special needs or handicaps should contact the professor early in the term for assistance in overcoming problems.

The honor code will be strictly enforced in this course. All assignments submitted shall be considered graded work unless otherwise noted. All aspects of your course work are covered by the honor system. Honesty in your academic work will develop into professional integrity. The faculty and students of Virginia Tech will not tolerate any form of academic dishonesty.

Electronic equipment: For the sake of others (and me!), please disable the ringer on your cell phones before coming to class. Feel free to use a computer in class, but only for class purposes. If we are discussing a topic and you want to find related information on the web, go for it! But please do not use your computer for general surfing, e-mail, blog writing, IMing, or other unrelated work. I find this use of computers in class to be rude and annoying. When we are all working together, I want you focused on work. You have plenty of time outside of class for other online activities.