Energy Policy
TESC MPA Program Summer 2012 Syllabus 5 22 12
June 30-July 1st; July 14-15 & July 28, 9a-5p Sat/Sun

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"You must be the change you wish to see in the world."-- Mohandas K. Gandhi

The high price of gasoline, how to regulate the explosion of shale gas drilling, and the uncertain status of the proposed Keystone XL pipeline are three of this country's current energy challenges. Through energy policies, federal and state governments influence the development of energy resources, the relative cost of various types of energy and establish a vision for how we will provide for our energy needs in the years ahead. Viewed from one perspective, these policies have been remarkably successful. They have fostered the creation of complex systems that generate vast quantities of energy at relatively low prices. Yet the liabilities of these systems are clear: they are highly centralized, cause significant pollution, and generate unequal results. The importance of petroleum to our society also has bent the machinery of policymaking in favor of some firms, with serious implications for our politics and energy systems. Yet the very sustainability of fossil fueled civilization is now an issue, as we wrestle with how to transition to sources of energy that will provide the services we want while minimizing impacts on the climate.

This course will provide an introduction to the many interconnected dimensions of energy, including sources, technologies, energy markets, and the economic, social, national security and environmental implications of energy use. The underlying theme of the course will be the crafting of public policy in the energy sector in the U.S. and other countries.

By the completion of the course I expect students to gain:
1. An introduction to energetics, energy services and the operation of energy markets;
2. An introduction to the social and environmental effects of energy use;
3. Knowledge of how to perform basic quantitative analysis of energy systems;
4. A strong grasp of the variety of energy interventions, policy setting processes, including policy analysis, and how to influence energy policy
5. Improved skills at research, writing and analysis.

"Moodle." Lecture notes after each class session and some course readings will be available at the Evergreen Online Learning page at http://elms.evergreen.edu/, under the course name.

II. Texts

Geri, Laurance and David McNabb (2011). *Energy Policy in the U.S.: Politics, Challenges and Prospects for Change.* Boca Raton, FL: CRC Press. ISBN 978-1439841891. (Hardcover).

Hansen, James (2010). *Storms of My Grandchildren*. New York: Bloomsbury USA.
ISBN-13: 978-1608195022. (paperback).

MacKay, David JC (2009). *Sustainable Energy - Without the Hot Air*. Cambridge, UK: UIT. (paperback).
ISBN-13: 9780954452933. Available online at: http://www.withouthotair.com/.

Articles and Readings (on course Moodle site)

BP (2011). *Statistical Review of World Energy*. (Also at:
http://www.bp.com/sectionbodycopy.do?categoryId=7500&contentId=7068481)
Congressional Budget Office (2012*). Energy Security in the U.S.* Washington, DC: CBO.
The Economist (2012). "Oil Barons Have a Ball." Feb. 18th.

Hirsch, Robert L. (2005) "The Inevitable Peaking of World Oil Production." Wash., D.C.: Atlantic Council.
Karl, Terry Lynn (1999). "Perils of the Petro State" *Journal of Int'l Affairs*, Fall, pp31-48.
Kunstler, James Howard (2007) "Making Other Arrangements." *Orion* Magazine, January/February.
Lewontin, Richard (2002). "The Politics of Science" *New York Review of Books*, May 9.
The White House (2012). "Blueprint for a Secure Energy Future Progress Report".
Yergin, Daniel (2011). "There Will Be Oil." *Wall St. Journal*, Sept. 17th.

Assignments. Please use an 11-point font; single space if you wish. **Bring a hard copy to class.**

1. Petroleum is going to become scarce and much more expensive. Give your best guess: when will that happen? What do you think will happen when the oil starts to run out? What policies do you believe would be appropriate now in anticipation of that forecast? 2-3 pages, **DUE Saturday, June 30th.**

2. In *Sustainable Energy Without the Hot Air*, MacKay is doubtful that the United Kingdom can generate enough renewable energy to be self sufficient (*Hot Air*, Chapter 18). He is more optimistic that the U.S could do so, given certain assumptions (*Hot Air,* Chapter 30). Carefully examine those assumptions about energy consumption in the U.S. and how renewables could meet demand. How realistic are his assumptions? What are the main obstacles to a fast transition to renewable energy in the US? (A few sources of comparison stats are on Moodle, including the papers by Jacobson, and Delucci and Jacobsen) ~2 pages; **DUE Sunday, July 1st.**

3. James Hansen describes how his approach to public policy evolved from that of a dispassionate scientist to an anti-carbon, anti-coal activist. In your view, what should be the role of the scientist as analyst providing advice to policymakers? Has Hansen's conversion helped his cause? ~2 pages; **DUE Saturday, July 14th.**

4. Geri and McNabb's text presents a comprehensive analysis of energy policy options for the U.S. Compare their analysis to the Obama Administration's Progress Report for the "Blueprint for a Secure Energy Future." Is the "Blueprint" adequate as a strategy for transformation away from reliance on fossil fuels? How would you characterize the purpose of this document, and what energy strateg(ies) does it reflect? 2-4 pages. **DUE Sunday, July 15th .**

5. Final paper: Research and write a paper of 5-10 pages (single spaced) in which you analyze an energy policy issue. *Come to the first class session with two or three potential topics for this paper*. The paper should be written as a policy brief in which you explore an important energy issue in depth and provide recommendations to policy makers. More details on the format will be provided in class. **Due Saturday, July 28th**. Prepare a 10-minute presentation summarizing your findings; be prepared to deliver it in class on July 28th.

IV. Credit and Evaluation. Students will receive four graduate or undergraduate credits based upon satisfactory and on-time completion of all course requirements and assignments. Plagiarism, failing to complete one or more assignments, or two non-excused absences, may lead to automatic denial of credit. Students will receive 4 credits at the completion of the course if all course requirements have been successfully completed. Plagiarism (i.e., using other peoples' work as your own), failing to complete one or more assignments, completing one or more assignments late (without having made arrangements before the due date), or multiple absences may be grounds for denial of credit. Partial credit or incompletes will be awarded only under unusual circumstances. If you believe you will have difficulty submitting the final paper by its due date, contact me immediately. Students are expected to attend each class meeting and to be on time. If an absence from class is unavoidable, contact me prior to class. Because of the intensive nature of this course, missing one day of class will necessitate a make-up assignment. Missing a second day of class will result in a reduced award of credit, or a no credit. Makeup work must be completed by the end of summer quarter. Consistent with MPA program requirements, a self evaluation will be required for credit.

Tentative Class Schedule. Subject to Change.

Saturday, June 30 Concepts, definitions. Oil, Gas, Coal. The World of Energy Readings**:** Geri and McNabb, Introduction, Ch. 1 Smil chapter from *Energy: A Beginner's Guide*, TBD On "Peak Oil" articles by Hirsch, and Yergin. Kunstler, 2007, "Making Other Arrangements" Skim: *Survey of Energy Resources 2010 Exec. Summary* , World Energy Council **Due: Assignment 1.**
Sunday, July 1st Electricity; International Dimensions of Energy Policy Readings: MacKay, Part I, Chapters 27-31 of part II CBO, *Energy Security in the US*; Karl, "Perils of the Petro State" *Economist*, "Oil Barons Have A Ball" Skim: EIA, *Annual Energy Outlook 2012 Early Release* Skim: BP, *Statistical Review of World Energy* 2011 **Due: Assignment 2.**
July 14 Science, Policy and Climate Change; Introduction to Energy Policy Readings: Hansen, *Storms of My Grandchildren* Geri and McNabb, Chapters 2-6 Skim website of the Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report: http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf* (or summaries/FAQ's) Articles: Lewontin, "The Politics of Science" **DUE: Assignment 3.**
July 15th Alternatives; Energy Policy and Energy Interventions Geri and McNabb Chapters 7-11 Skim "Blueprint for a Secure Energy Future: Progress Report" **DUE: Assignment 4.**
July 28th Student Presentations **DUE: Final Paper.**

A Sample of Online Resources on Energy
Spencer Weart, *Discovery of Global Warming:* http://www.aip.org/history/climate/index.htm/
US Gov page on energy policy: http://www.whitehouse.gov/energy/
DOE's Energy Efficiency and Renewable Energy Program: http://www.eere.energy.gov/
Foreign Policy on energy: http://www.foreignpolicy.com/category/topic/energy/
Journal of Energy Security: http://www.ensec.org/
Energy Policy (a journal): Available online at TESC Library site
International Energy Agency: http://www.iea.org/
Energy Information Administration: http://www.eia/gov/
Council of Foreign Relations on Energy Security: http://www.cfr.org/issue/energy-security/
National Geographic's Great Energy Challenge: http://environment.nationalgeographic.com/environment/energy/great-energy-challenge/

Expectations of Students and faculty: We will promote a cooperative, supportive atmosphere within this learning community; give everyone opportunity for self-reflection and expression; Use high standards in reading the text and preparing our papers, lectures, and comments in seminar; Handle all disputes in a spirit of goodwill. Discuss any problems involving others in the learning community directly with the individuals involved (so long as the concerned party feels safe doing so), with the right to support from other program members during those discussions.

We will abide by the social contract: http://www.evergreen.edu/about/social.htm;WAC 174-121-010; **We will abide by the student conduct code**: Chapter 174-120 WAC Student Conduct Code & Grievance/Appeals. http://apps.leg.wa.gov/wac/default.aspx?cite=174. Conflict Resolution: http://www.evergreen.edu/policies/policy/conflictresolution. Student rights and responsibilities: http://www.evergreen.edu/studentaffairs/rightsandresponsibilities.htm#matrix