

Law 270.6
Energy Regulation and the Environment
(Spring 2006)

Units: 3
CCN (2Ls/3Ls): 49807

Instructor: Steven Weissman
Email: sweissman@law.berkeley.edu
Location: 105 Boalt
Time: Tues/Thurs. 5:20-6:35

Course Description:

Energy production and use drive the world's economies and offer hope for growth and prosperity. Yet, the extraction and use of fuels and the development of energy facilities are among the greatest threats to the global environment. This course introduces students to the legal, economic, and structural issues that both shape our energy practices and provide opportunities to overcome these critical problems. The course focuses primarily on the regulation and design of electricity systems and markets since so many energy choices—the use of oil, natural gas, coal, nuclear, the green alternatives such as solar, wind, and energy conservation or “demand side management”—relate to the way we generate or deliver electricity, or avoid the need to do so. Next to the use of petroleum for transportation, electric generation is the greatest contributor to air pollution and the greatest source of greenhouse gas emissions. In addition, as urban and suburban development spread across the land, the maintenance and expansion of the electric transmission grid provide increasingly challenging land use problems.

The course examines both the traditional monopoly model of regulation and evolving competitive alternatives. The course exposes students to energy resource planning, pollution management, rate design, green markets, energy efficiency, demand side management, renewable energy portfolios, climate change and carbon management. The course provides an introduction to administrative law and to practice issues in the field.

Course Requirements:

1. Read the materials
2. Complete 1-3 short exercises
3. Participate in class discussion and presentations. This participation and the exercises account for a third of your grade.
4. Write the final, take-home exam. This will account for two thirds of your grade.

Texts:

Two books and a Reader are available in the book store. The books are:

1. Tomain, Joseph P. and Cudahy, Richard D. *Energy Law In a Nutshell*, West 2004
2. Roberts, *The End of Oil*, Houghton Mifflin 2004

Much of the material in the reader consists of black and white excerpts from reports available in full, and often in color, on-line. In those cases, the syllabus refers to the URL or website for the full report. In a few cases, the material is not reproduced in the reader and is available only online.

Additional materials in class will be provided free or at a nominal charge.

Syllabus

Introduction to Energy and Electricity

Class 1 – January 10

Introduction

Introduction to the course, including history of energy, relationship between energy and development, environmental and environmental justice impacts of energy generation, and an introduction to current energy issues. *Please prepare for the first class.*

Readings for class:

1. Roberts, *The End of Oil*, all of Chapter 1, and pp. 240-248 of Ch. 10.
2. *Environmental Impacts of Electricity Generation*. Available only online at www.epa.gov/cleanenergy/impacts.html Click and thoroughly read the description of environmental impacts related to each fuel type.

Class 2 – January 12

Introduction to Electricity 1

Together with class 3, an introduction to the players, and the basics of generation, transmission and distribution, efficiency, reliability, and ancillary services.

Guest Lecturer: Professor Alex Farrell, Energy and Resources Group

Readings for class:

1. Ferrey, *Inverting Choice of Law in the Wired Universe: Thermodynamic, Mass, and Energy*, 45 William and Mary Law Review 1842 at pp. 1910-1914, “E=MCP 2” P[summary of physical nature of electricity]. Make sure to read the accompanying footnotes. Reader, pp.1-10.
2. National Council on Electricity Policy, *Electricity Transmission, A Primer* (2004) (“*Transmission Primer*”), Ch. 1, “Introduction”; Ch. 2, “Why has Transmission become so Important?”; Ch. 3, “Paying for Transmission”; Ch. 4, “Physical and Technical Aspects of Transmission”; Appendix, and Glossary. In the Reader, pp.11-44.

http://www.raponline.org/showpdf.asp?PDF_URL=%22Pubs/ELECTRICITYTRANSMISSION.pdf%22

Class 3 – January 17

Introduction to Electricity 2

Readings for class:

1. Resources for the Future, *Alternating Currents* (2002) (“*Alternating Currents*”), Chs. 2, “Understanding the Electricity Industry” pp.13-23 and 10, “Balancing Loads and Dispatching Power”. In the Reader, pp.45-65.
2. Tomaine & Cudahy, *Energy* (“*Energy*”), West Group (2004), Chapter 8, “Electricity”, introduction and “Industry Overview”, pages 256 to the top of 264.
3. Wirth, Grey & Podesta, “The Future of Energy Policy”, *Foreign Affairs*, Vol. 82, No. 4 (July/August 2003). In the Reader, pp.66-78. Also available for about \$6.00 at: www.foreignaffairs.org/20030701faessay1540/timothy-e-wirth-c-boydon-gray-john-dpodesta/the-future-f-energy-policy.html

Public Utilities and Rate Regulation

Class 4 – January 19

Introduction to Monopoly, Public Interest, and Regulation

A brief introduction to monopoly, cost of service regulation; historical origins, cases, and commentary; major players; the role of a PUC, its organization, duties and procedures.

Readings for class:

1. *Power Loss* by Richard F. Hirsh, “Creation of the Utility Consensus” MIT Press (1999) pages 11-31. This book provides a useful overview of the development of energy regulation in the last 30 years. In the Reader, pp.79-99.
2. West Group, *Regulated Industries*, Ch. 1, “Introduction”, page 6 through 12 (mid-page) and 19-23. Assigned excerpts are in the Reader, pp. 100-103; also excellent and worth owning.
3. *Energy*, pp. 264-269, “Regulatory Overview” (through “Regulation: 1935-1965”)
4. *The Proprietors of the Charles River Bridge v. The Proprietors of the Warren Bridge; Munn v. Illinois*. Reader, pp.104-127.
5. *Alternating Currents*, Ch. 13, “Public Power’s Role After Restructuring,” pages 138-143. Reader, pp.128-133.
6. Dworkin, *The PSB Process: The Scope, The Players, and the Rules of Practice*. Reader, pp.134-141.

Class 5 –January 24**Introduction to Finance and Regulatory Economics**

Basic financial concepts; basic economics of competitive and monopoly markets; introduction to the way that regulation addresses natural monopoly.

Readings for class:

1. West Group, Regulated Industries, Ch. 2, Reasons for Regulating,” pp. 24-54. Reader, pp. 142-157. Please read this material slowly and carefully. Take the time to understand the graphs.

Class 6 – January 26**Cost of Service Regulation 1**

How regulations works: rate base, rate of return, operating expenses; judicial review, including classic cases.

Readings for class:

1. *America’s Electric Utilities, Past, Present and Future 7Pth P Edition*, Leonard S., Andrew S. and Robert C. Hyman, pages 221-227. In the Reader, pp.158-164.
2. *Regulated Industries*, Ch. V, pp. 101-108. In the Reader, pp.165-168.
3. *Bluefield Water Works & Improvement Co. v. Public Service Commission; Federal Power Commission v. Hope Natural Gas Co.; Market St. R.R. Co. v. R.R. Comm. Of California*. Reader, pp.169-180.
4. *Regulated Industries*, Ch. V, pp. 122-131. Reader, pp. 181-185
5. *Jersey Central Power & Light Co. v. Federal Energy Regulatory Commission; Duquesne Light Company v. Barasch*. Reader, pp.186-200.

Class 7 – January 31**Cost of Service Regulation 2 and Rate Design***Readings for class:*

1. Vermont Public Service Board Order and Opinion No. 5426, *Tariff Filing of Citizens Utilities*. (Note: we have added a separate document of definitions to assist in reading this document.) Reader, pp.201-243.
2. Weston, “An Overview of the Principles and Economics of Utility Pricing”, Regulatory Assistance Project, 2003. Reader, pp. 244-251.
3. *Re: Central Maine Power Company*. In the Reader, pp.252-272. Read selectively.

Class 8 – February 2**Introduction to Restructuring***Readings for class:*

1. *Alternating Currents*, Ch. 1, Issues in Restructuring the Electricity Industry; Ch. 4, “International and U.S. Restructuring Experiences”, pp. 38-41 [Description of California approach]; Ch. 6, “Competition in Energy, Regulation in Wires”, pages 65-70; Ch. 7, “Vertical Restructuring”. Reader, pp.273-302.
2. *Power Loss*, Chapter 7, pages 119-131. In the Reader, pp. 356-368.
3. National Council on Electric Policy – A Comprehensive Review of Electric Restructuring, pages 2-24. In the Reader, pp.303-326.

Class 9 – February 7**FERC and the States – A Long Struggle for Control**

The debate over market design and the development of key resources has featured a tug-of-war between the Federal Energy Regulatory Commission and the states. This class will look at the historical evolution of the division of responsibilities for regulating generation and transmission.

Guest Lecturer: Bill Julian, Special Consultant to Senator Martha Escutia, Chair of the California State Senate Committee on Energy, Utilities and Communication

Readings for class:

1. *New York v. FERC*. In the Reader, pp.327-352.
2. *Alternating Currents*, pages 27-29. Reader pp.353-355.
3. *Law of Independent Power*, Sections 5.8 to 5.12 Federal Regulation. Handout.

Resource Alternatives

Class 10 – February 9 Introduction to Tradition Fuels and Oil

Hard or soft landing? Geopolitics.

Readings for Class:

1. *America's Electric Utilities*, pages 41-46. Reader, pp.369-374.
2. *End of Oil*, Ch. 2, "The Last of Easy Oil", Ch. 4, "Energy is Power", and Ch.10, "Energy Security", pp. 251-258.
3. *Hubbert's Peak – The Impending World Oil Shortage*, discussion of tar sands and oil shale, pages 166-170. Handout.
4. *Energy Law*, Chapter 5 Oil pages 153-188.

Class 11 – February 14 Coal

Readings for class:

1. Humphries, *U.S. Coal: A Primer on Major Issues*, Congressional Research Service 2003. Excerpts pp. 1-8, 10, 17, 25, 27-28, 32-33. In the Reader, pp. 377-391
2. *Keystone Bituminous Coal Assn. v. Debenedictis*. Reader, pp. 392-401.
3. *U.S. v. Law*. Reader, pp.402-404.
4. *Bragg v. West Va. Coal Ass'n*. Reader, pp. 405-417.
5. U.S. EPA Acid Rain Program. Web only at:
<http://www.epa.gov/airmarkets/arp/allfact.html#what>
6. "Rocky Mountain High-Voltage: the New Frontier", May 19, 2005 – Energy Markets. Reader, the beginning of Part 2, pp. 418-419.

Class 12 – February 16 Natural Gas 1 – The Resource and its Regulation

Guest Lecturer: Ed O'Neill, Partner, Davis, Wright Tremaine, Former Assistant General Counsel at the California Public Utilities Commission

Readings for class:

1. Colorado School of Mines, *From Reservoir to Burner Tip: A Primer on Natural Gas*. In the Reader, pp 420-425.
2. *Energy Law*, Ch. 6 "Natural Gas", 189-222
3. Montana State University-Bozeman, *Frequently Asked Questions concerning Coal Bed Methane*, available only on the web at:
<http://waterquality.montana.edu/docs/methane/cbmfaq.shtml>.
4. Website of the Coal Bed Methane Project, at <http://www.ogap.org/wcbmp.htm>

Class 13 – February 21 Natural Gas 2 – The Future and LNG

Guest Lecturer: Andy Weissman, Natural Gas Expert for FTI Consulting

Readings for class:

1. *National Petroleum Council, September 2003*, Executive Summary, pages 5-12. Reader, pp.426-433.
2. Yergin, *The Next Prize*, Foreign Affairs, Nov./Dec. 2003. Reader, pp.434-446.
3. Spencer Abraham letter to Vermont PSB, July 17, 2003. Reader, pp.447-449.
4. Andrew Weissman, *The Critical Need to Examine More Carefully the Role of Liquefied Natural Gas (LNG) in Meeting Future U.S Energy Needs*, Energy Ventures Group, LLP (2005), pp. 27-30 ("Conclusion"). Reader, pp.454-457.
5. *Prepared Direct Testimony of Jerry Havens*, pages 1-17. Reader, pp. 458-488.

Class 14 – February 23 Hydro Power and Nuclear Power

Readings for class:

1. *Energy Law*, Ch 10, "Hydropower", pp. 332-353.
2. *Nuclear Energy Institute, Inc. v. Environmental Protection Agency*. Reader, pp.480-504.
3. Peter Bradford, *Nuclear Power's Prospects in the Power Markets of the 21st century*, Nonproliferation Education Center, 2005. Reader, pp.505-539.
4. Two 2005 articles from *The New York Times* re nuclear energy development: "Power Producers Seek Latest Models of Nuclear Reactors", *March 15, 2005*; "Old Foes Soften to New Reactors" *May 15, 2005*. Reader, pp. 540-547.

Class 15 – February 28

Renewable Energy 1 – The Technologies

This class and Class 16 will introduce:

1. Types of renewable energy including wind, biomass, landfill gas, photovoltaics, esoteric sources, and energy storage.
2. Regulatory and legal strategies for encouraging the implementation of renewable energy options.
3. Regulatory matters including PURPA, stranded benefits under deregulation, System Benefit Charges and Renewables Trust Funds, life cycle costs, Renewable Portfolio Standards, Renewable Energy Credits, net metering, and tax credits.

Readings for class:

1. *The End of Oil*, Chapter 8 (“And now for Something Completely Different”).
2. Solar Energy Industries Association [“SEIA”], *Our Solar Power Future: The U.S. Photovoltaic Industry Roadmap for 2005 and Beyond*
<http://www.millionsolarroofs.org/articles/static/1/binaries/SEIA%20Presenation.pdf>
3. American Wind Energy Association [“AWEA”] has produced various reports, available on its website as indicated:
Wind Energy Outlook 2005 <http://www.awea.org/pubs/complimentary.html>
A series of fact sheets, of which the following are assigned:
How Wind Works
Economics of Wind Energy
Comparative Costs of Wind and other Energy Sources
Wind Energy and Wildlife
Comparative Impacts of Wind and other Energy Sources on Wildlife All available at www.awea.org/pubs/factsheets.html
Bringing Wind Energy Up to Code.
www.awea.org/pubs/complimentary.html.
4. Electric Power Research Institute [“EPRI”], *Offshore Wave Power Feasibility Demonstration Project Final Summary Report*, (2005). Read Ch. 2, and Ch. 5, skim Ch. 7, but read carefully Table 7. This report is not in the Reader, but is available on the web at
www.epri.com/targetwhitepapercontent.asp?program=267825&value=04to84.0&objid=297213. Listed as “009 Final Report”
5. Renewable Energy Policy Project [“REPP”], *Powering the South: A Clean & Affordable Energy Plan for the Southern United States* (2002), Ch. 4, Technology Primer, pages on Biomass (pp. 41-48). Reader, pp.548-555.
<http://poweringthesouth.org/report/>, www.rep.org/repp/index.html

Class 16 – March 2

Renewable Energy 2 -- The Programs

Readings for class:

Introduction to PURPA and regulatory techniques to promote renewables

1. *Renewable Energy Power Markets in the United States*, Center for Resource Solutions, Eric Martinot, Ryan Wisner and Jan Hamrin. In the Reader, pp.556-582.

Renewable Portfolio Standard (RPS)

2. *The Renewable Portfolio Standard – A Practical Guide* by Nancy Rader and Scott Hempling, Executive Summary pp. ix-xx. Reader, pp.583-595.
3. Colorado Renewable Energy Initiative (as approved 11-04). In the Reader, pp. 596-599.

Green Tags and tradable Renewable Energy Certificates (RECS)

4. Regulatory Assistance Project [“RAP”], *Renewable Energy Certificates and Generation Attributes* (2003). Also available at www.raonline.org: search for “renewables” to find this May, 2003 Issuesletter. Reader, pp. 600-604.
5. Weinstein, “A western renewables marketplace,” in the Reader, p.605, and available through the Emissions Marketing Association at
<http://www.emissions.org/publications/member-articles/>.
6. 105 FERC 61,004 *Re American Ref-Fuel, et al* 10-1-03. Reader, pp. 606-612.
7. 107 FERC 61,016 *Re American Ref-Fuel, et al* Order Denying Rehearing 4 15-04.s Reader, pp. 613-619.

Class 17 – March 7

Demand Side Management: Energy Efficiency

Guest Lecturer: Devra Bachrach Wang, Natural Resources Defense Council

Readings for class:

1. Roberts, *The End of Oil*, Ch. 9, “Less is More”.
2. Southwestern Energy Efficiency Project, *The New Mother Lode: The Potential for More Efficient Electricity Use in the Southwest*, (2002), pp. ES 1-18 “Executive Summary”, and 2-11 to 2-13 and 2-19 to 2-25 “Specific Savings Opportunities”. In the Reader, pp. 620-648.

Class 18 – March 9

Demand Side Management: More on Efficiency and Demand Response

Readings for class:

Demand Response

1. Cowart, *Efficient Reliability*, RAP 2001, pp. 28-52, (“IV. Why Don’t Electricity Markets Support Efficiency and Load Management? Market Flaws and Market Barriers in Today’s Power Markets” and V. Tapping the Demand-Side Reservoir”). In the Reader, pp. 649-674.

Institutional Options for Delivery of Energy Efficiency

2. Hamilton & Dworkin, *Four Years Experience of the Nation’s First Energy Efficiency Utility: Balancing Resource Acquisition & Market Transformation under a Performance Contract* (2004). Reader, pp. 675- 686.
3. Dworkin, *Efficiency Vermont Rate Case, dissent*. Reader, pp. 687-696.

International Option for Energy Efficiency

4. The Asian Development Bank, Prospectus: The “Efficiency Power Plant”: A Rapid, Low-Cost Path for Energy-Saving Investments in Jiangsu (October 2004). Reader, pp.697-723.

Class 19 – March 14

Performance Based Ratemaking and “Decoupling.”

Under traditional ratemaking, utilities generally make higher profits if they sell more power and lose profits as customers become more efficient. Performance-based ratemaking can address the problem of utility disincentives to promote customer energy efficiency by “decoupling” utility profits from the amount of sales. It also is a mechanism that might encourage beneficial behavior in many areas of utility operation.

Readings for class:

1. Cavanagh, Testimony before the Idaho Public Utilities Commission in The Matter of the Application of Idaho Power Company for Authority to Increase its Interim and Base Rates and Charges for Electric Service, February 18, 2004 (excerpts). Reader, 724-737.
2. Weston “Summary of Performance-Based Ratemaking,” 2004. Read this short piece slowly. It describes a per customer-rate cap system, one way to “decouple” revenues and sales volumes. Reader, pp. 738-745.
3. RAP, Performance-Based Regulation for Distribution Utilities,” 2000, pp. 19-21 and pp. 25-27. Reader, pp.746-752.

Integrated Resource Planning and Portfolio Management

Class 20 – March 16

Integrated Resource Planning and Portfolio Management

Introduction to Integrated Resource Planning and Portfolio Management for the right mix of generation types, transmission and conservation.

Portfolio Management (“PM”) and Integrated Resource Planning (“IRP”) both constitute planning exercises and present similar issues. PM, a newer iteration, focuses on a single utility or other load serving entity. IRP can be performed by a state regulator on a system wide, regional or service area basis, or by a utility for its service area.

Readings for class:

1. Vermont Code Title 20, Sec. 218© requiring an IRP. Reader, pp.753-754.
2. Synapse Energy Economics, Inc., *Portfolio Management: How to Procure Electricity Resources to Provide Reliable, Low-Cost, and Efficient Electricity Services to All Retail Customers*, RAP, October 2003. Read: Table of Contents, Executive Summary pp. ES 1- 7; Appendix A, pp. A-1 to A-10; Appendix B, pp. B-1 to B-3; and Appendix C, pp. C-1 to C-3. Reader, pp. 755-783, and available from www.RAPonline.org.
3. PacifiCorp, *Integrated Resource Plan 2003*. This is an excellent example of a utility prepared IRP. Read the Table of Contents, pp. 1-36 (“Executive Summary,” Ch 1 “Marketplace & Fundamentals: The Changing Context of IRP,” and Ch. 2 “Current Position”); pp. 67-76 (Ch.5 Resource Alternatives); and pp. 151-157 (portions of Ch. 9 “Action Plan”). Reader, pp.784-847.
4. California Energy Action Plan. Reader, pp. 848-856.
5. California CPUC Decision 04-01-050 Excerpt. Reader, Beginning of Part 3, pp. 857-861.

Restructuring and Markets

Class 21 – March 21

Wholesale Electricity Markets

ISO New England, Inc., *Standard Market Design*, 2003. These are selections from a series of short briefing papers describing the New England wholesale markets, including bilateral contracts, the day-ahead market, and the spot, or day-of market. Included in the Reader are: “Wholesale Electricity Trading”; “Background + Overview”; “Locational Marginal Pricing”; “The Multi-Settlement System”; “Market Monitoring and Mitigation”; and “Demand Response”. Reader, pp. 862-879.

Readings for class:

1. *Alternating Currents*, Ch. 8 “Regulating Rates for Transmission and Distribution”. Reader, pp. 880-890.

How do we deal with issues of using market power to manipulate markets? Is antitrust enough?

2. *Alternating Currents*, Ch. 9 “Encouraging Competition”. Reader, pp. 891-904.
3. Cowart, “Market Power and Market Monitoring—Critical Issues for Competitive Wholesale Markets.” This is an issues memo for the China State Electricity Regulatory Commission summarizing options for combating market power beyond antitrust. The courts have placed limits on FERC power to implement Orders 888 and 889. Reader, pp. 905-919.
4. *Atlantic City Electric v. FERC* (D.C. Cir. 2002) and *Atlantic City Electric v. FERC* (D.C. Cir. 2003). Reader, pp. 920-929.

How do we ensure reliability and adequate future capacity in a market system?

5. *Alternating Currents*, Ch. 11, “Ensuring Reliability in Competitive Markets” Reader, pp. 930-940.
6. Synapse Energy Economics, Inc., *Capacity for the Future: Kinky Curves and Other Reliability Options*, pp. 1-7, “Introduction and Summary”. Reader, pp. 941- 948.

Class 22 – March 23

Retail Competition

Consumer choice, default service, disclosure and green power, the record so far.

Readings for class:

1. Brown and Sedano, *A Comprehensive View of U.S. Electric Restructuring with Policy Options for the Future*, National Council on Electricity Policy (June 2003), “Slow Development of Small Consumer Markets”; and State Approaches pp. 27-55, Reader, pp. 949-979.

Stranded Costs and Benefits: The fate of unproductive utility investments and of public purpose programs for things such as energy efficiency and renewables under restructuring.

2. *Alternating Currents*, Ch. 14, “Covering Stranded Costs” pp. 149 and 153-155. Reader, pp. 980-983.

Class 23 – April 4

Deregulation and the Environment

Guest Lecturer: Commissioner Dian Grueneich, California Public Utilities Commission

Readings for class:

1. *The Environmental Impacts of Electric Restructuring: Looking Back, and Looking Forward*, Resources for the Future 2005, Discussion Paper 05-07 by Karen Palmer and Dallas Burtraw. In the Reader, pp. 985-1034.

Class 24 – April 6

The California and Western Energy Crisis

Guest Lecturer: Professor Tim Duane

Readings for class:

1. Briefly review *Alternating Currents*, Ch. 4, pp. 38-40 and read Ch. 5, pp. 46-49. Reader, pp. 1035-1041.
2. Duane, *Regulation's Rationale: Learning from the California Energy Crisis*, 19 *Yale Journal on Regulation* 471 (2002), pp. 482-493, “The California Model: 1970s-1990s” and “Integrated Resource Planning: 1980s-1990s”; pp. 496-504, “‘Restructuring’ in California: 1992-1996”, “Flaws in the AB 1890 Market Structure: 1996-2000”, and “Paying Off Existing Utility Power Plants: 1996-2000”; pp. 507-524, “Chaos and Collapse: Economic Theory Meets Social and Political Reality”; pp. 535-540, “Conclusion”. Course Pack. This article does an excellent job of explaining the California debacle, and in the process, makes the pro-regulation, anti-restructuring case. In the Reader, pp. 1042-1073.
3. Optional: Remarks of Hullahen Williams Moore, “The Blackout of 2003: What Next? Transmission Investment, Restructuring and the Future of the Electric Utility Industry”, Remarks delivered at the University of Virginia Law School forum, April, 2004, Moore is Former Chair of the Virginia State Corporation Commission. This is a moving appeal to consider carefully the implications, benefits and burdens of restructuring before moving forward. Reader pp. 1074-1081.

Class 25 – April 11

Picking Up the Pieces: Generator Suits, Blackouts, Reliability and Other Experiments Related to Restructuring

Guest Lecturer: Ken Alex, California Deputy Attorney General

Readings for class:

1. “Sinister Synergies: How Competition for Unregulated Profit Causes Blackouts”, John August 2005. Readers, pp.1082-1102.
2. “FERC Chief Warns of New England Blackouts Under Status Quo”, *Dow Jones Newswire*, 9-15-05. Reader, pp. 1103-1104.
3. Coalition for Energy Reform – California Energy Policy Recommendations. Reader, pp. 1106-1116.

Climate Change and Carbon Markets

Class 26 – April 13

Climate Change and Carbon Markets 1

Readings for class:

End of Oil, Ch. 5, “Too Hot”, Ch. 12, “Digging in our Heels”.

In Brief: The U.S. Greenhouse Gas Inventory, U.S. EPA pp.1-8. (Read at least one of the two articles.) Reader, pp.1117-1135.

Policy Statement on Greenhouse Gas Performance Standards, Issued by the California Public Utilities Commission on October 6, 2005. Reader, pp. 1136-1138.

Overview of Constitutional Limitations on Out-of-State Procurement Rules, IEPR Committee Workshop on Clean Coal Technology and Electricity Imports, Jonathan Bles. Reader, pp.1139-1148.

Climate Change and the California Public Utilities Commission’s Role – A Discussion Paper. Reader, pp.1149-1160.

“Hedging Carbon Risk: Protecting Shareholders and Customers from the Financial Risk Associated with Carbon Dioxide Emissions, Bokenkamp, LaFlash, Singh, and Wang pp.1-15. Reader, pp.1166-1179.

Class 27 – April 18

Climate Change and Carbon Markets 2

Readings for class:

1. Congressional Budget Office, “Issues in the Design of a Cap-and-Trade Program for Carbon Emissions” (November 2003). Reader, pp. 1180-1189, and at <http://www.cbo.gov/showdoc.cfm?index=4861&sequence=0>.
2. “Introduction to the Regional Greenhouse Gas Initiative”, from the RGGI website www.rggi.org. Reader, pp. 1190-1192.
3. Environment Northeast, NRDC, Pace Law School Energy Project, “Memo Re: ENE Draft RGGI Model Rule Outline, Key Issues, and Next Steps for Modeling” (November, 2004). Reader, pp. 1193-1203.
4. Cowart, “Another Option for Power Sector Carbon Cap and Trade Systems Allocating to Load”, RAP (May, 2004). Reader, pp.1204-1210.
5. Cowart, “Why Carbon Allocation Matters—Issues for Energy Regulators”, RAP (March, 2005). Reader, pp. 12-11-1212.

Class 28 – April 20

Recap and Conclusion

Readings for class:

1. *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America’s Energy Challenges*, National Commission on Energy Policy, December, 2004, “Key Recommendations” and “Introduction and Summary of Recommendations”, pp. iv-xiv. These excerpts are in the Reader, and available at www.energycommission.org. Reader, pp. 1213-1224.
2. *End of Oil*, Ch. 13 “How Do We Get There?”