

Carnegie Mellon University: H. John Heinz III School of Public Policy and Management
90-808: U.S. Energy Policy (Fall 2024)
6 units

Instructor: Jeffrey F. Kupfer, Adjunct Professor of Public Policy and Management
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Time & location: Tuesday; 6:30 pm – 9:20 pm ET; In-person and remote

Office hours: By appointment

Course Description:

This seminar will provide an introduction to modern U.S. energy and climate policy. Our goal will be to understand, from a practical perspective, how economics, technology, politics, public opinion and national security all influence the development and implementation of policy.

With the ongoing need for an energy transition, the focus on climate change, and the impacts of the war in Ukraine, the need for understanding these issues is more important than ever.

Questions that we will address include: Why has energy and climate taken on such a critical role in the public policy agenda? How does the government make policy and what are the ways that those policies impact energy markets and availability? How has US policy changed over the years and what lessons have we learned from past initiatives? How have new technologies changed the energy landscape and our interactions with other countries?

The class will begin with an overview of the energy sector and the related government structure. We will then discuss Presidential initiatives and legislative activity, with particular attention to current efforts by the Biden Administration and the implementation of 2022's Inflation Reduction Act.

We will consider case studies, such as the Keystone and Mountain Valley pipelines and carbon pricing, that demonstrate conflicting viewpoints about appropriate energy policy. The class will also explore international energy issues like liquefied natural gas and crude oil exports, as well as UN climate agreements.

This course is a seminar class; I will provide a framework and then guide a discussion among the students. We will hear from guest speakers, including current and former senior government officials.

Course Objectives:

By the end of this class, students should have a solid understanding of the issues and the players involved in the development and implementation of U.S. energy and climate policy.

Students should be able to articulate the relevant policy considerations and the trade-offs associated with various initiatives. You should be able to draw upon historical examples and develop recommendations for current and future energy and climate policy in the U.S.

Prerequisites:

There are no required prerequisites.

Materials:

There is no textbook. We will use a variety of original source materials (government reports, speeches) as well as excerpts from books and articles. Most (if not all) of those materials will be available on Canvas. In many cases, I will require you to read only part of a document but will have the entire document available for you to review.

You will be expected to understand and remember the basic ideas and principles that the readings convey, and to demonstrate your understanding of the readings during the discussions in class and through the assignments submitted. In addition, we will be discussing current developments regarding energy and climate policy. As such, I encourage you to follow the issues and to think about how they relate to the topics we are studying.

Attendance:

Class will mainly be in-person; there may be one or two remote sessions.

Class attendance and participation are important parts of the learning in this course - and so just completing the readings will not serve as an effective substitute. To account for this, a portion of the final grade will be based on your regular attendance and active participation (see grading section). That said, I also recognize that students may need to miss class for a variety of reasons (religious observance, job interview, university-sanctioned event, or illness). When you must miss class, please notify me promptly so that we can discuss alternative arrangements for catching up on class and associated work.

Respect for Diversity:

It is my intent that students from all backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please feel free to let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

Take care of yourself:

Please do your best to maintain a healthy lifestyle by eating well, exercising, getting enough sleep, and taking some time to relax.

We can all benefit from support in times of stress. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services can help; you can call 412-268-2922 and/or visit <http://www.cmu.edu/counseling>. Consider reaching out to a friend, faculty, or family member you trust for help getting connected to the support that can help.

Disabilities:

If you have a disability and have an accommodations letter from the Disability Resources office, I encourage you to discuss your accommodations and needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.

Academic Integrity:

Some of the class assignments will be explicitly structured as group work, while others will require you to work independently and to submit written material reflecting only your work. If you have any doubt as to what type of assistance or collaboration is acceptable on a particular assignment, please ask me for guidance and wait for an answer before undertaking that assistance or collaboration.

Honesty and transparency – which includes citing sources that demonstrate your effort and provide credibility - are important features of good scholarship. On the flip side, plagiarism and cheating are serious academic offenses with serious consequences. If you are discovered engaging in either behavior in this course, you will earn a failing grade on the assignment in question, and further disciplinary action may be taken.

For a clear description of what counts as plagiarism, cheating, and/or the use of unauthorized sources, please see the University's Policy on Academic Integrity (revised in April 2013): <https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html>

If you have questions about how the university policy applies in this class, please ask: my aim is to foster an environment where you can learn and grow, while ensuring that the work we all do is honest and fair. For more information about Carnegie Mellon's standards with respect to

academic integrity, you can also access the following link: <http://www.cmu.edu/academic-integrity/>

Use of Generative AI

You are welcome to use generative AI programs (ChatGPT, DALL-E, etc.) in this class. These programs can be powerful tools for learning and other productive pursuits, including completion of some assignments in less time, helping you generate new ideas, or serving as a personalized learning tool.

However, your responsibilities as a student remain the same. **You must follow the academic integrity guidelines of the university and of this class.** If you use one of these generative AI tools to develop content for an assignment, you are required to cite the tool's contribution to your work. In practice, cutting and pasting content from any source without citation is plagiarism. Likewise, paraphrasing content from a generative AI without citation is plagiarism. Similarly, using any generative AI tool without appropriate acknowledgement will be treated as plagiarism. The university's policy on plagiarism applies to all uncited or improperly cited use of work, whether that work is created by human beings alone or in collaboration with a generative AI.

Outside of classroom sessions, you may use generative AI programs to:

- Brainstorm new ideas
- Develop example outlines or approaches to your work
- Research topics, or generate different ways to talk about a problem

You may not use generative AI programs during classroom sessions.

You may not use generative AI programs at any time to:

- Generate content that you cut and paste into an assignment with a written component without quotations and a citation
- Generate content that is not adequately paraphrased without a citation
- Generate bibliographies for topics that you haven't researched yourself
- Generate other content (images, video, others) unless expressly permitted and following provided guidance
- Otherwise use or present generative AI content that you pass off as your own work, when really it is not

Finally, it is important that you recognize that large language models frequently provide users with incorrect information, create professional-looking citations that are not real, generate contradictory statements, incorporate copyrighted material without appropriate attribution, and can sometimes integrate biased concepts. Code generation models may produce inaccurate outputs. Image generation models may create misleading or offensive content.

While you may use these tools in the work you create for this class, it is important to note that you understand **you are ultimately responsible for the content that you submit**. Work that is inaccurate, biased, unethical, offensive, plagiarized, or incorrect will be penalized.

Campus Resources:

Carnegie Mellon has many resources that can be located at the **Student Academic Success Center (SASC)**. Those resources include **Communication Support**, which offers free one-on-one communication consulting as well as group workshops to support strong written, oral, and visual communication, as well as **Language and Cross-Cultural Support**, students can get assistance with writing academic emails, learning expectations and strategies for clear academic writing, pronunciation, grammar, fluency, and more.

Class recordings:

For this course, I may be recording class sessions and making them available to you for your personal, educational use. Recordings of class sessions are covered under the Family Educational Rights and Privacy Act (FERPA) and must *not* be shared with anyone outside of class. The purpose of these recordings is so students in this course (and only students in this course) can watch or re-watch past class sessions. Feel free to use the recordings if you would like to review something we discussed in class or if you are temporarily unable to attend class.

Assignments and grading:

There will be no examinations in the course. Grading will be based on three components:

1. Class participation - 30%
2. Short papers and presentations - 45%
3. Final Project - 25%

Class Participation

One of the key objectives of the course is to teach you how to think critically and rapidly about issues, and participation is an important measure of your ability to do so. Participation will be evaluated primarily by the quality, rather than the quantity, of your contributions. In other words, a few thoughtful and creative ideas will carry more weight than many trivial points, and counterproductive participation (e.g., trying to dominate the discussion, going off on tangents, or belittling the ideas of other students) will carry negative weight.

Each week, you will also be asked to submit some bullet points (comments and/or questions) about the readings. They will be used to demonstrate that you have completed the readings and to prompt class discussion.

Short papers/presentations

Besides regular class discussion, students will be assigned to research and participate in several short assignments. You will be required to take a side in a student debate (and prepare a few PowerPoint slides), as well as complete a short memo and an opinion piece.

Final Paper

For the final paper, assume that you are a senior policy advisor to a current or prospective government official who is running for election in November 2024. In a memorandum (no more than 2,000 words), you should advise your boss how s/he should talk about the energy and climate issues, especially the provisions in the Inflation Reduction Act of 2022. You should draw on the United States' historical experience as well as analyzing how your recommendations fit into the current policy and political situation. Additionally, you should consider different policy factors – such as economics and national security – as well as the views of different stakeholders and interest groups. There will also be a short oral component (Q & A).

Course Schedule (subject to change):

NOTE ON READINGS: Many of the readings and links are listed below. However, there will be additional readings that will be added, and links will be provided on Canvas. So please make sure to consult Canvas (and the class emails and announcements) to make sure that you have the complete list of readings for each week.

Class 1 – August 27

Topic: Setting the Stage

- Sources and uses of energy in the U.S.
- Government: How is the U.S. government structured to deal with energy issues? State/local v. federal
- Stakeholders: industry groups, environmental organizations; consumer groups, think tanks; academic institutions.
- Policy factors: economics, environmental matters, financial markets, technology, politics, national security, public opinion.

Readings:

- Congressional Research Service, "[U.S. Energy Supply and Use: Background and Policy Primer,](#)" March 2024
- Energy Information Administration, [Monthly Energy Review](#), July 2024 (look at charts/graphs in Section 1; Energy Overview)

- [“Why the Energy Transition Will Be So Complicated,”](#) Dan Yergin, The Atlantic, Nov. 27, 2021.
- [“Two Steps Greener, One Step Back,”](#) *Top Risks 2022*, #7, Eurasia Group, Jan. 2022.
- [“Energy Crunch,”](#) *Top Risks 2023*, #6, Eurasia Group, Jan. 2023.

Class 2 (September 3) - ZOOM

Topic: How did we get here? Presidential leadership and Congressional action

Readings:

- George W. Bush: *Report of the National Energy Policy Development Group*, May 2001 (read overview and chapter one)
- Barack Obama: *Blueprint for a Secure Energy Future*, March 2011 (read introduction and executive summary) & *Climate Action Plan*, June 2013
- Donald Trump, [Executive Order](#) on Promoting Energy Independence and Economic Growth, March 28, 2017.
- Energy Act of 2020, [summary](#) of provisions, Senate Energy Committee.

Guest speaker: [Abe Silverman](#), former general counsel for New Jersey board of public utilities

Class 3 (September 10)

Topic: Biden administration and the Inflation Reduction Act (enacted August 2022)

Readings:

- Joe Biden, [Executive Order](#) on Tackling the Climate Crisis at Home and Abroad, January 27, 2021;
- White House [fact sheet](#) on 2030 emissions reductions goal, April 21, 2021.
- Inflation Reduction Act, [summary](#) of energy and climate provision, Bipartisan Policy Center.
- [“A Turning Point for Climate: Assessing the IRA provisions,”](#) Rhodium Group, August 2022.
- [“Climate Progress and the 117th Congress,”](#) REPEAT project, Princeton Univ., July 2023
- [“Building a Clean Energy Economy: A Guidebook to the IRA,”](#) White House, January 2023
- [“Investing in American Energy,”](#) US Department of Energy, August 2023
- [“Update: Budgetary cost of climate and energy provisions in the IRA,”](#) Penn Wharton, April 2023
- [White House Fact Sheet](#) on the second anniversary of the IRA, August 2024
- House Republican Budget Committee [statement](#) on the IRA, August 2024

Guest speakers: [Bob McNally](#), founder of Rapidan Energy and former special assistant to the president for energy policy.

Assignment: Policy paper on IRA provision

Class 4 (September 17)

Topic: Power Generation, Transportation, and Regulation

- baseload power; renewables; electric vehicles
- regulatory and policy approaches (CAFÉ, renewable fuels standard, clean energy standard, EPA power plant and vehicle rules)
- the courts

Readings:

- [“Are Electric Cars better for the Environment,”](#) Wall Street Journal (March 2021)
- [“America's electric car future,”](#) Yergin (August 2021)
- [“Nuclear Energy: Overview of Congressional Issues,”](#) Congressional Research Service (Jan. 2024)
- [“Can Coal Make a Comeback,”](#) Columbia Center for Global Energy Policy (April 2017)
- [“Offshore Wind Market Report, 2023,”](#) US Department of Energy (August 2023)
- [“Supreme Court re: EPA regulation of emissions,”](#) CRS (July 2022).

[Lesley Clark](#), reporter, *E & E News*

Class 5 (September 24) - ZOOM

Topic: Permitting and Infrastructure

- Pipelines
- Transmission lines
- National Environmental Policy Act (NEPA)

Readings:

- US government documents re: Keystone – CRS report; State Dept. EIS; Trump approval.
- Keystone editorials: “Keystone XL’s continued delay is absurd,” *Washington Post* (April 2014); “No to Keystone, Yes to the Planet,” *New York Times* (November 2015)
- [“Interstate Natural Gas Pipeline Siting, FERC policy and Issues for Congress”](#) CRS (June 2022).
- [“Introduction to Electricity Transmission,”](#) CRS (Nov. 2022)
- [“Electricity Transmission: What is the Role of the Federal Government?”](#) (CRS, December 2023)
- [“Electricity Transmission Permitting Reform Proposals,”](#) CRS (May 2024)

- “Sources of opposition to renewable energy projects in the US,” MIT, Energy Policy Journal, 2022

Guest speaker: [Howard Gruenspecht](#), former deputy administrator of the Energy Information Administration.

Assignment: op-ed (topics to be supplied)

Class 6 (October 1)

Topic: Policy in a Global Context

- Fossil fuel exports
- Global trade – tariffs and carbon content
- Climate negotiations
- Critical minerals

Readings:

- Bordoff and Houser, “Navigating the U.S. Oil Export Debate,” *Center on Global Energy Policy and Rhodium Group* (2015)
- [“Effects of the Repeal of the Crude Oil Export Ban,”](#) Government Accountability Office, October 2020
- [“Role of Critical Minerals in the Clean Energy Transition,”](#) International Energy Agency, May 2021
- [“A Critical Minerals Policy for the US”](#) Aspen Energy Institute, Spring 2023
- Additional readings will be posted on Canvas.

Assignment: in class debates (topics to be supplied)

Guest speaker: [Jonathan Elkind](#), former Energy Department Assistant Secretary for International Affairs

Class 7 (October 8)

Topics: Policy in a Global Context (continued)

- Additional readings to be posted on Canvas
- In class debates continued

Final Paper due on October 10.

August 2024