PPHA 36925 Utilities and Electricity Markets: Regulation in the United States

*Alternating Weeks, Weds. & Fri., 9-11:50 a.m.*

(see Course Plan for precise dates)

*Periodic guest speakers via Zoom as well as office hours in evening of “off” weeks. See “Course Plan” for full dates.*

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**Course description**

Many services today considered public conveniences are provided by private companies in the United States, subject to extensive governmental regulation. This course provides an overview of that regulation, and is divided into three parts: 1) the institutions and basic practices of state utility commissions and their federal counterpart; 2) the regulatory evolution that has attended the emergence of competition in the industry, at least in certain places, from open access and interconnection to grids once owned by local monopolies, to auction-based markets for energy, to the de-monopolization of the customers' relationship with their energy supplier; 3) recent issues—including decarbonization, threats to electric reliability, the advent of customer-side energy resources, and modern regulatory capture—that raise questions on whether and how the forms and institutions of regulation can adapt to the most pressing demands of our time. This course is offered as an elective.

**Learning objectives**

Students can expect to emerge from the course with a strong foundation of knowledge in the subject matter described above. Just as importantly, students will learn how the institutions that administer regulation actually function, lending practical expertise to those who may wish to become involved in energy policy specifically or in government regulation generally. The course will be a combination of lectures, including guest speakers from government and industry, with robust opportunities for student participation, as well as hands-on exercises including a Moot Commission and an Energy Market Game.
Course plan

The class will be taught intensively, with in-person instruction happening on Wednesday and Fridays from 9-11:50 a.m. on alternating weeks of the quarter. Those classes are denoted below.

Class 1 (March 29): Introduction to the Regulation of Public Utilities
Class 2 (March 31): Introduction to the Regulation of Public Utilities (cont’d)
Class 3 (Apr. 12): Tour of Joliet Generating Station (health-and-safety protocols permitting)
Class 4 (Apr. 14): Interim Assignment
Class 5 (Apr. 26): The Origins of Restructuring: Open Access, Unbundling, and RTOs in the Electricity Sector
Class 6 (Apr. 28): Electricity Markets in Practice “Energy Market Game”

Week of April 30 guest speaker via Zoom outside of regularly scheduled class time

Class 7 (May 10): Contemporary Issues in Utility Regulation
Class 8 (May 12): Contemporary Issues in Utility Regulation (cont’d)

Week of May 15 guest speaker via Zoom outside of regularly scheduled class time

Major readings

(Files posted in "Modules")

There will not be a course textbook, and with only two exceptions—Thomas McCraw’s *Prophets of Regulation* and Katherine Blunt’s *California Burning*, both critically acclaimed biographical histories that may even be enjoyable by your friends and relations—all readings are available for download or otherwise will be electronically distributed.

Students should complete the readings that correspond to a particular class before that class, and prepare the “reading reflections” assignments described below accordingly.

Public Utility Regulation and Institutions

*These classes will draw selected chapters and essays from the following works, in addition to selecting documents from a contentious utility proceeding before a state utility commission. (Depending on enrollment, there may be two such regulatory-commission proceedings to choose from for the exercise contemplated for Classes 3-4.)*
Origins of Regulation

Munn v. Illinois, 94 U.S. 113 (1877). Accessible at Library of CongressLinks to an external site.; start at p. 123 (page 11 of PDF) and read to end of document.


Practice of Regulation [these readings provide a substantial basis for you to understand topics & readings for interim assignment]

Lazar, Jim. Electricity Regulation in the United States: A Guide, 2nd Edition (2016). Regulatory Assistance ProjectLinks to an external site.. Chapters 1, 8, 10. (You may read Ch. 9 but it is covered in greater depth by the reading immediately below)


The Institutions of Regulation

Lazar. Electricity Regulation in the United States. Chapters 4-7.


Classes 3-4

Prefiled testimony and post-hearing briefing of a utility rate case for a regulatory commission. To be provided. Associated with interim assignment (see below).

See the above readings associated with Classes 1-2 on the "Practice of Regulation" as well as course slide decks, in order to augment and improve your arguments for the interim assignment.

The Origins of Restructuring and Electricity Markets

The readings for these weeks will focus on the liberalization of the utility sector, and discuss how electricity in particular remains an unfinished work—because of both greater political obstacles, the higher degree of physical complexity of the electricity system compared to other industries, and in some segments a more abiding presence of monopoly utilities.

Classes 5-6

Competition introduced to regulated industries

McCraw, Prophets of Regulation, pg. 222-99 (Alfred Kahn).
Wholesale Markets for Electricity


Retailing


Electric Transmission


Contemporary Issues in Utility Regulation

The readings for these weeks are intended to layer on contemporary issues to previous weeks, using primary sources from policy or regulatory forums to elucidate these issues.

- Rise of and Dependency on Natural Gas
- Climate Change and Renewable Energy
- Electric Reliability in the Energy Transition
- Distributed Energy Resources
- Modern Regulatory Capture

These contemporary topics will also make appearances during the first seven weeks’ discussion of fundamentals, so that these last two weeks should be understood as giving an opportunity for a deeper treatment—but not the only treatment—they will receive in the course.

Class 7

Gas, Renewables, and Electric Reliability,

Read the executive summary and introduction of each of the below reports:


**Behaving Badly (and the motivations for misconduct)**


Choice of two readings (you may skim/read lightly the one you select):


**Class 8**

Rival policy approaches to decarbonization in the electric sector


Climate policies in the context of an electricity market


Readings associated with off-week Zoom guest speakers

Distributed Energy Resources & Rooftop Solar (Ari Gold-Parker)


Decarbonization: What Would It Take? (Prof. Jesse Jenkins)


Assignments

The course is taught for a letter grade. There are three major elements of grading, equally weighted, with students (in exercising their right to choose a medium in Option #2) allowed to weight their grade more toward oral or written presentation.

1. **Class participation.** Students will write three (3) “reading reflections,” due by 11:59 PM on 3/25, 4/22 and 5/6. These will be no longer than two (2) pages, double-spaced. I will use those reflections to understand that a student has read the material and to guide discussion whenever possible, although they
will not receive a letter grade. As well, students are expected to engage in class discussion, asking questions and contributing their views.

2. **Interim Assignment: Moot Commission (Class 4, Apr. 14).** As an interim assignment, as an exercise relative to both the subject matter and institutions of utility regulation, a blended interactive/written exercise will be undertaken. Students will read certain critical materials from opposing parties in a utility rate case, and then will have the option either of:

- Presenting their arguments (representing either the utility, the consumer, or another party) to a mock “Commission”: the instructor, the TA, and a real guest state public service commissioner, who also would give a short guest lecture and “render a decision” after student arguments were made. (Grading would not be determined by who ‘won’, but by the sophistication of the students’ understanding of the issues at hand.) or
- Writing a policy memo, no more than 10 pages, from the perspective of Commission Advisory Staff, laying out the arguments of the two opposing parties, weighing them, and recommending to the Commission an outcome. **If a student elects this option, the policy memo is due Apr. 13 (the day before Class 4).**

3. **Final Paper, ~15 pages, due May 27.** Students will pick a topic of contemporary public-policy interest, propounding an analysis about whether and how utility regulation and electricity markets should adapt to address that topic. Ideally, students would use a case study or a selection of concrete examples to demonstrate the point. The paper’s proposed solution should offer a remedy to any problems identified, or should argue against remedies conventionally offered by others, or both.

**Grading Criteria**

The assignments above will be equally weighted in calculating a final letter grade.

- Class participation will receive an aggregate grade of complete/incomplete. Individual “reading reflections” will not receive a letter grade.
- Organized and lucid analysis that evinces an understanding of the subject matter is the primary criterion by which the interim assignment and final paper will be measured.
- For the final paper, the assigned course readings are intended to be read, and relied upon, as an inspiration; however, students are expected to do their own research to arrive at a topic for the final paper. There are numerous “ripped from the headlines” opportunities in this regard!
- The interim assignment, unlike the final assignment, does not require substantial external research. Instead, it will rely on readings from a utility-commission proceeding that have been assigned, to which students will apply
what they have learned in lectures on the standards used in the regulation of utilities, and the conventions of ratemaking.

- Citation style for written products is at the student’s discretion, but consistent use is expected.
- Late assignments will not be accepted without prior approval of instructor or TA.
- Failure to attend classes will result in a lower class-participation grade.

Other Policies

Students should refer to the University Policies and Regulations for comprehensive details.