Energy Markets and Regulation
Spring 2026
University of Florida Levin College of Law
Semester Syllabus – Law 6930-16086 - 2 credits

Professors: William Massey and Don Santa (both are former commissioners of the Federal Energy Regulatory Commission (FERC))
Email: Please use your professors' personal email addresses: wmassey@cov.com and dsantajr58@gmail.com

Meeting Time: Tuesday – 1:15-3:15 pm
Location: Synchronous remote course via Zoom. There will be a few opportunities to meet in person during the semester, but in-person attendance is not required.
Office Hours: **[TBD]** via Zoom

Course Description and Objectives:

Energy markets in the United States are amid a multi-faceted transition. A long-term transition to cleaner energy resources is being driven by the emergence of innovative technologies and the goal of significantly reducing greenhouse gas (GHG) emissions. Concurrently, the US has abundant oil and natural gas due to the shale revolution and, consequently, has become a major exporter of liquefied natural gas. In addition, the US is experiencing sustained growth in electricity demand for the first time in decades due to reindustrialization, artificial intelligence, data centers and electrification of end use applications.

This transition is occurring against the backdrop of a fragmented, inconsistent and frequently changing policy and regulatory framework. While some states have enacted all-encompassing plans to reduce GHG emissions, the federal response has been in fits and starts. There is no comprehensive federal statutory framework for addressing climate change. The Biden and Trump administrations have differed greatly in responding to legal and policy questions related to the energy transition. President Biden secured passage of substantial tax credits for clean energy, which President Trump then persuaded Congress to repeal or significantly limit. The current administration also has issued multiple executive orders that promote fossil fuels and discourage some forms of renewable energy. Meanwhile, federal agencies, regulated entities and other stakeholders often must rely on statutes enacted decades ago to address novel questions arising in connection with the energy transition and new technology.

The course will examine these energy market transitions through the lens of the regulation of the electric power and natural gas industries in the United States. In particular, the course will focus on the Federal Energy Regulatory Commission (FERC), the independent agency charged with regulating transportation, price and competition in wholesale electric and natural gas markets pursuant to the Federal Power Act (FPA) and the Natural Gas Act (NGA), as well as the role of state public utility regulators acting under the laws empowering them to regulate these industries at the retail level.

We will examine eight main areas: (i) given the imperative of significantly reducing carbon emissions, what resources will define the energy supply and delivery systems of the future, and what regulatory policies will govern such resources; (ii) foundational laws and policies governing energy markets and non-discriminatory transmission by wire and pipeline of electricity and natural gas; (iii) the prevailing market structure in wholesale electric power and natural gas markets resulting from FERC restructuring initiatives pursuant to the FPA and NGA; (iv) the legal, regulatory and market responses to

ongoing challenges, including market-based pricing, carbon pricing, and market structure; (v) "hot topics" such as the shale gas revolution, pipeline and electric transmission infrastructure development and cost allocation, and LNG exports; (vi) FERC's role in evaluating GHGs and in integrating new energy resources to participate in wholesale electricity markets (e.g., distributed energy resources, renewables and storage), and generator interconnection challenges; (vii) the prevention of energy market manipulation pursuant to an enforcement and compliance model derived, in large part, from securities market regulation; and (viii) the constant interplay among lawmakers, regulators and affected stakeholders.

Students will gain an appreciation for the legal and market challenges confronted by regulators, market participants and other stakeholders during the market transition.

Student Learning Outcomes:

1) Comprehension of the major operative provisions of the statutes that provide the basis for federal regulation of electric and natural gas markets (FPA, NGA and parallel state laws).

2) Comprehension of the contemporary structure of wholesale electric power and natural gas markets resulting from the restructurings implemented by FERC pursuant to such laws, as well as the contrast in how different states have chosen to structure and regulate such markets at retail.

3) Comprehension of the key regulatory and market challenges arising during the transition to cleaner energy.

4) Based on the foregoing, a demonstration of the ability to analyze current issues and developments affecting electric and natural gas markets via participation in class discussion and an in-class project presentation by student groups.

Required Reading Materials:
Required reading materials will be posted on Canvas.

Please register for the Canvas course and have any required materials with you in print or easily accessible electronic form in class. You are responsible for checking your Canvas page and the e-mail connected to the page on a regular basis for any class announcements or adjustments.

Additional Background Materials:
In addition to materials posted on Canvas, the following publications are recommended as reference materials if students have questions about concepts and terminology in connection with the subject matter of the course. Links to both publications will be posted on Canvas.

FERC 2024 Energy Markets Primer A Handbook for Energy Market Basics (December 2023) (cited herein as *FERC Primer*).

Lazar J., *Electricity Regulation in the US: A Guide* – Second Edition

Course Expectations and Grading Evaluation:
Students will be evaluated based on a final exam and class participation. This course follows the Levin College of Law's grading policies found here: https://www.law.ufl.edu/life-at-uf-law/office-of-student-affairs/current-students/uf-law-student-handbook-and-academic-policies.

Course grades will be weighted 80 percent for the final exam and 20 percent for class participation. Students should anticipate a final exam consisting of 50 multiple choice questions and five short essays. .

Class Component	**Percent of Grade**
Final Exam	80%
Class Participation	20%
TOTAL	100%

Class Attendance Policy:
Attendance in class is required by both the ABA and the Law School. Attendance will be taken at each class meeting. Students are allowed *two absences* during the semester. Students are responsible for ensuring that they are not recorded as absent if they come in late. A student who fails to meet the attendance requirement will be dropped from the course. The law school's policy on attendance can be found here.

Compliance with UF Honor Code:
Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Law Honor Code located here. The UF Law Honor Code also prohibits use of artificial intelligence, including, but not limited to, ChatGPT and Harvey, to assist in completing quizzes, exams, papers, or other assessments unless expressly authorized by the professor to do so.

INFORMATION ON UF LAW GRADING POLICIES:
The Levin College of Law's mean and mandatory distributions are posted on the College's website and this class adheres to that posted grading policy. The following chart describes the specific letter grade/grade point equivalent in place:

Letter Grade	Point Equivalent	Letter Grade	Point Equivalent
A (Excellent)	4.0	C (Satisfactory)	2.0
A-	3.67	C-	1.67
B+	3.33	D+	1.33
B	3.0	D (Poor)	1.0
B-	2.67	D-	0.67
C+	2.33	E (Failure)	0.0

The law school grading policy is available here.

OBSERVANCE OF RELIGIOUS HOLIDAYS:
UF Law respects students' observance of religious holidays.

- Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith.
- Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence.
- Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

EXAM DELAYS AND ACCOMMODATIONS:
The law school policy on exam delays and accommodations can be found here.

STATEMENT RELATED TO ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES
Students requesting accommodations for disabilities must first register with the Disability Resource Center (https://disability.ufl.edu/). Once registered, students will receive an accommodation letter, which must be presented to the Assistant Dean for Student Affairs (Assistant Dean Brian Mitchell). Students with disabilities should follow this procedure as early as possible in the semester. It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester. Students may access information about various resources on the UF Law Student Resources Canvas page, available at https://ufl.instructure.com/courses/427635.

STUDENT COURSE EVALUATIONS
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Click here for guidance on how to give feedback in a professional and respectful manner. Students will be notified when the evaluation period opens and may complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students here.

RECORDINGS OF CLASS
Students with aproved absences will be provided access to the recording of the Zoom class for which they were absent.

ABA OUT-OF-CLASS HOURS REQUIREMENTS: ABA Standard 310 requires that students devote 120 minutes to out-of-class preparation for every "classroom hour" of in-class instruction. Each weekly class is approximately 2 hours in length, requiring at least **4 hours of preparation** outside of class including reading the assigned materials and preparation for the in-class group presentation during the weeks in advance of the presentation.

UF LEVIN COLLEGE OF LAW STANDARD SYLLABUS POLICIES:
Other information about UF Levin College of Law policies can be found at this link.

UF ACADEMIC POLICIES AND RESOURCES:
Other information about UF academic policies and resources can be found at this link.

ORGANIZATION OF THE CURRICULUM AND ASSIGNMENTS

This syllabus is offered as a guide to the direction of the course, subject to change at the discretion of the professors. We generally describe here the various readings that will be assigned for each class. **All**

reading assignments, including links to court opinions, articles, PowerPoints, issue summaries and other materials will be posted on Canvas.

Class 1: January **20, 2026**
Introduction of professors; review of syllabus and course curriculum; overview of U.S. electric and natural gas industries; why we regulate these essential industries; allocation of jurisdiction between federal and state regulators; applicable administrative law principles.

Class 1 Reading Assignment:

1. *Munn v. Illinois* (read pp. 7-14 for explanation of "affected with the public interest")
2. PowerPoint on utility regulation
3. Lazar, J., Electricity Regulation in the US: A Guide. Second Edition – Chapters 1-4, pp. 3-28
4. Please click around the FERC.gov website to learn basic information about FERC and its regulatory responsibilities regarding electricity and natural gas.
5. Compendium -- Sections of U.S. Constitution Affecting Energy Regulation
6. Introductory PowerPoint -- Electricity and Natural Gas Regulation

Class 2: January **27, 2026**
Introduction to the FPA and NGA; key legal standards underlying FERC's expansive authority under these laws (undue discrimination, just and reasonable rates, practices affecting rates, market-based rates, required by the public convenience and necessity, filed rate doctrine, confiscatory rates); how the exercise of such authority may be affected by the "major questions doctrine." Parallel legal standards and policies under state law.

Class 2 Reading Assignment:

1. Please review these key provisions of the FPA and NGA:
    a. FPA – sections 201, 203, 205, 206
    b. NGA – sections 1, 4, 5, 7
2. Precedents Defining Key Legal Standards
    - *Public Utilities Comm'n v. Attleboro Steam Co.*, 273 U.S. 83 (1927)
    - *Hope Nat Gas* excerpt
    - *City of Colton excerpt*
    - *Lockyer v. Dynegy* excerpt, 387 F.3d 966 (9th Cir. 2004)
    - *Entergy v La PSC* 539 U.S. 39 (2003)
    - *Montana Consumer Counsel* v FERC, 659 F.3d 910 (9th Cir. 2011)
    - Order No. 697 – Bates White Summary Market Based Pricing
3. Issue Brief: Confiscatory Rates and Constitutional Issues Summary
4. PowerPoint – Key Provisions of the FPA and NGA and Legal Standards and Doctrines Under These Laws
5. Summary of Parallel Provisions of Florida Public Utility Law

Class 3: February 3, 2026
Operational basics of the natural gas and electric power industries and current structures of the industries and their respective markets (including economic rationale, legal basis and events that spurred movement to competitive energy markets and industry restructuring); cost-of-service regulation and market-based regulation.

Class 3 Reading Assignment:

Natural Gas

1. *FERC 2024 Energy Markets Primer* pp. 2-6 and 16-28 (hereafter "*FERC Primer*")
2. Smead – How the Natural Gas Industry Became What It Is Today
3. PowerPoint – Natural Gas Industry Background and Terminology

Electricity:

1. *New York v. FERC,* 535 U.S. 1 (2002)
2. *FERC Primer* pp. 32-37, 44-52
3. U.S. Electricity Grid & Markets (U.S. Environmental Protection Agency)

Class 4: February 10, 2026

Discussion of electric generation technologies and fuels (e.g., natural gas, coal, hydropower, nuclear, wind, solar); integration of intermittent renewable generation (e.g., wind and solar) along with electricity storage resources; interconnection of generation resources. How the Biden Inflation Reduction Act (IRA), and its partial repeal during the Trump administration, have affected clean energy investment and the evolving mix of electricity generation.

Class 4 Reading Assignment:

1. Energy Information Administration (EIA) – Electric Generation by Source
2. Energy Information Administration – Summary of Electric Generation
3. Overview of Greenhouse Gases | US EPA
4. Analyses and reading materials on the impact of Trump's repeal of most of the IRA clean energy tax credits will be posted on Canvas
5. *Hughes v. Talen Energy*, U.S. Supreme Court 2016
6. *EPSA v. Star*, 7th U.S. Circuit 2018
7. FERC Staff Fact Sheet – Improvements to Generator Interconnection Procedures and Agreements
8. Small Modular Nuclear Reactors: What are They? IAEA article
9. ICF Sees 25% Load Growth by 2030

Class 5: February 17, 2026

The critical role of interstate transmission; the imperative of significant transmission investment; challenges and barriers to installing interstate transmission facilities.

Class 5 Reading Assignment:

1. Transmission Grid U.S. Map
2. PowerPoint – The Critical Role of Transmission
3. *Federal Power Commission v. Florida Power & Light Co.*, 404 U.S. 453 (1972)
4. Summary of Two Important Court Precedents RE: Transmission Planning and Cost Allocation
5. FERC Order No. 1920 on Transmission Planning and Cost Allocation (summary and reading materials about the regulation)
6. Congressional Research Service: Transmission Permitting Reform
7. Greenbiz – U.S. Needs a Macrogrid
8. News articles on challenges associated with state transmission permitting

Class 6: February 24, 2025

Introduction to Regional Transmission Organizations (RTOs) and RTO markets; integration of carbon pricing and distributed energy resources (demand response, storage, distributed generation, micro grids, and others) in RTO markets; comparison and relative merits of the RTO organized market structure versus Southeast Electricity Market (SEEM) structure.

Class 6 Reading Assignment:

1. PowerPoint – Introduction to Regional Transmission Organizations (RTOs)
2. *FERC Primer pp.* 66-75
3. U-Tube Video on Locational Marginal Pricing
4. *FERC v. Electric Power Supply Ass'n, 577 U.S. ____ (2016)*
5. Utility Dive Article – DC Circuit Strikes Down FERC Approval of the Southeast Energy Exchange Market (SEEM)
6. E&E News – Western Entities Ponder Regional Grid

Class 7: March **3, 2026**
Natural gas: abundance and controversy. Impact of the shale gas revolution and resulting pipeline development; evolution of FERC's policy for certificating new interstate natural gas pipelines; reconsideration of that policy in the context of energy transition and other factors; jurisdiction and policies for considering applications to export natural gas and construct liquefied natural gas (LNG) terminals.

Class 7 Reading Assignment:
1. PowerPoint – Natural Gas Abundance and Controversy
2. IHS Markit, The Shale Gale Turns 10: A Powerful Wind at America's Back
3. RBN Energy Daily Blog – Evolution – How the Shale Boom Remade the Gas Market and Turned the U.S. Into a Major LNG Exporter
4. Professor Santa's 2018 congressional testimony summarizing the history of the US natural gas pipeline industry and the evolution of FERC's certificate policy (pages 1-9)
5. Congressional Research Service 2022 report on interstate natural gas pipeline siting (pages 1-17 and 24-27)
6. *EDF v FERC* (Spire)
7. Certification of New Interstate Natural Gas Facilities: Secretary of Energy Proposal to Rescind the Draft Updated Policy Statement (read Secretary of Energy's direction to FERC pages 2-6 and comments of Interstate Natural Gas Association of America pages 3-7, American Gas Association pages 4-7, and Earth Justice pages 3-7)
8. Congressional Research Service, Executive Orders and LNG Exports 2025
9. Venable, DOE and FERC Step on the Gas – LNG in the New Trump Administration

Class 8: March 10, 2026
Application of the National Environmental Policy Act (NEPA) to FERC-jurisdictional natural gas infrastructure projects, including consideration of GHG emissions; recent court decisions (US Supreme Court *Seven County* decision) and administrative developments affecting application of NEPA to major federal actions.

Class 8 Reading Assignment

1. PowerPoint – NEPA
2. *Sierra Club v. FERC* (Sabal Trail) (pages 2-6, 10-12, and 18-27)
3. *New Jersey Conservation Foundation v. FERC* (pages 5-7 and 12-20)
4. *Transcontinental Gas Pipeline Co.* (order on remand from *New Jersey Conservation Foundation*) (pages 45-59)
5. Akin Gump, FERC Formally Axes It Draft Policy Statement on Greenhouse Gas Emission Considerations for Natural Gas Act Projects
6. VanNess Feldman, Future of NEPA Implementation Without CEQ Regulations
7. VanNess Feldman, NEPA in Flux
8. *Seven County Infrastructure Coalition v. Eagle County, Colorado*

9. *Sierra Club v. FERC* (Cumberland Pipeline)

Class 9: March 24, 2026
First Hour – The first hour of this class will focus on the 2000-2001 California energy crisis, a year-long period in which wholesale electricity and natural gas prices across the entire West spiked wildly and market manipulation was rampant. After the crisis, Congress gave FERC explicit authority to police and impose financial penalties for market manipulation up to $1,000,000 per day per violation. We will discuss FERC's current authority to stop bad behavior in the markets and review several FERC enforcement cases to illustrate the types of behavior FERC penalizes.

Second Hour -- The second hour of class will focus on *Morgan Stanley v. Snohomish*, an important Supreme Court decision that arose out of the California crisis. The Court's decision illustrates the importance of contracts in energy regulation.

Class 9 Reading Assignment:
1. Alleged CA Manipulation Strategies 2000-2001 (4).pptx
2. FERC Market Manipulation White Paper
3. Brian Hunter DC Circuit (2).pdf
4. *FERC Primer* pp. 28-31
5. Selected FERC Enforcement Cases
6. *Morgan Stanley v. Snohomish* PowerPoint-1.ppt

Class 10: March 31, 2026
First Hour – Guest Lecture (member or senior staff from Florida Public Service Commission)

Second Hour. -- This hour of class will focus on FERC-state jurisdictional and policy conflicts, some of which were covered in earlier classes. In each of the electricity and natural gas pipeline conflicts we look at in this class, we will consider whether the courts decided these cases in a manner that will aid in a smooth energy transition or hinder it. We also will ask whether these FERC orders would survive challenges today based on review under the major questions doctrine or the lack of Chevron-type deference.

Class 10 Reading Assignment:
1. *NARUC v. FERC* (DC Cir. 2020)
2. Summary of FERC Order No. 2222 (Distributed Energy Resources)
3. Matthew Christiansen and Joshua Macey, Long Live the Federal Power Act's Bright Line, Harvard Law Review
4. Memorandum Summarizing *Transource Pa. v. Defrank* (3rd Circuit 2025) along with Utility Dive article
5. *Penneast Pipeline Co., LLC v. New Jersey* (U.S. Supreme Court)
6. *Constitution Pipeline Company, LLC* (FERC Order, 2019)

Class 11: April 7, 2026
First Hour – The first hour of this class will address electric resource adequacy. How do system operators, utilities and regulators ensure there are sufficient resources (generation facilities, demand response resources, distributed energy resources) to keep the lights on and the U.S. economy humming on extremely hot or extremely cold days when power delivery systems are stretched to the limits? Resource adequacy is now top of mind for regulators and utilities because the sharp increases in electricity demand

driven by the proliferation of power-hungry data centers built for artificial intelligence, and other rapid increases in electricity demand, are approaching crisis levels in some regions of the country.

Second Hour -- The second hour of this class specifically will address electricity for the expected massive increase in the number of data centers in the U.S. The role of data centers is dramatically affecting the demand for and price of electricity, and consumer backlash has become a politically potent topic.

Class 11 Reading Assignment:

1. Brattle Group – Resource Adequacy Models
2. CEBI Primer -- Evolving-Resource-Adequacy-Approaches-in-North-America.
3. National Renewable Energy Laboratory: Maintaining a Reliable Future Grid with More Wind and Solar.
4. Utility Dive: https://www.utilitydive.com/news/data-center-grid-reliability-ferc-nerc/803467/Links to an external site.
5. Big Tech's A.I. Data Centers Are Driving Up Electricity Bills for Everyone - The New York Times.
6. Contrary view from Washington Post: Data Centers are not to Blame.
7. Utility Dive -- PJM market monitor says data center demand responsible for high prices in PJM capacity market.
8. Electricity for Data Centers -- Different Models.docx
9. Utility Dive: DOE's proposed rule to expand FERC's authority over interconnection of large loads.

Class 12: April 14, 2026

This class will focus on permitting and permitting reform. Infrastructure projects may need permits from multiple layers of government and often from multiple agencies within a layer of government. Permitting laws protect against the potentially harmful effects of infrastructure development, but the permitting process can be costly, time consuming and inefficient. It can be an impediment to the construction of infrastructure to meet identified public needs. We will focus on it from the perspective of the permits needed to construct electric transmission and natural gas interstate pipeline infrastructure.

Class 12 Reading Assignment:

1. PowerPoint -- Permitting
2. Unlocking US Federal Permitting: A Sustainable Growth Imperative, McKinsey & Company.
3. Bipartisan Policy Center Report -- Finding the Goldilocks Zone for Permitting Reform.
4. Politico Magazine --Progressives Say They Want Clean Energy. They Held Up This Hydro Project for Years.
5. Short Summary -- Grain Belt and Backstop Siting.docx
6. Problem Solvers Caucus Permitting Reform Framework
7. FERC Fact Sheet on Generator Interconnection Standard.docx
8. Utility Dive --FERC Approval of "fast track" Interconnection for MISO and SPP.

Class 13: April 21, 2026

First Hour -- The future of natural gas will be the subject for the first hour of this class. This will include trends in US natural gas consumption and utilization and the challenges of applying decarbonization policies to the natural gas sector; state and federal policies affecting the evolving role of natural gas and natural gas pipelines; and jurisdiction over pipelines transporting natural gas/hydrogen blends, pure hydrogen and other products that could have a role in the energy transition.

Second Hour – The electricity grid of the future will be the subject for the second hour of this class. The electricity grid will need to integrate a variety of new technologies to create grid efficiencies and integrate cleaner resources. Will the U.S. install sufficient transmission, clean generation, distributed resources and other technologies to meet the needs of the future reliably and affordably while cutting greenhouse gas emissions? What will be the mix of electricity resources in 2035, 2045 and 2055?

Class 13 Reading Assignment:

1. PowerPoint -- Future of Natural Gas
2. Natural Gas Restrictions in the US - ABA Infrastructure and Regulated Industries Section.pdf
3. Regulatory and Policy Responses to the Natural Gas Industry's Downward Spiral, James Van Norstrand .pdf
4. MCR Group, Why Can't We Be Friends? Gas and Electricity Can Meet Energy Challenges Together
5. EPA Introduction to Renewable Natural Gas
6. NARUC Certified Natural Gas Primer (pages 3-12)
7. CBO Carbon Capture and Storage (pages 5-6)
8. FERC Order No. 2222 summary - https://www.insideenergyandenvironment.com/2020/09/ferc-opens-electricity-markets-to-distributed-resource-aggregators
9. Short Videos – Virtual Power Plants
10. PowerPoint -- Electricity Grid of the Future

Semester Ends