Instructor:

Kenneth G. (“Ken”) Hurwitz, a Washington D.C. attorney, has practiced law in the energy field for over 40 years. For approximately 20 years, he was equity partner at two large international law firms, VENABLE, LLP and HAYNES AND BOONE, LLP. From 1983 to 1987, he served as Executive Director of the Maryland Public Service Commission. Ken holds J.D. and M.B.A. degrees from the University of Pennsylvania Law School and the Wharton School. A well-known energy lawyer, Ken has spoken at numerous industry and bar association conferences around the country.

Ken taught the *Introduction to Energy Law and Policy* course in the fall of 2018. He also teaches energy-related law courses at Temple University School of Law.

Ken can be contacted by phone at (202) 669-4511 or by email at khurwit1@jhu.edu. Email messages will be returned, either by reply email or by setting up a follow-up phone call, within 24 to 48 hours.

Course Description:

*Introduction to Energy Law and Policy* brings together the physical world of natural resources, the technology of energy production and delivery, the economics that drives the behavior of producers, transporters and consumers, and the existing body of laws and regulations. The course is tailored to those who wish to work in the field and those who wish to enhance their understanding of this fascinating critical subject.

The course will be structured into two parts. The first part is designed to provide an
understanding of the legal and regulatory framework that governs the U.S. energy sector. We start with basic principles of constitutional and administrative agency law, including judicial review of agency decisions. The course then examines the fundamental regulatory concepts and approaches that apply in the energy sector, with an emphasis on utility, common carrier and competitive market models. The first part of the course will conclude with an examination of environmental regulation of air quality, with an emphasis on GHG regulation. Throughout, key concepts and themes will be identified and explained.

The second part of the course explores a number of pressing energy policy issues, including the potential role of renewable energy in the electric generation mix, safety regulation of high-risk infrastructure (offshore deepwater oil exploration and production; nuclear power plant generation; pipeline transportation), the unconventional oil and natural gas revolution (hydraulic fracturing), and vehicular transportation. Existing regulatory policy and attempts by the current administration to reverse initiatives that were undertaken in prior years will be addressed. Along the way, the student will be encouraged to critically evaluate existing laws and regulations, to ask whether they are rational in light of their stated policy goals, and to think about potential reform.

For each topic discussed in Part Two, the course will provide:

- A framework to place the issue in terms of the overall energy system
- A survey of the major laws, regulations and judicial decisions relevant to the topic
- A review of the issues in contention at this time

It should be recognized that this course is an introduction to a subject that is vast and complex. The goal is not to be comprehensive, but to provide a framework for understanding energy law and policies. Students should gain an increased ability to explore and understand this hugely significant subject as they continue down their chosen paths.

Course Goals and Learning Outcomes:

In addition to gaining an understanding of energy law and policy and the ability to explore issues in depth, students should, as a result of taking this course, be able to:

- Understand the respective roles of key laws, and administrative agency regulations and orders in the functioning of different parts of the energy markets and the conflicts that arise between different laws, policies, and actors;
- Understand how contemporary and emerging energy and environment issues and policies fit within, or conflict with, the framework of energy law.
- Understand different perspectives and approaches to each issue, particular those that may contradict their own.
- Discuss the benefits, problems, major laws and policies associated with different energy sources and different components of the energy system
- Analyze the merits of arguments advanced by energy advocates and parties to legal challenges to energy laws.

Teaching Style:

The course will be delivered primarily through lectures, reading, and class discussion; it will be comprised of 14 classes, referred to below as "Modules."
Reading assignments will include “core” text and “choice” texts. Everyone will read “core” texts and may select among “choice” texts according to their interests. Core texts are marked with a double asterisk (**) in the “Assignment” sections below; please note that most of the reading is required.

Lecture portions of the class will be interspersed with discussion portions to engage students in the subject matter. Class participation is encouraged; it is hoped that the classroom will be a stimulating and non-threatening environment. Within each Module, Students will be asked to make presentations on discrete subject matter, such as judicial decisions, agency regulations or other topics of interest.

There will be three take-home exams, the first two consisting of short answer essay questions, and the final consisting of short answer essays and one or more longer essays. Students will be asked to set aside “quiet time” (two hours for the first two exams; three for the final) for each exam; it is permissible to refer to course materials, if the student so desires. The exam must be completed within four days of distribution.

Exam papers are to be submitted by email to khurwit1@jhu.edu, with the following subject line: "JHU _____ (First or Second or Third) Exam." Exam papers should be submitted in two formats, as an editable WORD document and as a PDF. The goal of having three exams is to reinforce the course materials and class sessions, and to test the student’s understanding of key concepts and policy issues, as the course proceeds. As indicated below, exams will be distributed at the close of class for Module Nos. 5, 9 and 14.

Please review the course syllabus thoroughly to learn more about course coverage and requirements.

II.

COURSE MATERIAL

Readings:

- **Textbooks:**


  These are useful textbooks but they do not cover many important aspects of the course which will be covered by other materials. These materials, which will be posted on Blackboard, are referred to herein as “Posted Reading.”

- **Other:** Includes electronic readings on the course Blackboard site, under the “Readings” tab and online hyperlinks (accessed via the online version of the Syllabus on the course Blackboard site, under the “Syllabus” tab).

- **News:** Students are expected to keep abreast of major energy news and in-class and online discussions may include some element of “did you read the news that . .

- **Podcasts:** There are a number of podcasts that students may find valuable, including The Energy Gang, The Interchange, Grid Geeks, and Columbia Energy Exchange.
Specific Technology Requirements & Skills for this Course:

- Students need to be able to: Navigate in and use Blackboard; the Blackboard Student Orientation course on your "My Institution" page
- Create and save MS WORD and ADOBE documents; see MS Word training and tutorials for PC users (all versions); Word Help for Mac users
- Find basic resources on the Internet
- Create and organize files and folders on your computer
- Send, receive, and manage email
- Find basic resources on the Internet
- Create and organize files and folders on your computer
- Send, receive, and manage email

III. CLASSES, TOPICS AND ACTIVITIES

MODULE 1
Framing Energy Law and Policy
Topics:
- Review of Syllabus and Course Requirements
- The Big Picture—Domestic U.S. Energy—Sources and Uses
- Drivers of the "Big Picture”—Energy Economics and Policy Basics
- Who (Federal/State/Local) Regulates What?
Assignments:
- "Nutshell, Chapter 2
- "Energy Law, pp. 1-7 (up to V.)
- Posted Reading:
  - None

MODULE 2
The Administration of Energy Law and Regulation
Topics:
- Constitutional Principles
  - State Police Power
  - Congress’s Power to Regulate Interstate Commerce
  - Supremacy Clause and Federal Preemption
  - Dormant Commerce Clause
- Basic Administrative Agency Concepts and Procedure
  - Administrative Agencies in the Constitutional Context
  - Non-Delegation Doctrine—Rise and Fall
  - The Administrative Procedure Act—Adjudication and Rulemaking (including "add-ons")
  - Deference and Judicial Review
  - (STUDENT PRESENTATION ON KISOR v. WILKIE (AUER DEFERENCE))
Assignments:
- "Nutshell, Chapter 3
- "Energy Law, pp. 7-12
- Posted Reading:
MODULE 3
Natural Monopoly, Public Utilities, and Competition
Topics:
- Natural Monopoly Rationale for Public Utility Regulation
  - STUDENT PRESENTATION ON MUNN V. ILLINOIS
- State Utility Commission Jurisdiction (Electric and Gas Utilities)
- Basics of Public Utility Ratemaking and Ratemaking Procedure
- Limits on State Commission Authority
Assignments:
- **Nutshell**, Chapter 4 (165-97, 203-205)
- Posted Reading:
  - **Stephen Breyer, Regulation and its Reform** (1982), (0-674-75375-5 AACR2) (pp.15-16, 389-92 (notes 3 – 6))
  - **Munn v. Illinois**, 94 U.S. 113 (1877) (available on OYEZ)

MODULE 4
Regulation by the Federal Energy Regulatory Commission (FERC)
Topics:
- FERC Overview and Jurisdiction Under the Federal Power Act, the Natural Gas Act and the Interstate Commerce Act
- Restructuring of Interstate Natural Gas Pipeline Regulation
- Electric Industry Restructuring: Open Access Transmission and Markets
- Current Policy Issues and Trends
Assignments:
- **Energy Law**, pp. 167-181
- Posted Reading:

MODULE 5
Air Quality Control under the Clean Air Act
Topics:
- Overview of Clean Air Act
- GHG Regulation to Date – From Massachusetts v. EPA to Affordable Clean Energy Rule (STUDENT PRESENTATION ON MASSACHUSETTS v. EPA)
  - Approaches to GHG Regulation
Assignments:
- Posted Reading:
Sample Syllabus

- **Affordable Clean Energy Rule, EPA Factsheets (5 factsheets) (google "Affordable Clean Energy Rule EPA")
- recommended but not required:

**FIRST EXAMINATION, COVERING MODULES 1 THROUGH 5**

**MODULE 6**
Renewable Energy I—Laying the Groundwork and Introduction to Wind Energy

Topics:
- Basic Power System Operations: Matching Generation to Load
- Intermittency versus Dispatchability
- Environmental and Other Benefits of Renewable Energy
- Renewable Purchase Mandate: Renewable Portfolio Standards
- Introduction to Wind Generation

Assignments:
- **Energy Law**, pp. 149-52 (up to feed in tariffs section)
- **Nutshell**, pp. 538-42
- Posted Reading:
  - **U.S. Renewable Portfolio Standards—2017 Annual Status Report (download at rps.lbl.gov)
  - **Surviving the Commerce Clause: How Maryland Can Square its Renewable Energy Laws with the Federal Constitution** (available by “googling” the title)
  - Josh’s Alternative Energy Summit – The West Wing (Google, available on youtube; video runs approximately 3:44 minutes:seconds)

**MODULE 7**
Renewable Energy II—Wind (continued) nd Solar

Topics:
- Wind Development Tax Incentives
- Development of a Wind Power Plant Facility
- Introduction to Solar and Development Incentives
- Net Metering
- Solar Siting and Environmental Issues

Assignments:
- **Nutshell**, 535-38
- Posted Reading:
MODULE 8
High-Risk Energy Infrastructure; Controlling Safety Risk:
Topics:
- Offshore Drilling in the Outer-Continental Shelf - Introduction
- The 2010 Deepwater Horizon Disaster
- Offshore Oil: Industry and Regulatory Responses
- Nuclear Power and NRC Waste Confidence Decision
Assignments:
- "Energy Law, pp. 57-61"
- "Nutshell, 464-71; 475-81"
- Posted Reading:
  - Video, Overview on Deep Water Drilling: https://www.youtube.com/watch?v=YQ1ID1X2Db0
  - Video, BP Oil Spill Timeline: https://www.youtube.com/watch?v=OIF-X-Ez9Bs
  - Video, BP Spills Coffee, Parody: https://www.youtube.com/watch?v=2AAa0gd7ClM
  - "Energy, Economic and the Environment, pp. 201-203; 219-222; 230-256"
  - "Andrew Hopkins, Disastrous Decisions, Chapters 2 – 4."
  - "January 2011, Report to the President, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling; Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling, pp. 250-260, 293-300"
  - "New York v. NRC, 681 F.3d 471 (2012)"

MODULE 9
The Unconventional Oil and Natural Gas Revolution
Topics:
- Introduction to the Unconventional Natural Gas Revolution -- Hydraulic Fracturing
- Rapid Expansion of Domestic Natural Gas Production and its Implications
- Fracking: Risks and Regulation
- The Policy Decision: Weighing the Mitigated Risks against the Benefits
Assignments:
- Posted Reading:
  - "Evan J. House, Fractured Fairytales: The Failed Social License for Unconventional Oil and Gas Development. 13 Wyo. L. Rev. 5 (2013)"
  - "EPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (2016); Executive Summary, ES12—ES44. www.epa.gov/hfstudy"
  - "Eshleman and Elmore, Recommended Best Management Practices for Marcellus Shale Gas Development in Maryland, (2013), Summary of Key Findings and Major Recommendations, pp. i-v; 1-1 – 1-3."
  - "Vann and Murrill, Hydraulic Fracturing: Selected Legal Issues (Congressional Research Service, R43152 (2014)); Summary (p. 2); pp. 26 – 31."
  - "Ratner and Tiemann, An Overview of Unconventional Oil and Natural Gas: Resources and Federal Actions, Congressional Research Service, R43148 (2015); pp. 10-13."

SECOND EXAMINATION, COVERING MODULES 6 THROUGH 9

MODULE 10
Vehicular Transportation, and Federal Government Attempts to Increase Vehicle Efficiency and the Use of Renewable Fuels
Topics:
- Introduction to Electric Vehicles
- Regulation and Use of Biofuels: The Renewable Fuel Standard (RFS)
- The Federal Corporate Average Fuel Economy (CAFE) and Tailpipe Emissions Standards
Assignments:
- "Energy Law, pp. 111-19, 155-57"

Posted Reading:
- Klass and Heiring, Symposium: The Post-Carbon World: Advances in Legal and Social Theory: Life Cycle Analysis and Transportation Energy
- **Americans for Clean Energy, et al. v. EPA** (864 F.3d 691 (D.C. Cir. 2017))
- **Meiselman, Breaching the Blendwall: RINs and the Market for Renewable Fuel** (2016), pp. 1-12 (up to "model")
- **The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks**, 83 Federal Register 42986 (August 24, 2018); pp. 42990 (begin with "summary of rationale") - 42995 (up to "energy conservation")

**MODULE 11**
Open Access Electricity Transmission, Regional Transmission Organizations, Centrally-Regulated Competitive Auction Markets, and Picking Winners and Losers

Topics:
- Open Access Electricity Transmission: RTO and Non-RTO
- Least Cost Security Constrained Dispatch and Locational Marginal Pricing (LMP)
- RTO Competitive Energy and Capacity Auction Markets
- Picking Winners and Losers
  - Resiliency (Favoritism towards Nuclear and Coal Generation)
  - Environmental Dispatch

Assignments:
- **Energy Law**, pp. 74-85
- Posted Reading:
  - **PPL Energyplus, LLC v. Nazarian**, 974 F.Supp.2d 790 (2013) (U.S.D.C., District of Maryland), Section II. C (and all subsections of C) (up to Section D)
  - Hughes v. Talen Energy Mktg., LLC (2016) (OYEZ, read syllabus (mandatory) or entire opinion (optional)
  - EPSA v. Star, 904 F.3d 518 (7th Cir. 2018) (read syllabus (mandatory) or entire opinion (optional)

**MODULE 12**
The Demand Side: Reducing Electricity Consumption and Shifting Load

Topics:
- Basic Concepts: Reduction of Energy Consumption, Peak Load Reduction and Load Shifting
- Removal of Ratemaking Constraints
- State Energy Conservation Programs
- "Wholesale" Demand Reduction
  - FERC Order No. 745
- Smart Grid and Smart Meters: Optimizing Supply and Demand

Assignments:
- **Energy Law**, pp. 211-25
- Posted Reading:
  - "What is the Smart Grid?", SMARTGRID.GOV, https://www.smartgrid.gov/the_smart_grid/smart_grid.html
MODULE 13
Climate Change, RGGI and California AB32 and Paris Climate Accord
Topics:
- Introduction to Climate Change
- Regional/State Cap-and-Trade Approaches: Regional Greenhouse Gas Initiative and California's AB 32
- Paris Climate Accord: Central Concepts
- U.S. Withdrawal from Paris Climate Accord
Assignments:
- **Energy Law, pp. 128-30
- Posted Reading:
    https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf
  o **Energy, Economics and the Environment, pp. 326-33
  o **Trump Announces U.S. Will Exit Paris Climate deal, sparking criticism at Home and Abroad, Washington Post, June 1, 2017.
  o **M. Cooper, Governing the global climate commons: The political economy of state and local action, after the U.S. flip-flop on the Paris Agreement, Energy Policy 118 (2018) 440-454

MODULE 14
Microgrids, Distributed Energy Resources, and Bringing Power to Sub-Saharan Africa
Topics:
- Characteristics and Benefits of Distributed Energy Resources and Microgrids
- Interaction of Microgrids with the "Macrogrid"
- Legal and Regulatory Framework and Policies
- Examples of Microgrids
Assignments:
- **Energy Law, pp. 228-31
- Posted Reading:
  o **Microgrids at Berkeley Lab, http://building-microgrid.lbl.gov, click on "microgrids"; read "Types of Microgrids" (see left part of screen)

FINAL EXAMINATION, SHORT ANSWER ESSAYS COVERING MODULES 10 THROUGH 14; ONE OR MORE LONGER ESSAYS COVERING ENTIRE COURSE

IV. ASSESSMENT

First Examination 225 points
Second Examination 225 points
Final Examination 300 points
Presentations and Participation in Class Discussions 250 points
Total 1,000 points

V. GRADING POLICY

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VI. COURSE POLICIES

General: This course adheres to all University policies described in the academic catalog. Please pay close attention to the following policies:

Students with Disabilities: Johns Hopkins University is committed to providing reasonable and appropriate accommodations to students with disabilities. Students with documented disabilities should contact the coordinator listed on the Disability Accommodations page. Further information and a link to the Student Request for Accommodation form can also be found on the Disability Accommodations page.

Ethics & Plagiarism: JHU Ethics Statement: The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Report any violations you witness to the instructor.

Read and adhere to JHU’s Notice on Plagiarism.

Dropping the Course: You are responsible for understanding the university’s policies and procedures regarding withdrawing from courses found in the current catalog. You should be aware of the current deadlines according to the Academic Calendar.

Getting Help: You have a variety of methods to get help on Blackboard. Please consult the resource listed in the "Blackboard Help" link for important information. If you encounter technical difficulty in completing or submitting any online assessment, please immediately contact the designated help desk listed on the AAP online support page. Also, contact your instructor at the email address listed in the syllabus.

Attendance Policy: I do not have an attendance policy. I of course encourage students to attend whenever possible, but understand that travel and other schedules may conflict. You are responsible for submitting any work due on time or arranging plans with me. For more than three absences, some makeup work may be required to avoid losing participation.
Late Work Policy: All assignments are assigned a due date and time (typically 6:00 p.m. before a class). Late submissions will have their score reduced by 10% of total available points for each day they are late, to a minimum of 50%. Assignments cannot be accepted more than 2 days after the date of the final class.

Course Etiquette: This class benefits from open and lively discussion. That relies on an atmosphere of strong respect among all course participants.