

Transitioning to Clean Energy 2022 Energy & Climate Law – Law 387

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Class: M, W 3:20 – 4:50 pm in Room 242 after quiet period; Office Hours: M, W 5-6 pm and by appointment.

First Day Assignment

1. Please review the syllabus carefully.
2. You can buy the book, **Rule, Renewable Energy: Policy, Law and Practice** any time in the first two or three weeks because we will largely rely on WISE resources for our climate classes. I will put the first day's reading from Rule in the WISE resources and send it to you with the syllabus.
3. Review structure of WISE site and find the Resources area. I have structured the WISE Resources by class session. The WISE readings for climate are about 30 pages, with additional background readings available but not required.
4. Read the class 1 WISE reading: Excerpts from Chapters 1 & 2 of Farber & Carlane, *Climate Change Law* (2018). Other available resources [not required reading]: the climate science folder contains IPCC and NCA reports (check the IPCC site for the 6th Assessment report) and a useful PEW publication on Climate 101 and the economics folder contains Lazard's reports on the levelized cost of energy.
5. Decide which class you want to teach; you can teach alone or with a partner. Sign up on WISE ASAP for best selection.
6. Consider whether you want to submit a **graduation-writing requirement (GWR)** paper or a briefer seminar paper – and begin to think about your topic area and thesis. You must seek approval for GWR papers by the end of the second week.
7. Prepare to take a wonderful field trip out the Columbia gorge if COVID precautions permit. We will begin on Thursday evening and return Saturday evening. [[Maybe one of our number will take us out on the Columbia at Hoods River - sailing, windsurfing, paddle boarding or something like that]]. Along the way, we will see natural gas, coal, wind, hybrid wind/solar/storage, and hydroelectric generating plants. The presumptive dates are March 31-April 2. Hold the dates. We will travel by van and I will cover double occupancy hotel expenses on Thursday and Friday.

Goals/Learning Outcomes

1. Enjoy learning about the area of law is most powerfully shaping our future! Achieve the learning outcomes identified for each class (in red).
2. Try your hand at solving some problems encountered in renewable energy practice.
3. Develop expertise with respect to at least one energy and climate topic, preferably by teaching and writing about a single topic.

Transitioning to Clean Energy 2022 Energy & Climate Law – Law 387

4. Develop, articulate, and provide theoretical and factual arguments in support of a unique thesis with respect to an energy and climate topic.

Assessment

- **Brief Seminar Paper (with GWR option) – 50%** Five to ten page brief paper (single-spaced) **due Monday, APRIL 11 at noon without exception.** Please read the advice memo in the WISE assignment box to understand my preferences. Your paper does not need to be an academic article—alternative formats such as a brief, issue paper, CLE presentation are acceptable. *Evaluation criteria: planning, research, analysis, creativity & writing.*

GWR option - Your paper may be used to complete graduation writing requirement providing it is expanded to a major research effort resulting in a publishable 15-20+ pp. single-space paper **Graduation writing requirement full drafts are due April 11 at noon without exception; final papers are due April 27 at 3 pm unless you are not planning to graduate in May.** If you want to do a GWR paper, you must seek my approval by the end of the second week of class and meet the schedule set forth in the advice memo.

- **Teaching – 20%** one class (sign up for class of your choice - any class starting the third week and before Spring Break) **Teaching plan due one week before class taught.**
Evaluation criteria-planning, research, analysis, creativity, & presentation (peer graded)
- **Practice Problems – 15%** Three problem assignments requiring careful thought, but brief written answers (5% each) **Submit answer to WISE box by class time**
- **High quality class participation – 15% (including 5% for completed constructive and informative peer teaching evaluations).** In classes that I teach, I recommend that you outline a response to the question(s) listed in red on the class schedule to prepare for class. In classes taught by students, please follow the teacher’s instructions. You may submit an account of your class participation by April 13, 2021 in class.

Required Book **Rule, Renewable Energy: Policy, Law & Practice (2nd Ed. 2021)**

Also recommended Farber & Carlarne, *Climate Change Law (2018)*
Davies, *Energy Law and Regulation (2018)*

Celebratory Potluck – assuming safety permits – Wednesday, April 13 at 6:30 - 8 pm at Ricks
Celebrate with other environment and natural resources professors, students & alums. Please bring a main dish or salad (preferably homemade) and something to drink. I will provide plates, silverware and such as well as a vegetarian main dish, dessert, and additional drinks.

Transitioning to Clean Energy 2022
Energy & Climate Law – Law 387

Class Outline

- I. Climate – Weeks 1 – 3**
 - A. GHG emission sources, climate disruption & impacts**
 - B. Regulation to reduce GHG emissions**
 - i. International
 - ii. National
 - CAA regulation & beyond
 - Alternative climate regulation - Cap & trade, taxes
 - iii. Regional/state/local - **ANSWER TO POLICY QUESTION**
 - C. Climate litigation – tort, public trust and other theories of liability**

- II. Fossil Fuels – Property, Extraction, & Distribution issues Weeks 4 & 5**
 - A. Coal**
 - i. The coal industry, federal coal leasing & coal exports
 - ii. Transitioning coal communities
 - B. Oil & Natural Gas**
 - i. Traditional oil & gas development
 - ii. Fracking

- III. The Transition to Renewable/Climate friendly/Clean Energy – Weeks 5 - 8**
 - i. The Transition
 - Distinguishing Renewable from Non-Renewable
 - Climate-Friendly, Clean & Green
 - Factors Driving the Transition
 - Recurring Concepts in Renewable Energy Law
 - ii. Alternative energy
 - Hydro
 - Wind & Solar
 - Nukes, Geothermal, and Ocean power
 - Biomass & alternative fuels
 - Electrifying transportation

- IV. Electricity – Weeks 8 - 10**
 - A. Generation, Transmission, and Distribution**
 - B. Legal and Theoretical Bases for Utility Regulation**
 - C. Utilities’ Implicit “Regulatory Compact”**
 - i. Duty to Serve
 - ii. Reasonable Pricing
 - iii. Protection Against Competition Within Exclusive Territories
 - D. Cost of Service Ratemaking**
 - E. Integrated Resource Planning & Utility Behavior ANSWER TO RULEMAKING QUESTION**
 - F. Utility Restructuring and Deregulation**
 - G. Utility Issues Associated with the Transition**
 - i. Stranded fossil fuel assets

Transitioning to Clean Energy 2022
Energy & Climate Law - Law 387

- ii. Grid load management, energy storage, and smart grids
- iii. Demand-side management

V. Wind Energy Issues - Weeks 11 & 12

- A. Policy
- B. Legal Rights **ANSWER TO LEASING QUESTION**
- C. Legal Limitations
- D. Development

VI. Solar Energy Issues - Week 13

- A. Policy
- B. Development

**Transitioning to Clean Energy 2022
Energy & Climate Law – Law 387**

Class Schedule

Review – generally background reading unless this is the only reading assigned

Read - focus of class discussion (generally 30-40 pp per class)

1. January 10 GHG emissions and climate disruption

Read Rule 71-76 available in Class 1 WISE resources

Read Class 1 WISE resources (Farber & Carlane, Climate Change Law, Chapter 1 & 2 excerpts)

More thoroughly understand climate disruption. After class, write a five-minute one page paper explaining how your understanding of climate disruption was reinforced, changed, or expanded after the readings and our class discussion – and highlight any remaining questions you have.

Please submit your one page to the WISE assignment box.

2. January 12 International Efforts to Reduce GHG emissions

Read WISE resources (Chapter 3 from Farber)

Review WISE resources (PPT, ozone report, 2d NDC synthesis, Glasgow Pact)

Identify the challenges of creating international climate change agreements. Comment on how the world might accomplish the changes necessary to limit warming to 1.5 degrees C.

January 17 MLK, Jr. Day (celebrated)

3. January 19 National Climate Regulation

Read WISE resources (Farber)

Describe Obama administration Clean Air Act climate regulations, Trump administration reversals, Biden administration Build Back Better plan. In the absence of climate legislation, what should Biden do?

4. January 21 Friday – Regulatory alternatives to reduce GHG emissions (makeup class)

Read WISE resources (Farber)

Describe and critique cap & trade and tax alternatives.

5. January 24 Regional, state & local climate action

Read WISE resources (Oregon or another state you choose)

Describe and critique Oregon climate legislation, HB 2021, EO on climate, and DEQ climate regulations including the GHG reduction program.

PRACTICE PROBLEM 1 – Prepare professional quality one pager (single-spaced front & back) advocating alternative or additional climate efforts (OR or another state).

6. January 26 Climate litigation – tort, public trust, and other liability theories

Review WISE resources (*choose* tort, public trust, or other liability theories to read)

Describe and critique litigation as a means to force governmental and private actors to limit greenhouse gas emissions and to recover damages caused by climate change.

Transitioning to Clean Energy 2022
Energy & Climate Law – Law 387

- 7. January 31 Coal (coal industry, federal coal leasing, export)**
Review WISE resources (choose federal coal leasing or coal export to read)
Discuss whether federal coal leasing should be permanently banned and whether the US should allow/facilitate coal export. How do policy arguments on these two issues coincide/differ?
- 8. February 2 Transitioning Coal Communities**
Review WISE resources (legislation, Frazier & other transition articles)
Describe and critique current proposals to transition coal (and O&G) communities.
- 9. February 7 Oil & Gas (extraction basics & fracking)**
Read WISE resources (Davies 3:231-49, 10:856-89)
Explain the process of and law governing oil and gas extraction. Describe environmental impacts of oil and gas extraction and discuss the adequacy of law to address those impacts. Explain the opportunities and challenges of fracking. Describe and analyze the legal regime governing fracking in the US.
- 10. February 9 The Transition to Renewable/Climate friendly/Clean Energy**
Read Rule 1-32, 68-91
Which energy sources should be included in which incentives/regulatory requirements? What are the arguments for and against those incentives / regulatory requirements?
- 11. February 14 Hydropower – dealing with damned dams**
Read Rule 792-813
Explain the pros and cons of hydropower as a source of electricity. Describe and comment on the legal regime governing hydropower dams.
- 12. February 16 Utility wind & solar**
Read Rule 93-143, 373-382
Explain the pros and cons of utility scale wind & solar
- 13. February 21 Also ran electricity sources (nukes, geothermal, & ocean power)**
Read Rule 701-731, 814-818
Read WISE resources (Davies on nukes)
Explain opportunities and challenges associated with nuclear power. Describe and critique the legal regime governing nuclear power in the US. Similarly, for geothermal and ocean power.
- 14. February 23 Biomass & Biofuels**
Read Rule 732-757, 757-775
Explain the pros and cons of biomass as a source of electricity and use of ethanol & other alternative fuels. Describe and analyze the legal regimes governing biomass & alternative fuels.

**Transitioning to Clean Energy 2022
Energy & Climate Law – Law 387**

15. February 23 Electrifying transportation (passenger vehicles, trucks, rail and planes)

Read Rule 775-792

Assess the legal and policy innovations required to facilitate electrification of transportation

16. March 2 Electricity regulation basics

Read Rule 33-58. **Answer the questions on Rule 57-58 in writing before class.**

For more depth, review WISE resources (Davies 4:283-435)

Describe the regulatory structure governing electricity generation and distribution in the US, the theoretical basis for various features and how utility rates are made.

17. March 7 Integrated Resource Planning & utility behavior

Review WISE resources (PGE planning documents and stranding article).

Describe how and why IOPs engage in IRP. How do utilities use IRP to maximize their revenue.

Describe the stranding issue for fossil fuel plants.

PRACTICE PROBLEM 2: Prepare professional quality comments (3 pp single-spaced) to OR PUC on behalf of Renew Oregon concerning cost recovery on stranded natural gas assets.

18. March 9 Utility restructuring & deregulation

Read WISE resources

Explain the manner in which utilities have restructured and been deregulated.

19. March 14 Reliability: grid load management, energy storage, and mini grids

Read Rule --- 58-68, 600-624, 660-668

Explain issues and assess your utility's performance..

20. March 16 Demand side management and smart grids

Read Rule 599-600, 624-646, 646-668

Explain demand management issues and assess your utility's performance.

SPRING BREAK MARCH 19-27

21. March 28 Wind energy policy – incentivizing wind energy

Read Rule 142-175

Describe and critique current wind energy policy.

22. March 30 Wind energy law – wind rights

Read Rule 177-215

What rights do landowners have to develop wind power?

COLUMBIA GORGE FIELD TRIP MARCH 31-APRIL 2

23. April 4 Wind energy law – what about the neighbors?

Read Rule 216-282

What restrictions on wind power protect neighbors & other living things?

24. April 6 Wind energy development

Read Rule 283-357 (concentrate on 283-297)

**Transitioning to Clean Energy 2022
Energy & Climate Law – Law 387**

PRACTICE PROBLEM 3: Prepare a professional quality letter to your client WindWizard answering the leasing questions posed on pp. 295-297.

We will decide in class which areas to cover during the final week based on your collective interests.

25. April 11 Solar Energy Policy

Read Rule Chapter 5 (*Too much to read; ID on April 6th what you want to cover in class*)

SEMINAR PAPERS and full draft GWR PAPERS due at noon; final GWR papers for GWR sign-off are due April 28 at 3 pm.

26. April 13 Solar Energy Development & Wrap-up

Read Rule Chapter 6 (*Too much to read; ID on April 6th what you want to cover in class*)

APRIL 18 – NO CLASS DUE TO EARLY MAKE-UP OF MLK DAY