

Course Number and Title

NAU: WU@TTU 501 Wind Energy Law, Policy and Regulation

TTU: WE 5310 Wind Energy Law, Policy and Regulation

UMass:

Effort: 3-credits, semester

Prerequisites:

Graduate Student Status. This is a writing intensive course in which you will be required to analyze and discuss legal and regulatory topics related to energy policy. There will be case studies in which you are given a complex set of facts and materials to review and investigate then use analytical skills to summarize the legal and social impacts of specific hypothetical wind energy projects.

Textbook / Resources:

All resources will be provided through the instructor. Reading material will consist of statutes, case law, project planning documents, environmental impact reports, and other documents, videos and podcasts relating to the subject material.

Course content may be supplemented by guest lectures from experts in industry when available.

Course description:

The purpose of this course is to develop an understanding of the regulatory principles affecting wind project development from greenfield to decommissioning or repower. The course begins with an overview of basic real property laws and principles to consider when planning a wind project, including title and ownership principles, severance of rights in the estate, zoning considerations, easements, FAA and FCC regulations on airspace, and wake effect case law. Students will learn the legal concepts of nuisance as they relate to relevant “wind turbine syndrome” cases involving complaints of noise, vibration, flicker effect, and diminished property values. Students will then learn about basic corporations and contract law as it relates to the structuring and financing of a wind project. Students learn the basic forms of financing and ensuring a project including PPAs, VPPAs and hedges. The course then moves on to contracts including landowner leases and EPCs (Engineering, Procurement and Construction Contracts). Students also learn about environmental health and safety issues and regulations in the industry and how they affect development and operation of wind projects. A module focuses on federal wildlife regulations and treaties impacting development. Additional topics covered include Decommissioning, Repower, and Department of Defense, Tribal Lands, and Federal issues in wind energy development. Finally, we cover the state of regulation and policy in offshore wind development in the U.S. and as this relates to the industry as a whole.

At the beginning of the course the students choose an address in the United States and use that address as a proposed project site to complete assignments throughout the course.

The course is broken into the following learning modules with corresponding assignments as follows:

1. The Basics – An overview of the American legal system and the federal and state laws related to energy development and policy.
Real Property Law – Deeds, ownership, title, rights, easements, covenants, zoning, wake effects;
Case law discussions and briefs; Addresses chosen and zoning memorandum completed

(students use their address to search the zoning designation and local zoning regulations as related to a wind project)

2. Nuisance and Trespass – The legal principles of nuisance and trespass are covered with a focus on nuisance case studies for existing wind projects. Case briefs and discussion regarding nuisance complaints in wind energy.
3. FAA, FCC and Wildlife Issues – FAA, FCC and federal and state regulations relating to wildlife are covered. Assignments include using the address to complete an actual FAA Notice of Proposed Construction or Alteration and a comprehensive memorandum on wildlife issues found in their address location, including mitigation and habitat conservation discussions.
4. Business and Contracts – A look at the business contracts and entities in the industry. First Case Study of Pahnamid Wind Project.
5. Environmental Health and Safety – OSHA regulations and trends in EHS in the industry. Case studies on EHS issues.
6. Other Issues – Military, Tribal Land, and Federal Land. Case Study: Humboldt Wind Project.
7. Offshore Wind – Current Policy and Regulations, Leases, BOEM. Case Study: Vineyard Wind Project.
8. Policy – The PTC and ITC and state regulatory trends will be covered.

Learning Outcomes:

The following list contains the learning outcomes for the course. As a graduate-level course covering a very broad topic, many outcomes are anticipated.

- 1) an understanding of the breadth of legal and regulatory topics necessary to understand wind energy development and operations
- 2) an understanding of the key terms and concepts used in the wind industry
- 3) an ability to identify and describe the main federal regulations relating to the wind industry
- 4) an understanding of the impact of wind energy in a global/societal context; in this case how WECs fit into societies energy needs and clean energy solutions
- 5) an ability to apply legal principles to wind energy development projects
- 6) an ability to identify and research real property concepts related to wind energy projects
- 7) an ability to identify, formulate and solve problems related to wind energy project development
- 8) a recognition of the need for and an ability to engage in life-long learning, as related to sustainable energy and wind energy
- 9) a knowledge of contemporary issues related to wind energy
- 10) an ability to use analytical thinking skills to research and interpret laws, regulations and precedents as applied to the wind industry
- 11) an ability to communicate effectively in the form of written memoranda and reports on legal topics

Topics:

Introduction; Basic Legal Concepts and Policies
Real Property Law and Principles
Nuisance Complaints
FAA and FCC Airspace Regulations
Wildlife Regulations
Corporations Law
Contracts Law and Relevant Contracts (Includes PPAs, VPPAs, hedges, EPCs, etc.)
EHS and OSHA

Military and DoD Issues
Native American and Tribal Land Considerations
Repower and Decommissioning
Microgrids and Community Wind/COOPs, Storage
Offshore Wind
FERC, PTC & ITC Basics
State Regulations and Trends

Assessment:

Students will be assessed via the traditional measures: performance on homework, exams and project-related work. The exact method of assessment will depend upon the faculty instruction the course. For the bulk of the assessment, some instructors may use homework and exams, and others projects and applied problems.