

## Syllabus

### **Clean Transportation Law & Policy**

The Environmental Law Center, Vermont Law School  
Summer Session 2021, Term 4, ENV5425

### **Course Location & Schedule**

All classes will be held on Microsoft Teams. [Click this link](#) to access our Teams page.

This course consists of eight three-hour sessions. We will meet Monday through Thursday from 9:00 AM – 12:00 PM eastern each day. Our class begins on Monday, July 26<sup>th</sup> and concludes on Thursday, August 5<sup>th</sup>. There is no class on Fridays.

### **Instructor & Office Hours**

Joe Halso  
Staff Attorney  
Sierra Club Environmental Law Program  
[joe.halso@sierraclub.org](mailto:joe.halso@sierraclub.org) (please include “ENV 5425” in the email subject line)

I will hold open office hours each day for 15 minutes after class and again from 4:15-5:00 PM eastern via Teams, with one exception: on Monday, August 2, I will hold office hours from 2:15-3:00 PM eastern. I am also happy to meet by appointment.

### **Course Overview**

Clean Transportation Law & Policy is a two-week, two-credit course.

Transportation is the leading source of climate pollution in the United States. This course is focused on the key strategy to reduce those harmful emissions and stabilize our climate: electrifying our cars, trucks, buses and pretty much everything else that moves. We’ll look at a wide range of policy levers that can be pulled to support transportation electrification, from longstanding (but evolving) approaches like standards for tailpipe emissions and fuel economy to new policy ideas like banning gas cars, electrifying Lyft and Uber, and the Transportation Climate Initiative, a regional cap-and-invest concept. We’ll also closely examine the role of electric utilities and how electric vehicles can (and must) support a smarter, cleaner, more efficient electricity grid.

### **Course Objectives**

To have students understand:

- The need to electrify our transportation system and how we can maximize the benefits of that transition;

- The key federal, regional and state policy approaches to accelerate transportation electrification and reduce vehicle emissions;
- How to identify and analyze legal and policy issues in the transportation policy space; and
- The opportunities and challenges at the intersection of the transportation and electricity sectors for various stakeholders, and the interests and motivations of those stakeholders.

### **Course Requirements and Grading**

Our class sessions will be organized around lectures, discussion, and in-class exercises. We will also host several guest speakers.

Preparation for, attendance at, and active participation in every class session is expected. Please read the assigned readings for each class in advance of that class. I will assign students to be called on for each day.

Grades will be determined by class participation (20%), homework to be assigned in class (15%), a class presentation to be assigned on the first day (25%), and a take-home final exam (40%).

The take-home final exam will be made available on Friday, August 6<sup>th</sup> and must be completed by 12:00 PM ET on Monday, August 9<sup>th</sup>. Additional details will be provided in class.

### **Reading Materials**

All reading materials are available on the [Microsoft Teams site](#). There is no textbook.

*Please pay close attention to the reading assignments.* In many cases I have assigned specific sections for you to read rather than an entire document. The readings are meant to be completed in the order listed for each class session.

### **Making the most of our virtual classroom**

1. Please be kind and patient with one another in our virtual classroom.
2. Class participation.
  - a. Please keep your **video** on at all times.
  - b. Please keep your **microphone muted** unless called on.
  - c. Please use the **hand raise** function if you have a question. Once you've been called on and asked your question, please put your hand down and mute your microphone.
  - d. Please use the **chat function only for questions** or if I've invited comments.

## Class-by-Class Overview and Reading Assignments

### Week 1

#### Class #1 (Monday, July 26)

##### *Setting the stage: transportation and the grid*

Our first class will focus on our transportation pollution problem, the need to electrify, and the potential for electric vehicles (EVs) to support a cleaner and smarter grid. We will talk about market for EVs and EV charging infrastructure, the grid services that EVs can provide through successful “vehicle-grid integration,” as well as the challenges that may stand in the way. I will also assign the class presentation.

#### Readings for Class #1

##### *Transportation pollution and the need to electrify...or not*

David Vox, “The Key to Tackling Climate Change: Electrify Everything,” Vox (October 27, 2017).

Jonathan Lesser, “Are electric cars worse for the environment?,” Politico (May 15, 2018).

##### *The Electric Vehicle (EV) and EV charging markets*

Bloomberg New Energy Finance, *Electric Vehicle Outlook 2021: Executive Summary* (June 2021).

##### *Vehicle-Grid Integration*

Illinois Citizens Utility Board, *The ABCs of EVs: A Guide for Policy Makers and Consumer Advocates* (April 2017), **please read pages 3-4, 18-22.**

Rocky Mountain Institute, *Driving Integration: Regulatory Responses to Electric Vehicle Growth* (2016), **please read pages 14-21.**

**Class #2 (Tuesday, July 27)**

*Roles for electric utilities and their regulators, Part I*

In our second class we'll cover state utility commissions, traditional cost of service regulation, and how EVs fit into the utility regulatory picture. We'll talk about regulation of EV charging services, possible justifications for electric utility investment in charging stations, and how regulators have chosen to judge and guide those investments under different states' laws and policies.

Readings for Class #2

*The utility business model and EVs: traditional utility incentives*

Travis Kavulla, Excerpt from “There Is No Free Market for Electricity: Can There Ever Be?,” American Affairs (May 20, 2017).

*Weighing the regulator and utility roles in transportation electrification*

Illinois Citizens Utility Board, *The ABCs of EVs: A Guide for Policy Makers and Consumer Advocates* (April 2017), **please read pages 6-8 and 24-28 (beginning with section titled “Jurisdictions are Beginning to Authorize Customer-Funded Charge Stations”)**.

*Defining the roles for regulators and utilities (among others)*

*Declaratory Ruling on Jurisdiction Over Publicly Available Electric Vehicle Charging Stations*, Case 13-E-0199, In the Matter of Electric Vehicle Policies (filed November 22, 2013), New York Public Service Commission.

Excerpts from *Orders* issued by the Massachusetts Department of Public Utilities and the Minnesota Public Utilities Commission and from Colorado Senate Bill 19-077 and California Senate Bill 350. **(combined as single PDF—please read all pages)**.

*Electricity rate design for transportation electrification*

**Please re-read and closely review pages 18-22** of Illinois Citizens Utility Board, *The ABCs of EVs: A Guide for Policy Makers and Consumer Advocates* (April 2017).

**Class #3 (Wednesday, July 28)**

*Roles for electric utilities and their regulators, Part II*

Our third class will focus on various types of utility-driven EV programs, principles for effective program design, and how we might use performance-based incentives to ensure programs are effective. We will also consider the perspectives of various interested stakeholders. During the first hour, we will be joined by the former Chair of the Minnesota Public Utilities Commission to discuss the Commission's work related to transportation electrification during his tenure.

Readings for Class #3

*Designing utility-driven electric vehicle programs*

Natural Resources Defense Council, *Guiding Principles for Utility Programs to Accelerate Transportation Electrification* (August 2017).

Sierra Club, Excerpt from *Comments* submitted to the Wisconsin Public Service Commission (May 2019).

Union of Concerned Scientists, *Electric Utility Investment in Truck and Bus Charging* (April 2019).

*Finding consensus*

*Joint Statement Supporting Electric Transportation* of EEI, Illinois Citizens Utility Board, National Consumer Law Center, NRDC, and Sierra Club

*The utility business model and EVs, Part II: performance-based ratemaking*

Regulatory Assistance Project, Excerpt from “Innovative Ratemaking and Rate Design,” by David Littell at the Keystone Energy Alliance 7<sup>th</sup> Annual Conference (October 2017).

**Class #4 (Thursday, July 29)**

*“Cooperative” federalism: tailpipe emissions and fuel economy standards*

Our fourth class will examine the shared role of federal agencies and California in the regulation of tailpipe emissions. We’ll review that complex regulatory scheme, including policymaking efforts by the Obama, Trump, and Biden administrations. We’ll also talk about the legal and policy issues faced by states that wish to adopt California’s more stringent tailpipe emissions standards. At the end of class, we’ll be joined by an EarthJustice attorney who has been closely engaged on the work to halt the Trump Administration’s efforts to rollback federal emissions standards and to strip California of its unique authority.

Readings for Class #4

Brief of State and Local Government Petitioners and Public Interest Petitioners, *Union of Concerned Scientists et al. vs. National Highway Traffic Administration*, Court of Appeals for the D.C. Circuit (No. 19-1230), **please read pages 1-26.**

Coral Davenport, “U.S. to Announce Rollback of Auto Pollution Rules, a Key Effort to Fight Climate Change,” *The New York Times* (March 30, 2020).

Clean Air Act, Section 177.

Clean Cars Minnesota Rulemaking Background, Minnesota Pollution Control Agency, **please just skim this reading.**

Week 2

**Class #5 (Monday, August 2)**

*“Cooperative federalism” part II; the enforcement of emissions standards; and targeting another major player: fuel producers*

During our fifth class, we’ll round out our discussion of the regulation of vehicle emissions by the federal government and California, focusing on what the Biden Administration and California’s Air Resources Board are working on right now. We’ll also talk about the enforcement of emissions standards through the lens of the Volkswagen “diesel-gate” scandal and then move on from the regulation of automakers to the regulation of fuel producers and will consider the policy and legal issues related to low carbon fuel standards.

Readings for Class #5

*The next generations of federal and California emission standards*

Coral Davenport, “Here’s How Biden Aims to Increase Electric Car Sales,” The New York Times (July 2, 2021), please

Union of Concerned Scientists, *California Takes the Next Step Towards Ensuring Cleaner Cars and Trucks* (May 7, 2021)

*Automaker Bad Behavior: The Volkswagen “Diesel-gate” scandal*

Sierra Club, Volkswagen Settlement Overview.

Comments of faith-based, environmental, energy, and citizen organizations on the Missouri Department of Natural Resources’ *Draft VW Mitigation Plan*.

*Low Carbon Fuel Standards*

*American Fuel & Petrochemical Manufacturers v. O’Keefe*, 903 F.3d 903 (9th Cir. 2018), **please read the majority opinion (pages 1-26).**

**Class #6 (Tuesday, August 3)**

*State goal setting, regional coordination, and gas taxes*

In our sixth class we'll discuss how state goal setting can move policy efforts forward, multiple regional coordination efforts, and the challenge of state gas taxes and funding our transportation infrastructure in an electric future.

Readings for Class #6

*State goal-setting and regional coordination*

Governor Jared Polis, Executive Order B-2019-002, "Supporting a Transition to Zero Emission Vehicles" (January, 2019).

Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding (July 13, 2020).

*The Transportation Climate Initiative*

Union of Concerned Scientists, *The Transportation and Climate Initiative, Explained* (December 17, 2019).

Maxine Joselow, "Climate policy for cars could hurt the poor, advocates say," E&E News (August 19, 2019).

Ashley Valentine, "'The Wrong Complexion For Protection.' How Race Shaped America's Roadways And Cities," NPR (July 5, 2020).

*State gas taxes*

National Governors' Association, *Planning for State Transportation Revenue in a Coming Era of Electric Vehicles* (February 2020), **please read Executive Summary.**



**Class #7 (Wednesday, August 4)**

*New and emerging regulatory approaches*

During this class we'll talk about the idea of banning gasoline-powered cars from a legal and policy perspective; new California policies to accelerate electrification of medium- and heavy-duty vehicles; and the climate challenge and electrification opportunity posed by ride-hailing companies like Uber and Lyft.

Readings for Class #7

*Gasoline bans and EV mandates*

Matthew N. Metz and Janelle London, *State Vehicle Electrification Mandates*, EVS33 (June 2020).

*Clean Trucks and Transit*

California Air Resources Board, *Innovative Clean Transit Rule factsheet*

California Air Resources Board, *Advanced Clean Truck Rule factsheet*

*Electrifying Ride-Hailing*

Union of Concerned Scientists, *Ride-Hailing is a Problem for the Climate. Here's Why*.

Simi Rose George, *Electrifying Ride-Sourcing Sector in California*, California Public Utilities Commission, **please read pages 31-36**.

**Class #8 (Thursday, August 5)**

*“What’s next?”*

During the first hour of our final class, we’ll talk about where transportation policy may be headed, using the COVID-19 pandemic, a very recent California policy effort to tackle “indirect sources” of pollution, and disruptive technology as frames for our discussion. The remainder of the class will be spent on class presentations. Finally, we’ll discuss the take-home final exam.

Readings for Class #8

*The COVID-19 pandemic and transportation*

Somini Sengupta and Brad Plumer, “How Cities Are Trying to Avert Gridlock After Coronavirus Lockdowns,” *The New York Times* (June 26, 2020).

*New state regulatory efforts: targeting “indirect sources” of transportation pollution*

National Law Review, *ISR Rule South Coast AQMD Adopts Warehouse Indirect Source Rule, First Reporting Months Away* (May 18, 2021).

*Disruptive technology*

General Motors, *Why All Autonomous Vehicles Should Be Electric Vehicles*.

Rocky Mountain Institute, *Executive Summary of “Peak Car Ownership: The Market Opportunity of Electric Automated Mobility Services”* (2016), **please skim each of the eight “key findings.”**