

RESEARCH AGENDA

My research examines how to regulate private firms that exercise power over essential public infrastructure. Focusing on regulated utilities, I examine how existing legal frameworks and institutional designs have given incumbent firms the power to erect anticompetitive barriers to entry within grid planning processes and regulations; empowered them to shift risk onto captive ratepayers; and delay the infrastructure investments needed to enable a green energy transition.

In order to holistically investigate the challenges facing our contemporary electric grid, my work leans on administrative law, environmental law, antitrust, bankruptcy, and torts, in addition to energy law. Writing within the law and economics tradition, I seek to understand how legal rules and organizational governance mechanics shape the incentives that drive energy markets.

Broadly, my research agenda is divided into three core subject areas: (1) limitations of the regulated utility model; (2) transmission governance and regional grid infrastructure planning; and (3) legal mechanisms underlying the green energy transition.

1. Controlling the Regulated Utility

The first branch of my research agenda looks to the enduring challenge of regulating public utilities. I explore how the specific characteristics of the utility as a regulated monopoly challenge canonical assumptions in other legal frameworks meant to govern firms, including those of corporate law, antitrust, torts, and bankruptcy.

My job market paper—*The New Vertically Integrated Utility*—looks at the challenges posed by a new phenomenon in the electricity markets: integration between a regulated utility and a downstream large-load utility customer. The article makes two contributions. First, it shows that utility regulators are well-equipped to police decisions directly involving rates, but struggle to evaluate utilities' business judgments. This allows vertically integrated utilities to transfer value from captive ratepayers to their downstream affiliates under the guise of regular business decisions, which regulators will defer to. Second, the article discusses how antitrust doctrine covering mergers between a regulated monopoly and an unregulated downstream affiliate suffers from a similar focus on rates and prices. Under the current approach, utilities can exercise market power under the guise of regular business decisions without attracting antitrust scrutiny. The article discusses a set of regulatory reforms that could blunt the threat of this emerging form of vertical integration.

Future work in this area will examine other areas where the regulated nature of a utility resists straightforward applications of legal doctrines. A first paper, *Rate-Basing Government*, investigates the growing phenomenon of funding social programs and government policies by tapping utilities' rate bases. State legislatures charge public utility commissions with instituting programs that are ultimately funded by captive ratepayers, and that reflect legislative priorities.

The article will trace how this is a rational response to a stilted political process wherein raising tax revenue has become more difficult. Utilities' rate bases offer a guaranteed source of revenue that can be tapped by legislators without incurring the political cost that comes with raising taxes. This has led utility ratepayers to fund programs without a clear connection to utility service. In Illinois, for example, ratepayers were asked to fund job training programs in correctional facilities. The article will examine how this practice can destabilize democratic governance over time and lead to a more regressive way of funding public programs. To do so, it will systematically survey legislative mandates and state public utility commission proceedings instituting said programs to identify the scope of the issue. The article will provide a set of recommendations to prevent democratic backsliding by way of rate-basing public programs.

A second article, *Deterring the Regulated Monopoly*, will trace the limitations of torts doctrine in the context of regulated utilities through the lens of liability for utility-caused wildfires in California. The paper will examine whether strict liability—in the form of California's inverse condemnation doctrine—and negligence regimes create efficient levels of deterrence where regulated utilities are concerned. Because regulated utilities do not pass along all losses to shareholders, expected deterrence from liability regimes will differ from that seen in traditional firms. The article will argue that liability standards should be adapted to this context, and will build on findings from a policy report I prepared during my time at UCLA to do so.

Over the longer term, I plan to investigate how bankruptcy law interacts with regulated utilities. In a bankruptcy proceeding involving a regulated utility, the bankruptcy court cannot dictate future rates the utility will charge so as to be able to fund its reorganization plan. This increases risks for creditors, who know *ex ante* that the bankruptcy process provides relatively fewer remedies for utility creditors. In turn, these creditors require higher rates of return on debt, which translates to higher costs for regular ratepayers. In bankruptcy, the claims of senior debtors may also interfere with utility commissions' ability to oversee utility behavior. I plan to explore how bankruptcy law may need to be restructured to account for the unique difficulties a regulated utility bankruptcy poses, and to generate tangible rate savings for consumers.

2. Transmission Governance and Regional Grid Infrastructure Planning

To date, the electric industry has failed to develop transmission at either the pace or the scale needed to enable a transition towards lower-cost renewables and to support load growth driven by electrification and artificial intelligence. The way transmission planning is organized is partially to blame for this. My research has looked to the design of institutions meant to govern grid planning processes, and how that design has inadvertently stifled infrastructure development and created barriers to entry for competition. The two articles I co-authored with Joshua Macey—*Towards a National Transmission Planning Authority* and *Utility Filing Rights and the Grid's Governance Problem*—explored the reasons behind this failure.

My own article, *Lessons from a National Transmission Planner*, asked whether a centralized transmission planning entity could solve the problems I identified in earlier work. The article looked to the country of Japan to better understand the potential of a national transmission planning entity. I examined why Japan's Organization for Cross-regional Coordination of Transmission Operators, or OCCTO, had paradoxically heightened incumbent control over the grid. The article examines persistent information asymmetries between utilities and their regulators, which forces regulators to rely on incumbents for infrastructure planning.

Moving forward, my research will turn to the threat of exit in American regional transmission organizations as a source of leverage in negotiations over governance rules. A planned future article, *The Limits of Delegated Grid Governance*, will examine how the credible threat of exit functions as an effective veto power held by utilities that can be leveraged during planning or governance disputes. The project will develop the claim that voluntary membership organizations cannot credibly serve as alternatives to regulation when its constituent members supply assets crucial to the organization's operation and retain the ability to exit. Using regional transmission organizations as a case study, the project will systematically investigate how the threat of exit has been wielded to obstruct proposals that challenge incumbent power. The project will review which reforms could allow the regional transmission organizations that govern our transmission grid to successfully attain their goal of facilitating open access for power generators while the threat of exit remains. It will review the potential of reforms such as parallel filing rights, exit penalties, state regulation requiring membership, and financial incentives for member utilities.

3. Legal Mechanisms Underlying the Green Energy Transition

My third research area addresses the legal mechanisms involved in driving the transition away from fossil fuels and towards renewable, decentralized generation assets. This includes investigating the legal complexities of decommissioning legacy fossil fuel infrastructure. My research in this area will continue policy work I've engaged with during my time at UCLA.

A planned article, tentatively titled *The Freedom to Serve*, seeks to deconstruct the traditional understanding of a utility's "obligation to serve," which functions as a bottleneck to the energy transition. The obligation to serve ostensibly dictates that a utility must serve all customers within its territory who want service. Gas utilities have leveraged that obligation to serve as a shield against zonal system decommissioning, arguing that future customers may wish to reconnect to the gas grid, and that utilities would be forced to oblige. This paper will trace how the obligation to serve developed as a legal construct, tracing its history back to early public utility regulation. Based on a systematic review of the legislative history behind the obligation to serve, the paper will determine whether gas utilities' understanding of the obligation to serve is in line with the historical understanding of the concept. The paper will propose a renewed understanding of the obligation to serve that allows for zonal gas decommissioning.