Research Opportunity: Hydrogen Decarbonization Policy & Utility Regulation

Location: Remote

Modern Hydrogen: Modern Hydrogen is a Seattle-based climate technology startup. We remove carbon from and eliminate emissions associated with one of the most prevalent fuels in the world: natural gas. With over $100MM in venture capital raised from world-renowned investors, including Bill Gates, to advance our vision, we are seeking best-in-class talent to accelerate our impact. The race to decarbonize our energy systems is on, and our technology has enormous potential to decarbonize hard-to-abate sectors of the economy.

Project Overview: We are seeking a highly motivated graduate student to collaborate on a research project exploring specific regulatory challenges blocking the adoption and/or deployment of emissions-reducing technologies. The research will focus on the historical role of local gas utilities (also known as "local distribution companies" or "LDCs"), state public utility commissions (PUCs), and the largest energy users in our economy: Commercial and Industrial (C&I) customers.

Thesis: To accelerate decarbonization and reduce emissions from Commercial and Industrial manufacturing, LDCs should be authorized to supply/support/service/underwrite customer-specific decarbonization projects that involve removing carbon from natural gas prior to combustion. If these projects are customer-requested, are not eligible for rate-base treatment, and if the customer wants their utility's help to own/operate/finance, then utilities should be able to help and participate in the business and recover associated customer-specific costs

Research Objectives:

- Identify the gaps between C&I entities and their own corporate decarbonization objectives, versus their internal limitations/tolerances including financial risk (ability to take on CAPEX), technology risk; operations risk; time to align internal stakeholders, etc.
- Identify the gaps between the scopes of work that LDCs are authorized to pursue, versus the political decarbonization objectives of their respective service territories, authorized tariff pathways and cost recovery models, internal limitations/tolerances including financial risk (appetite for CAPEX), technology risk; operations risk; time to align internal stakeholders, ability to deploy capital, etc.
- Identify limitations of decarbonization options for C&I operations and associated time/capital constraints.
- Assess potential policy frameworks that could enable utilities to support private sector decarbonization efforts using on-site clean hydrogen production from natural gas, within current regulatory structures.

Key Responsibilities:

- Conduct a literature review, including analysis of the *Legal Pathways to Deep Decarbonization in the United States* and related academic/policy work.

- Engage with faculty, experts, and stakeholders in energy policy and regulation.
- Interview Modern Hydrogen staff in technology applications
- Draft a research report or policy brief summarizing key findings and potential recommendations.
- Support in structuring insights into a co-authored white paper or equivalent research output.

Qualifications:

- Enrolled in a graduate program at Law School or the School of the Environment.
- Strong background or interest in energy policy, environmental law, or regulatory affairs.
- Excellent research, writing, and analytical skills.
- Ability to work independently while engaging with an advisory team.

Application Process: Interested candidates should submit a CV and a brief statement of interest—no more than three paragraphs—outlining relevant experience and motivation for the role. Applications will be reviewed on a rolling basis.

For inquiries or to submit applications, please contact Felipe Amaya at felipe.amaya@modernhydrogen.com