EFG Experience with Energy Transition Issues

Decarbonization Pathways Studies

- EFG has led or played major roles in the conduct of several decarbonization studies
 - Massachusetts 2050 Decarbonization Roadmap. EFG was part of the Cadmus team that analyzed economy-wide decarbonization pathways for the state's Executive Office of Energy and Environmental Affairs.
 - Vermont Pathways Analysis Report. EFG was part of Cadmus team that analyzed economy-wide decarbonization pathways for the Vermont Agency of Natural Resources and the Vermont Climate Council. EFG led the buildings/thermal sector work.
 - Vermont Thermal Sector Decarbonization Analysis. EFG led a study for the Vermont
 Agency of Natural Resources to assess the emission reduction, cost, and other trade-offs
 between different policy approaches to decarbonizing buildings and industry in the
 state.
 - Delaware Comprehensive Energy Plan. EFG conducted scenario analysis of decarbonization pathways for the Delaware Department of Natural Resources and Environmental Control.
- EFG has helped clients critically review decarbonization studies performed by other parties, particularly those sponsored by gas utilities.
 - Illinois Future of Gas Proceedings: EFG is supporting Natural Resources Defense Council
 in the multi-year, multi-stakeholder, Future of Gas workshops convened by the Illinois
 Commerce Commission.
 - Massachusetts Gas Utilities Study: EFG helped Sierra Club participate in a year-long utility-stakeholder collaborative process for assessing and modeling options for decarbonization. This included drafting numerous comments on the utilities' consultants' proposed analysis scenarios, draft modeling assumptions, and draft reports.
 - Assessment of Common Biases in Gas Utility Decarbonization Studies. EFG helped the Natural Resources Defense Council review and critique numerous gas industry-funded decarbonization studies across a range of different U.S. states.

Renewable Gas Potential

• EFG was part of a consultant team that critiqued a Michigan RNG potential study on behalf of the Natural Resources Defense Council.

Building Decarbonization Policy and Economics

- Vermont Clean Heat Standard. EFG Principal Chris Neme was one of two authors of the
 Vermont Energy Action Network's 2021 white paper on the concept of a Clean Heat Standard,
 which was born out of a nearly year-long multi-stakeholder working group that Chris also co-led
 (and included the CEO of Vermont Gas). The concept was subsequently adopted in the
 Affordable Heat Act legislation. The legislation requires rulemaking and an impact report to the
 legislature, now underway, prior to enactment.
- Other Vermont climate policy whitepapers. EFG co-led the development of a "Weatherization at Scale" proposal which followed a year of work by a multi-stakeholder working group.

- Support for Consumer Decision Making (Canada): EFG is conducting a review and comparative analysis of online calculators that support consumer decision making and home heating and cooling choices for a court proceeding in Canada.
- Michigan Healthy Climate Plan. EFG Principal Chris Neme represented the Natural Resources
 Defense Council (NRDC) in a couple of working groups organized by the state's Department of
 Environment, Great Lakes and Energy to develop a state climate plan.
- Illinois Climate Legislation. EFG has supported NRDC in developing legislative policy proposals for advancing decarbonization in the state.
- Customer Economics of Electrification in Chicago. EFG published a report analyzing the
 economics and greenhouse gas emission impacts of residential electrification in Chicago. The
 analysis was based on current and forecast future retail energy prices for gas and electricity;
 capital costs of heat pumps, heat pump water heaters and other electric and gas appliances;
 current average gas consumption by end use; performance of high efficiency gas and electric
 equipment; and various other factors.

Regulatory Testimony

- White Paper on shorter-term Depreciation of new gas infrastructure investments (Rhode Island). EFG drafted a white paper which the Conservation Law Foundation filed with the Rhode Island Public Utilities Commission on the merits of shorter-term (e.g. 20 years) amortization of new gas utility investments to reduce risk of stranded assets in the context of evolving climate policies.
- Liquid Natural Gas Vaporization Project (Rhode Island). EFG filed testimonies on behalf of Conservation Law Foundation with the Rhode Island Public Utilities Commission, and Energy Facilities Siting Board critiquing the need for a permanent LNG vaporization plant to serve Aquidneck Island.
- Gas Line Extension Allowances (Massachusetts). EFG filed comments on behalf of the Environmental Defense Fund critiquing gas company proposals for line extension allowances in Massachusetts DPU 20-80B.
- **Nicor Gas RNG Pilots (Illinois)**. EFG filed testimony on behalf of the Environmental Defense Fund in opposition to proposed RNG pilot projects.
- Northwest gas pipeline (FERC). EFG drafted a report filed with the U.S. Federal Energy
 Regulatory Commission, on behalf of the Washington state Attorney General, on the lack of
 demonstrated need for and adverse environmental consequences of a proposed expansion of
 an interstate gas pipeline by Gas Transition Northwest (GTN).
- Illinois and Michigan electrification programs. EFG has supported in testimony and then from a technical and programmatic perspective the development of residential electrification programs, funded initially through energy efficiency programs, and more recently through rate cases. The testimony analyzed the customer economics and electric rate impacts of such programs.
- Fortis BC RNG purchases to offset emissions from new construction of gas heated homes. EFG
 was hired by the BC Sustainable Energy Association to critique a Fortis proposal to meet
 provincial requirements for net zero emission new construction by contracting for the amount
 of RNG any new gas homes would consume and socializing the cost of such purchases across all
 gas customers.