Beyond Methane Gas

Methane gas is driving up energy bills and represents a major financial, health, safety, and climate risk to the Commonwealth.

What is Natural Gas

"Natural" gas is a fossil fuel composed primarily of methane, drilled to the surface from deep underground by a process known as hydraulic fracturing or "fracking" in shale rock.

Fracked shale gas is flammable and explosive. Methane's most significant impact is on the atmosphere Over a ten-year period, it has one hundred times the power of carbon dioxide to trap heat and accelerate climate disruption.[1]

Gas Utility Spending is Driving Massachusetts Off a Financial Cliff

Despite cost-effective clean energy alternatives that can help Massachusetts meet its climate goals, gas utilities continue to plow ahead with projects to build new large gas pipelines (more than one mile in length and 100 psi in capacity). Since 2021, Eversource has sought to build 5.3 miles of redundant methane gas pipelines from Longmeadow to Springfield – costing gas customers $33 million in additional costs and a total price tag of $65 million.
From 2021-2023, gas utilities collectively forecasted approximately 72,000 new customers and continue to project an unrealistic 2% annual growth rate. These projections are then used to justify even larger interstate gas pipeline expansions like the proposed Project Maple.

Too often, new energy siting is placed in overburdened, low-income communities of color. As long as Massachusetts continues to encourage the expansion of the gas system, a shrinking base of Massachusetts gas customers—and potentially taxpayers writ large—will be on the hook to pay for these reckless capital expenditures at a time when the market is shifting toward highly efficient heat pumps and networked geothermal.

The Baker adminstration's Commission on Clean Heat Report states "investments that would support new or increased natural gas infrastructure or capacity should instead be deployed to advance measures that help support the net zero future." And yet, in two recent proposals in Longmeadow-Springfield and Douglas, Eversource never seriously considered non-pipe alternatives. In Springfield, which has some of the highest rates of asthma in Massachusetts, residents should be given opportunities to upgrade to cleaner, more efficient alternatives rather than locking in further fossil fuel use.

Now, the Healey adminstration's DPU has made it clear that we should only consider proposals seriously considering non-pipe alternatives. Still, it continues to be obligated to spend resources considering pipe proposals.

1. Methane Emissions from the Production and Use of Natural Gas (Howarth, Cornell University, 2022)

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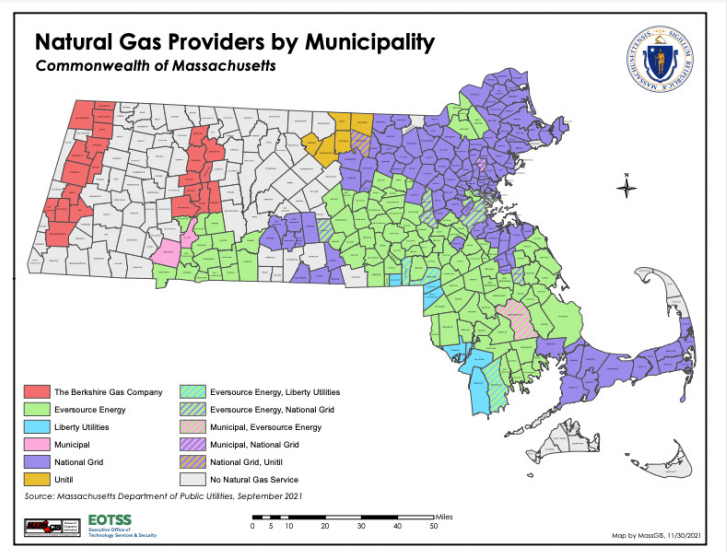

Source: Massachusetts Department of Energy Resources.

Massachusetts's $34 Billion Boondoggle

Under the Gas System Enhancement Plan (GSEP), created in 2014, gas utilities are on track to rack up more than $34 billion to replace aging methane pipes through 2039, charged to gas customers in the form of increasing fixed monthly charges.

Not only are Massachusetts gas customers facing higher bills today to cover the cost of this spending, but will see their monthly bills double in the next 10 years if state leaders fail to intervene. Beyond the cost of maintaining Massachusetts aging gas pipelines, the era of cheap natural gas in Massachusetts is in the past. Since 2016, the price of gas has increased 82% in Massachusetts.

There are more cost-effective approaches to mitigating risks from Massachusetts's gas system, including repairing gas pipes instead of replacing them and strategically downsizing leaky parts of the gas system in favor of highly efficient electric alternatives.

Gas explosion in Merrimack Valley
Credit: National Transportation Safety Board

Health Impacts of Gas

Burning methane gas in our homes is a major source of health-harming air pollution. Fossil fuel heating equipment emits nitrogen oxides, a common air pollutant that not only harms health directly, but can contribute to the formation of deadly fine particulate matter ($PM_{2.5}$) and ozone pollution. In 2022, researchers at Harvard University's School of Public Health found benzene, a cancer causing chemical, leaking from gas stoves in the Boston area even when the appliances were turned off.

According to a peer-reviewed study, gas stove use is responsible for 15.4% of childhood asthma cases in the Bay State, and children living in homes with gas cooking stoves have a 42% higher risk of current asthma. According to a Stanford study, gas stoves have been found to emit benzene, a carcinogen associated with leukemia, at levels higher than secondhand smoke. Nationally, communities of color are exposed to two times more PM2.5 pollution from gas appliances than white people.

Further, Massachusetts's sprawling gas system, one of the oldest in the nation, is responsible for substantial gas leaks. The 2018 gas explosions in the Merrimack Valley that displaced 30,000 people and killed a teenager resulted from an over-pressurized gas pipeline.

Heat Pumps Provide Efficient, Clean Heating & Cooling

Highly efficient heat pumps can provide affordable, reliable clean heating and cooling year round in Massachusetts. This electric equipment uses 29% less electricity compared to central ACs and remains two to three times more efficient than gas furnaces, even in Massachusetts's winter weather.

In 2023, Mass Save installed a record 23,000 heat pumps. Gov. Healey joined a commitment to quadruple the use of heat pumps in Massachusetts by 2030 and have heat pumps make up 65% of all HVAC sales by 2030, and 90% by 2040.

Massachusetts is at the forefront of policies to help upgrade communities with clean energy. Beyond Massachusetts's landmark 10-town Fossil Fuel Free Demonstration Program, municipalities representing 30% of the Commonwealth's residents have adopted the opt-in specialized stretch code in the first year and a half of implementation, which ensures new homes are electric-ready. In June 2024, Eversource unveiled the first utility-run networked geothermal pilot in the U.S. in Framingham, Mass. This geothermal network can reduce residents' energy bills by 20% and their emissions by 60%.

Massachusetts's Skilled Workforce is Critical to a Clean Energy Future

For generations, skilled workers have dedicated their careers to providing affordable, reliable heat to Massachusetts residents. As Massachusetts seeks to meet its climate goals, this skilled workforce will be critical to both safely decommissioning the gas system and upgrading residents to highly efficient clean equipment. In particular, as utilities invest in networked geothermal, which relies on much of the same engineering and maintenance principles as gas pipelines, Massachusetts can create a pipeline to family-sustaining clean energy careers. To ensure these are good jobs, we must allow workers to organize by requiring labor peace agreements for all supply chain work, applying prevailing wage laws for all workers in the energy transition, and require disclosure of hiring plans to ensure contracts are chosen based on who has the highest trained, diverse, and fairly-compensated workforce, not who can cut the most corners.

Across the U.S., labor leaders support policies to accelerate the adoption of networked geothermal, also known as thermal energy networks. Nationally, this includes SEIU, AFL-CIO, and the United Association.