METHANE

Danger To Our Climate and Health

Connecticut Must Stop Expanding this Potent Greenhouse Gas

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WHAT IS “NATURAL” GAS?

“Natural” gas is a gaseous 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.

This gas contains trace elements which include known carcinogenic chemicals used in the fracking slurry, and NORMS (naturally occurring radioactive materials) released by drilling miles below the earth’s crust. 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]

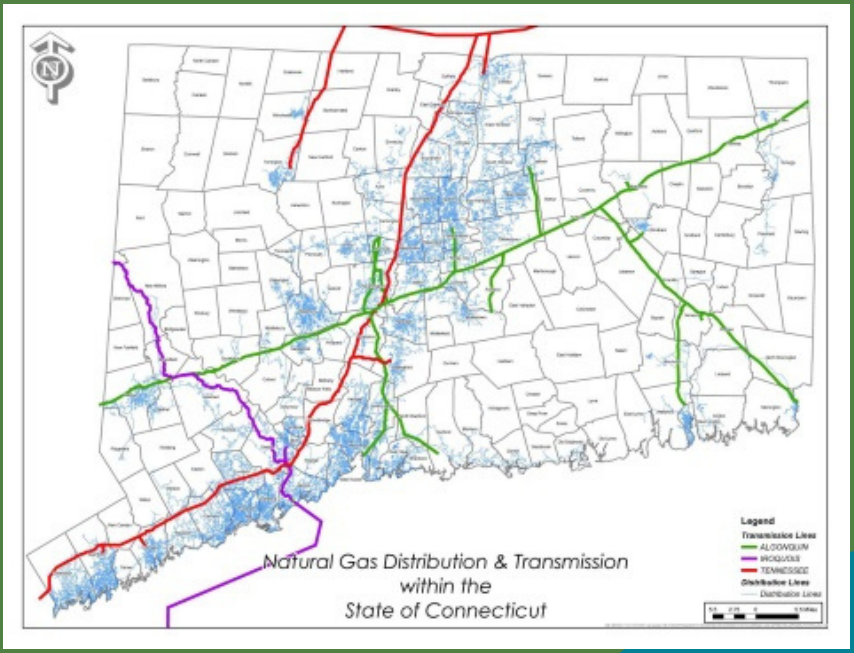
WHY IS GAS USE AND TRANSPORT INCREASING IN CT?

A decade ago, it was thought that new gas fracking technology would lead to cheap energy. The state of Connecticut gambled on this idea and encouraged a huge expansion of gas for use in energy production and home heating. In fact, laws were passed starting in 2012 that forced ratepayers to subsidize **intrastate** gas infrastructure expansion costs, even though the pipelines and other equipment are privately owned. The gas industry continues to suggest that bringing more gas to Connecticut is the only effective way to deal with summer and winter peaks.

While methane expansion has continued, energy prices in the state have skyrocketed. These increases can be attributed to: fees applied to ratepayer electric bills until 2023 to subsidize the methane build-out[2]; to price spikes related to the cost of natural gas which fluctuates greatly[3]; and to the energy monopolies' (Eversource and Avangrid/UI) ongoing demands for higher rates.[4]

CT is an energy exporter and energy generation is big business with highly paid and influential lobbyists who enjoy close relationships with many of the legislators.[5] Renewable industries, such as solar, do not have such a deep level of influence on legislators. Not surprisingly, this imbalance leads to a lack of understanding of the harms of methane expansion and prolongs the use of this climate destroying fuel.

WHERE IS FOSSIL GAS INFRASTRUCTURE EXPANDING IN CT?



Intrastate (Local) Pipelines

From 2012 to 2023, new local, or intrastate, pipelines were built across the state, connecting nearly 80,000 homes and businesses to methane as part of the now-terminated ratepayer-subsidized program.[6] Still today, new pipelines are being built in Wilton.[7]

It is difficult to know the locations of new intrastate methane pipelines as a 2016 state Supreme Court decision allowed DEEP to permit new pipelines with no environmental impact reports or inquiries of any kind, and without any public notification.[8]

Interstate (Regional) Pipelines

CT produces no natural gas so this fuel must be imported from other states. Three major pipelines service CT called the "Algonquin" (owned by Enbridge), the "Iroquois" (owned by BHE/TC Energy), and the Tennessee (owned by Kinder Morgan). [9]

In the last 10 years, CT endured three interstate methane expansion projects.

- Two enlargements of pipelines and associated infrastructure on the Enbridge (formerly Spectra) line that cuts CT from Danbury to Thompson called AIM and Atlantic Bridge
- Enlargement of the Kinder Morgan pipeline from Suffield to Granby called CT Expansion

At this time, two new gas expansions are proposed in CT.

- BHE/TC Energy plan to expand gas capacity on their pipeline that runs down Western CT into NYC in a project called Enhancement by Compression
- Enbridge plans to expand their pipeline and infrastructure for the Project Maple proposal, which would be the third expansion of the same pipeline in a decade

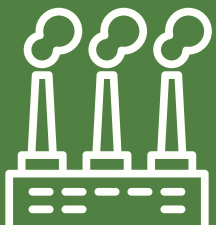
HOW IS FOSSIL GAS EXPANSION SUBSIDIZED?

Ratepayers have been paying to replace aging pipelines and repair leaking pipelines since 2014. Ratepayers also pay for leaked gas. Eversource and Avangrid/UI, the state's only gas/electric monopolies, estimate how much methane their pipelines leak and then charge ratepayers.[10]

Eversource and Avangrid/UI use ratepayer funds to advertise conversions to methane appliances.

From 2014 to 2023, ratepayers subsidized the gas pipeline buildout to convert customers to gas. That expansion program was terminated in 2023.[11]

CT passed a law in 2015 to force ratepayers to bear the cost of new interstate pipeline expansion but so far the law has not been used.[12] Other states such as Massachusetts refused to pass such laws.



WHAT ARE THE ECONOMIC AND HEALTH IMPACTS OF GAS EXPANSION?

Methane gas was regarded as a better alternative than oil for home heating and electric power, and it was believed that use of methane gas to power the electric grid would stabilize Connecticut's high energy prices. Both of these notions have been proven false. Methane use threatens the climate and is even worse than oil or coal due to fugitive emissions which can total 5% or higher[13], and fossil gas dependence has created spiraling energy prices for consumers.[14]

Electricity prices in CT are the fourth highest in the US. The state also has the fourth highest use of methane per customer nationwide.[15]Fossil fuel dependence drives economic volatility in energy prices. An internationally traded commodity, gas supply is susceptible to supply chain disruptions caused by war, pandemics, and other global events.

In the US, gas production is on the decline in some areas. Hydraulic fracturing involves exploding shale rock and capturing released gas and oil. It was invented as fossil fuels became harder to recover after shallow stores were depleted. Fracking increased the amount of domestically fracked fuels the U.S. produced from the early 2000s, but in 2022, despite drilling over 100 new wells, PA experienced declines in gas production. [16]

In Connecticut, emphasis on expanding fossil gas has accompanied action to stymie the development of clean energy such as rooftop and community solar which can lower energy costs for consumers. While the state has lowered some barriers to solar, CT still struggles to catch up to solar growth seen in nearly all of our neighboring New England states.[17]

Air pollution is a significant public health problem in Connecticut, increasing morbidity rates. An often-neglected source of air pollution is the burning of gas and other fossil fuels for heat, hot water and HVAC, which cumulatively produce a third of greenhouse gas emissions in the state, 23 percent of the NOx emissions, and dangerous fine particulate matter.[18]

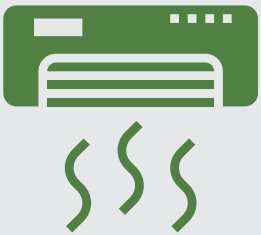
Recent research also points to public health concerns associated with the use of residential gas appliances and with living near compressor stations.[19, 20]

Essentially, there are negative health impacts associated with all aspects of gas production and use. As stated in the 2023 edition of the *Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure*, "The risks and harms of fracking for public health, the climate, and environmental justice are real and growing…The growing and substantial body of research reveals fundamental problems with the entire life cycle of operations associated with fracking and its infrastructure, which includes pipelines, LNG terminals, frack sand mining operations, and gas stoves inside homes." [21]

ARE THERE ALTERNATIVES TO FOSSIL GAS FOR POWER, HEATING, AND COOKING?

Switching to clean power and investing in efficiency measures for appliances and buildings are the only ways to ensure adequate and affordable energy for the future. Increasing energy efficiency is the most cost-effective way to reduce grid demand. CT must increase the support of energy efficiency programs. Solar, offshore wind, and battery storage can then provide the energy needed to power our lives. [22]

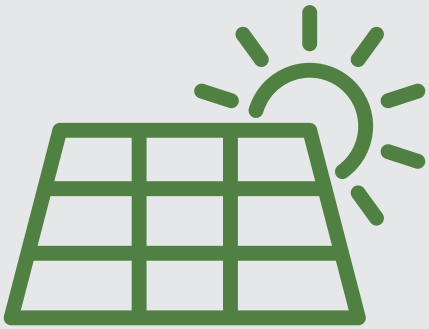
Increasing electrification has already shown benefits. Heat pumps and induction cooktops are much more efficient than their fossil fuel counterparts. Replacing a gas furnace with an electric heat pump in Connecticut can reduce greenhouse gas emissions by 27 percent in the first year and 51 percent over 15 years.[23] The state of Maine has made heat pumps a priority and proven that they work effectively in cold climates.[24]



Connecticut must build a new road map to a cleaner future. Possible steps include:

- Significantly increasing investment for energy efficiency upgrades in the tens of thousands of inefficient buildings already identified with an emphasis on residences of low income renters
- Accelerating the installation of clean, renewable energy, including: solar, battery storage, offshore wind
- Electrifying HVAC and appliances; setting goals for heat pumps and providing sufficient incentives and working more towards innovative solutions, such as networked geothermal
- Encouraging the switch to zero-emission vehicles, support public transit and Complete Streets efforts

Methane is a problem for CT's climate, health, and economy. We must transition to clean, renewable energy.



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