Natural Gas Mythbusters

Myth 1: Natural gas is "natural," and therefore clean. Truth: Gas is a dirty and dangerous fossil fuel that hurts the planet and our communities.

Some associate the “natural” in natural gas with clean energy, but this is deceiving. There is nothing clean about gas. While it is produced from decomposing plant and animal matter, it is still a dirty fossil fuel.

Gas is one of the leading causes of climate change and poses huge health and safety risks to our communities, especially working families and vulnerable communities including immigrants and refugees.

Some of the biggest dangers of gas include:

1. **Air pollution** poisoning our air and our communities. [x]
    - According to CalEnviroScreen 3.0., half of California’s gas-fired power plants are located in environmental justice communities. [x]
    - Burning gas releases harmful chemicals including nitrogen oxide (a precursor to smog), sulfur, and mercury. Exposure to these chemicals leads to higher rates of asthma, bronchitis, lung cancer, and heart disease. [x]
    - Drilling for gas increases the amount of hazardous air pollutants including two of the six “criteria pollutants” (particulate matter and ozone). Exposure to these pollutants leads to respiratory symptoms, cardiovascular disease, and cancer. [x, x]
    - Even as we integrate more renewables on the grid, air pollution can increase near gas-fired power plants due to frequently powering them on and off which can result in more nitrogen oxide emissions. [x]
2. **Pipeline explosions, gas leaks, and wildfires** resulting in property damage, injuries, and deaths.
    - From 2010 to 2016, gas companies reported 35 explosions and 32 ignitions at their transmission pipelines. [x]
    - In 2015, a blowout at the SoCalGas-operated Aliso Canyon Underground Gas Storage Facility released more than 109,000 metric tons of methane into the atmosphere over four months. It is considered to be the largest single-source release of methane in U.S. history. [x]

ALISO LEAK. SOURCE: PBS

3. **Greenhouse gas (GHG) emissions** which deepen the climate crisis
    - Gas releases large amounts of carbon emissions into the air which increases global warming. [x]
    - Switching from coal to gas for power generation does not substantially reduce GHG emissions. It might raise emissions by discouraging the use of renewable energy [x], and leaking methane, a gas that is about 30 times stronger than carbon at trapping heat over a 100-year period. [x]
4. **Water waste and contamination from toxic chemicals**
    - In California, 384,000 residents live in drought regions, and 543,000 more in abnormally dry areas. [x]
    - Gas often comes from fracking, a practice that contaminates water with benzene, lead, and methanol.
    - Energy companies used nearly 250 billion gallons of water to extract unconventional shale gas and oil from hydraulically fractured wells in the U.S. between 2005 and 2014. This poses risks to local water supplies, especially in drought-prone regions [x].
    - According to a study by Science Advances, the water use intensity for fracking and wastewater production in major shale gas and oil production regions has increased substantially (upto 770%) in recent years. [x] The EPA has also confirmed that groundwater has been polluted during various points of the fracking process. [x]

Myth #2: Gas is the necessary "bridge fuel" from coal to renewable energy. Truth: Our dependence on gas would cripple efforts to ensure a Just Transition to 100% clean energy.

> "NATURAL GAS IS A BRIDGE TO NOWHERE."
> **- Climate Reality Project** [x]

Some think gas is the necessary bridge to renewable energy. However, gas is a bridge to nowhere. We do not need to depend on gas in order to retire coal and other fossil fuels. It's possible to replace coal plants with renewables in the next decade. [x] A study by the Department of Energy's National Renewable Energy Laboratory has proved that 80 percent of U.S. electricity needs can already be met by renewable technologies that are commercially available today. By investing public money in smarter ways and utilizing technology, a 100 percent clean and renewable energy future is achievable by 2045.

On the flip side, gas dependence could cripple efforts for a Just Transition by reducing investment in clean and renewable energy. This would leave ratepayers spending more money on diminishing resources that would not be used past 2045. Clean energy is the best and only viable investment to make in the long-term.

Myth #3: Gas can become "carbon-free" with carbon capture and storage (CCS) technology. Truth: Carbon capture has failed, and we need to stop wasting time on it.

Some think the dangers of gas can be wiped away with carbon capture and storage (CCS), but this is not a silver bullet solution to the climate crisis. Not only have CCS projects largely failed in California despite millions of dollars in from ratepayers, [x] but adding CCS to gas-fired plants would make building them much more expensive, and less suitable to frequent up and down ramping of their power output. [x]

Even if CCS eventually succeeded and became less costly, this would not work for the removal of other pollutants released by gas. This means that vulnerable communities near gas wells and plants would still be affected by insurmountable air pollution.

We have proven technology today through clean energy resources. Let's stop wasting our time on impractical solutions that don't get us where the science tells us we need to be.

Myth #4: "Renewable natural gas" can help us reach a clean energy future. Truth: Renewable natural gas still poses risks to public health and is unsustainable. It is urgent that we get off all gas.

Recently, the gas industry has used the phrase "renewable natural gas" to describe biogas that has been processed and refined into biomethane. They say biomethane is clean, but it is not. This is simply a distraction to stall efforts toward a clean energy future.

Biomethane may be renewable, but it is not necessarily clean. It often comes from polluting sources — landfills, sewage treatment plants, and livestock manure — that put communities in danger. [x] The decomposition of manure, for instance, releases ammonia which leads to respiratory problems and higher risks of asthma. Fugitive methane emissions from biogas production and upgrading can also reduce the alleged benefits of biomethane. [x] In addition, the production of biomethane relies on abundant supplies of waste manure or crop materials, which are not available in all regions. [x]

Biomethane, furthermore, would not reduce our dependence on gas because the fuel potential of biomethane is extremely limited. It would only meet 3 percent of California's demand for natural gas. [x]