

GOALS OF NEW JERSEY & NEW YORK TO REDUCE GREENHOUSE GASES AND TRANSITION TO CLEAN, RENEWABLE ENERGY, AND THREATS FROM SEVERE WEATHER EVENTS

There was no analysis of predicted impacts from increased Greenhouse Gases and methane leaks and emissions as impacts from the NESE Project on the area.

- Even though FERC acknowledged that NESE would increase atmospheric concentrations of Greenhouse Gases (GHGs) & contribute to future climate change impacts, FERC avoided considering this fully by saying there's no widely-accepted standard to determine the significance of NESE's GHG emissions.
- However, under NEPA (the National Environmental Policy Act), FERC is required to provide "reasonable forecasting" of emissions, and a recent court ruling said FERC should quantify & consider downstream carbon emissions or explain, in detail, why they can't do so.
- Methane, the main component of natural gas, is 86–100 times more potent a greenhouse gas than CO₂ in the first 20 years it is in the atmosphere. This means that if just 3% of natural gas leaks from extraction to delivery, natural gas is worse than coal for the climate.
- Increases in Greenhouse Gases from NESE were acknowledged as real by FERC, but the impact of this on increased severe weather events such as floods, and increased temperatures of air and water that would affect habitats, behaviors, and food sources for wildlife and marine life, etc. was not considered in a meaningful way that would allow consideration of the appropriateness of any suggested mitigation efforts.
- Extreme weather impacts, which can be reasonably anticipated, were not considered as part of the FERC environmental review / permitting process even though the air pollution, exhaust heat, disruptions to the bays, and potential fluid leaks from the proposed NESE Project will certainly increase damaging impacts on wetlands and flood-prone areas.
- Compressor stations leak excessively more methane than what is reported by pipeline companies.
- Even using conservative methane leakage rates, the buildout of natural gas pipelines would prevent New York from meeting its state greenhouse gas emission reductions goals.
- The DEIS refers to outdated New York City emission goals, which are now significantly more ambitious, including a goal to reduce emissions to 80 percent below 2005 levels by 2050.
- Methane leaks have been detected on Staten Island at the rate of one per mile, and National Grid & ConEd are monitoring reported leaks. Though leaks within five-feet of buildings must be repaired promptly, thousands of other leaks continue to emit methane into the air until they are repaired.
- The DEIS did not consider the contribution of fossil fuel extraction + transport + use on rising sea-level, more frequent and intense weather events like the 4 nor'easters we had in March 2018, or habitat and migratory pattern changes likely due to warming air and ocean temperatures.
- Increasing emissions from pipelines and the compressor station to transport natural gas from Pennsylvania across New Jersey to New York does not help either NJ or NY meet their stated goals for reducing Greenhouse Gases.

Sea level rise and extreme weather events are linked to increases in Greenhouse Gases.

We have been experiencing a rapid escalation of climate extremes like historic rains and floods, and these are attributed, in part, to our overuse and dependence on fossil fuels. Major flooding is also a result of replacing mature forests that would have absorbed the rain with paved surfaces which resulted in an increased rate of fast-moving and destructive water flow into our streams and rivers.

In addition to the easily viewed costs to property, businesses, infrastructure and the environment, that trigger stress and depression, there are associated costly health risks like water borne infections and worsened dampness and mold that trigger more allergies and respiratory disorders. Milder, shorter winters have increased the population of disease-carrying insects in our area. Longer and wetter seasons lead to more asthma, allergies and respiratory disorders. Flooding events are a pathway for pollution and bacteria to enter our waterways.

Medical and scientific authorities have termed climate change “potentially catastrophic for human survival.” “The effects of climate change are being felt today, and future projections represent an unacceptably high and potentially catastrophic risk to human health,” according to [the Lancet Commission report](#). The *Lancet* report – *Health and climate change: policy responses to protect public health* – is at <http://www.thelancet.com/commissions/climate-change-2015>

Production, processing, transportation and use of fossil fuels for energy have an impact on increased health costs due to air pollution as well as changes in the weather. Fossil fuel pollution (microparticulates, ozone, etc.) is a significant contributor to increased health care costs.

While studies show carbon dioxide emissions have decreased over the past few years in the United States, greenhouse gas emissions have increased. This is likely due to the increased drilling, processing, transporting and use of natural gas.

Natural gas pipelines and compressor stations leak, and natural gas is primarily methane. Though half of methane vanishes in 8.3 years, it is 84 times more potent than carbon dioxide on a 20-year basis. The EPA uses a broader time frame and says methane’s global warming effect is 28 to 36 times that of carbon dioxide over the course of a century. The amount of leakage as well as the direction of the spread of emissions, including leaks, in the air is not monitored in a way that leads to actions to reduce the risks.

Natural gas may not be the "transition" fuel that some think it is. It emits half the amount of carbon as coal, but if as little as 3.5 percent of its methane is released, it pollutes worse than coal. Also - data on methane release are scarce.

A new study, [published on June 21, 2018 in the journal Science](#), puts the rate of methane emissions from domestic oil and gas operations at 2.3 percent of total production per year, which is 60 percent higher than the current estimate from the Environmental Protection Agency. That might seem like a small fraction of the total, but it represents an estimated 13 million metric tons lost each year, or enough natural gas to fuel 10 million homes. It would be worth an estimated \$2 billion. This much leaked methane would have roughly the same climate impact in the short-term as emissions from all U.S. coal-fired power plants, the authors found.

The cost of weather/climate-related disasters is mostly borne by taxpayers and people who are directly impacted but not involved in decision-making policies about the production and transportation of carbon-intensive goods. According to the National Oceanic and Atmospheric Administration (NOAA), economic costs in the U.S. from the 16 weather/climate-related disasters in 2017 were \$309.5 billion. This exceeded the previous record by over \$100 billion - For 2005, from Hurricanes Dennis, Katrina, Rita & William, CPI-adjusted costs to present dollars were \$219.2 billion. The number of weather/climate-related disasters in the U.S. in 2017 tied the number from 2011, but the actual isolated events in 2017 were arguably more because wildfires were counted as regional-scale, seasonal events and not as multiple isolated events. Source: www.ncdc.noaa.gov/billions

New Jersey has committed to carbon-free energy, and the NESE natural gas project will contribute more carbon dioxide and methane into the atmosphere for decades.

Stopping the NESE project would be a significant step toward gaining control of global warming. While there is no single solution for these flooding, pollution and health-impact concerns, NOW IS NOT THE TIME TO MOVE BACKWARD. We must continue to push forward and support strong actions, public policies and smart growth that will reduce the risks of flooding and keep our local water clean. Our communities depend on it.

We hope that our Governor and the NJDEP take the lead and say "no" to more carbon pollution that puts us at risk.

CLIMATE CHANGE AND GOALS OF NEW JERSEY & NEW YORK TO REDUCE GREENHOUSE GASES

Some References

- Assessment of New York City Natural Gas Market Fundamentals and Life Cycle Fuel Emissions. (2011), ICF International, 34. Accessed at: http://www.nyc.gov/html/om/pdf/2012/icf_natural_gas_study.pdf
- Kreiger, Elena & Czolowski, Elisa. (2018, February). The greenhouse gas impacts of proposed natural gas pipeline buildout in New York. PSE Health Energy. Accessed at: <https://earthworks.org/cms/assets/uploads/2018/02/NY-Pipelines-PSE-TECHNICAL-REPORT.pdf>
- McVay, R., Hull, H., & Lyon, D. (2017). Oil and gas methane emissions in New Mexico. Environmental Defense Fund. Accessed at: <https://www.edf.org/sites/default/files/new-mexico-methane-analysis.pdf>
- NASA-led Study Solves a Methane Puzzle (2018, January 2). Accessed at: <https://www.nasa.gov/feature/jpl/nasa-led-study-solves-a-methane-puzzle>
- Payne, B., Ackley, R., Wicker, P. et al. (2017, February 15). Characterization of methane plumes downwind of natural gas compressor stations in Pennsylvania and New York. Science of the Total Environment, 580, pp. 1214-1221. Accessed at: <http://www.damascuscitizensforsustainability.org/wp-content/uploads/2017/01/MethanePlumes.pdf>
- Voiland, A. (2016, March 8). Methane Matters - Scientists work to quantify the effects of a potent greenhouse gas. Accessed at: <https://earthobservatory.nasa.gov/Features/MethaneMatters/printall.php>
- 1.5 degrees Celsius: Aligning NYC with the Paris Climate Agreement. (2017, December). New York City Mayor's Office of Sustainability. Accessed at: <https://www1.nyc.gov/site/sustainability/codes/1.5-climate-action-plan.pagee>