



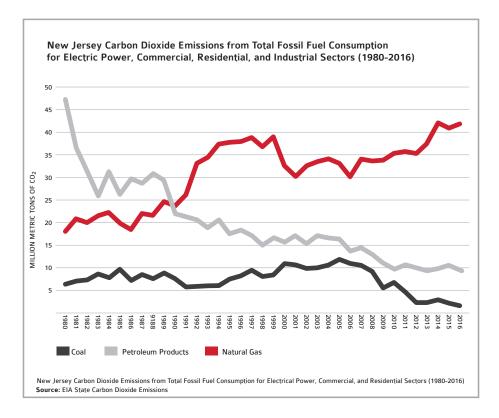


A new report from Oil Change International debunks the myth that natural gas can be a bridge to a clean, affordable energy future. In New Jersey, it is clear that the state cannot reach its goal of 100% clean energy without reducing — and then eliminating —gas by 2050.

The report also concludes that this is not the time to build unnecessary fossil fuel infrastructure that will only lock in emissions to 2050 and beyond. New Jersey is now a "poster child" for proposed gas infrastructure overbuilding that conflicts with our clean energy goals.

► GAS IS THE PROBLEM, NOT THE ANSWER

Power plants in New Jersey moved away from coal from 2005 to 2019. The chart below shows the rapid decline in emissions from coal, as emissions from natural gas escalated. Currently, most natural gas use in New Jersey is for heating space and water in building systems (53%), followed by gas-fired electric generation (39%). In order to reduce harmful greenhouse gas emissions, New Jersey must reduce consumption of gas, not increase it. New Jersey can't achieve 100% clean energy and an 80% reduction in emissions economy-wide by 2050 — as state law requires — without a transition away from gas and other polluting fossil fuels.





► OUR ELECTRIC GRID WILL NEED LESS AND LESS GAS TO PROVIDE RELIABLE ELECTRIC SERVICE

New Jersey's electricity is provided by the PJM regional electric grid. To meet the clean energy goals of PJM states, clean electricity will expand to support new uses such as powering transportation and for use in buildings to heat and cool space and water. With high levels of renewable energy, new types of flexible clean resources will be added to meet electric demand when the sun isn't shining, and wind isn't blowing. As new flexible resources are added, gas consumption will be reduced — eventually reaching zero — and the electric grid will remain as reliable as it is now.



► MORE GAS INFRASTRUCTURE WOULD INCREASE COSTS WHILE CLEAN ENERGY CAN REDUCE COSTS

Building unneeded gas pipelines will increase costs to utility customers. Analysis of the proposed PennEast pipeline shows that the financial burden for consumers is estimated at \$180 million to \$280 million per year. Similarly, the SRL pipeline proposed by New Jersey Natural Gas has been shown to be an ineffective reliability solution that would cost customers \$180 million.

The costs of onshore wind and solar have fallen dramatically around the world, including in the PJM region. This strongly suggests that moving to high levels of clean energy can reduce costs for energy systems that provide electricity to power transportation and heat and cool buildings. As the use of renewable energy sources continues to grow in New Jersey and PJM, the cost of energy for New Jersey residents can and should decline from the current gas-heavy energy system.

► NEW JERSEY CAN PLAN FOR A RELIABLE, LOW-COST CLEAN ENERGY MIX THAT REDUCES GAS OVER TIME

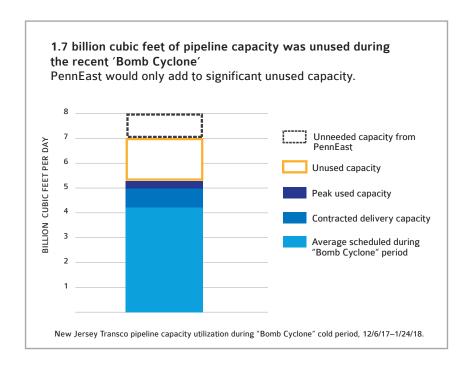
It is a fallacy that New Jersey needs more gas to make the transition to clean energy reliable and affordable. The development of an Integrated Energy Plan is underway at the state Board of Public Utilities that will identify low-cost pathways to achieve 100% clean energy by 2050. This analysis will identify the evolving mix of clean energy resources that also can provide the flexibility and control needed for a reliable electric grid, at the lowest cost.

Analysis shows that low-cost portfolios of clean resources are likely to include wind, solar, and hydro, as well as new transmission, controllable electric load, and energy storage. While some resources, such as offshore wind or rooftop solar, may cost more than other types of resources, careful planning can ensure that the combination of clean resources results in a lower cost energy system than the current PJM mix that relies heavily on gas and coal. Studies show that gas generation will not be needed for a low-cost energy future.\(^{\text{v}}\)

► NEW JERSEY ALREADY HAS EXCESS PIPELINE CAPACITY, AND BUILDING MORE CONFLICTS WITH OUR GOAL OF 100% CLEAN ENERGY

New gas pipelines are not needed to provide reliable gas service today in New Jersey, and will be needed even less in our clean energy future. New Jersey today has substantial excess pipeline capacity to meet its needs — even during extreme cold periods — and by 2030 will continue to have more than 1.3 billion cubic feet per day of excess capacity. The proposed PennEast pipeline alone would add another 1 billion cubic feet of unnecessary capacity.

Experts reconfirmed this finding of excess capacity using new data from the extreme cold period (referred to as the "Bomb Cyclone") from December 2017 through January 2018, stating: "This analysis shows that PennEast is not needed to meet peak winter demand, not even for a single day, even during extreme weather events." vi



► NEW JERSEY CAN COORDINATE WITH OTHER STATES TO FURTHER LOWER COSTS AND DECARBONIZE THE U.S.

The PJM grid is the largest in the U.S., reaching from Illinois to North Carolina. By collaborating with other states, New Jersey can help drive the transformation of the regional electric grid to 100% clean energy. Increased regional coordination in planning and developing the region's overall clean energy portfolio will likely be an essential step toward each state achieving its own clean energy goals in a highly reliable and low-cost way. New Jersey is positioned to play a key role in this transition.

For an example of how a much more detailed power system model can be used to identify more and less cost-effective pathways for a state to decarbonize, see "Minnesota's Smarter Grid - Pathways Toward A Clean and Affordable Transportation and Energy System", July 2018, prepared by Vibrant Clean Energy, LLC, for McKnight Foundation and Gridl ab. available at:

 $https://www.mcknight.org/wp-content/uploads/Minnesotas-SmarterGrid_FullReport_NewFormat.pdf$

[&]quot;Lander, Greg. Analysis of Public Benefit Regarding PennEast Pipeline. March 9, 2016, p. 11. Skipping Stone. https://rethinkenergynj.org/wp-content/uploads/2016/03/PennEastNotNeeded.pdf.

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^{iv}Stockman, Lorne. Burning the Gas [']Bridge Fuel' Myth: Why Gas is Not Clean, Cheap, or Necessary. May 2019. Oil Change International.

^{&#}x27;Vibrant Clean Energy LLC prepared for McKnight Foundation and GridLab. Minnesota's Smarter Grid: Pathways Toward a Clean, Reliable, and Affordable Transportation and Energy System. July 31, 2018. https://www.mcknight.org/wp-content/uploads/Minnesotas-SmarterGrid_FullReport_NewFormat.pdf

^{*}Lander, Greg. Analysis of Regional Pipeline System's Ability to Deliver Sufficient Quantities of Natural Gas During Prolonged and Extreme Cold Weather (Winter 2017-2018). February 11, 2018, p. 3. Skipping Stone. https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14820449.