Pipelines and their Benefits to New York

Our modern world, and its endless conveniences, all share one common ingredient – energy.

Having energy on demand is not only essential to keep busy lives and industries moving, but it must be affordable. Unfortunately, for many in the United States energy insecurity is an everyday reality.

Beyond heating and cooling our homes, powering our businesses, and fueling our various forms of transportation, energy touches literally every facet of our daily lives. It made the information technology (IT) revolution possible, which has given us everything from mobile phones to cloud-based voice services like Alexa. Without energy our grocery stores would be barren, our homes would lack paint and carpet and insulation, and our consumer goods and cosmetics would be non-existent. Yet every day we take these simple conveniences for granted.

That's because as long as people across New York and the United States can turn on their lights, charge their phones, and drive their cars, not many people need to consider the nitty gritty of what happens after energy gets extracted from the ground and into our homes. Yet the energy supply chain is a vast and sophisticated network that powers our lives every day, and the primary piece of this puzzle is our nation's robust pipeline network.

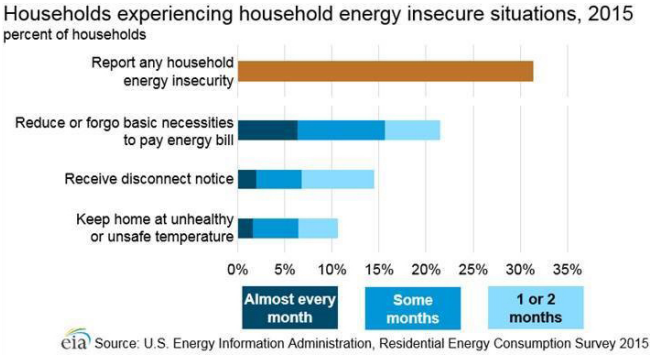
That is why Consumer Energy Alliance (CEA) strongly supports the development of pipeline infrastructure and continues to urge policymakers in New York to embrace the benefits and growth potential that energy delivery brings to families, households, and businesses across the state. From working mothers trying to pay their bills and meet their bottom lines, to small retailers who spend a large percentage of their revenue on electricity, each of us has a stake in making sure we meet our energy needs. Having energy on demand is essential to keeping our busy lives and industries moving, but it also has to be affordable.

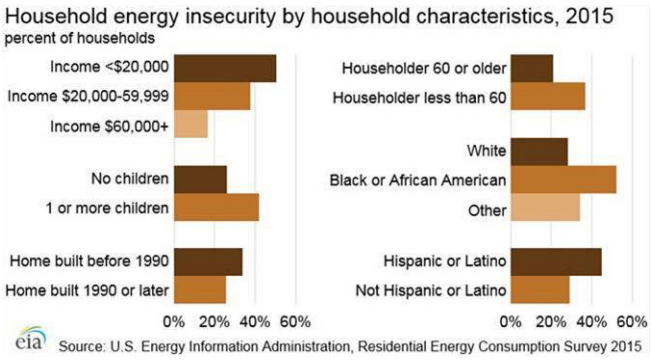
Unfortunately, for many households and families in the United States, energy insecurity is an everyday reality. According to an extensive 2015 survey by the Energy Information Administration, nearly one-third of American households struggled to pay their energy bills and heat or cool their homes.[1] The survey found that roughly "one in five households reported reducing or forgoing basic necessities like food and medicine to pay an

1 2015 Energy Information Administration Residential Energy Consumption Survey. https://www.eia.gov/consumption/residential/reports/2015/energybills/?src=%E2%80%B9%20Consumption%20%20%20%20%20%20Residential%20Energy%20Consumption%20Survey%20(RECS)-f1

energy bill and 14% reported receiving a disconnection notice for their energy service. Households may have also used less energy than they would prefer to: 11% of households surveyed reported keeping their home at an unhealthy or unsafe temperature."[2]

The latest data from the US Census Bureau estimates that 40.6 million people, or 12.7 percent of the nation's population lives in poverty.[3] For a family of four living at the poverty line that works out to $24,858 a year. In New York, more than 2.9 million people, or 14.7 percent of the population, live in poverty,[4] and that number doesn't include individuals or families who are living paycheck to paycheck with little or no savings.[5]





So What Are the Benefits?

The benefits of pipelines, and the availability of fuels like natural gas, should not simply be measured in jobs and economic growth. They should also be examined for cost reductions and the vital service they provide to people living on the margins of society. Energy price spikes impact individuals and families living at the poverty line, and they can also be a serious setback for families in higher income brackets as well. A January 2018 survey by Bankrate found only 39 percent of Americans had $1,000 saved to cover a financial emergency and CNBC recently reported that "a 2016 GOBankingRates survey found that 69 percent of Americans had less than $1,000 in total savings and 34 percent had no savings at all."[6] These statistics became more evident during this last brutally cold winter in the Northeast and Mid-Atlantic, which only exacerbated New York's already exorbitantly high electric rates.

This is troubling if you consider that consumers and households in New York already pay an incredible 44 percent more for electricity than the national average – especially when you remember that its neighboring state, Pennsylvania, has ample supplies of energy and pipeline infrastructure available to benefit New Yorkers.[7]

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2 Ibid

3 https://www.census.gov/newsroom/press-releases/2017/income-povery.html

4 https://www.census.gov/quickfacts/fact/table/NY/IPE120216#viewtop

5 https://www.nbcnews.com/better/health/most-us-live-paycheck-paycheck-what-it-does-your-health-ncna816411

6 CNBC "Only 39% of Americans have enough savings to cover a $1,000 emergency." https://www.cnbc.com/2018/01/18/few-americans-have-enough-savings-to-cover-a-1000-emergency.html

7 Energy Information Administration Electric Power Monthly. https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

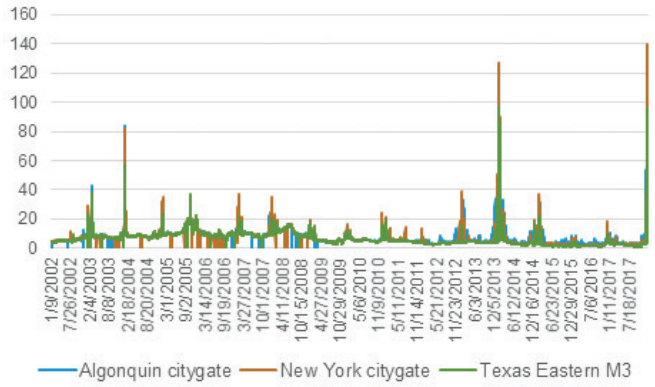
For a quick snapshot, on January 5, 2018, natural gas prices in the Northeast were at an all-time high due to heating and power demands that broke records originally set during the 2014 Polar Vortex. According to an article in Reuters, spot market prices in the New York City region jumped to a record high of $140.25 for natural gas, according to data from brokerage firm SNL going back to 1992, up from the prior high of $120.75 set during the polar vortex in January 2014.[8]

To put this figure into context, the average natural gas spot market price for New York in 2017 was $3.08. Yet, New Yorkers were subjected to prices that were $137 higher due to self-inflicted capacity constraints created by their own elected officials. This situation is even more perplexing as pipelines have had a long history of safe operation in New York.

In fact, according to federal data, the Empire State already has over 4,500 miles of natural gas transmission lines, more than 5,500 natural gas gathering lines, and more than 1,100 miles of crude oil, products, and natural gas liquids lines. Additionally, it has nearly 50,000 miles of gas distribution pipelines and over 37,000 miles of gas service lines,[9] which bring enough energy to power over 4.4 million homes in New York and over 400,000 commercial and industrial businesses in the state that rely on pipelines every day to heat their homes and facilities as well as power their lives and job sites.

Natural gas spot prices at selected Northeast market locations

2017 $/million Btu



eia Source: SNL Energy, U.S. Energy Information Administration
Note: Prices expressed in real November 2017 terms

That's because in New York, natural gas alone provides nearly 46 percent of the state's electricity needs. As the state continues to rely more and more on natural gas, and building or expanding gas-fired power plants, that number is expected to rise to 56 percent of New York's electric needs.[10] It's also the foundational building block for the state's manufacturing sector. A study issued by the consultancy, IHS Economics, found that New York had over 194,400 jobs that were tied to energy intensive companies and made up nearly 55 percent of the state's manufacturing sector.[11]

Another study released in the summer of 2017 by ICF International also found that the natural gas value chain supported over 152,000 jobs and that "The contribution to the New York economy in terms of direct, indirect,

8 Reuters "Frigid weather sends heating prices soaring as energy usage spikes." January 5, 2018. https://www.reuters.com/article/us-usa-weather-energy-prices/frigid-weather-sends-heating-prices-soaring-as-energy-usage-spikes-idUSKBN1EU1IR

9 PHMSA Pipeline Mileage and Facilities Data for New York https://hip.phmsa.dot.gov/analyticsSOAP/saw.dll?Portalpages

10 New York ISO 2017 Power Trends Report, p.32

11 IHS Economics, The Economic Benefits of Natural Gas Pipeline Development on the Manufacturing Sector. May 2016, p. 31. http://www.nam.org/Data-and-Reports/Reports/Natural-Gas-Study/Energizing-Manufacturing/

74 percent of energy generation for Downstate residents is provided by fossil fuels - and natural gas is used by more than half of all New Yorkers to heat their homes.

and induced value added in 2015 was $20.19 billion, of which $11.50 billion was related to the end use segment, $6.94 billion was from the infrastructure segment, and $99 million was from the production segment."[12]

Despite these tremendous benefits and their critical importance to consumers and working families, Governor Cuomo's administration continues to aggressively block energy development and pipeline infrastructure projects in the Marcellus Shale despite the state's increasing reliance on natural gas. Despite Governor Cuomo's ambitious renewable energy targets, natural gas must play a larger role in the state to offset intermittency issues and the physical realities of the state's electric grid.

Even the state's independent grid regulator, New York Independent System Operator (NYISO), noted that "the combination of more stringent air quality regulations, limitations to the ability to flow energy across the transmission system, and reliability standards that establish local generation requirements in the downstate region have resulted in the power demands of New York City and Long Island being served with generation primarily fueled by natural gas."[13]

This means that during times of peak demand, particularly on hot or cold days, certain power lines carrying electricity downstate get bottlenecked. This imbalance has occurred because New York City consumes roughly 60 percent of the state's electricity, but this southern region of the state only produces 40 percent of the state's power needs. Furthermore, 74 percent of energy generation for Downstate residents is provided by fossil fuels - and natural gas is used by more than half of all New Yorkers to heat their homes.

A Future for New York Must Include Natural Gas and Pipelines

With the announced closure of the Indian Point nuclear power plant, which provides 25 percent of all the power consumed by New York City, Westchester County, and 10 percent of the electricity for the entire state, there are simply not many other realistic options other than building more pipelines to meet energy needs.

Even with his administration's ambitious renewable goal, Governor Cuomo said in 2017 that he doesn't "think you can get from here to there without using natural gas."[14] So despite his continued rejection of pipelines, they will be necessary to meet New York's growing demand for natural gas. Regardless of this impending reality, New York has not kept pace with its pipeline infrastructure needs, especially compared with its neighbors.

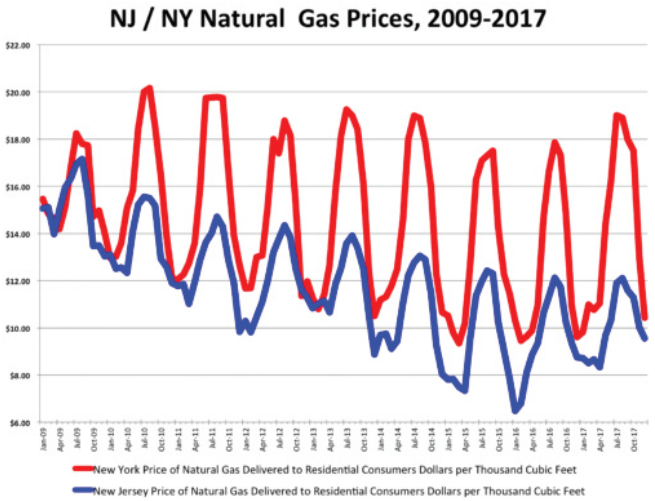
12 ICF International, Benefits and Opportunities of Natural Gas Us, Transportation, and Production. June 2017, p. 204 http://www.api.org/news-policy-and-issues/news/2017/06/27/new-study-new-yorkers-benefit-from-natur

13 NY ISO 2017 Power Trends Report, p. 26.

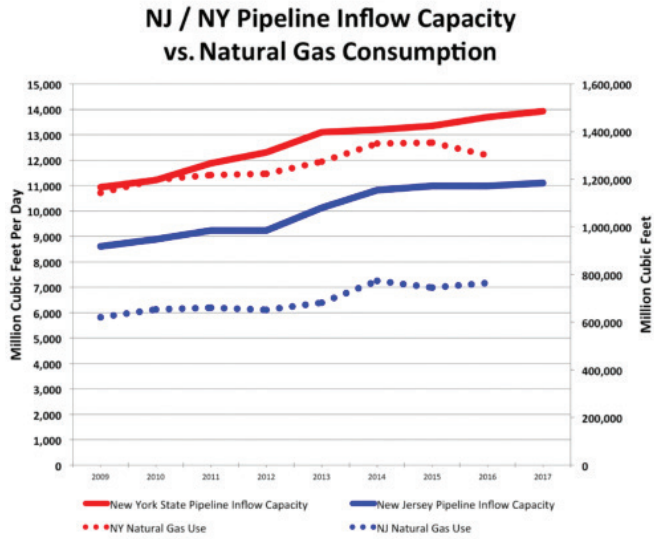
14 Buffalo News, "Cuomo: 'You need natural gas' as bridge to renewable energy." April 11, 2017. http://buffalonews.com/2017/04/11/cuomo-natural-gas-pipelines-needed-right/

As the figures illustrate, from 2009-2017 price spikes for natural gas in New York have become more severe and have greatly increased compared to that in New Jersey. The second figure shows that energy coming into New York (in-flow capacity) is not keeping up with how much natural gas is actually being used (consumption demand) compared with New Jersey, which has a much larger cushion during days when demand is the highest.[15]

Sadly, projects that could ease price spikes, loosen bottlenecks, create economic opportunity, and decrease consumer prices are being denied at the behest of "Keep it in the Ground" anti-energy activists groups who oppose any development or pipeline infrastructure without offering any other realistic plans to ensure reliability or cost reductions for families and businesses.



In 2017, CEA issued an analysis entitled "Families, Communities and Finances: The Consequences of Denying Critical Pipeline Infrastructure," which found that prematurely shutting off baseload electricity generation and denying pipeline infrastructure that could maintain the nation's and the economy's basic energy demands would result in a shortfall of nearly one-third of the nation's electricity generation needs. It also found the nation could lose out on over $15 billion in private investment, millions of barrels of oil from domestic production, and shortfalls of over 44 percent to the Mid-Atlantic Region.[16]



Another report issued by the US Chamber of Commerce's Institute for 21st Century Energy found that the lack of additional pipeline infrastructure would result in the loss of over 78,000 jobs and $7.6 billion in gross domestic product (GDP) by 2020 for the Northeastern United States. In just New York, the Chamber study estimated it would miss out on 17,400 jobs, $1.6 billion in new GDP, and over $900 million in lost labor income by 2020.[17]

15 "Why New York Natural Gas Prices Are So High: It's About the Pipelines" March 26, 2018 http://naturalgasnow.org/new-york-natural-gas-prices-high-pipelines/

16 CEA "Families, Communities and Finances: The Consequences of Denying Critical Pipeline Infrastructure." http://consumerenergyalliance.org/2017/01/report-u-s-will-lose-one-third-electricity-generation-capacity-without-infrastructure/

17 https://www.uschamber.com/press-release/new-us-chamber-report-demonstrates-need-northeast-pipelines

Snapshot: Economic Impact of Denied, Delayed, and Proposed Projects in NY

- **Constitution Pipeline –** Despite receiving approval by the Federal Energy Regulatory Commission (FERC), the $683 million dollar project was denied by the Cuomo Administration. It was expected to create 2,400 direct and indirect jobs, generate $130 million in labor income, and provide enough gas to heat 3 million homes, according to the project's backers. The planned project would have also supplied the Southern Tier's largest employer, Amphenol Aerospace, which employs 1,000 people at its Sidney, NY manufacturing facility. At the time, project supporters said it was the plant's only way to access natural gas, which would have reduced its energy costs by 30 to 40 percent, ensuring the company's competitiveness in the global marketplace. In addition, the project was expected to provide $13 million in annual property taxes for local schools and communities and $17 million in sales and income tax revenue for New York.[18]
- **Northern Access Pipeline -** The Northern Access Pipeline would have provided 1,680 jobs and over $735 million in investments and economic activity for New York. The project would have also injected $139 million in payroll and $11.8 million in annual tax revenue for the state. It had also received FERC approval in February 2017, but was denied by the Cuomo Administration. According to project backers, nearly three-quarters of the jobs needed for the project would have been in New York, utilizing local skilled building trades.[19]
- **Valley Lateral Project –** The 7.9 mile project was approved by FERC and would translate into a $39.4 million investment connecting the Millennium Pipeline to a new natural gas power plant, creating new construction jobs in the region. Although the project was denied by the Cuomo Administration, the decision was overturned by the Second Circuit of the U.S. Court of Appeals.
- **Eastern System Upgrade Project –** According to project sponsors, this system upgrade will represent a $275 million investment, saving New Yorkers $495 million in reduced energy costs over the first 10 years of the project's operations. In addition, construction will generate 300 jobs, more than $300 million in new economic activity, and over $3 million in local tax revenue.[20]
- **Northeast Supply Enhancement –** This proposed project will provide enough gas to meet the needs of 2.3 million homes for growing demand in the Northeast, including 1.8 million customers in Brooklyn,

18 Constitution Pipeline Project Fact Sheet http://constitutionpipeline.com/about-the-project/project-benefits/

19 Northern Access Project Overview https://www.natfuel.com/supply/NorthernAccess2016/default.aspx

20 http://www.millenniumpipeline.com/economic-impact/

Queens, Staten Island, and Long Island. According to an economic impact analysis by Rutgers University, the project will generate approximately $23.7 million in GDP from construction expenditures, $2.3 million in local and state tax revenues, and $9.8 million in annual submerged lands leasing revenue to New York counties where a percentage of their land is underwater. [21]

- **Pilgrim Pipeline –** The proposed 170 mile project would carry crude oil from the Albany area southward and bring refined products like gasoline, diesel, kerosene, aviation fuel and home heating oil north from New Jersey to help enhance New York's fuel delivery infrastructure. According to a company fact sheet, the project is expected to move roughly 200,000 barrels per day and during construction it is estimated that it will create 2,000 jobs.[22]

Conclusion

Abundant and affordable supplies of energy are sitting literally at New York's doorstep. As discussed above, the benefits of more pipeline construction and energy delivery are critical to help bring down high prices for New Yorkers that are harming the budgets of families, households, and manufacturers competing in a tough global marketplace. This energy can put skilled labor to work, bring down the high cost of electricity and home heating, meet the needs of consumers and industry, and help support the growth and deployment of emerging renewable resources – but the state needs to start saying yes to energy infrastructure. It is time to create solutions that will bring better opportunities to the Empire State.

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21 http://investor.williams.com/press-release/williams/williams-partners-northeast-supply-enhancement-project-expected-generate-327-

22 http://pilgrimpipeline.com/fact-sheet/