

Study: The Impact of Federal Permitting Delays on Pennsylvania's Energy Supply Chain



The Impact of Inflation on Energy: Rising Energy Costs

Across the country, America is having a difficult time grappling with inflation, and the cost of keeping the lights on is not exempt from these rising costs. The factors affecting energy utility prices can vary depending on where you live and how your local energy system is set up. Generally, we can group the cost impacts to energy utility prices into a few categories:

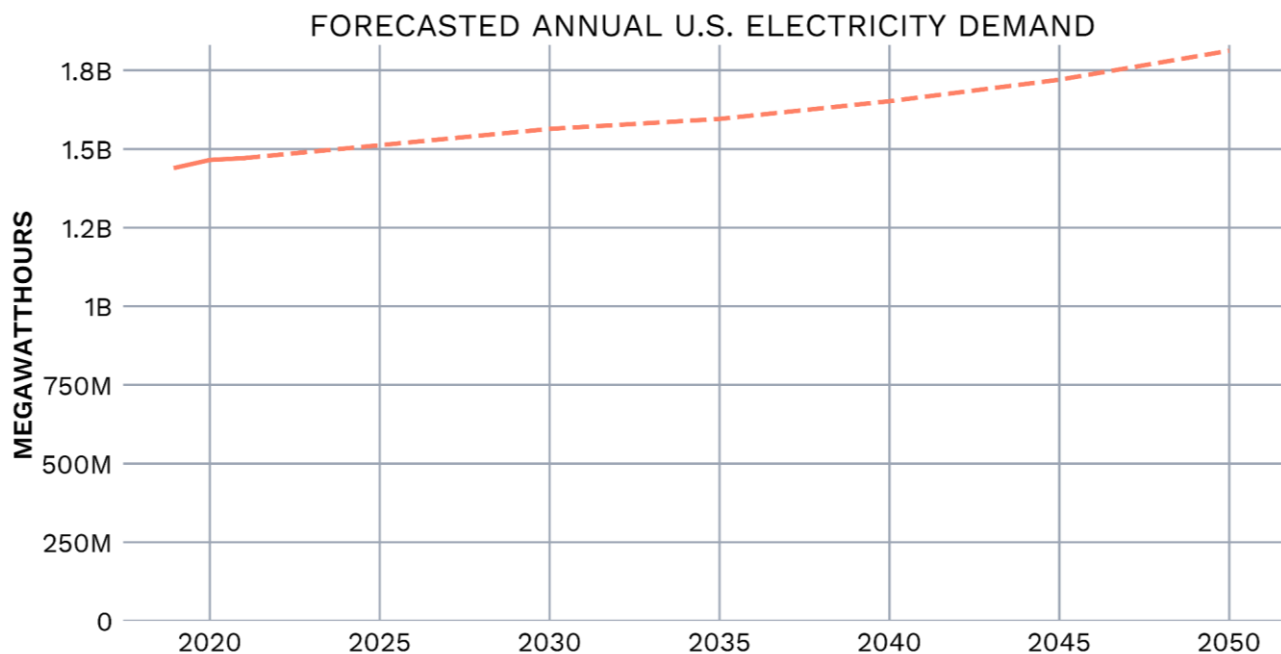
- ▶ **How the energy is made:** Different ways of producing energy, like using coal, natural gas, wind, solar, or water, have different costs. Changes in the cost of the fuel used to generate energy such as electricity for your home or gas for your stove can affect prices.

- ▶ **How much energy is needed:** When a lot of people are using energy at the same time, like during hot summer days or busy periods, the demand for energy goes up. This can lead to higher prices.

- ▶ **Getting the energy to your home:** There are costs involved in transmitting and delivering energy to your home. This includes maintaining pipelines, power lines, transformers, and other equipment. These costs can affect the prices paid, and these costs are expected to increase as wind and solar grow in the energy mix.

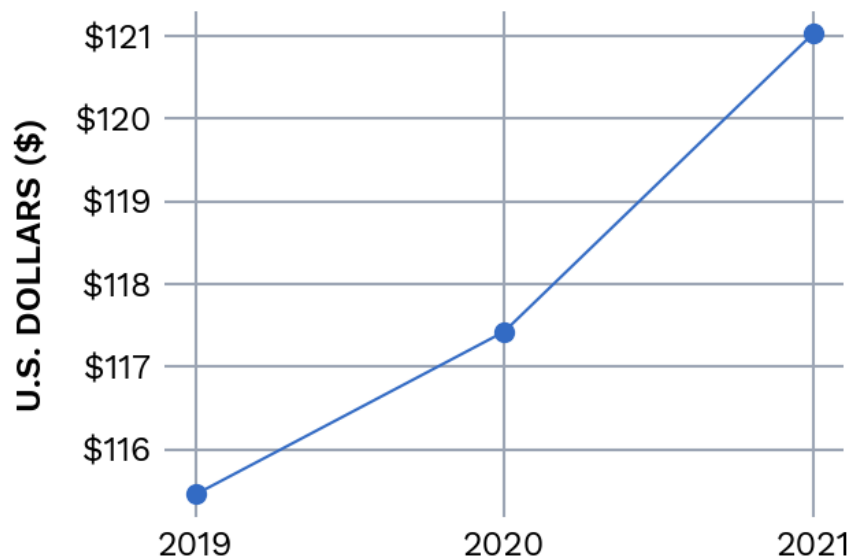
- ▶ **Rules to protect the environment:** Regulations and policies aimed at reducing pollution and carbon emissions can affect energy prices. For example, power plants that produce a lot of pollution may face additional costs, which are typically passed on to consumers. Carbon taxes imposed on power plants, such as the Regional Greenhouse Gas Initiative (RGGI), raise electricity prices for Pennsylvania consumers even more.

- ▶ **Upgrades to the energy supply chain:** Investments by private industry in new power plants, pipelines, transmission lines, and other energy infrastructure improvements can make the system more reliable and efficient, lowering prices.



Source: Electricity Information Administration (EIA)

ANNUAL AVERAGE MONTHLY BILL IN THE UNITED STATES



Source: Electricity Information Administration (EIA)

Upgrading the Energy Supply Chain: Federal Permitting Delays

Upgrading our energy supply chain is a critical step for America to maintain reliable, efficient, and low-cost energy. Historically, fossil fuels have been a consistent and reliable source of energy. But permitting delays for new pipelines, refineries, and mining and drilling leases are needlessly raising utility bills and prices at the pump. As a mix of innovation and government mandates increase the role of renewable generation sources, there are concerns about what will happen when the weather conditions are not favorable for sun and wind-powered generation. A number of the most impactful projects have been held up or canceled because of federal permitting delays. Balancing the need for streamlined and efficient energy systems with environmental stewardship is an ongoing challenge. Striking the wrong balance can lead to delayed projects, which harms energy consumers and the environment. When projects are held up by permit delays or litigation, it can cause companies to face a decision to abandon critical projects that would increase energy abundance with little or even positive environmental impact. There are a number of ways this happens:

- **Delays in permitting:** All energy infrastructure projects must obtain some degree of permitting from either the state or federal permitting authorities. In particular, natural gas pipelines that cross state lines require approval from both the federal government and each state where the project will be constructed. Federal regulations and bureaucratic procedures often add delays to this process. There have been several cases where litigation has resulted from the permitting process, posing a barrier to projects even after regulators sign off. These lawsuits are exceptionally time consuming and cause significant delays. This can extend timelines for project completion, causing uncertainties for developers and potentially increasing costs.

- **Increased costs:** Compliance with federal regulations often requires additional resources, including time, personnel, and documentation. These compliance costs are

significant and are passed on to energy developers and, ultimately, consumers. The complexity of the regulatory requirements also leads to millions of dollars in additional legal and consulting fees, which also get passed to the consumer to pay.

- ▶ **Uncertainty and risk:** Excessive red tape and regulatory complexity can introduce uncertainty and risk into energy permitting. Unclear or constantly changing regulations can make it difficult for developers to plan and navigate an unpredictable permitting process, resulting in project delays and significant financial risks.

- ▶ **Administrative burden:** Meeting federal regulatory requirements often involves extensive paperwork, environmental assessments, impact studies, and public hearings or other consultations. The administrative burden associated with these processes is time-consuming and resource-intensive for both energy developers and regulatory agencies, detracting from their ability to serve customers and protect the public.

- ▶ **Limited innovation and investment:** Strict or overly burdensome regulations can deter energy innovation and investment. Complex or outdated permitting procedures and regulatory requirements for existing technologies discourage smaller or innovative energy companies from pursuing projects, leading to a less diverse and less competitive energy market. Since innovation historically has made even “dirty” sources cleaner, permitting barriers to innovation also result in negative environmental consequences.

- ▶ **Environmental protection and public safety:** Federal regulations and permitting processes are designed to ensure environmental protection and public safety. The assumption is that government must assess and mitigate potential risks associated with energy projects, such as pollution, habitat destruction, or public health concerns before a project can be built. Oftentimes, these precautionary measures can be overly burdensome and become a reason for significant delay of these projects, even when there are more effective and efficient ways of addressing environmental concerns.

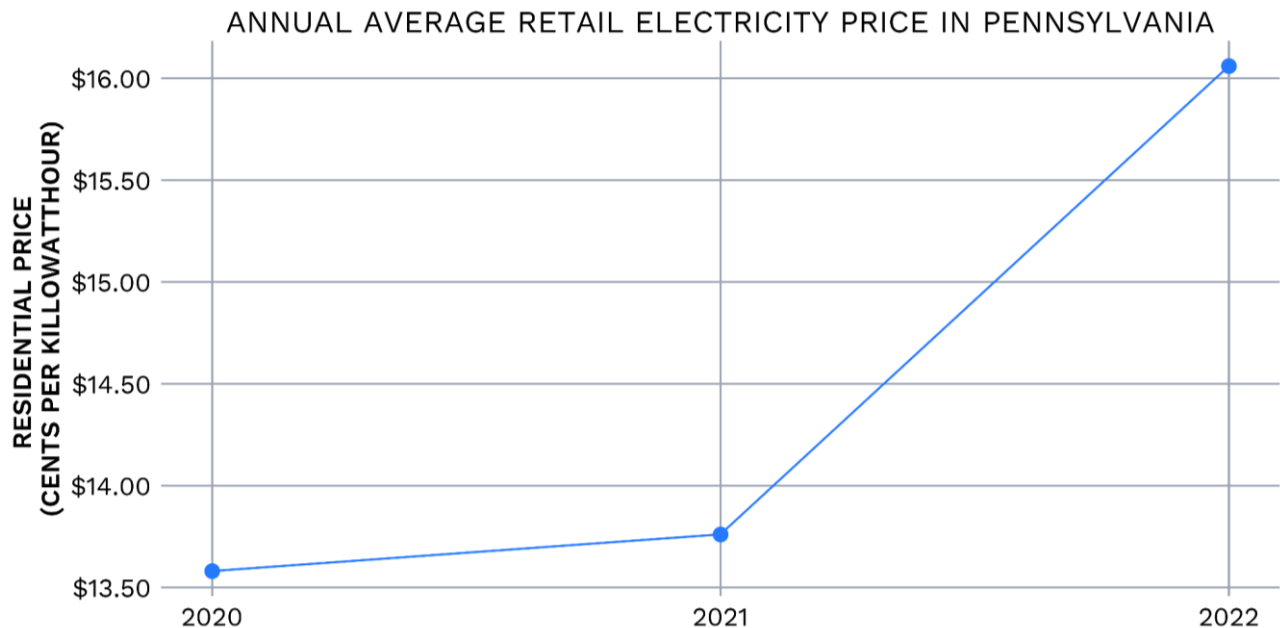
PJM

PJM Interconnection is a regional transmission operator that coordinates the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, **Pennsylvania**, Tennessee, Virginia, West Virginia and the District of Columbia. In this region, PJM operates the wholesale electricity market and manages the transmission grid to ensure reliable electricity to the more than 65 million Americans that live and work in this area of the country. In PJM’s service region and Pennsylvania in particular, there is expected to be a large increase in demand for electricity. Because of a combination of government mandates and permitting barriers, fossil fuel-fired plants are also expected to close at rates faster than new renewable generation will be added. This combination has the potential to cause high energy costs and unreliable electricity for Pennsylvania’s residents and industry.

An Easy Solution to Lower Costs: Pennsylvania’s Obstructed Projects

The easiest solution to alleviate the strain of these rising energy costs is upgrading our energy supply chains. The demand for electricity in the United States has been rising steadily, but would begin increasing much more quickly if the government continues to push for electrification instead of diversification. If more cars are built with electric engines and homes switch to electric heating and cooling, the price of energy will rise significantly in the near future if the supply of energy does not increase with similar speed. There have been a number of energy projects that are either currently delayed or have been completely canceled because they have

been caught up in unnecessary federal government permitting. In Pennsylvania specifically, several of these projects that influence the price consumers are paying for energy utilities have been held up by these federal barriers. The charts below show the price of utilities over time for Pennsylvania. If more large projects increasing energy supplies in Pennsylvania were built, there would be more competition and prices would decrease.



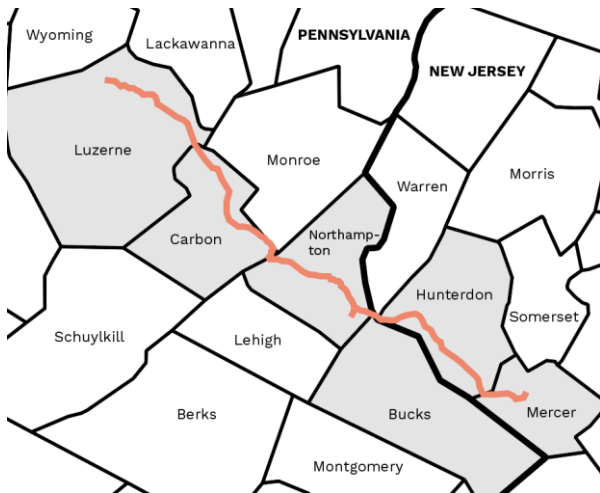
Source: Energy Information Administration (EIA)

Want to learn more? Here are the details on key Pennsylvania energy projects blocked by federal permitting laws:

PennEast Pipeline

Status: Canceled

PennEast Pipeline was a proposed 114-mile-long natural gas pipeline connecting Luzerne County, Pennsylvania and Mercer County, New Jersey. The project was a \$1.2 billion dollar project reviewed by the Federal Energy Regulatory Commission (FERC). PennEast would have created 12,000 jobs and brought in \$17.5 million dollars in tax revenue. It also would have delivered a low-cost, reliable supply of natural gas for electricity generation and home heating to southeastern Pennsylvania, New Jersey, and surrounding states. The project had contracts signed to provide natural gas to twelve total shippers, which together combine for a commitment of firm capacity of 1 million dekatherms per day. This translates to 20 percent of Pennsylvanians' natural gas consumption in 2021, the year the project was cancelled after six years of permitting delays.



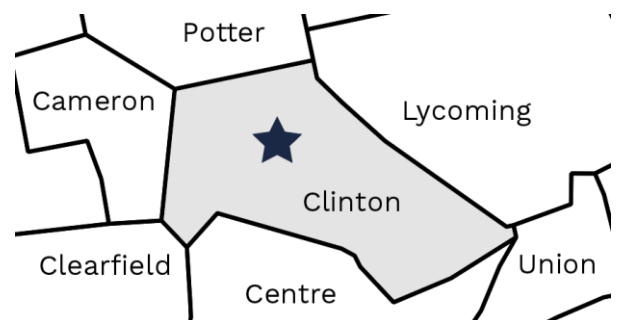
- ▶ **September 2015:** Project filed with the Federal Energy Regulatory Commission
- ▶ **September 2019:** Federal Court holds that PennEast may not condemn land in which New Jersey holds interest
- ▶ **June 2021:** Supreme Court reverses this lower court decision
- ▶ **November 2021:** New Jersey challenges PennEast under Clean Water Act
- ▶ **December 2021:** Project officially abandoned

The project was formally filed at FERC in 2015 with a targeted completion date of November 2017. After producing a 1,500-page environmental review, FERC approved the pipeline and issued a permit in 2018. However, the project became tied up in a court battle with the state of New Jersey over the authority to condemn land (forced land transfers in the interest of American infrastructure). After three years of litigation, the case was decided by the Supreme Court. The project won and was allowed to move forward—but only temporarily. Within months, the New Jersey Department of Environmental Quality (NJDEQ) filed another lawsuit, this time under the Clean Water Act. Ultimately, 6 years after the project was initially filed, PennEast abandoned the project because it could not obtain from NJDEQ the required Clean Water Act permits needed for the New Jersey portion of the pipeline route.

Renovo Power Plant

Status: Abandoned

Renovo Power Plant is a 1,240 megawatt (MW) electric generating power plant proposed to be built on a former railroad yard in the small town of Renovo in rural Clinton County. The power plant was an estimated \$1 billion project, a significant economic boost which anticipated creating 1,200 jobs and significant tax revenue for the local community.



- ▶ **December 2019:** Application filed with Pennsylvania Department of Environmental Protection
- ▶ **June–August 2020:** Targeted construction start
- ▶ **May 2021:** Environmental groups file a lawsuit to revoke the project’s air quality permit
- ▶ **April–November 2023:** Targeted commercial operation
- ▶ **April 2023:** Project abandoned due to permit lawsuit

The project submitted a formal application with the Pennsylvania Department of Environmental Protection (DEP) in December 2019. Initially, the project was to begin construction in 2020, be completed within three years, and begin commercial operation before the end of 2023. However, in May 2021, environmental groups filed a lawsuit to revoke the Clean Air Act permit issued by DEP. This litigation froze the project for two years until it was abandoned by the developer in April 2023. In June 2023, at a community stakeholder event, Renovo Mayor Gene Bruno said he would continue fighting for the project and that he believed it could be revived.

Northern Access 2016 Project

Status: Delayed

The Northern Access 2016 project is a proposed 96-mile natural gas pipeline from Sergeant Township, Pennsylvania to the Town of Elma, New York which would deliver 357,000 dekatherms per day—which translates to nearly 10 percent of New York state’s natural gas consumption in 2021.



- ▶ **March 2015:** Application filed with the Federal Energy Regulatory Commission
- ▶ **November 2016:** Targeted commercial operation
- ▶ **February 2017:** Certificate issued
- ▶ **April 2017:** New York Department of Environmental Conservation denied Water Quality Certificate
- ▶ **June 2022:** Federal Energy Regulatory Commission extends in-service date to December 2024

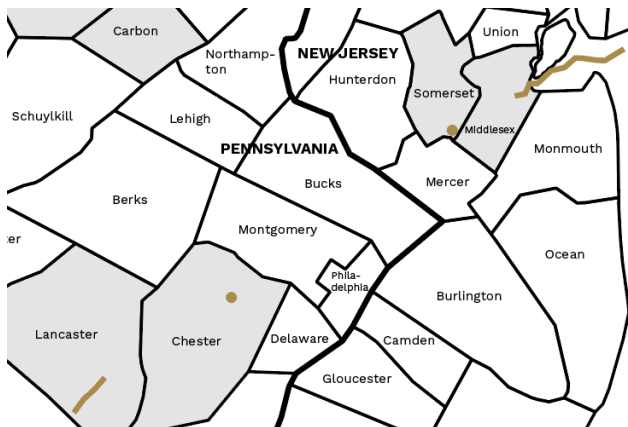
The pipeline is a \$245 million project that promises to create 750 jobs across four rural counties in Pennsylvania and New York. The project formally filed an application with the Federal Energy Regulatory Commission (FERC) in 2015. At that time, the primary supplier of natural gas to the project, Seneca Resources Corporation, requested an in-service date of November 2016. FERC issued the project’s certificate in February 2017, but two months later New York’s Department of

Environmental Conservation (NYSDEC) denied the project's Water Quality Certificate (WQC). The project has since been on an extended pause due to litigation between FERC and the NYSDEC related to the WQC. Most recently FERC extended the in-service date for the project from February 2022 to December 2024, but the project has not yet requested the authority to commence construction due to continuing litigation over permits.

Northeast Supply Enhancement Project

Status: Delayed

The Northeast Supply Enhancement Project is designed to expand the capacity of the Transcontinental Gas Pipeline (Transco), delivering an additional 400,000 dekatherms per day from a Transco compressor station in York County, Pennsylvania to New York City. The project consists of several different facilities, including 10 miles of pipeline looping facilities, 3.5 miles of onshore looping facilities, 23 miles of offshore looping facilities, the addition of more than 21,000 horsepower at an existing compressor station, and a new 32,000 horsepower compressor station.



► **March 2017:** Application filed with the Federal Energy Regulatory Commission

► **April 2018:** New York Department of Environmental Conservation denies water quality certificate

► **January 2019:** FERC issues Final Environmental Impact Statement

► **May 2019:** New York Department of Environmental Conservation denies water quality certificate

► **May 2020:** New York and New Jersey deny water quality certificate

► **April 2023:** In-service date extension requested to May 2025

The Pennsylvania portion of the project is anticipated to cost \$52.1 million. The project should create nearly 500 job-years (equivalent to one job lasting one year) in the state and result in \$1.5 million in state and \$2.4 million in local tax revenues. In the initial filing with the Federal Energy Regulatory Commission (FERC) in 2017, the applicant requested an in-service date of December 1, 2019 in order to meet the needs of the New York natural gas utilities that had purchased all of the project's anticipated capacity.

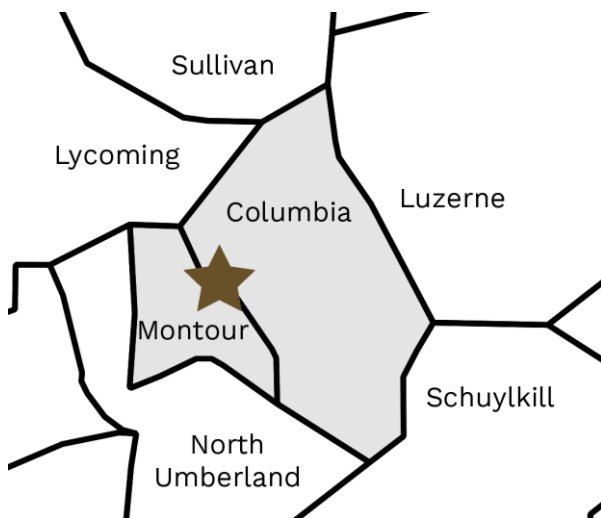
However, the project has faced lengthy delays because it has been unable to obtain necessary permits from New Jersey and New York. New York's Department of Environmental Conservation initially denied the application for a Clean Water Act certificate in 2018, stating that the Environmental Impact Statement (EIS) was incomplete and asking for more environmental review. FERC issued a final EIS and approved the project in 2019. Since then, both New York and

New Jersey have denied the project various Clean Water Act permits – including water quality and wetlands permits. Citing the construction delays caused by these permit denials, the pipeline has requested an additional two-year extension of the in-service date to 2025.

Montour Solar

Status: Delayed

The Montour Solar Farm is a 100 megawatt (MW) solar facility located in Pennsylvania's Montour and Columbia counties intended to meet the needs of "more than 55,000 Americans." Montour Solar Farm is a \$100 million project under the PJM Interconnection Queue that will create 130 jobs during construction.



- ▶ **March 2019:** Project enters PJM interconnection queue
- ▶ **July 2019:** Initial feasibility study completed
- ▶ **February 2020:** System Impact Study report completed
- ▶ **2023:** Targeted construction start
- ▶ **2024:** Targeted commercial operation

The project entered the PJM interconnection queue in March 2019. PJM completed the initial feasibility study in 2019, finding that the project would be responsible for direct connection costs of about \$2.2 million, but that \$153 million in system upgrades would be needed to connect the new source to the existing grid. Allocation of those costs would be left to the System Impact Study Report. PJM then completed the System Impact Study Report in February 2020. That study found the direct costs to still be \$2.2 million, but reduced the expected system upgrades to \$60.6 million. The project has not yet undergone a Facilities Study, which is the next step to be completed in the queue process. At this time, Montour Solar is still targeting to start construction in 2023 and be in service in 2024.

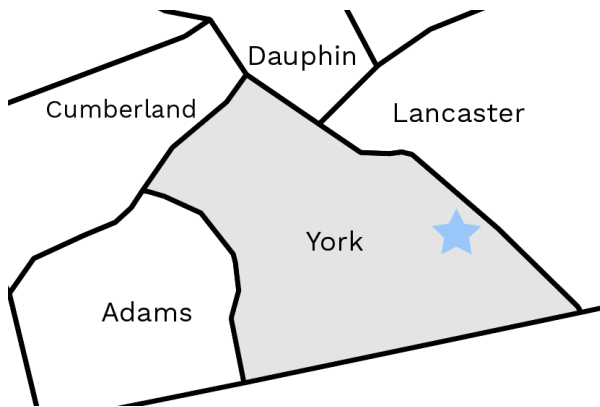
York Energy Pumped Storage Facility

Status: Delayed

The York Energy Pumped Storage Facility is a proposed \$2.1 billion project that would consist of lower and upper reservoirs that harness gravity to store energy and increase grid reliability. Water would be pumped between the two reservoirs when electricity is abundant and then released into the lower reservoir to create electricity at times of shortage. The York Energy facility plans to use Lake Clarke, an existing reservoir formed by the Safe Harbor Dam, as the

lower reservoir. The upper reservoir would have to be created and would have a 600-acre surface area and a 26,000-acre-foot storage capacity.

The project would create 300 temporary jobs throughout the construction period and 25 permanent ones after completion.



► **February 2023:** Permit application filed with the Federal Energy Regulatory Commission

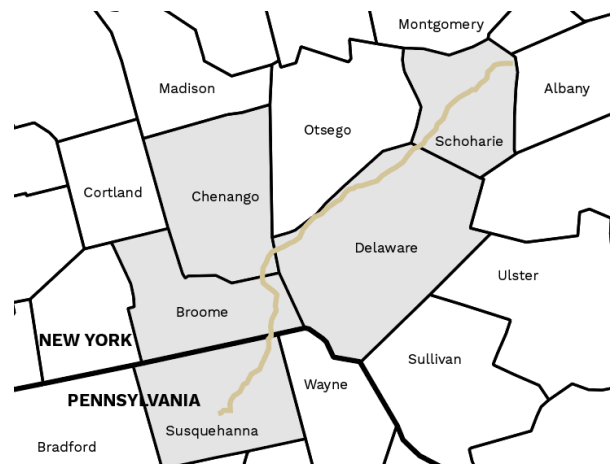
► **March 2023:** Application deemed deficient by the Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) is the lead permitting agency. The facility originally filed its application for a preliminary permit with FERC in February 2023. A month later, FERC said the application was deficient and requested the applicant file additional information within 45 days. Some objections to the facility have been raised, primarily based on federal and state land use issues and the project's interaction with heritage and recreation assets along the river, including several nationally designated historic and recreational trails.

Constitution Pipeline

Status: Canceled

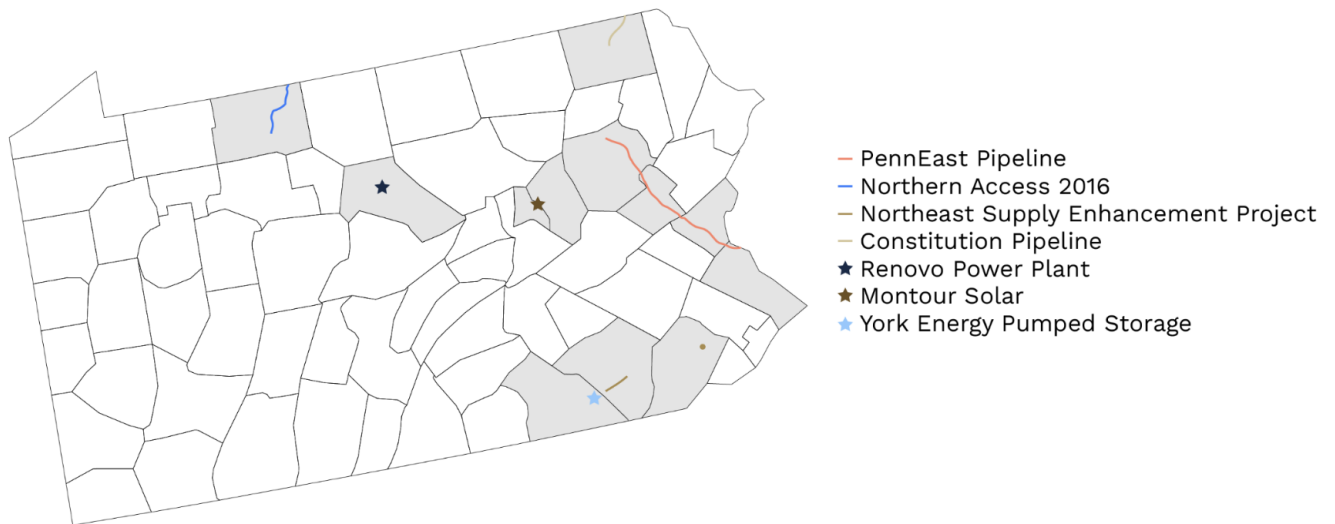
Constitution Pipeline was a proposed 120-mile-long pipeline project intended to connect the Williams Partners' gathering system in Susquehanna County, Pennsylvania to gas pipeline systems in Schoharie County, New York. The pipeline was designed to transport at least 500,000 dekatherms per day (Dth/day) of natural gas production.



- ▶ **June 2013:** Application filed with the Federal Energy Regulatory Commission
- ▶ **August 2013:** Water quality certificate application filed to New York Department of Environmental Conservation
- ▶ **2014-2015:** Project withdraws and resubmits water quality certificate twice
- ▶ **April 2016:** Water quality certificate denied
- ▶ **May 2016:** Regulatory battle begins over water quality certificate denial
- ▶ **November 2020:** Project officially abandoned

Constitution was a \$700 million project that would have created 2,400 jobs and over \$13 million in tax revenue. The pipeline formally filed an application at the Federal Energy Regulatory Commission (FERC) in June 2013 and received FERC approval in December 2014. While undergoing this federal review process, Constitution applied for a Water Quality Certificate (WQC) and permit under the Clean Water Act from the New York Department of Environmental Conservation (NYSDEC). The project had to withdraw and resubmit this application in 2014 and again in 2015 due to inaction on the part of the NYSDEC. Eventually, the NYSDEC did deny the permit, leading to a lengthy regulatory battle lasting eight years before the project was ultimately canceled.

The Big Picture



In Pennsylvania, there have been a number of energy infrastructure projects with the potential to provide affordable energy to Pennsylvania constituents that have struggled due to issues receiving necessary permits for construction. PennEast Pipeline, Renovo Power Plant, and Constitution Pipeline were all canceled because of permitting delays. In some cases, litigation over existing permits exacerbated these problems. Northern Access 2016 and the Northeast Supply Enhancement projects have both been delayed for similar reasons. For both of these projects, delays were driven by states other than Pennsylvania refusing to issue a Water Quality Certificate. Because these projects cross state lines, they need to obtain permits every state where construction will occur. Due to how the Clean Water Act is written, these permits come from the relevant state agencies in each state, not a single federal agency.

Montour Solar and York Energy Pumped Storage have not yet faced major delays, but they are subject to time-consuming review processes by their respective governing bodies. As with all large projects, even if permitting goes smoothly, the potential for abusive litigation remains a real threat to constructing these projects in a commercially viable timeframe.