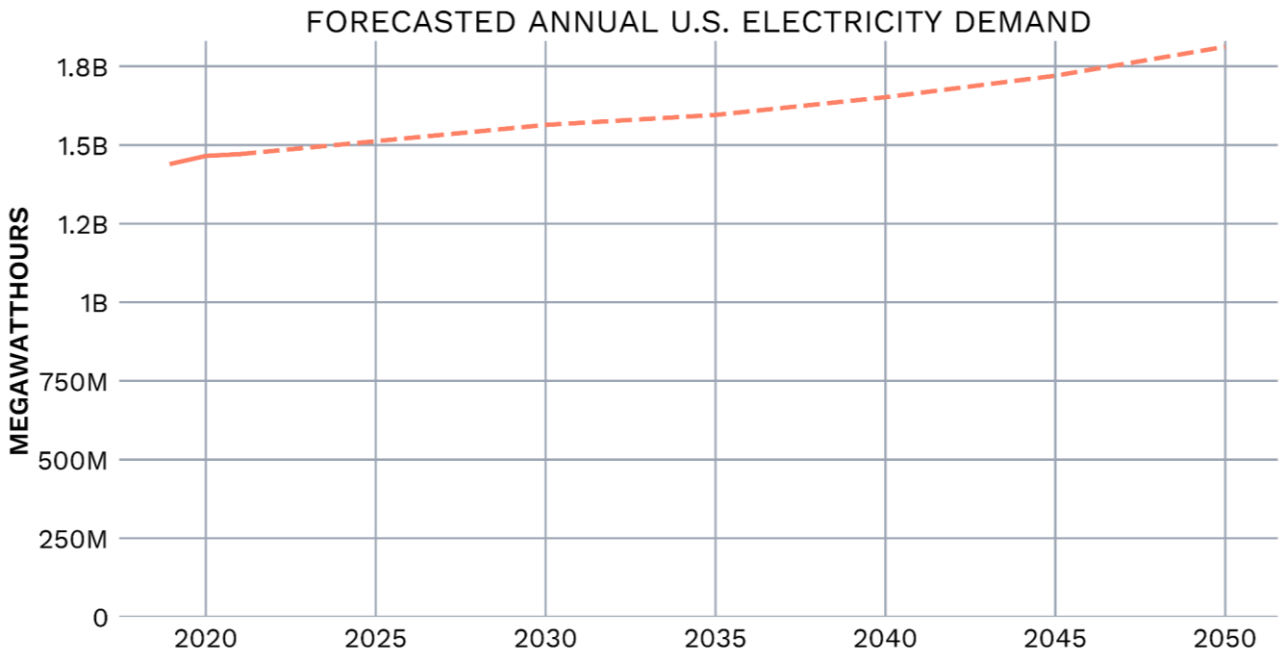
Study: The Impact of Federal Permitting Delays on West Virginia's Energy Supply Chain

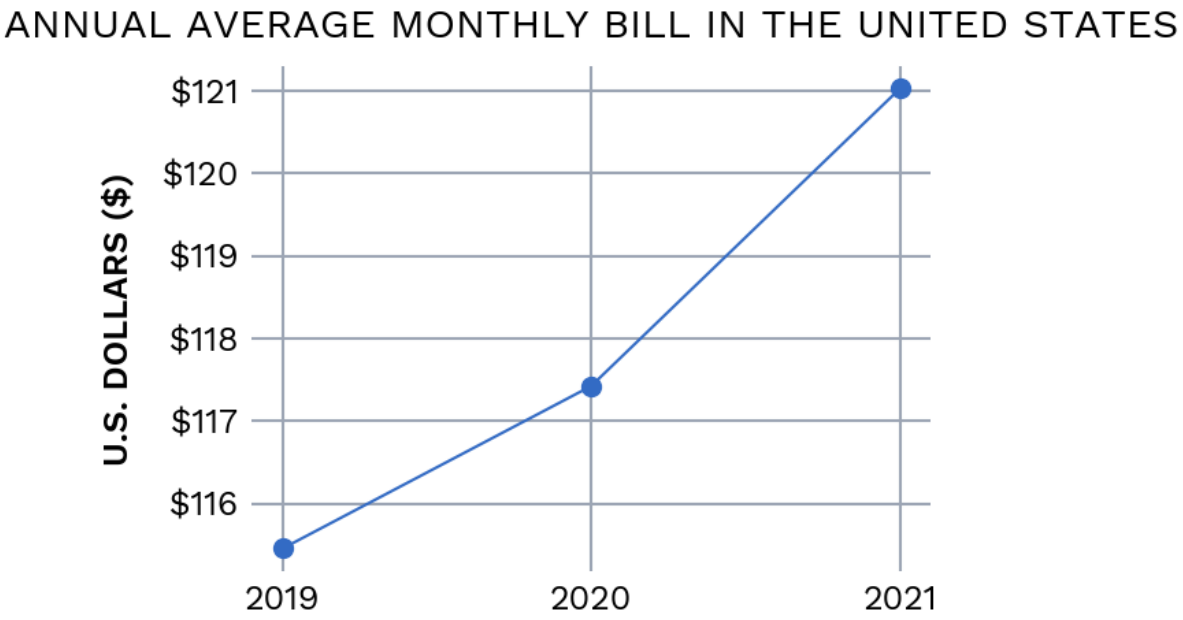
The Impact of Inflation on Energy: Rising Energy Costs

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.
- **Environmental regulations:** Regulations and policies aimed at reducing pollution and ending 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 in surrounding states, including the Regional Greenhouse Gas Initiative (RGGI) in Pennsylvania and Virginia, raise electricity prices for West Virginia 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)



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.

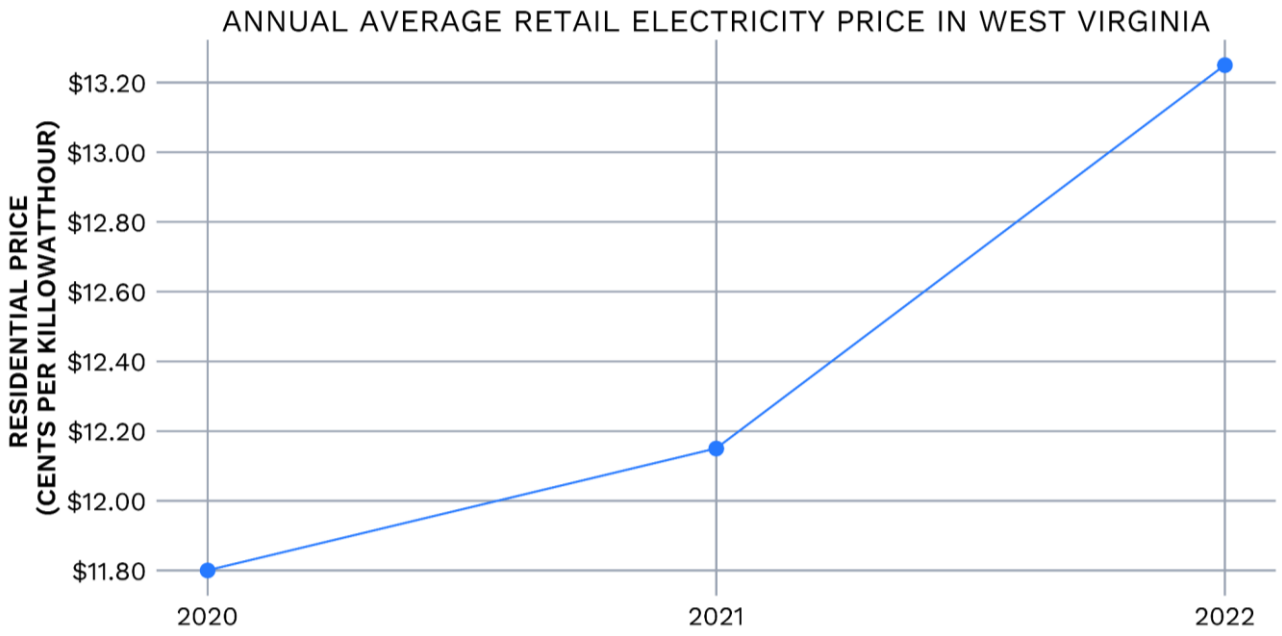
PJM

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 West Virginia 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 West Virginia’s residents and industry.

An Easy Solution to Lower Costs: West Virginia’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 more 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 West Virginia specifically, several of these projects that influence the price consumers are paying for energy utilities have been held up by these federal barriers. The chart below shows the price of utilities over time for West Virginia. If more large projects increasing energy supplies in West Virginia were built, there would be more competition and prices would decrease.



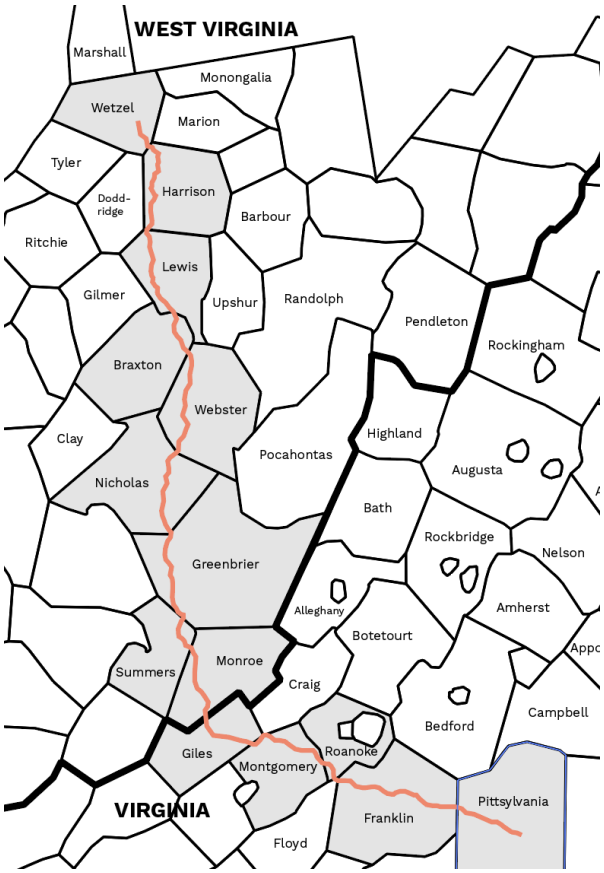
Source: Energy Information Administration (EIA)

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

Mountain Valley Pipeline

Status: Under Construction

Mountain Valley Pipeline (MVP) is a 303-mile natural gas pipeline from Wetzel County, West Virginia to southern Virginia. Until Congress intervened this summer, MVP had faced a long list of federal permitting requirements and related permit litigation. This dragged out the project for 8 years and threatened at multiple points to shutter the project completely—even though the pipeline construction has been 90 percent complete for over three years. The project is expected to have created 3,700 construction jobs in West Virginia and 2,100 construction jobs in Virginia and is expected to generate $82 million in state and local tax revenue in West Virginia and $49 million in Virginia.



- **October 2015**: Application filed with the Federal Energy Regulatory Commission
- **Early 2018**: Project begins to face numerous permitting challenges, repeatedly forcing construction to be suspended
- **August 2020**: Project applies for two-year certificate extension
- **May 2023**: As part of the Fiscal Responsibility Act of 2023, federal administrative agencies are directed to issue all permits for the project
- **July 2023**: A federal appeals court issues stays of three required permits, blocking the pipeline once again
- **July 2023**: The U.S. Supreme Court overturns the appeals court's stays, ruling the project can proceed
- **End of Year 2023**: Targeted in-service

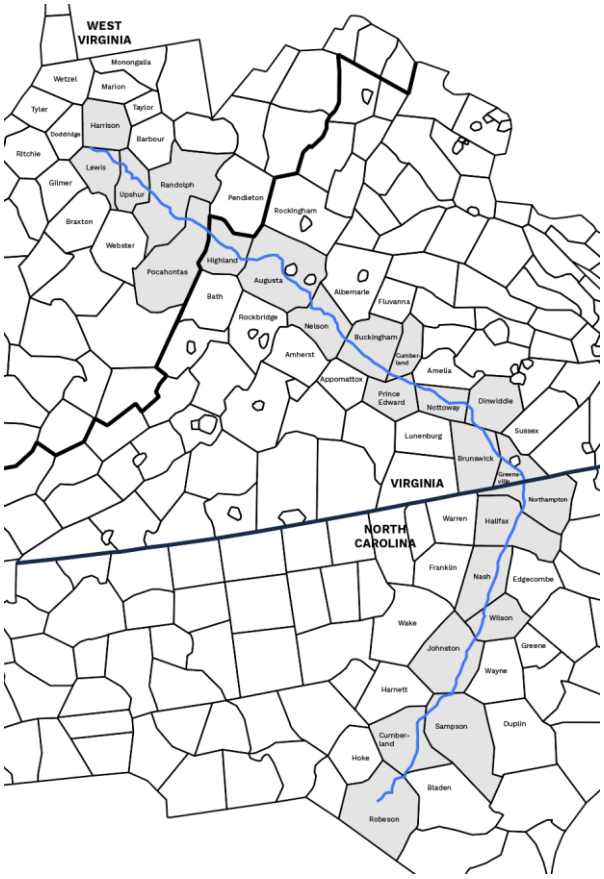
In 2015, MVP filed a formal application with the Federal Energy Regulatory Commission (FERC) and had a target in-service date of 2018. By early 2018, MVP had been issued the necessary permits to begin construction, and construction began with a new projected in-service date of late 2019. Over the next two years, the pipeline was tied up in legal battles. Finally, two months before it was to be put into service, FERC ordered all work on the project to stop. In August 2020, MVP applied to FERC for a two-year extension of its interstate pipeline permit, allowing construction to continue. By that point, the project was approximately 92% complete and was estimated to enter into service in early 2021.

In the summer of 2023, Congress intervened. A special provision was included in the Fiscal Responsibility Act of 2023 that issued all the permits for the MVP, removing the obstacle of agency permit reviews and exempting the MVP from further permit litigation. However, the provision did not stop a federal appeals court from halting the project on July 11, 2023, when it stayed three of the permits that had been issued. MVP appealed those stays to the Supreme Court, which ruled that the pipeline project could proceed, consistent with the sweeping congressional authorization enacted two months prior. The pipeline is now projected to be operational by the end of 2023. The current total projected cost of the Mountain Valley Pipeline is $6.6 billion.

Atlantic Coast Pipeline

Status: Canceled

The Atlantic Coast Pipeline was a proposed 600-mile natural gas pipeline linking production from northern West Virginia's Marcellus shale to North Carolina. The pipeline was a joint venture between Dominion Energy and Duke Energy that would have supported 17,240 jobs during its construction, 2,200 jobs once in operation and generated $4.2 million in annual local tax revenue. The Atlantic Coast Pipeline had an initial estimated cost of $5.1 billion, but due to legal challenges, the projected cost increased significantly to $8 billion. This unexpected $3 billion price tag for permitting delays and related lawsuits lead to the project's cancellation in July 2020—one month after the Supreme Court restored the pipeline's permits, which a lower court had erroneously put on hold.



- **September 2015:** Application filed with the Federal Energy Regulatory Commission
- **November 2018**: United States Army Corps of Engineers suspends authorization to cross waterways
- **December 2018**: Federal Court of Appeals vacates permits
- **Late 2019**: Targeted commercial operation
- **June 2020**: Supreme Court overturns suspension of permit
- **July 2020**: Project officially abandoned

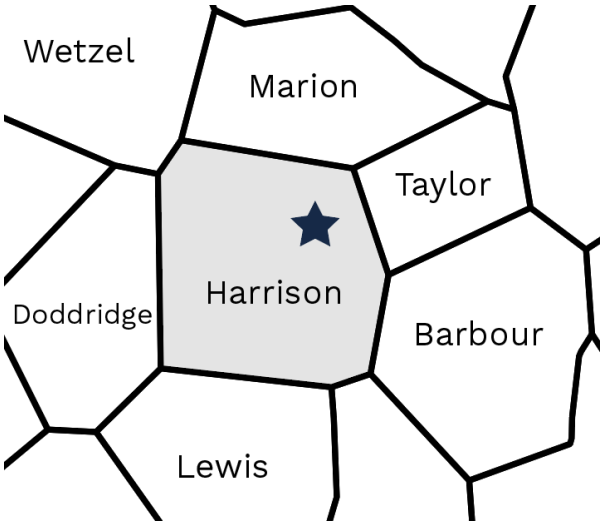
The Atlantic Coast Pipeline formally filed an application with the Federal Energy Regulatory Commission (FERC) in September 2015 and had targeted to commence construction in late 2017 and begin gas transport in late 2019. Soon after construction commenced, however, the project began to face major setbacks. In late 2018, the United States Army Corps of Engineers suspended the project's authorization to cross hundreds of waterways and wetlands. Shortly thereafter, a federal Court of Appeals vacated two key permits, one issued by the U.S. Fish and Wildlife Service, and another issued by the National Park Service, putting a halt on all further construction indefinitely. Despite a Supreme Court ruling overturning the suspension of one of

the permits, the Atlantic Coast Pipeline was officially abandoned in July 2020. Dominion Energy attributed the pipeline's demise to "ongoing delays and increasing cost uncertainty which threaten the economic viability of the project."

ESC Harrison County Power

Status: Reapplying for Permits

ESC Harrison County Power Plant is a proposed 578-megawatt gas fired combined-cycle power plant located on an abandoned coal mining site in Harrison County, West Virginia. The $615 million project was initially being developed by Energy Solutions Consortium (ESC) and was to be regulated by the state's utility regulator, the West Virginia Public Service Commission (PSC). The plant was projected to create 400 construction jobs and 30 full-time plant operation jobs. It was also estimated to generate $10 million in annual tax revenue for Harrison County.



- **January 2017:** Application submitted to West Virginia Public Service Commission
- **April 2018**: Appeal filed against air quality permit
- **2022**: Initial targeted commercial operation
- **2027**: Revised commercial operation target

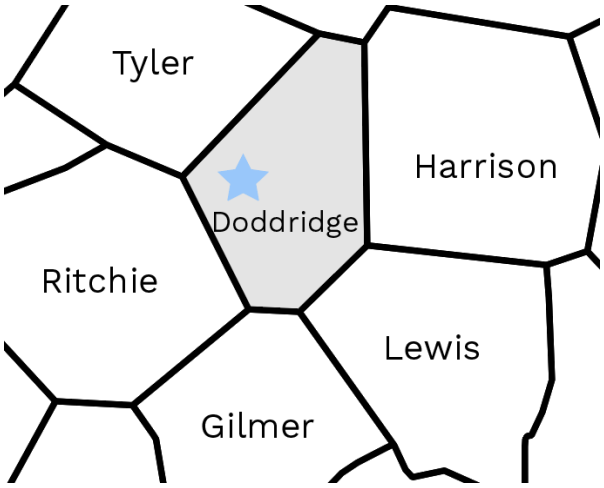
The project submitted its application to the PSC in 2017 and scheduled for ground breaking in 2019. ESC anticipated that construction would be completed by 2022. However, in 2018, Ohio Valley Jobs Alliance (OVJA), filed an appeal of the project's air permit, alleging that the plant's air pollution permits were inadequate under the Clean Air Act. OVJA's lawsuit was dismissed, but it delayed the project by several months. Due to delays and inability to secure adequate financing, the power plant was put on hold, and ESC pulled out of the project. A new company is seeking its revival but must go through the process of renewing previously issued permits that have since expired. It is now hoped that the power plant will be operational by 2027.

CPV Shay Energy Center

Status: Beginning the Permitting Process

The CPV Shay Energy Center is a proposed 1,800 megawatt combined-cycle natural gas power station utilizing carbon capture and storage, to be located in Doddridge County, West Virginia. The $3 billion project will be regulated by the West Virginia Public Service Commission and is expected to create 2,000 construction jobs and 150 permanent jobs. If it becomes operational,

the energy center will generate $100 million in annual tax revenue for Doddridge County and is expected to be able to generate enough electricity to power nearly 2 million homes. At the moment, there is no projected in-service date. The project sponsor has publicly signaled that it hopes to begin producing power from the plant before 2030.



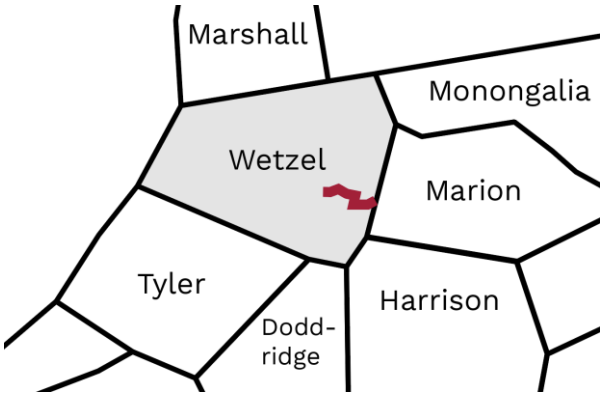
- **September 2022:** Project announced, with commercial operation projected for “later this decade”

CPV Shay Energy Center was announced in September 2022. The project’s owner states it was made viable by subsidies from the Inflation Reduction Act, which expanded the federal tax credit for carbon capture and sequestration power generation. Due to the regulatory and permitting hurdles involved with getting any project approved, coupled with the additional challenges of deploying untested technology at scale, projects such as this struggle to attract investment. Permitting reform would unlock investment, allowing cutting edge projects to go forward without resorting to large public spending that shifts construction and operation costs from investors to taxpayers. In 2022, Senator Joe Manchin explained his vote for the Inflation Reduction Act as part of a deal to achieve fundamental permitting reform during the last Congress. Because those reforms have not materialized, permit delays now block large amounts of private investment as well as many of the claimed benefits of the Inflation Reduction Act.

Ohio Valley Connector Expansion (West Virginia portion)

Status: Under construction

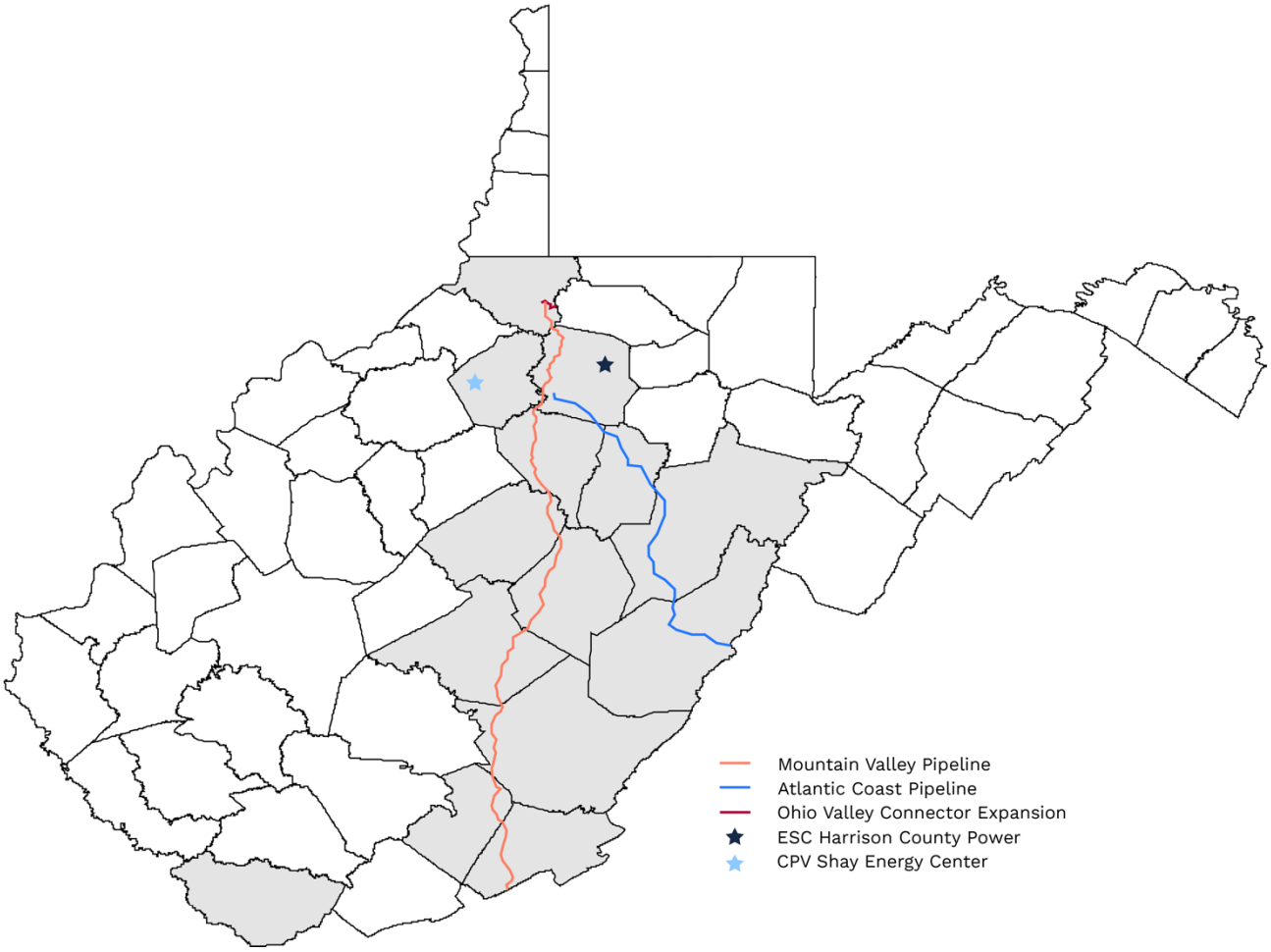
The Ohio Valley Connector Expansion is a natural gas pipeline project that is an expansion of an existing pipeline network. When completed, the project would link natural gas production from West Virgina and Pennsylvania to interstate markets from the Midwest to the Gulf Coast to Colorado. The expansion would increase the pipeline’s transportation capacity by 350,000 dekatherms per day, providing Appalachian shale gas producers the access to new markets required for continued investment and growth. The project is a combined $161 million effort with proposed expanded compressor facilities in Ohio (for more information on the Ohio portion of the Ohio Valley Connector Expansion, see the Ohio chapter), Pennsylvania, and West Virginia, and a total of 5.5 miles of natural gas pipeline added in West Virginia and Pennsylvania.



- **January 2022**: Application filed with the Federal Energy Regulatory Commission
- **March 2023**: Targeted construction start
- **June 2024**: Initial construction completion target
- **Winter 2025**: Revised construction completion target

The project submitted its application to the Federal Energy Regulatory Commission (FERC) in January 2022. Construction was initially anticipated to begin in March 2023, with incremental portions of the project targeted to be in-service by the Fall 2023 and completion of all project components by June 2024. However, due to delays, construction is now scheduled to be complete by Winter 2025.

The Big Picture



In West Virginia, coal is still the primary source of energy generation, accounting for more than 90% of the state's electricity production. Because of the shale revolution, however, West Virgina's natural gas industry has become a major economic force in the Mountaineer State and across the country. The abandonment of the Atlantic Coast Pipeline was a setback for the West Virginia workers and Mid Atlantic markets seeking less carbon intensive forms of affordable fossil fuel. The permitting delays endured by Mountain Valley Pipeline (MVP) seemed poised to strike a similar blow to economic progress and environmental stewardship. Congress recognized these dual threats when, in an all too rare move, it used its lawmaking power to authorize the pipeline which it concluded would, "serve demonstrated natural gas demand in the...region, will increase the reliability of natural gas supplies and the availability of natural gas at reasonable prices, will allow natural gas producers to access additional markets for their product, and will reduce carbon emissions and facilitate the energy transition." The gas-fired ESC Harrison County Power Plant is currently delayed and may potentially be abandoned due to the length of delays that were similarly exacerbated by abusive litigation. While the CPV Shay Energy Center and Ohio Valley Connector Expansion are still in their early stages of permitting and construction, their

predecessors are evidence that federal permitting can make or break a project, and these projects should not count on the type of special attention Congress afforded to the MVP.

Instead, further energy and environmental progress in West Virgina and surrounding states that stand to mutually benefit from this energy bounty depends on federal permitting reform that slashes wait times for government approvals, reins in abusive permit litigation, and leaves financing of energy projects to private investment. With these commonsense reforms, private investment would eagerly step up to deliver energy abundance.