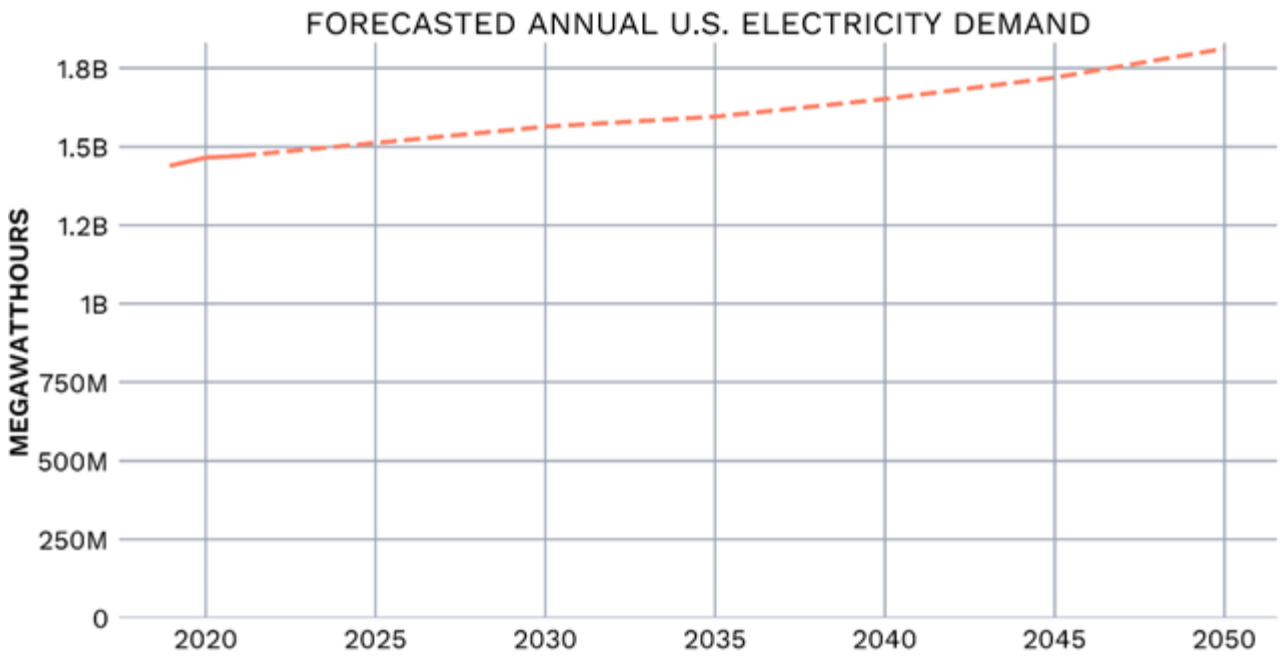
Study: The Impact of Federal Permitting Delays on Arizona's Energy Supply Chains

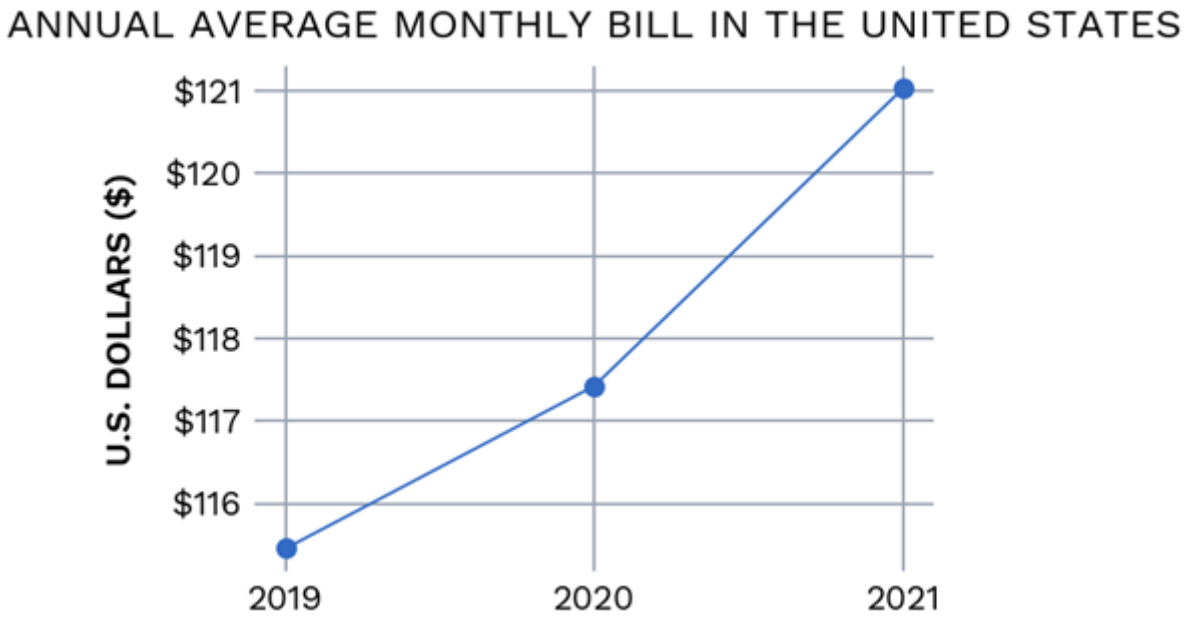
The Impact of Inflation on Energy: Rising Energy Costs

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.
- **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.

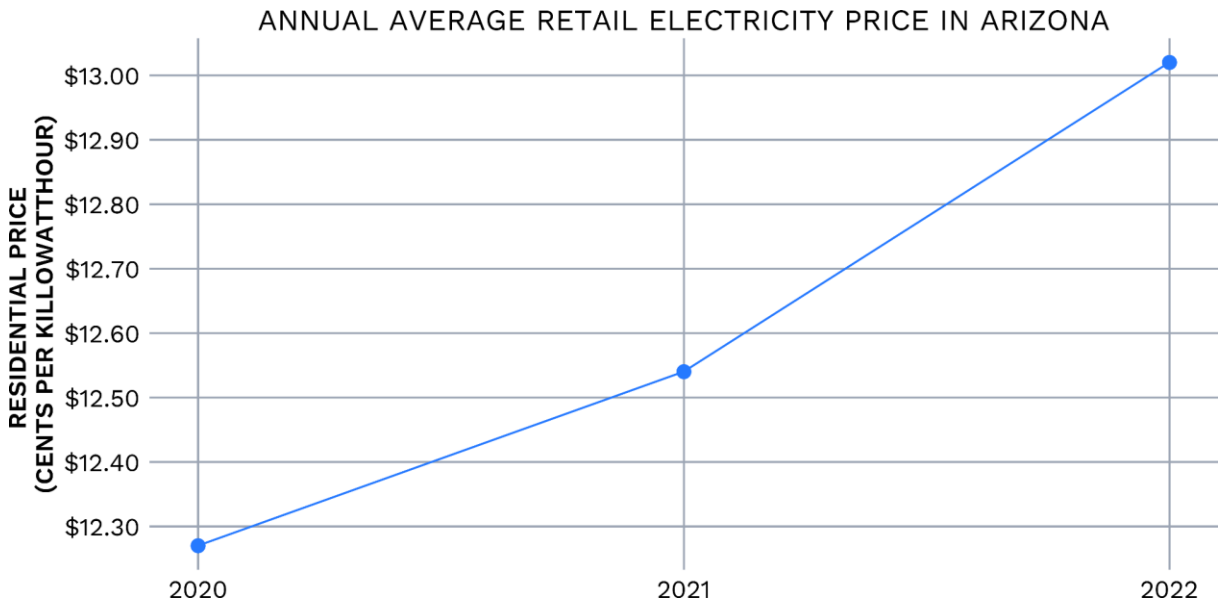
An Easy Solution to Lower Costs: Arizona’s Obstructed Projects

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. Arizona has an abundance of federal land, so it is no surprise that many proposed energy projects in the state have to undergo federal approval.

This also means that Arizona energy projects are particularly vulnerable to being stalled by protracted environmental reviews under the National Environmental Policy Act (NEPA). These reviews typically require preparation of an Environmental Impact Statement, documents ranging from hundreds to thousands of pages and a process that takes years to complete. And the more issues, data, and detailed analysis these documents include, the larger target they become for lawsuits claiming that a federal agency – usually the Bureau of Land Management – did not adequately document the environmental effects of the approved project. These lawsuits can derail projects by voiding the agency’s permit or simply dragging out construction until the project encounters financial strain. In Arizona 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 Arizona. If more large projects increasing energy supplies in Arizona 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 Arizona energy projects blocked by federal permitting laws:

Parker Solar

Status: In the permitting process

The Parker Solar Project is a proposed 250 megawatt solar and storage project, located on approximately 1,530 acres of land managed by the Bureau of Land Management (BLM) in La Paz County, Arizona. Once completed, the project is expected to provide power to approximately 300,000 homes at peak operating capacity.

- **August 2022**: Application approved by Bureau of Land Management
- **March 2023**: Targeted completion of NEPA environmental review (ongoing)
- **End of Year 2023**: Targeted Western Area Power Administration Phase 1 study completion
- **End of Year 2024**: Targeted commercial operation date

The project obtained approval for its right-of-way application from BLM in August 2022. The federal environmental review process under the National Environmental Policy Act (NEPA) was expected to be completed by early 2023, however, this review is ongoing. The Phase 1 study by the Western Area Power Administration is anticipated to be completed by the end of 2023. The completion of the Phase 1 study will then dictate the next steps in the permitting process. However, environmental groups have taken issue with this project being situated on BLM land. If there are delays due to a protracted NEPA review or litigation over the sufficiency of BLM's analysis of environmental impacts, this could negatively impact the project's estimated commercial operation date of end of 2024.

Resolution Copper Mine

Status: Delayed

Resolution Copper is a proposed underground mine in the Copper triangle (60 miles east of Phoenix, Arizona) that is expected to become the largest copper mine in North America. Once operational, the mine would be capable of producing up to 25 percent of U.S. copper demand each year, and is expected to produce as much as 40 billion pounds of copper over 40 years. The project is expected to employ 1,500 workers once operational and generate approximately 2,200 indirect jobs. In total, the mine could provide up to $61 billion in economic value for Arizona over the project's 60-year life span.

▶ **2013**: Mine Plan of Operations submitted to U.S. Forest Service

▶ **2015**: Targeted Final Environmental Impact Statement issue date

▶ **August 2019**: Draft Environmental Impact Statement issued

▶ **January 2021**: Final Environmental Impact Statement issued

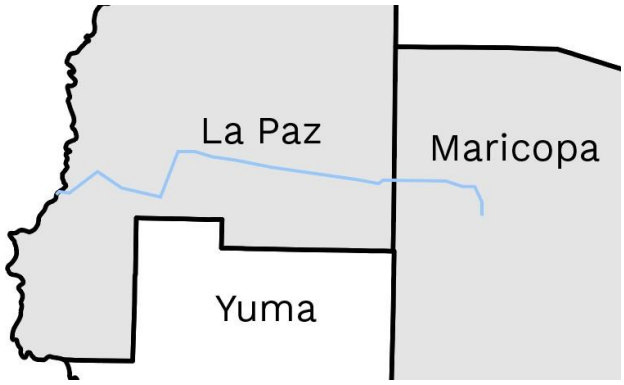
▶ **March 2021**: Final Environmental Impact Statement rescinded for further review

For the moment, Resolution Copper is stymied by protracted environmental review under the National Environmental Policy Act (NEPA) and related litigation based on an alleged conflict with Native American cultural resources. The project's odyssey began in 2013, when it submitted a Mine Plan of Operations to the U.S. Forest Service (USFS), the federal agency in charge of the approval process since the mine would be located on Forest Service-managed land. During the Trump Administration, in August 2019, the agency issued a draft Environmental Impact Statement (EIS), and in January 2021, USFS published a Final EIS that addressed comments from the general public. For a moment, it appeared the agency had satisfied its obligations under NEPA, albeit six months behind schedule. After President Biden took office, however, in March 2021, the Department of Agriculture (USDA), of which USFS is a component agency, took the unusual step of directing USFS to rescind the Final EIS to allow USDA to undertake further review. More than two years later, USDA's voluntary review of the Final EIS is ongoing.

Additionally, in November 2022, a federal appeals court ruled that a lower court must further review claims from tribal leaders in the region that the Resolution Copper mine would be located on sacred Apache tribal land, further delaying the project's completion. For the moment, Resolution Copper is a prime example of project that would provide economic, environmental and security benefits by bolstering domestic mineral supply chains—but is stuck in the counterproductive quagmire of endless environmental review.

Ten West Link Transmission Line
Status: Under construction

Ten West Link Transmission Line project is a 125-mile electricity transmission line that will connect existing substations near Tonopah, Arizona and Blythe, California, improving efficiency in electricity delivery in Arizona and California. The $280 million project, sponsored by DCR Transmission LLC, is anticipated to create 160 temporary jobs and several permanent jobs.



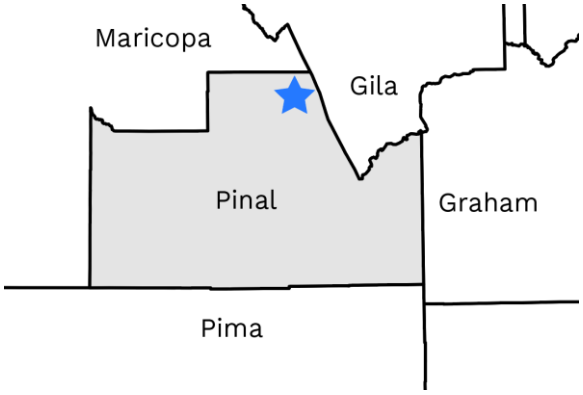
- **October 2016**: Application filed with California Public Utilities Commission
- **November 2019**: Bureau of Land Management issues Final EIS and Record of Decision
- **November 2021**: Approval from California Public Utilities Commission issued
- **April 2023**: Construction began
- **End of Year 2023**: Targeted commercial operation date

The project was announced and filed its application with the California Public Utilities Commission (CPUC) in 2016, but the CPUC approval was not issued until 2021, over five years after the project's application. In late 2019, over a year after releasing its draft Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA), the federal Bureau of Land Management issued the Final EIS and the Record of Decision, granting the project federal approvals as well. The project also had to receive approval from the Arizona Corporation Commission. In July 2022, the federal Department of Interior approved construction, which commenced in April 2023. The project is planned to be operational by December 2023.

West Camp Wind Farm

Status: In the permitting process

The West Camp Wind Farm is a proposed 500-megawatt wind energy project in Navajo County, Arizona that would utilize over 100 wind turbines. The proposed project would be built on 53,000 acres of remote, mostly private land, and would connect to Arizona's electrical grid at the Cholla Power Plant. The wind farm is expected to provide over 500 construction jobs and 20-30 full time local positions. Additionally, according to its name plate capacity, the wind farm would power almost 370,000 homes for 30 years and would reduce annual CO2 emissions by over 2 million tons by one estimate.



- **June 2022**: Special Use Permit requested from Navajo County
- **Late 2023/Early 2024**: Targeted construction start date
- **2025**: Targeted commercial operation

The wind farm requested a Special Use Permit from Navajo County to allow the construction and operation of the facility in June 2022. The project is planned to commence in either late 2023 or early 2024 and become fully operational in 2025. However, as of August 2023, the project still is not yet under construction.

SunZia Southwest Transmission Project
Status: Beginning construction

The SunZia Southwest Transmission Project would transport up to 3,500 megawatts of renewable energy from New Mexico to Arizona and California across two 520-mile transmission lines between central New Mexico and central Arizona. The $8 billion transmission project is expected to generate over $20 billion in total economic benefit across the three states, deliver energy to 3 million Americans, create over 2,000 jobs during its construction, and employ over 100 workers once operational. The transmission lines would cross state, federal, and private land.

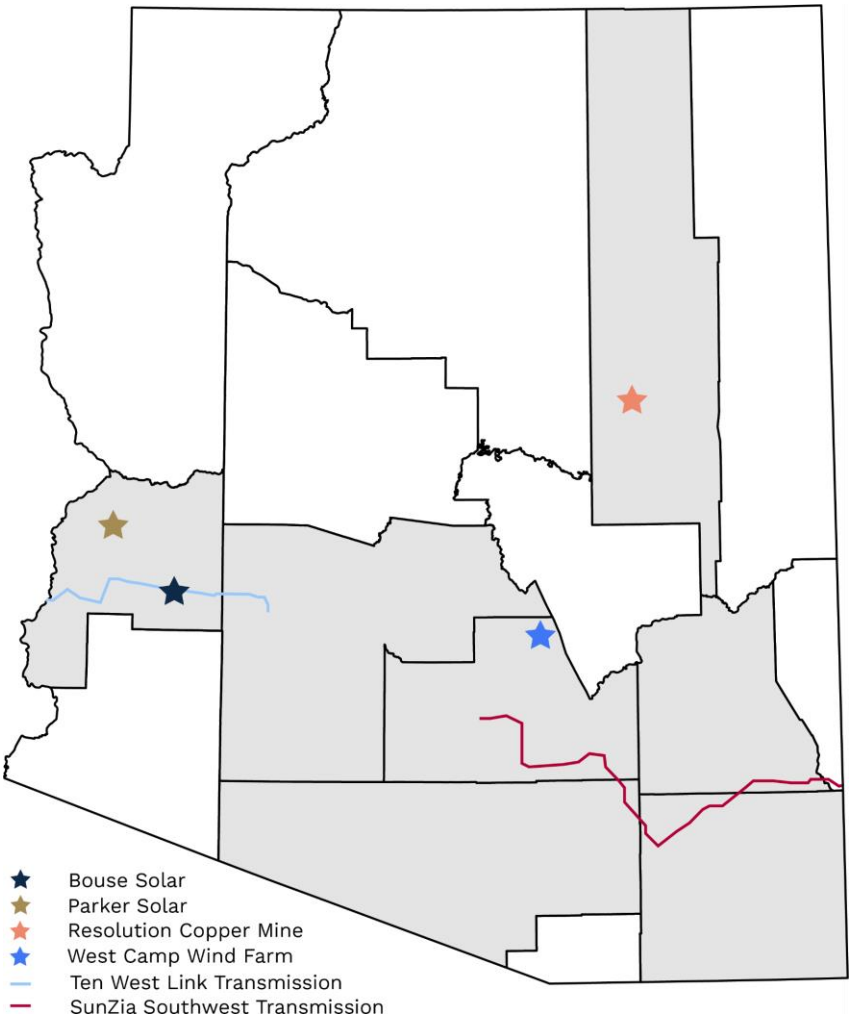
- **May 2009**: Environmental review initiated
- **June 2013**: Final Environmental Impact Statement issued
- **June 2021**: Application to amend right-of-way grant
- **May 2023**: Record of Decision issued
- **End of Year 2023**: Targeted construction start date
- **2025/2026**: Targeted commercial operation

The project initiated the federal environmental review process in 2009, but was not issued a Final Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA) by the Bureau of Land Management (BLM) until 2013, over four years later. BLM then granted the project a Record of Decision right-of-way approval in 2015, allowing the project to

proceed on BLM land.

However, in June 2021, the project filed an application to BLM to amend its right-of-way grant – this required completing an additional EIS. BLM issued this second Final EIS in February 2023, and the updated Record of Decision was issued by BLM on May 19th, 2023. Full construction is targeted to begin in 2023 and the project is targeted to be in commercial operation in 2025 or 2026.

The Big Picture



There have been a number of energy infrastructure projects in Arizona that have the potential to provide reliable, renewable, and low-cost energy to citizens, but have encountered extensive construction delays due to permitting hurdles. Opposition and construction postponements due to permitting issues have pushed back the targeted timelines of the Ten West Link Transmission, SunZia Transmission, and Resolution Copper projects by years. While Parker Solar, Bouse Solar, and West Camp Wind Farm have yet to encounter significant obstructions, it is likely that further opposition and lengthy review processes will lead them down a similar path.