

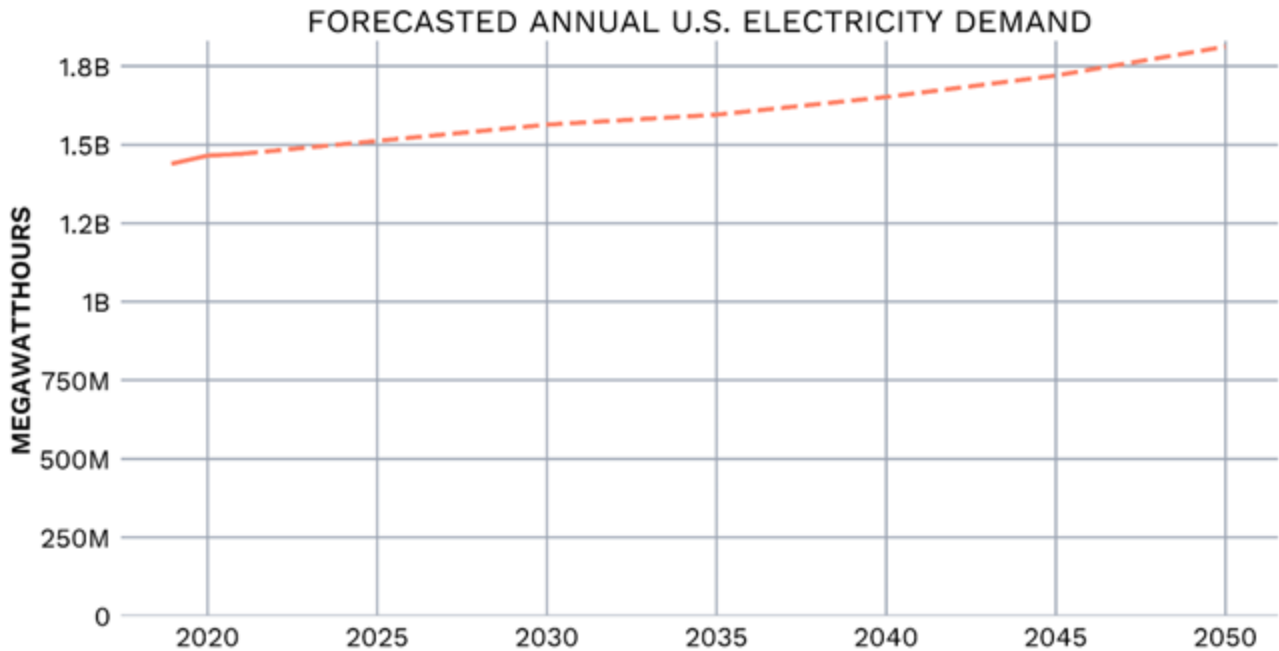
Study: The Impact of Federal Permitting Delays on  
Nevada's Energy Supply Chain



# The Impact of Inflation on Energy: Rising Energy Costs

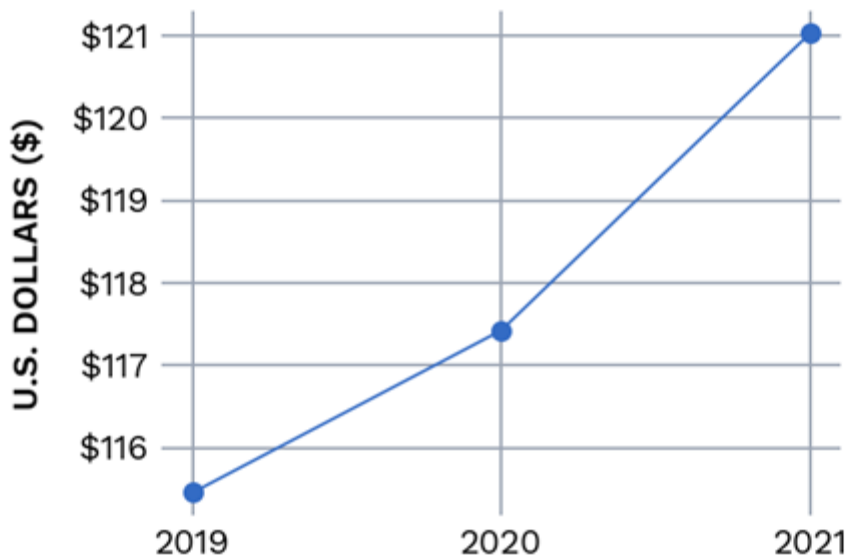
Across the country, America is having a difficult time grappling with inflation, and the cost of keeping the lights on is not exempt from these rising costs. The factors affecting energy utility prices can vary depending on where you live and how your local energy system is set up. Generally, we can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

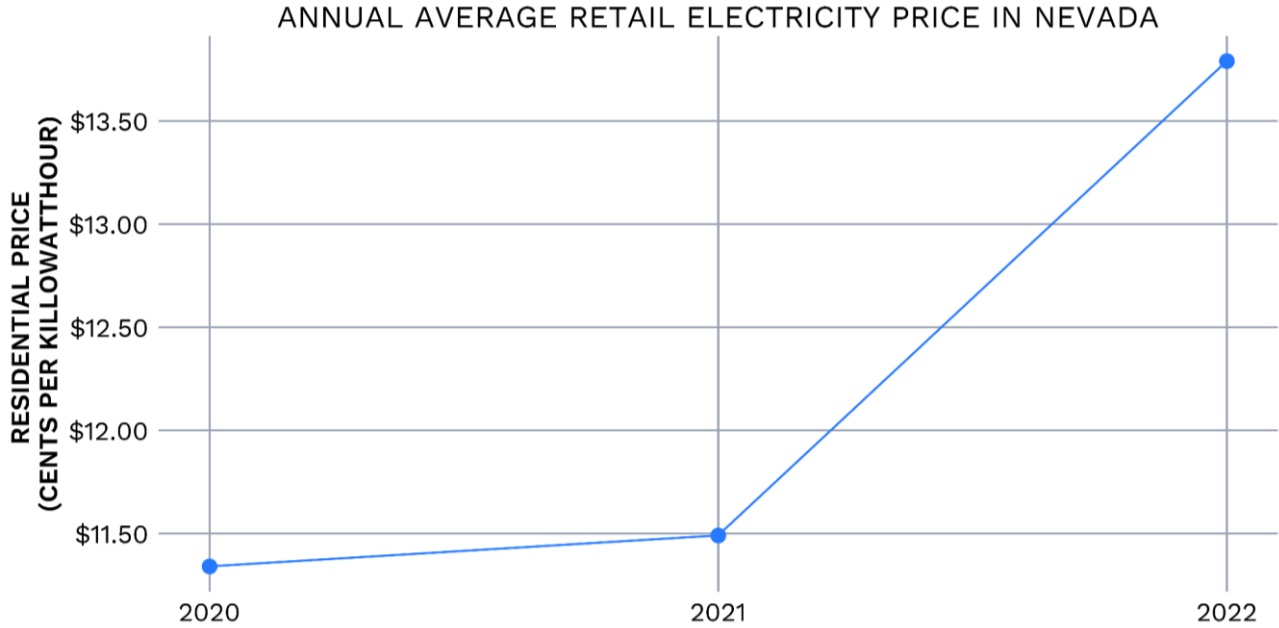
## An Easy Solution to Lower Costs: Nevada’s Obstructed Projects

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 Nevada specifically, several of these projects that influence the price consumers are paying for energy utilities have been held up by these federal barriers. Nevada also has an abundance of federal land – 67% of the state is managed by the Bureau of Land Management (BLM) – so it is no surprise that many proposed energy projects in the state have to undergo federal approval. This also means that Nevada 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.

The chart below shows the price of utilities over time for Nevada. If more large projects increasing energy supplies in Nevada 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 Nevada energy projects blocked by federal permitting laws:

## Gemini Solar

### Status: Under construction

The Gemini Solar Project is a 690 megawatt (MW) solar power plant and 380 MW battery storage facility currently under construction, located on approximately 7,100 acres of federal land managed by the Bureau of Land Management (BLM) in Clark County, Nevada. It is designed to be one of the largest solar installations in the United States once completed, with a projected cost of \$1.2 billion and plans to generate enough energy to power up to 260,000 homes during peak periods. The project will create approximately 1,300 jobs during its construction and add up to \$436 million in economic development value to the state of Nevada.



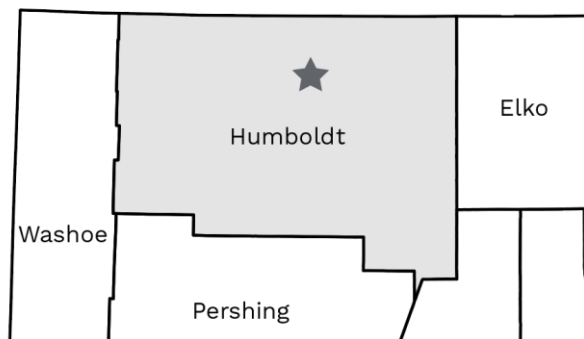
- ▶ **July 2017:** Application filed with Public Utilities Commission of Nevada
- ▶ **December 2019:** Final Environmental Impact Statement issued by Bureau of Land Management
- ▶ **May 2020:** Record of Decision issued by the Bureau of Management.
- ▶ **November 2023:** Targeted commercial operation

The project filed its application to construct with the Public Utilities Commission of Nevada in July 2017 and filed its Notice of Intent to prepare an Environmental Impact Statement (EIS) with BLM in July 2018. Since then, the Gemini Solar project has faced many permitting delays due to missed deadlines by BLM for permits and approvals. These delayed approvals include the final EIS, and National Historic Preservation Act and Clean Water Act permits. In December 2019, BLM issued the Final EIS and shortly thereafter issued the Record of Decision, allowing the project to finally move forward. Gemini Solar hopes to be operational by November 2023, but construction currently remains under 50% complete.

## Thacker Pass Lithium Mine

### Status: Under construction

Thacker Pass Lithium Mine is a lithium clay mining development project located in Humboldt County, Nevada, on 5,700 acres of federal land. The Thacker Pass Lithium Mine contains 3.7 million tons of lithium, which is the largest known lithium source in the United States. The mine would produce 66,000 tons of lithium per year for up to 40 years. The project is expected to cost \$4.5 billion to construct and \$1 billion per year to operate and would create approximately 1,000 jobs during its construction. Lithium is becoming increasingly critical as the production of batteries and electric vehicles continues to increase, and the Thacker Pass Mine will be important in meeting the growing demand for lithium.



- ▶ **2017:** Project announced
- ▶ **January 2021:** Record of Decision issued by Bureau of Land Management
- ▶ **February 2021:** Federal lawsuit filed against project alleging inadequate Environmental Impact Statement

► **February 2022:** Permits issued by Nevada Division of Environmental Protection

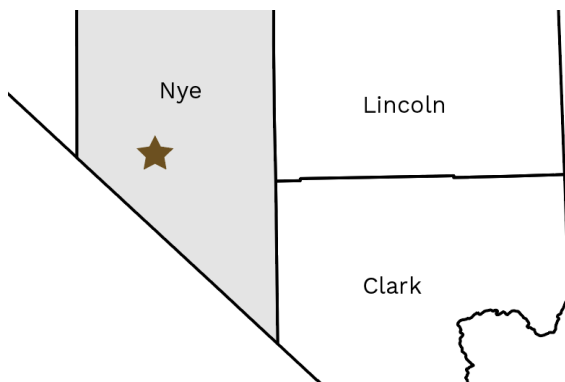
► **March 2023:** Construction begins

The project was announced in 2017 and the Bureau of Land Management (BLM) issued a Record of Decision approving the mine in 2021. The project has faced delays due to lawsuits challenging the BLM's approval of the project. In February 2021, a federal lawsuit was filed, alleging that the Environmental Impact Statement review process was rushed and that BLM failed to consult with local Native American tribes. In February 2022, the Nevada Division of Environmental Protection issued the project's necessary permits. In 2023, a federal appeals court refused to block the impending construction of the mine, and thus construction finally commenced in March 2023.

## Rough Hat Solar Farm

### Status: Delayed

Rough Hat Solar Farm is a proposed 400 megawatt (MW) solar power plant and 200 MW battery storage facility to be located in Pahrump, Nye County and Clark County, Nevada on approximately 2,400 acres of federal land managed by the Bureau of Land Management (BLM).



- **June 2022:** Variance for right-of-way application completed
- **October 2022:** Environmental review initiated by Bureau of Land Management
- **November 2022:** Expected issuance of Final Environmental Impact Statement/Record of Decision (delayed)
- **March 2023:** Targeted construction start date (delayed)
- **September 2024:** Targeted commercial operation

BLM completed the variance process for the project's right-of-way application in June 2022 and was expected to issue the final Environmental Impact Statement (EIS) and Record of Decision (ROD) from BLM by November 2022. However, BLM only began the EIS review process of the project in October 2022 and the project has yet to be issued an ROD. The project had anticipated construction to start in March 2023 and to be in commercial operation by September 2024, but construction cannot begin until the ROD is issued.

## Sawtooth Energy Center Project

### Status: In the permitting process

Sawtooth Energy Center Project is a proposed 1,000-megawatt solar facility in Nye County, Nevada on approximately 10,000 acres of federal land managed by the Bureau of Land Management (BLM). Due to the project’s remote location, the proposal includes an approximately 17-mile-long transmission tie-in line that would extend from the on-site substation to either the Beatty substation or the Greenlink West Transmission Line (more on this separate project below).



- ▶ **April 2021:** Application filed with the Bureau of Land Management
- ▶ **October 2023:** Targeted construction start
- ▶ **December 2025:** Targeted commercial operation

The project filed an application to BLM for the right-of-way to construct the solar facility in April 2021. The project aims to complete construction in a single phase, with construction slated to commence in October 2023 and an in-service goal of December 2025.

## Greenlink Transmission Project

### Status: In the permitting process

The Greenlink Transmission Project is a proposed “renewable energy highway” that will connect renewable energy zones to Nevada’s citizens and diversify Nevada’s renewable portfolio. The project comprises Greenlink West, a proposed 300-mile transmission line from Las Vegas to Yerington, Nevada, and Greenlink North, a proposed transmission line that will span 235 miles from Ely, Nevada to Yerington. Greenlink Nevada would create close to 4,000 total jobs and generate \$690 million in economic activity, while supporting many of Nevada’s underserved and hard-to-reach communities.





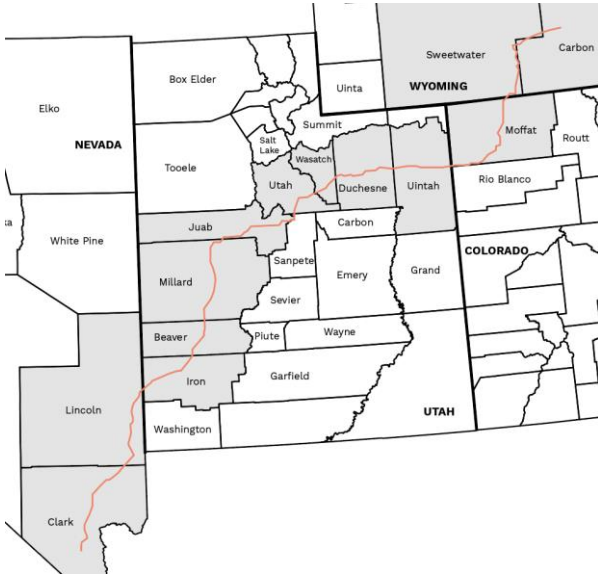
- ▶ **May 2022:** Notice of Intent issued by Bureau of Land Management for Greenlink West
- ▶ **May 2023:** Draft Environmental Impact Statement issued for Greenlink West
- ▶ **May 2023:** Notice of Intent issued for Greenlink North
- ▶ **December 2026:** Greenlink West targeted in-service
- ▶ **December 2028:** Greenlink North targeted in-service

The Bureau of Land Management (BLM) issued a Notice of Intent for the Greenlink West Project in May 2022 and issued a Draft Environmental Impact Statement a year later, in May 2023. That same day, a Notice of Intent was published for Greenlink North, beginning the environmental review process for that portion of the project. Given the regulatory obstacles that projects have faced in the past, without permitting reform, the Greenlink project’s commercial operation target may be significantly delayed. Greenlink West is currently scheduled to be in-service in December 2026 and Greenlink North is scheduled to be in-service in December 2028.

## TransWest Express Transmission Project

### Status: Under construction

The TransWest Express Transmission Project is a proposed 732-mile transmission project designed to deliver 3,000 megawatts (MW) of wind energy from Wyoming to California, Nevada, and Arizona. As conceived, the project would deliver power to more than 1.8 million homes. The transmission infrastructure has two distinct components: a 3,000 MW direct current (DC) segment with terminals near Sinclair, Wyoming and Delta, Utah, and a 1,500 MW alternating current (AC) segment from Delta, Utah to southern Nevada. The project’s total cost is approximately \$3 billion, with \$365.3 million of that cost in Nevada. TransWest estimates that \$891 million in property taxes would be paid over the next 50 years, with an estimated \$123 million of those taxes paid in Nevada.



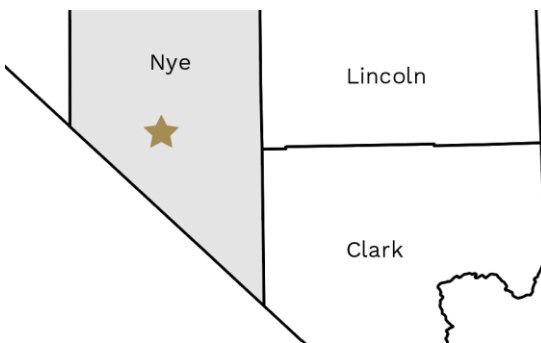
- ▶ **November 2007:** Right-of-way and Plan of Development filed with Bureau of Land Management
- ▶ **December 2016:** Bureau of Land Management issues Record of Decision
- ▶ **April 2019:** Wyoming Industrial Siting Council approve permit to construct and operate
- ▶ **April 2023:** Notice to Proceed issued by Bureau of Land Management
- ▶ **2027:** Targeted construction completion

The project filed a preliminary right-of-way application and Plan of Development with the Bureau of Land Management (BLM) in 2007. TransWest acquired the project in 2008, and over 9 years after its initial application, the project was issued a Record of Decision (ROD) approving issuing rights-of-way by BLM in 2016. In 2019, the Wyoming Industrial Siting Council approved a permit to construct and operate the project, and in April 2023, BLM issued the Notice to Proceed, the final step in the BLM authorization process, thus allowing construction to commence. Transmission line construction began in June 2023 and is estimated to be completed in 2027.

## Yellow Pine Solar

### Status: Under construction

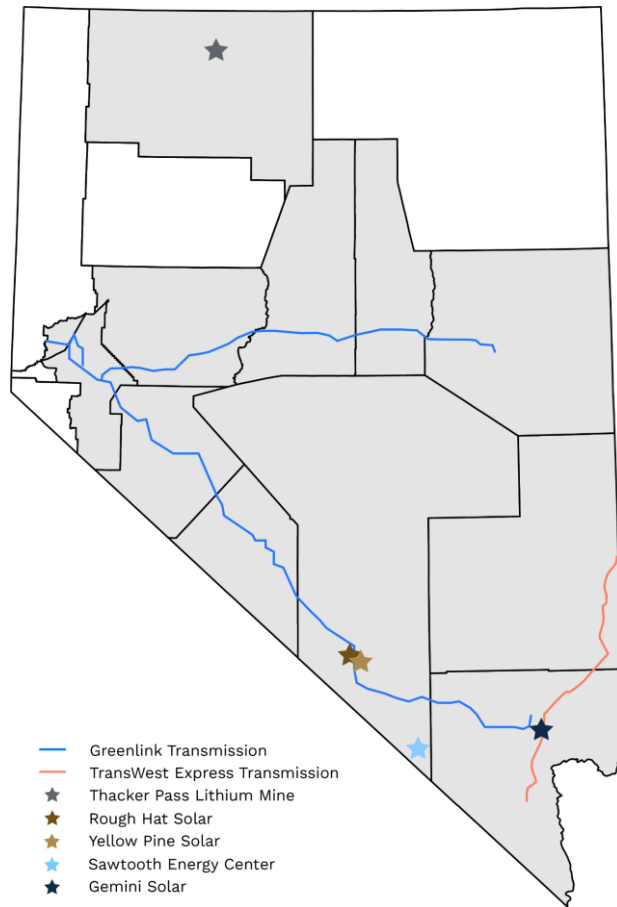
Yellow Pine Solar is a proposed 500-megawatt solar project in Clark County, Nevada on approximately 3,000 acres of federal land outside Las Vegas. Once completed, the solar facility is expected to power approximately 100,000 homes. It is a \$400 million project that will create 300-400 temporary jobs during its construction and generate an estimated \$23 million in tax revenue.



- ▶ **October 2011:** Initial right-of-way application filed
- ▶ **June 2016:** Amended application filed
- ▶ **November 2020:** Record of Decision issued
- ▶ **Mid-2023:** Targeted commercial operation

In October 2011, an application for the project was filed for a right-of-way grant with the Bureau of Land Management (BLM) under its original name, “Sandy Valley Solar.” Nearly 5 years later, in June 2016, the project submitted an amended application to BLM under a new name, Yellow Pine Solar. The project faced permitting delays during the right-of-way application and Environmental Impact Statement process due to a combination of public comment, litigation, and additional studies, but was finally issued a Record of Decision by BLM in November 2020. Construction commenced shortly thereafter and the project is scheduled to begin operation by mid-year 2023.

## The Big Picture



In Nevada, there is no shortage of ongoing and proposed solar projects and proposed transmission lines. These projects often work hand in hand. Since solar energy generation is often located in remote desert areas, servicing customers typically requires construction of new transmission lines linking new generation to population centers. The Greenlink North and Greenlink West Transmission project would help transport renewable energy across the state, while TransWest Express would deliver wind power from Wyoming to the Southwest, including California.

As two thirds of Nevada’s land is managed by the BLM, it’s no surprise that all 7 projects must undergo the federal review process before reaching full operation. This makes it increasingly

important that environmental reviews under NEPA be simplified—for every type of project. NEPA-related delays in BLM permitting have caused some of the country’s largest proposed solar projects, such as Rough Hat Solar and Gemini Solar, to extend their construction timelines and push back projected operation dates. This has impacted consumers in Nevada, leading to increased energy costs. At the same time, the Thacker Pass Lithium Mine has been delayed by objections from Native American tribes, which has thrown into doubt whether car manufacturers will be able to domestically source the minerals needed to build electric vehicle batteries—just one example of federal permitting barriers preventing development that could have positive environmental benefits.