# Rancho Viejo Solar Frequently Asked Questions Updated 8.22.2023

The AES team has been working closely with the community over the last several months, and we have heard your concerns, questions, and needs. We have listened and adjusted our plans to ensure that the Rancho Viejo Solar project reflects our commitment to being a good neighbor, safe, sustainable, clean energy development, and delivering a long-lasting, positive impact on the community. We have responded to the most frequently asked questions in this document.

# **Project Benefits**

The Rancho Viejo Solar project will deliver both environmental and economic benefits to the citizens and communities of Santa Fe County. The project has been studied extensively, planned carefully, and will have no negative impact on regulated wetlands, watersheds, habitats, threatened or endangered species, or cultural/historical resources.

The facility will produce over 277,000 MWh of clean energy each year, enough to offset nearly 120,000 tons of CO2 emissions and equivalent to powering more than 30,000 New Mexican homes annually.

# New Mexico's carbon reduction goals

New Mexico has set ambitious targets for decarbonization at both the state and local levels, including the state's goal to generate 50 percent of our electricity from renewable sources by 2030 and 100 percent by 2045. These goals are achievable but require bold action. Success requires an all-of-the-above strategy, including solar, wind, energy storage, and electric vehicles. It also requires a diversity of projects, including utility-scale, community solar, and rooftop solar, simultaneously. This is the only way to achieve the efficiencies and scale to meet these objectives cost-effectively and timely. This proposed project addresses the urgent need for action to address climate change and energy equity in Santa Fe County. A strategy of relying only on distributed rooftop solar cannot begin to reach all of our community's families that live in rentals, mobile homes, etc., or achieve the clean energy goals we've set. According to the U.S. EIA, only 1% of New Mexico's electricity was generated by residential or commercial-scale PV (<1 MW) in 2020.

# Grid reliability

When people say, "I have solar, so this AES project does nothing for me," it suggests a lack of understanding of how net metering and a regional grid system work. The AES project will bring nearly 100 MW of solar onto the grid, ultimately benefitting everyone connected to it and offering storage to help assure reliability among variable renewable energy sources, including increasing distributed solar systems. Energy storage is critical to making renewable energy work. By storing clean energy generated when the sun is shining, storage enables that energy to be used when it's needed, whether that's at night or when the demand for electricity is

high. This results in a more flexible and resilient power grid.

#### Long-Term Sustainability

The Rancho Viejo project will help the Santa Fe community move toward a more secure and sustainable future. Reducing our reliance on fossil fuels reduces our carbon emissions and contributes to a healthier planet for future generations.

#### **Economic Benefits**

The project will provide significant financial benefits to Santa Fe County, public services, and the school district.

The Rancho Viejo project represents a \$33.7 million investment in the community (inclusive of PILOT impact). This multi-million-dollar investment will create approximately 300 construction and four long-term operational jobs. The construction workers will also bring economic benefits to the local economy through lodging, purchasing goods, and dining at local restaurants. We will also employ local contractors to handle long-term vegetation management at the site.

#### Job creation

AES works with local companies who hire locally to build our projects. The labor pool will pull primarily from Santa Fe County and Bernalillo County. We are working with the community and area colleges to train workers through our sponsored workforce development program, which sends program participants to local solar installation companies for employment and creates new career opportunities for residents.

The project's construction will require skilled workers such as electricians, engineers, technicians, and installers who are in high demand and earn aboveaverage wages. Once the project is completed, ongoing maintenance and monitoring jobs will be created to ensure the system runs smoothly, offering competitive salaries.

#### Community

The Natural Resources Defense Council estimates that cardiovascular and respiratory ailments directly related to our continued use of fossil fuels cost Americans some \$820 billion every year in healthcare costs. Add to this the enormous global costs of failing to slow climate change, and the case for accelerating the energy transition becomes clearer. The success or failure of most climate and energy equity efforts will depend on small-scale efforts, local policies, and decisions.

We hope the County will take action toward the timely development of this proposed project (with reasonable conditions) while providing consistent guidance for similar future projects in Santa Fe County. One approach is to establish a permitting policy for solar or solar plus storage on a utility scale but cap project size at the 300-MW threshold for PRC review to meet the definition for CUP-provisioned renewable

energy. Clean energy projects of this size do not create impacts comparable to any reasonable definition of "electricity-generating plants." A fossil-fueled generation plant requires regular deliveries of fuel by train, truck, or pipeline, management of waste materials, huge amounts of water, mechanical infrastructure, emissions monitoring, lighting, and more. These generating plants are fundamentally different in nearly every aspect, from PV solar to solar-plus-storage facilities.

# Low-cost Energy

The electricity generated by Rancho Viejo Solar will be sold to the Public Service Company of New Mexico (PNM) under a 20-year power purchase agreement. PNM will, in turn, sell that electricity to its customers in Santa Fe County and New Mexico. Solar energy costs have decreased significantly in the last decade, making solar cost-competitive or even lower cost than other traditional forms of generation. Utility-scale solar offers several advantages, including a stable, no-cost fuel source; scale and efficiency to optimize costs; and the ability (compared to rooftop solar) to share the costs and benefits of renewable energy equitably across the customer base. As is the industry standard for many utility-scale solar projects, after the 20year PPA with PNM, the project will look to re-contract or sell the electricity in the merchant market for the remaining solar project life.

# Health and Safety

Utility-scale battery energy storage systems are familiar and tested technology. According to the U.S. Energy Information Administration, operating utility-scale battery storage in the U.S. will triple between now and the end of 2025 to about 30 gigawatts. There have been steady and significant advancements in materials, operations, safety and monitoring systems, and emergency response training compared to early systems built a decade ago.

# Lithium-ion batteries and safety

At AES, safety is always our top priority. A Hazard Mitigation Analysis (HMA) will be performed for this project as part of the detailed engineering process. This HMA will include site and product-specific fire risk assessment and a first responder plan. Local first responders will have access to these reports. AES will provide on-site and in-person training to local responders prior to the commercial operation of the system. The facility will be equipped with advanced safety monitoring and management systems. No special materials are required for the containerized BESS units to respond to a thermal event. Only standard water application to the adjacent BESS containers is required, and only in the extremely unlikely case that all internal fire suppression systems fail. All information the first responders require will be included in the first responder plan part of the HMA. To prevent accidents like the Arizona case referenced, these containers are "non-occupiable", meaning the first responders do not open or enter any container under any circumstance. Solar systems are governed by the same Building/Electrical/Fire codes that govern the construction of homes and other buildings with electrical systems in the community. The local fire and EMS organizations will be thoroughly informed about the project and all available access points. Turn around radius will be reviewed to ensure local equipment can operate. The project will be fenced and secured with



access-only approved personnel.

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# How will this project impact the environment? What studies have been conducted?

As part of the development process, we conduct studies to identify sensitive features of our proposed project site. We design our facilities to avoid any impacts by identifying these resources at the front end.

These studies include:

- A delineation of any wetlands and streams
- A search for any hazardous materials on site
- An assessment of the cultural resources on-site (archaeological and architectural)
- An identification of any threatened and endangered wildlife habitat on site
- An assessment of local floodplains and hydrology
- An assessment of soils and geology including on-site geotechnical and pile load testing studies
- A survey of the terrain, boundary, and real estate encumbrances
- Infiltration testing to understand soil drainage rate

An environmental impact report (EIR) was prepared in compliance with Santa Fe County's Sustainable Land Development Code. The resources addressed in this EIR include air resources; biological resources; cultural, historical, archaeological, and religious resources; geological, paleontological, and soil resources; geographic resources; health and safety; land use; minerals and mining resources; noise resources; socioeconomic resources; roads; water resources; and visual resources. The analysis evaluates the impacts on these resources associated with the project's construction, operations and maintenance, and decommissioning. The EIR also identifies mitigation measures that would be implemented to avoid and minimize significant impacts. Based on the draft EIR, the Rancho Viejo Solar Project is not expected to unduly impair important environmental resources or values. Based on the results of these studies, AES modified the Rancho Viejo Solar project design to avoid identified Prairie Dog colonies, suspected Burrowing Owl habitats, and

#### cultural findings.

Biological field surveys were performed in April 2022 by SWCA Environmental Consultants to evaluate the project's potential impacts on federally threatened or endangered species, state-threatened or endangered species, and the state's endangered plant species regulations. It was determined that the Mexican spotted owl is unlikely to occur in the project area because of the lack of mountainous habitat, old-growth mixed conifer forest, and deep canyons preferred by the species. SWCA observed burrowing owls, protected by the Migratory Bird Treaty Act (MBTA), and Gunnison's prairie dog colonies which could provide habitat for the burrowing owl species within the proposed project area. If construction begins during the burrowing owl nesting season (March 1-October 31), occupied nesting burrow surveys will be conducted, including verifying the presence/absence of prairie dogs and coordination with the New Mexico Department of Game and Fish. After which appropriate avoidance steps would occur. In addition, pre-construction nest surveys would be conducted to avoid potential impacts on MBTA-protected species. If active nests are observed, recommended buffers will be applied until the young have fledged.

The SWCA biologists identified two habitat types within the project area: 1) grasslands dominated by blue grama, prickly Russian thistle, and rubber rabbitbrush and 2) pinon-juniper savanna dominated by blue grama, two-needle pinon, one seed juniper, and rabbitbrush. The landscape has previously been disturbed by two-track roads and cattle grazing. According to the NRCS (2022a), none of the soils are considered prime farmland or statewide importance.

#### How much water will be used during construction and operation?

This project will require very little water to build and virtually no water to operate. Water use during construction will be approximately 100 to 150 acre-feet over a 12-month construction period. Water may be acquired from the following offsite sources, or a combination thereof: Santa Fe County bulk water station commercial pipe water; Ranchland Utility Company Class A reclaimed water; Santa Fe County reclaimed water; or any other legally permitted commercial water sales. Neither AES nor its construction partners will drill any wells or use any existing wells on the property for the project.

#### How will soil conditions be impacted?

The project will be constructed at existing grade to the greatest extent possible, minor grading and/or grubbing may occur in portions of the solar facility. The area around the Project Collector (2 AC) and BESS (4 Ac) will be graded and leveled to include a gravel surface with concrete foundation pads for certain equipment, including the individual battery containers. Grading will conform to accepted slope stability requirements. Pole mounts in the solar racking system do not require leveling the land or installing complex foundations. The installation method will be either pile or screw driven, depending on the compactness of the soil. Reclamation would include the re-establishment of native vegetation. Certified weed-free native seeds would be used.

#### Does the project pose a fire risk?

Solar systems are governed by the same Building/Electrical/Fire codes that govern the construction of homes and other buildings with electrical systems in the community. The local fire and EMS organizations will be thoroughly informed about the project and all available access points. Turn around radius will be reviewed to ensure local equipment can operate. The project will be fenced and secured with access only for approved personnel.

#### Are solar panels safe?

No reports provide evidence of any health issues caused by solar panels. All solar panels used by AES pass the EPA's Toxic Characteristic Leaching Procedure (TCLP) test, are classified as non-hazardous, and are not regulated as toxic materials.

#### Can the solar array withstand intense storms, wind, and hail?

Solar panels are extremely durable and rigorously tested to withstand harsh weather, including strong wind and hail. AES utilizes panel vendors that use thick tempered front-side glass, significantly increasing the module strength.

Rancho Viejo Solar has a design basis to withstand wind speeds up to 105mph and golf ball-sized hail.

#### What are solar panels made of? Are the components a health risk?

Crystalline-silicon solar modules are largely made of glass, aluminum, copper, and silicon, along with other commonly used plastic and wires. The cells on solar modules that are used to capture sunlight are made of silicon, which is a naturally occurring element. Crystalline-silicon solar modules are made of basic "solid-state" materials, meaning there are no liquid or gaseous components. The project will be constructed with Tier I panels. Tier I panels are high quality and rigorously tested for predictable performance, durability, and content. All solar panels used by AES pass the EPA's Toxic Characteristic Leaching Procedure (TCLP) test and are classified as non-hazardous and not regulated as toxic materials.

#### Will the project emit concerning EMFs?

PV systems do not emit any material during their operation. Electromagnetic fields (EMFs), often referred to as non-ionizing radiation, do not have enough energy to damage DNA. Studies show people are exposed to EMFs throughout their daily lives, including wall-sockets, mobile phones, and computers, without negative health impacts. Someone outside of the fenced perimeter of a solar facility is not exposed to any significant EMF levels from the solar facility. No evidence of negative health impact from EMFs produced in a solar farm exists.

#### Community Experience

We believe in being a good neighbor, ensuring responsible and sustainable renewable energy development that benefits the environment and local communities. At AES, we understand that our success as a company is only as



strong as our partnerships with the communities where we operate.

Drawing on our deep expertise, we customize solutions to meet local needs. Our clean energy projects create jobs, generate substantial property tax revenue for local governments, and protect the environment by reducing carbon emissions.

### As the project owner, who is AES?

The AES Corporation is a global energy company accelerating the future of energy. AES is headquartered in Arlington, Virginia, and is a publicly-traded company listed on the New York Stock Exchange (NYSE: AES). With over 8,450 employees in 14 countries, AES has been developing and delivering innovative energy solutions to its customers for 40 years. In the U.S., AES successfully operates more than 450 solar projects representing 4.9 GW of operating clean energy resources in 24 states. We have 3.7 GW of clean energy projects under construction and more than 50 GW of projects under development in the U.S. AES is a diversified energy company, owning and operating two large investor-owned utilities in Indiana and Ohio and other generation assets in the US and worldwide.

#### Will the project be noisy once operational?

The solar project will be a quiet neighbor. Only a few pieces of equipment at the site will make any sound. These are inverters and transformers, and they are equipped with cooling fans. Tech Environmental, Inc. conducted an Acoustic Study, which analyzed noise produced from similar utility-scale solar sites. Based on this report, noise levels approached typical background noise levels within 150 feet of inverter locations. All proposed inverters for the project will be located well over 150 feet from any site boundaries and neighboring parcels.

# How long will construction take? Will there be noise and disruption during construction?

The entire construction period for the project is expected to last approximately 12 months. Construction will begin once all permits are received and pre-construction work and standard site due diligence are completed. During construction, the noise will be limited to the pile driving that happens early in construction, lasting approximately 30 days. A strict noise ordinance is followed to ensure that work happens during appropriate hours. Further, water trucks will be used for compacting project roads and managing construction dust.

# Will the project produce any light pollution at night?

There will be standard, motion-censored security lighting on the project. This lighting will be pointed downward and away from any surrounding neighboring properties. There will be no consistent nighttime lighting.

#### Will the project produce any glare or reflection?

Solar panels are intended to capture the most light possible and are designed to reduce reflection and glare. Modern solar panels reduce reflection using anti-reflection coatings (ARC) and texturing the surface. According to the National

Renewable Energy Laboratory, solar panels reflect as little as 2% of incoming sunlight and produce less glare than standard windows and water. The Federal Aviation Administration (FAA) produced a final policy report that found solar projects do not create hazardous glare for aircraft in the area.

# How will the project affect the property values of adjacent and nearby residences?

In February 2023, Kirkland Appraisals, LLC and CohnReznick, LLP conducted sitespecific studies to analyze the impact of commercial, utility-scale solar projects on neighboring property values across the U.S. Both studies provide data supporting the conclusion that solar will not have a negative impact on surrounding property values.

# Will a nearby solar array impact the cost of homeowner's insurance?

A nearby solar project should not impact an individual homeowner's insurance.

# Project Design and Site Operations

# How will landscaping and vegetation be managed?

The vegetation throughout the arrays must be properly managed to minimize the shading of tall grass on the panels. As part of the project's operation and maintenance plan, the ground cover will likely be managed through seasonal mowing, if necessary.

# Is there any impact on the water table? Will the Project increase stormwater runoff outside of the Project area?

No, the solar project will not increase stormwater runoff outside of the project area and will be properly managed within the project area. Rain falls on the solar panel and runs off the edge of the panel, where it falls off the drip line and infiltrates the ground below.

# Will the project impact local roads and traffic?

The public may see or hear construction vehicles transporting material to the site during construction. Once construction is complete, there will be minimal vehicles accessing the site. We will coordinate closely with local and state transportation authorities before, during, and after construction to ensure local roads are cared for, and any necessary road improvement or use permits are obtained.

# What type of fencing will be used?

The project will use an agricultural-style fence with woven wire and wooden posts for the enclosure to preserve the rural character of the existing community.

# What is the setback of the project?

Setbacks are measured from property lines. The Rural Fringe Zone District (RUR-F) requires a minimum setback of 25' from the Front, Side, and Rear property line.

The 1,000' buffer is an internal AES guideline reflecting the distance from adjacent



#### residences.

# What is the decommissioning plan for the project's end of life? Will materials get recycled?

When a solar project reaches the end of its life, the owner/operator is responsible for executing the approved Decommissioning Plan, including abiding by all local and state decommissioning requirements. This includes the removal, recycling, and disposal of all solar panels, racking, equipment, and other structures associated with the project, as applicable. The land surface within the project area will be sensitively restored to pre-project conditions to allow a return to agricultural use, or other uses consistent with the land-use policies. Our supply chain process identifies and prioritizes equipment manufacturers that align with our environmental, safety, and human rights commitments. Some of these commitments include buying equipment from manufacturers whose supply chains and suppliers comply with a national recycling program. We also seek to buy high-efficiency products, reducing the total raw materials and parts required for each project.

#### Why is the solar project located here?

The location for this project was selected based on an assessment of 1) PNM's transmission network, 2) available substation capacity, and 3) an examination of the landowner's property to identify the most suitable lands.

