Rancho Viejo Solar Project – Preliminary Responses 0627 2022

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1	In your letter, it states a second meeting will be held at the end of June between AES solar company, landowner Mr. Thompson and RSM property owners. Will there be a meeting at the end of this month that RSM owners can attend?	Yes, the meeting is on June 29 at 5:30 pm. Additional meeting(s) will be discussed on the 29th .
2	In your letter, it states the solar farm is expected to start in the NE corner of our neighborhood, with the maximum distance from our "residences" being 1000 feet. Did you mean 1000 feet from homes or property lines?	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 referenced is an internal AES guideline reflecting the actual distance from adjacent residences.
3	Why does this solar farm need to be so close to our neighborhood, given landowner Mr. Thompson owns an extensive amount of land. If approved, would this just be the beginning of even more panels placed? Is it possible that's why they are trying to place it so close to us? meaning if this gets approved, then extending this farm to a much larger array will be easier to get approved in future?	Rancho Viejo Solar has been designed to follow natural land contours and avoid environmentally sensitive features on the property. The project is situated northwest of the Gallina Arroyo and floodplain, south of Bonanza Creek and is being designed to avoid the smaller tributaries/ephemeral drainages bisecting the property. At this time, the proposed request is for a 96 MW project.
4	Why is a company such as AES choosing to place solar farms on untouched fertile land, instead of choosing brownfield land?	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. 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) pinyon-juniper savanna dominated by blue grama, twoneedle pinon, oneseed 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.
5	Please confirm addresses which will be directly adjacent to this solar farm include 171 San Marcos Loop, 181 San Marcos	Properties within 500' of the project will be notified of the required Neighborhood Meeting. The date for this meeting has not been set.

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	Loop, 191 San Marcos Loop, 201 San Marcos Loop, 213 San Marcos Loop, 221 San Marcos Loop and 227 San Marcos Loop. Has each owner been notified of this, because many people are busy and may not read all Nextdoor posts?	
6	Has AES been Questioned regarding valid concerns of this solar farm? There is a vast difference between individual solar panels for a homeowner vs a solar farm. I have done quite a bit of research and am very alarmed as to the potential negative impacts a solar farm will cause to our community and the ecosystem. I have found information from legitimate/reliable websites (including government websites) and have also been in contact with several people with New Mexico Game and Fish. I do know there is potential for a federally endangered species (Mexican Spotted Owl) to be in this area that is going to be used for this farm. Per NM Game and Fish, the only way to confirm is through a ground survey. Does the solar company or Mr. Thompson plan to pursue this? There are also several other state endangered species that could potentially inhabit this area that is going to be developed for the farm.	Biological field surveys were performed in April 2022 by SWCA Environmental Consultants to evaluate the potential impacts of the project on federally threatened or endangered species, state threatened or endangered species, and the state's endangered plant species regulations. It was determined that 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, which are protected by the Migratory Bird Treaty Act (MBTA), and Gunnison's prairie dog colonies, which could provide habitat for this species, within the proposed project area. If construction begins during the burrowing owl nesting season (March 1–October 31), occupied nesting burrow surveys would be conducted, including verifying the presence/absence of prairie dogs, and coordination with New Mexico Department of Game and Fish and appropriate avoidance would occur. In addition, preconstruction nest surveys would occur to avoid potential impacts to MBTA protected species. If active nests are observed, recommended buffers should be applied until the young have fledged.
7	I have concerns regarding the materials solar farm equipment is made of; which when intact, does not pose a risk but when damaged, poses risks (including but not limited to) soil contamination, ground water contamination, electromagnetic radiation and fire risks.	Crystalline-silicon solar modules are largely made of glass, aluminum, copper, 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)

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		test and are classified as non-hazardous, and not regulated as toxic materials. PV systems do not emit any material during their operation. Electromagnetic fields (EMFs), often referred to as non-ionizing radiation, meaning the radiation does not have enough energy to damage DNA. Studies prove modern humans are all exposed to EMFs throughout our daily lives, including wall-sockets, cell-phones and computers, without negative health impact. Someone outside of the fenced perimeter of a solar facility is not exposed to significant EMF from the solar facility. Therefore, there is no concern or negative health impact from EMF produced in a solar farm. 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 access points available to them. Turn around radius will be reviewed to assure local equipment can operate. The project will be fenced and secured with access only by approved personnel.
8	I also wanted to know if you have asked this company how they intend to clean all of these panels (with this initial array being 600 acres and I'm sure more 10 come if this is approved. We all see the continuous dust stirred up in that area, and solar panels will be collecting dust all the time. Will they clean them with water/chemicals etc.?	Typically, AES will contract with a local vendor to periodically wash the solar panels with a water truck. Chemicals are not used in this process.
9	As dust/grime collects on the panels and/or weather is not conducive to continual energy production, what is this company's back up plan to create energy if unable to get it from solar? I have read things such as natural gas being used; if so, would it be at the solar farm location?	This proposal is for a 96 MW-AC solar PV and an optional combined 48MW / 192 MWh (4-hr) Battery Energy Storage System (BESS).

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		The BESS will be located on site and connected to the solar facility, storing excess energy that can be delivered to the grid during peak usage hours or at night. Dust/grime or cloud coverage will not prevent the facility from generating electricity. The improved technology of the panels enables production of electricity even on cloudy days.
10	Where will this energy that this farm makes go to? Will it be used locally or sold to other places/states?	Facility will be connected to the PNM transmission lines, delivering power to the utility which serves households and businesses in New Mexico.
11	Also regarding all of the land that is to be torn up to build this solar farm, what do they intend to do to in regards to post construction reclamation. It is a given that this solar farm will kill and displace all plants and wildlife that currently inhabit the area. Are they going to fence in the solar farm so wild animals don't get in or leave it open? Are they planning to plant “certified weed free” native seeds that also will help with pollination? It's also obvious that this construction will cause a change of soil runoff and erosion. This will impact not only adjacent properties, but much of our community over time.	The project will be constructed at existing grade to the greatest extent possible, minor grading and/or grubbing may occur throughout the portions of the solar facility, BESS, foundation pads, equipment storage and staging areas. Grading will conform to accepted slope stability requirements. Reclamation would include establishment of native vegetation. Certified weed free native seeds would be used. Yes, the solar facility perimeter will be enclosed by an agricultural style fencing enclosure. These fences still allow small rodents and wildlife to move about freely. When a project reaches the end of its project life, the project 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 equipment and other structures associated with the project, as applicable. The land surface within the project area will be sensibly restored to pre-project conditions to allow a return to agricultural use or other uses consistent with the land-use policies at the time.

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		A Stormwater Pollution Prevention Plan (SWPPP) would be prepared in compliance with the state's Construction General Permit, and Clean Water Act Section 402, National Pollutant Discharge Elimination System (NPDES). The SWPPP would identify best management practices (BMPs) to minimize stormwater runoff and sedimentation during construction activities. Stormwater BMPs that would be employed during construction include: • Place silt fences and/or straw wattles along the downgradient perimeter of the project to minimize stormwater sedimentation from leaving the site. • Minimize grading and vegetation removal, and limit surface disturbance during construction to the time just before solar module support structure installation.
12	Do they plan to use herbicides/pesticides at this farm?	No
13	During the construction process, how would they plan to keep dust to a minimum and how long would it take to build?	Active construction would take approximately 12 months. Dust control best management practices that would be employed during construction would generally include: • Limit vehicular speeds on non-paved roads. • Apply water or dust palliative to disturbed soil areas of the project site to control dust and maintain optimum moisture levels for compaction, as needed. • Apply the water using water trucks. Minimize water application rates, as necessary, to prevent runoff and ponding. • Apply dust control measures to haul roads to adequately control wind erosion during windy conditions (forecast or actual wind conditions of approximately 25 mph or greater). • Cover exposed stockpiled material areas. • Suspend excavation and grading during periods of high winds.
14	In regards to our ground water, when panels gets damaged, energy storage batteries leak etc, this will leech into our	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

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	groundwater and we all have wells out here for our water source. Was this addressed at the HOA board meeting with them?	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. The batteries will be housed in containerized modules.
15	In regards to fire hazard, we are already experiencing a severe threat of fire, and I wanted to know if they were asked about the fires that are caused by solar panels/farms; one being a solar farm tire that was in California burning over 1000 acres.	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 access points available to them. Turn around radius will be reviewed to assure local equipment can operate. The project will be fenced and secured with access only by approved personnel.
16	Is it correct that if any batteries explode/catch fire, this type of fire is not extinguishable with water, as it has to burn itself out. Is our local fire departments trained for this? With our high winds, how would RSM be protected from a fire caused by this solar farm?	Batteries, like any other energy systems, can catch fire in extreme circumstances when subjected to exceptionally high temperatures, and create flammable gasses under pyrolysis conditions. That said, current advances in technology include several levels of safety mechanisms, including cell level, module level, the Battery Management System (BMS), and enclosure fire safety systems are put in place to prevent fires. Worst probable case fire and explosion scenarios are modeled and evaluated during the Hazard Mitigation Analysis (HMA) and the site is designed to ensure safety of the surrounding community during the course of these events. To further reduce any chance of catastrophic events, such as a fires or explosions, AES only deploys battery systems that meet rigorous compliance standards such as UL 9540, UL9540A, UL1973 and NPFA 855. During the development and permitting process we submit site specific Emergency Response Plans and provide training to first responders on how to appropriately respond to a fire or other emergency within the facility. Depending on the project this may occur during the discretionary or ministerial permit phase. In either case first

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		responders are provided the opportunity to review and comment on site emergency procedures and training is generally offered closer to project completion. The enclosures housing the batteries are designed to contain any potential battery fire and keep it from spreading outside the container, so high winds would have no effect.
17	Where will the batteries they will be using to store the energy be held in the containers (above ground or below ground)?	AES does not deploy battery systems underground for several reasons, including safety. All AES BESS systems are above ground.
18	Where are old/damaged solar panels/equipment disposed of? From my research, panels have components that include toxic materials (such as cadmium, phosphorus, arsenic, gallium, tellurium). Based on what I have read, there is currently no safe means of disposal except for landfills. There is one company that is trying to recycle their panels, but it costs an extreme amount of money, so pretty much all companies dispose of solar equipment in landfills. Was AES asked about this?	Through our supply chain process, we identify and prioritize equipment manufacturers that align with our environmental, safety and human rights commitments. Some of these commitments include buying equipment supply from manufacturers whose supply chains and suppliers that comply with a national recycling program. We also seek to buy high efficiency products which reduces the total volume of raw materials and parts required for each project. End-of-life management is important to ensure we have workable sustainable solutions for project decommissioning. Solar projects deployed in the last decade have a lifespan of 20-35 years therefore few solar projects have reached end-of-life. In some cases, solar panels can even be reused to refurbished at that time to have extended generating capacity. While AES has recycled panels and equipment, any recycling that's been done has been on a one-off basis and has relied on cost of disposal at that time. Over the next decade the industry will be collectively working towards sustainable strategies with both government and private partners. Any disposal of equipment or equipment that cannot be recycled will be disposed of properly.
19	Where can we get a copy of the environmental impact report that this company said was completed	The Environmental Impact Report (EIR) is not finalized but, will be submitted to Santa Fe County and made a part of the project case file.

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20	Has the company provided a list of other farms they have developed, as I would like to look into impact from their past farm projects.	Please see attached list of AES developed projects throughout the US.
21	One last comment; given improvements in technology regarding efficiency/cost etc, with solar energy, individuals and farms will be updating equipment much sooner than the expected time the equipment is made to last until..ie...even more toxic waste much faster. Given that most of the information given to us about solar energy is positive/green energy etc., why is it no one talks about the elephant in the room which is there is no where to dispose of the old/damaged equipment except into landfills which contaminate our earth (the thing we are trying to avoid).	Modern solar projects have an average lifespan of 20-35 years. Solar panels and equipment are warrantied to last at least that long, and in some cases, solar panels can even be reused to refurbished at the end of a project to have extended generating capacity. Some of the earliest technology installed in the 1980s is still producing effectively today.