Exhibit 1

 To: Santa Fe County Planning Commissioners and County Commissioners In care of Jose Larrañaga, Building and Development Supervisor Santa Fe County Growth-Management Department

Re: AES Rancho-Viejo Solar Power Plant

We respectfully request the County Officials to take our following proposal under consideration.

- 1. The preferred option is relocation of this industrial solar power plant away from any residencies. Landfills, former coal power plants, areas already destroyed by human activity, New Mexico has many stretches of uninhabited land. That will take extra investment on the part of AES, but that corporation gets millions in subsidies already, why not provide extra financial investment from the State?
- 2. If relocation is not an option, we need a moratorium on further development of this plant. Given the proximity to residential areas and the lack of proper regulations to protect the communities, a legal framework should be put in place. In the two fires in AES facilities in Arizona, AES did not abide by the law as laid down in Emergency Planning & Community Right-to-Know Act. A stern set of rules is needed to prevent AES from cutting corners and endangering life, property and the environment.

We are entitled to transparency with regards to the fire in the AES facility in Chandler, Arizona in April 2022. A written report should have been submitted within 30 days of the incident, as well as Tier I and Tier II inventory forms as required by EPCRA.

There should be clear arrangements on who will be responsible in case of damage and loss of life.

An investigation needs to be done to establish whether the possibility exists of properties becoming uninsurable after a hazmat incident.

3. If a permit is granted we need the following guarantees:

Independent investigations by certified experts into the submitted reports, especially into the environmental consequences, transparency about water usage, including estimations on water amounts during cleaning the panels, cooling the air conditioners and in case of fires. Independent analyses by a group of realtors to establish any loss of property value.

Negotiations about how people will be compensated for possible loss of value of their properties.

Considering the magnitude of this project and the real risk of toxic smoke, fire and explosion, and the lack of professional fire fighters, AES should finance the establishment of a professional fire department next to the BESS. There is a stark difference between the needs of the fire fighters as depicted by AES versus the Arizona County Commissioner Kennedy, who was involved in the Surprise fire in 2019. Her letter is enclosed.

There is an increase in solar panel crime, what measures will AES implement to protect us from this "crime of the future"?

There will be no building until all materials are at site, to prevent prolonged disruption and delays due to shortage in components.

4. Additional concerns:

Solar is obviously high on the political agenda, with good reason. Why can't this plant be relocated to state land?

What were the reasons for choosing this location? Who will benefit from this project? The landowner will benefit, AES will and PNM, who will sell the electricity to the grid outside New Mexico. Not the County with \$7M in tax revenue over 35 years, but the risk an industrial solar plant at this scale poses, will be carried by the surrounding communities, who will not benefit in any way.

The establishment of an industrial complex is inconsistent with the Sustainable Land Development Code. If the County want to make a priority of "preserving open spaces" preventing 239,247 solar panels and 39 large BESS containers filling 800 acres so important for the environment and the wildlife, would be a perfect place to put that policy into practice. Has there been enough effort put into saving this area for conservation with the Transferable Development Rights Program?

There are two CUP criteria that need to be addressed: is the project detrimental to the health, safety and general welfare of the area and does the project create a potential hazard for fire, panic, or other danger. The science, as is made clear in the literature provided on the USB that accompanied this petition, is not yet at a level that these techniques are safe. This is substantiated by the experience with solar energy and energy storage in lithium-ion batteries. Human error in the construction and maintenance of these plants is a continuous factor to take into account. Every human activity bears a certain amount of risk, but that does not mean that the County can expects us to put our lives on the line for the financial benefit of a private landowner and two for profit organizations (PNM's 2020 revenue was \$1.5 billion and AES annual revenue for 2020 was \$9.66B).

This letter is our formal comment on this matter, and we ask the Planning Commission and the County Commissioners to withhold a permit until the points we have brought up are cleared.

Santa Fe, February 20, 2023

Regards,

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Petition CUP & AES

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Background information

The Applied Energy Services (AES) Corporation has filed for a CUP permit regarding an industrial solar power plant in an open space between Rancho Viejo, Rancho San Marcos and Eldorado.

This plant will consist of 800 acres, 239,247 solar panels and 39 large containers, stored with 242 lithium-ion batteries (LIB) modules per container, 44 individual battery cells per module, for a total of 415,272 individual battery cells. It will be a 96 MW photovoltaic installation with a 48 MW battery energy storage system (BESS). This will be one of the largest facilities in the State of New Mexico and the only one adjacent to three residential communities.

We want to state we are not against solar energy, many of us have panels on our roofs and/or drive electric vehicles. However, we have serious concerns. The parts in *Italics* have been taken from statements made by AES.

- 1. Lithium-ion batteries are prone to a mal function known as thermal runaway. This is a real risk, which can lead to fire and explosion. In the last year, worldwide once per month a BESS suffered a thermal runaway or caught fire (see the BESS Failure Event Database on the thumb drive). This is most likely a severe underestimation. The Moss Landing Energy Storage Plant, CA, became operational on December 11, 2020. The first fire was on September 4, 2021, the second fire was on February 13, 2022, and the third fire was on September 21, 2022 (see the attached editorial from the Santa Cruz Sentinel). In Morris, Illinois, there was a fire on July 17, 2021, which led to days-long evacuations due to toxic smoke (see the Morris lithium Battery Fire on the thumb drive). AES had two fires in Arizona, one on April 19, 2019, which injured 8 first responders, 4 seriously, and the last fire as recently as April 18, 2022. It only takes one battery cell to malfunction to create a potential disaster.
- 2. Per the scientific literature, one cell has a risk of thermal runaway of about 0.0001% (see the Probability file on the thumb drive). As a rule of thumb assessment that means 10,000 cells have a risk of about 1%, 100,000 cells have a risk of about 10% and 400,000 cells have a risk of 40%. This explains why lithium-ion batteries tend to overheat and go up in smoke or worse.
- 3. The solar panels themselves can catch fire as well, as is proven by the fires in the solar panels on top of the buildings of Amazon and Walmart (see the Amazon file on the thumb drive). In case of such fires, given the composition of our environment, which is dry, windy, open prairie, and the distances to our residencies (1000 feet), flames can reach our homes, vehicles, and large animals, within minutes.
- 4. The Volunteer Fire Department will not be able to deal with a brush fire and keep the 39 containers cool at the same time. When a thermal runaway occurs, it cannot be extinguished, but it must run its course, which could take weeks. In a worst-case scenario, it is a choice between houses getting burnt or a BESS fire with a continued risk of explosion.
- 5. These risks are consequences of the sheer size of this complex. A community solar project on 5 acres with 1 BESS container can be manageable in case of a fire. A project of the proposed magnitude needs considerably more safety measures.
- 6. AES did not provide an emergency plan consistent with the Federal Emergency Planning & Community Right-to know-Act that prepares and protects communities from chemical accidents (see the Guide to EPCRA on the thumb drive). Toxic smoke from solar panels or a BESS on fire have led to days-long evacuation (see the Morris lithium Battery Fire on the thumb drive). There need to be clear procedures on how to evacuate schoolchildren from the Turquoise Trail Charter School, residents and their animals large and small, the inmates in the correction facilities, and the Santa Fe Film Studio's.

- 7. We have video's of antelope running past the fence on our property right where they are planning this industrial solar power plant. That space is an important corridor for wildlife into the Galisteo Basin. They will be driven away. We have prairie dogs which are a key species for numerous other species. Burrowing owls live there too and nest in the tunnels of the prairie dogs' towns, they attract falcons, hawks. We have the great horned owl; there are badgers, coyotes. Prairie dogs increase the growth of wildflowers, and consequently the populations of bees and butterflies. They help to control weeds, noxious to lifestock. This fragile ecosystem will be destroyed.
- 8. AES is a power utility. It generates, transmits and distributes electricity. The company produces energy burning hydro, pet coke, diesel, biomass, oil, solar, heavy fuel oil, landfill gas, wind, coal, and gas. The power generated will be sold to PNM, which sells electricity to, for instance, Arizona. There will be no benefit to the communities whose environment is invaded by this industrial complex. We are assuming all the risk for zero benefit as AES has admitted and recorded at a public meeting.
- 9. Although AES has finished reports necessary for a CUP submission, the company has refused to share them. Now we finally have access through the County but we have limited time to study them. The cause of the fire in the AES facility in Chandler last year has still not been made public. There should at least be a 30 days' notification, which should be public record.
- 10. AES has shown in the past to be less than trustworthy when it comes to promises regarding safety. "*The local fire and emergency management organizations will be thoroughly informed about the project*..." Yet, when the fires in the AES facilities in Surprise (2019) and Chandler (2022) in Arizona broke out, the professional Fire Departments were not informed by AES of the presences of these BESS containers.

"... The injection of liquefied C6F120 (3M Novec 1230) directly into modules experiencing a thermal runaway.... will both cool the exothermic reaction and suppress any flames". AES fails to mention that this will not stop the thermal runaway. As long as there is a thermal runaway going on, there will be the danger of explosion, even without flames. Neither did AES mention that if the C6F120 escapes out of the containers it is extremely toxic for humans and the environment. That is the reason the manufacturer of Novec 1230 (the 3M Corporation) has recently announced that by the end of 2025 they will discontinue it's production. It is not acceptable that our communities and environment are potentially exposed 35 years to toxic "For Ever Chemicals" in case AES releases *"fire suppressant in large concentrations"*. Yet, in the Q&A Excel spreadsheet from September 2022, the engineer team characterized Novec 1230 as a *"more environmentally friendly chemical"*.

AES refers to guidelines (UL9540 and UL9540a), but does not mention those guidelines do not demand that a thermal runaway **cannot** occur. Per the experts investigating the Surprise fire the industry keeps these standards limited on purpose so as not to impose restrictions or extra investments on the manufacturers (see the attached Pages from the McMicken Technical and the complete report on the thumb drive).

11. AES has a dubious track record with regards to pollution. They are 7th on the list of the biggest polluters of water, 23 in the top 100 of the emission of greenhouse gas and 196 in the top 200 of overall air polluters. AES has paid millions in fines for violation of environmental and workplace safety laws. They have received almost two billion in subsidies and loan/bailouts. https://grconnect.com/tox100wt/ry2017/index.php?search=yes&company2=165 https://grconnect.com/tox100/ry2017/index.php?search=yes&company2=26 https://www.grconnect.com/tox100/ry2017/index.php?search=comb100 https://violationtracker.goodjobsfirst.org/parent/aes-corp https://subsidytracker.goodjobsfirst.org/parent/aes-corp

- 12. Solar panel theft and crime are on the rise ((see the Alleged Terrorist file on the thumb drive). In efforts to disconnect panels, short circuits can occur, leading to fire. This facility will be unmanned. How will the residents be protected from this form of vandalism and the increased risks? It took hours before the attack on the solar plant in Las Vegas, NV, was discovered. What happens in case a thermal runaway occurs without being detected?
- 13. There will be significant loss of property values (see the attached letter by McClinton and her report on the thumb drive), due to loss of view, loss of open space, possible contamination of the aquifer, fire dangers, and looming possibility of uninsurable (see the attached JB Martin email, also on the thumb drive) and unsalable houses.
- 14. The industry currently lacks a robust framework for evaluating potential health risks to workers, the community, and first responders associated with lithium ion battery failure (see the attached Approaches for Evaluating Human Health, also on the thumb drive), nor are there legal frameworks or regulations by which industrial solar power plants must abide.
- 15. There are no guarantees who will be responsible in case of loss of live or property. Residents should be spared endless legal battles, especially since a potential disaster is not far-fetched, and both AES and the County are informed up front of the evidenced-based risks associated with solar panels and battery energy storage systems.
- 16. If this is really about saving the environment and not just about the money, why destroy the fragile ecosystem the solar plant is planned on? Why not relocate to an already destroyed area? The County has the Transferable Development Rights Program for Conservation. Why not try to find a way to convince the landowner (Warren Thompson) to use that program and provide him with extra credit points for development elsewhere?

Preliminary reaction to the reports provided in the CUP filing.

Fire.

The fire issue is addressed in 5 short paragraphs spanning about half a page, see 51/96 of the Environmental Impact Report. The risks of fire are severely downplayed (*"There are no special materials required to the local responders to respond to a fire event for the containerized BESS units"*). Arizona County Commissioner Kennedy wrote on August 2019 (see the attached letter) with regards to the McMicken fire in 2019 in an AES facility:

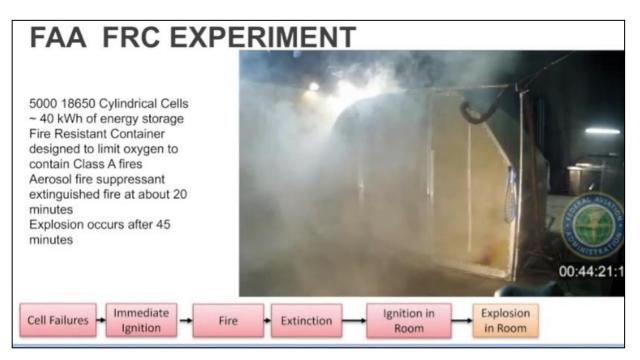
Those responding to such an incident would have to wear fire-retardant and non-conducted impermeable full body coveralls with hood, nitrile gloves, impermeable boots, and full-face tight-fitting air purifying respirators equipped with combination cartridges for acid gas and particulates.

The Hazard Mitigation Analysis should be part of the federal imposed Emergency Planning and Community Right-to-Know Act (see the Guide to EPCRA on the thumb drive). Large commercial type lithium-ion batteries are subject to the Occupational Safety and Health Act Regulations (see the attached email of Mr. Barragan, also on the thumb drive).

Per the EPCRA regulations: "Although these batteries are sealed, they have the potential to leak, spill or break during normal conditions of use and in foreseeable emergencies causing exposure to chemicals." Operators of facilities are required to prepare Material Safety Data Sheet (MSDS) reporting to the Local Emergency Planning Committees on the County level. These documents are public records and should be made available to the public, not only to "the first responders".

AES has not filed any EPCRA report as part of the CUP. The person in charge of the Local Emergency Planning Committee of the Fire Department involved in the fires in the AES facilities in Arizona (Mr. Barragan) informed me about the lack of EPCRA reports in those incidents: "I don't believe the Chandler facility had an Emergency Response Plan in place, which was also addressed during that incident. The Chandler facility was also similar to the Surprise facility in that the local FD was not aware of the Chandler location. At the time, we were unaware of the existence of both BESS facilities. That is one of our on-going challenges as these facilities continue to pop up." (see the attached email of Mr. Barragan, also on the thumb drive)

"If a battery fire is initiated, the enclosures planned for this site will release fire suppressant in large concentrations directly into the initiating cell, removing heat and preventing thermal runaway throughout the enclosure". This will not stop the thermal runaway that caused the fire in the first place. As long as there is a thermal runaway in one cell, it has the potential to spread to adjacent cells and cause further fire and explosion. This experiment is taken from the website of Texas University Department of Mechanical engineering, where the safety of lithium-ion batteries is studied:



AES is not painting a reliable picture by suggesting the release of fire suppressant will prevent further thermal runaway.

The remark of AES that "*The UL 9540a tests indicate adequate prevention of thermal runaway*" in incorrect. The McMicken report evaluated the UL 9540 and UL 9540a. They conclude in their report (which is available at the thumb drive): The UL 9540A test method is only meant to provide information but does not guide interpretation of the data or deliver a certification. In theory, the unit level test could result in full consumption of a rack and this result would be reported without judgement on whether this was poor performance. In fact, a manufacturer could point to the lack of rack-to-rack propagation and present it as a good result. Procedures on how to compute the explosion risk, ventilation requirement and cascading thermal runaway risk are not defined".



This fire broke out in a BESS with Samsung batteries in May 2020, the same type of battery AES plans to use.

The final paragraph AES dedicates to fire occurrence is the remark "As appropriate, vehicles will be equipped with fire suppression tools and equipment. Fire suppression equipment may include, but will not be limited to, shovels, buckets and fire extinguishers".

It is hard to imagine how a fire like this will be contained with a shovel and a bucket. Another factor left out by AES is that if a situation like a breach of a container occurs, the fire suppressant comes in contact with flames, and the byproducts are "extremely toxic" to humans (see the file Novec 1230 on the thumb drive).

No consideration is given to the fire danger the 239,247 solar panels present. In 50% of 430 fires investigated the photovoltaic system was the cause. Cables, connectors, external electrical cabinets and inverters pose the biggest risk (see the Firetrace report on the thumb drive). An incident with a bird caused a large fire in California in 2019 (see the LA times article on the thumb drive). Amazon experienced "critical fire or arc flash events" at six sites in North America (12.7%) in 2021 and Walmart had 7 fires on roof panels since 2012 and 2018 (see the articles on the thumb drive).

Visual aspects

In the meetings with the residents AES pictured the view from Rancho San Marcos as a thin black line in front of the mountains. In the Visual Assessment Report the simulation pictures show a large black area from close to the fence on our property to the beginning of the mountains (page 31/67). In the picture is does not appear to look impressive.

However, in the Visual Assessment Report (57/67) the circumference of the project and of our subdivision is visible, see the picture below).

Although the panhandle in this picture has now been removed, about 30,000 panels were added. We would like to request that the County Commissioners perform a site visit to Rancho San Marcos, drive around San Marcos Loop, realize the project will more or less cover the area within the Loop and then decide if it is realistic to depict that surface as a thin black line.



The level of change for our area (KOP 3 and 4 in the Visual Assessment Report, page 11/67) is designated in the report as being low to moderate. What "moderate" means is defined in the table. In our opinion the designation "high" would be more accurate.

Page 13/67 describes in detail what is considered "moderate" and "high":

Moderate	 Project components would introduce elements/patterns not common in the landscape. 	The landscape would appear to be substantially altered.	
landscape Project con in the land 		 Project components would introduce form, line, color, texture, or scale not common in the landscape and would 	
	 Project components would be visually prominent in the landscape and would create moderate 	be visually prominent in the landscape (moderate contrast).	
	contrast, compared with other features in the	Project components would attract attention.	
	ianuscape.	 Project components would begin to dominate the visual setting. 	
elements/ dominant	Project components would introduce	The landscape would appear to be severely altered.	
	elements/patterns that would be visually dominant and create strong contrast, compared with other features in the landscape.	 Project components would introduce form, line, color, texture, or scale not common in the landscape and would be visually dominant in the landscape (strong contrast). 	
		Project components would demand attention.	
		 Project components would dominate the visual setting. 	

As is stated on page 88/96 from the Environmental Impact Report: "These potential facilities will incrementally change the landscape character into a more industrialized area compared with its current open rangeland".

This statement in the Environmental Impact Report is not consistent with the one in the Adequate Public Facilities Assessment Rancho Viejo Solar report page 7/8, where it says "*This project will not be detrimental to the use or development of adjacent land, and in fact is entirely harmonious with its rural agricultural character*".

The analysis from the Visual Assessment Report and Environmental Impact Report clearly indicate that the quality of our environment will be severely affected. This project will greatly diminish our joy in living here, it will certainly reduce the value of our properties, and endanger the health and wellbeing of both residents and wildlife.

Missing from the CUP documents is research with regards to loss of property values. Per a comprehensive report by McClinton Clay from 2022, concludes (see attachment and the study on the thumb drive):

Though diminution in value varies, as the result of a detrimental condition's impact upon a property's utility, the evidence presented by these case studies of 100 MW or less solar farms, indicates that solar farms damages property values by **at least -6.0 percent to -30.0 percent.**

Conditional Use Permit Criteria

In the Written Report CUP (9/17) it is stated that the project complies with the purpose and intent of the CUP Approval Criteria:

The proposed project complies with the purpose and intent of the CUP Approval Criteria listed in Section 4.9.6.5. Specifically, the Rancho Viejo Solar project will not:

1. be detrimental to the health, safety and general welfare of the area;

The Rancho Viejo Solar project is designed and implemented to not adversely impact the health, safety and welfare of the surrounding area. The Rancho Viejo Solar project is a static, non-obtrusive, use of land that will be compatible with surrounding land uses.

- Solar projects do not create noise, light, traffic, or other operational impacts.
- This project will not endanger the public health or safety in the location proposed.

No mention is made about the very real fire danger. AES had two fires in facilities in Arizona, the most recent one in April 2022. The cause of that fire has not been made public. There is a 40% chance that a thermal runaway will occur in any cell in the BESS. The Moss Landing Energy Storage Plant in California has been on fire three times since it became operational in December 2020, the last one in September 2022. A fire in a BESS in Morris Illinois in July 2021 led to widespread evacuation. Researchers strongly suspect a degree of underreporting especially amongst solar farms (see the file FireTrace report on the thumb drive). The statement that "This project will not endanger the public health or safety" might be considered misleading and inconsistent with factual events.

In the Written Report CUP (9/17) it is stated the Ranch Viejo Solar project will not:

3. create a potential hazard for fire, panic, or other danger;

Rancho Viejo Solar LLC shall comply with the most current applicable codes adopted by the State of New Mexico, Santa Fe County, and other entities, including but not limited to the following:

- International Fire Code, 2003 edition, as adopted by 10.25.2 NMAC ("Fire Prevention and Public Occupancy") and Santa Fe Fire Code.
- New Mexico Commercial Building Code as adopted by 14.7.2 NMAC ("2009 New Mexico Commercial Building Code") which adopts by reference the 2009 International Building Code.
- Proactively, Rancho Viejo Solar LLC has been working closely with Santa Fe County Fire Department to design and construct the project's access, circulation and emergency measures.

A potential fire hazard is inherent to any solar project, especially if there is a BESS attached to it. There is no fire or building code that will eliminate that danger. At best, such codes will somewhat reduce the risks. Proactively working with the Fire Department might be beneficial for when a fire occurs, but will have no effect on a potential hazard being present. In addition, AES is in violation of EPCRA by not producing a public Emergency and Response Plan.

In the Written Report CUP (10/17) it is stated the Ranch Viejo Solar project will not:

7. be inconsistent with the purposes of the property's zoning classification or in any other way inconsistent with the spirit and intent of the SLDC or SGMP

The project site is within the Rural Fringe (RUR-F) zoning district and the gen-tie corridor extends into the Community College District (CCD) for approximately 1 mile.

The RUR-F zone accommodates primarily large lot residential, ecotourism, equestrian uses and renewable resource-based activities, seeking a balance between conservation, environmental protection and reasonable opportunity for development. Density transfers and clustered development shall be allowed in order to support continued farming and/or ranching activities, conserve open space or protect scenic features and environmentally sensitive areas. Per Appendix B of the SLDC, commercial solar energy production facilities are permitted within the RUR-F zoning district only after review and approval of a Conditional Use Permit.

It is unclear how the statement under 7 is consistent with page 88/96 from the Environmental Impact Report: "*These potential facilities will incrementally change the landscape character into a more industrialized area compared with its current open rangeland*". Or how an industrial/commercial solar power plant that causes a "*substantially altered landscape with project components not common and visually prominent in the landscape, that would attract attention and dominate the visual setting*", can be consistent with the property's zoning classification or be in the spirit and intent of the SLDC or SGMP.

Also missing from the CUP documents is information about the construction and operation of the solar array and the BESS. We need technical details e.g. spacing of the racks, separation of the units, ventilation, monitoring, alarm systems, response time etc.

On February 22, AES admitted per email the number of containers was increased from 39 to 69. No answer was provided what that would mean for the number of batteries. Given that the number of panels was increased with more than 34,000 an increase of number of batteries is to be expected.

Without complete transparency, this project should not be allowed to go forward. County officials cannot make an informed decision if they do not have the facts.