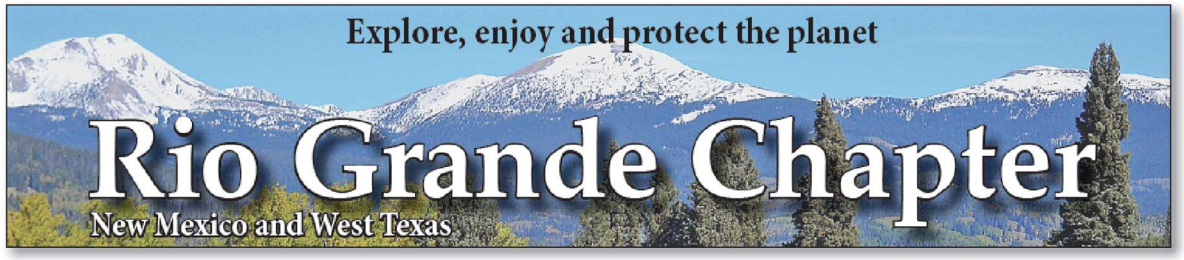

1807 2nd St. #45, Santa Fe, NM 87505 www.riograndesierraclub.org

To: Santa Fe County Commissioners

From: John Buchser, Chair, Northern Group Sierra Club

Date: September 11, 2023

Re: Solar Farm is Ripe for Santa Fe

Commissioner,

The Sierra Club supports the AES solar/storage project, but we are aware of concerns that some residents have about the potential for fire from the lithium-ion batteries. To that point, we want to bring to your attention to three other solar/storage facilities in Northern New Mexico.

The first is a facility up in Hyde Memorial State Park installed by Positive Energy Solar. This facility is comprised of a 200 panel, 80 kilowatt PV system with 22 lithium-ion batteries for storage. Positive Energy Solar is confident that the building that houses the batteries can contain any fire that might occur within the building due to multiple built-in safeguards, as well as protect the batteries from any external fire, especially given the onsite building setbacks. This is important because this facility is in a heavily wooded area. Granted this project is considerably smaller than the proposed AES project, but this technology is scalable. In addition, given its size, AES would probably choose a slightly different technology that would incorporate even more safeguards and redundancies in preventing the start or spread of any fire. (Reference: John Brown, Positive Energy Solar, 505 424-1112, johnbrown@PositiveEnergySolar.com)

The other 2 are solar/storage facilities that are part of the Kit Carson Electric Coop system. One in Taos entails 12.5 MW of lithium-ion battery storage that has been in operation for one year. The other in Angel Fire entails 3.5 MW of lithium-ion battery storage and it has been in operation for 3-4 months. No fires have occurred at either facility. The safety features incorporated into these battery storage facilities are robust. First, 3 independent entities are monitoring these batteries in real time, 24/7. Second, the storage facilities have sophisticated control systems built in with automatic features that could shut down the battery(ies) under set parameters, with manual overrides as well. Third, the batteries are compartmentalized in steel containers (think shipping containers) to isolate and contain any fire that might start. These containers also have generous setbacks from vegetation and property boundaries. Furthermore, Kit Carson has coordinated with and conducted training with all fire departments in these areas. Finally, Kit Carson has a total of 15 MW more of battery storage on the

drawing board for 3 other sites. Kit Carson would not be moving forward with additional battery storage if they did not feel comfortable and confident in the safety of these facilities. (Reference: Luis Reyes, Kit Carson Electric Coop, 575 741-0213, lreyes@kitcarson.com)

I submitted the above comments to Jose Larranaga of the Land Use Department for addition to the case file.

I sent the following to the Land Use Department in early June, and my emails from comcast to the Commissioners bounced. I reported this problem to Emma Felt, and she was having the IT department look into it. In the meantime, I will use my less-frequently monitored gmail account to send this correspondence.

Jose Larranaga indicated that the below comments would be added to the case file.

The New Mexican printed this on a Sunday shortly after I submitted.

Solar Farm is Ripe for Santa Fe

Rancho Viejo has proposed an 800-acre facility on private land bordered by Eldorado and Rancho San Marcos. It is 1.5 miles from any homes, and includes 96 megawatts of solar panels and 48 MW of battery storage. Rancho Viejo has partnered with AES Corporation to pursue permitting from Santa Fe County.

This development is close to existing PNM power lines, and hopefully PNM won't drag their feet on the needed interconnect. Solar collectors on this scale are a good option for Santa Fe, where the wind is not as persistent as on the eastern plains of New Mexico. The connection to nearby high voltage power lines would minimize transmission losses.

Santa Fe County, which has limited staff with the appropriate expertise to evaluate a large solar/storage project, has hired Terracon Consultants of Albuquerque to provide input to the County Planning Commission.

One of the most common problems with lithium-ion battery storage is overheating. This was a common problem in laptops not many years ago, and it continues to be a problem with large energy storage systems. Continued advances in battery design are reducing the risk, but an explosion and fire from one battery can damage other batteries, and result in fire that requires special retardants. As was discovered at Cannon Air Force Base recently, fire control chemicals can severely damage groundwater. AES selection of fire retardants needs to include automated protection systems that avoid problematic chemical retardants. Experience by Kit Carson Electric in addressing any potential fires at two solar sites in Taos County should also be tapped.

The grasslands and pinon-juniper forest at this elevation are frequently very dry, and thus any automated systems and fire isolation strategies may not always be sufficient on a windy day. The county needs to be assured that it has the capacity and resources to quickly control escaped fires. AES could have appropriate on-site control chemicals for use by County firefighters. No on-site water is

planned, so the County needs to assess a worst-case need for water to prevent fire spread outside the facility.

We support this proposal's inclusion of storage at the solar facility, as we need night-time renewable energy in addition to daytime solar. Should it be approved, it will join even larger solar projects proposed for sites in Bernalillo County and San Juan County. All together they point to a future where renewable energy can be counted on for a majority of our electricity needs in New Mexico.

Thanks,
John Buchser
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