https://www.santafenewmexican.com/opinion/my_view/yes-to-clean-energy-no-to-rancho-viejo/article_44f1eade-ce74-11ed-b165-03154f76cb03.html

MY VIEW STACE WILLIAMS

Yes to clean energy; no to Rancho Viejo

By Stace Williams
May 6, 2023

In his piece in March, Glenn Schiffbauer made an excellent argument for the value of clean energy ("Say 'yes' to clean energy," My View, March 23). I agree. We need to accelerate a responsible transition from fossil fuel power generation to cleaner sources of energy. As he said, we must "protect our environment, grow our economy, build stronger communities and provide new educational and career opportunities for our younger generation."

But he and I disagree about whether the Ranch Viejo Solar project proposed by AES will be a responsible and safe solution. Schiffbauer cogently articulated the business case for the project. However, he neglected to address its real and significant risks. Unless AES changes a substantial component of its proposed design, Santa Fe County simply must not approve this project.

All commercial solar power systems store solar-generated energy when demand for power is low. They then convert it to electricity when power is needed but the sun is not shining. AES plans to build a battery energy storage system using lithium-ion batteries.

Individual consumers rely on them in their cellphones, laptops, hoverboards and electric vehicles. You've probably heard about fires that have occurred when these batteries spontaneously combust. Just like the batteries in our personal devices, the batteries AES proposes for Ranch Viejo are prone to this same type of fire.

It's called a "thermal runaway," and at the scale proposed by AES, this lithium-ion battery storage system poses dangerous risks.

Other commercial solar facilities using lithium-ion storage have experienced serious fires. One of the worst occurred in 2019 at Arizona Public Service's McMicken Energy Storage Facility, part of its solar generation site near Phoenix.

That fire, which resulted from thermal runaway in the lithium-ion batteries, generated extremely hot flames and released hydrogen fluoride, a poisonous gas. Two hours after the fire started, the battery array exploded, injuring four firefighters.

As with the McMicken project, AES plans to reduce these risks by using a fire suppressant from 3M called Novec 1230. Novec 1230 belongs to the PFAS (per- and polyfluoroalkyl substances) class of "forever" chemicals, so-called because they do not break down, thereby leading to widespread environmental contamination.

Associated health risks prompted the U.S. Environmental Protection Agency in March of this year to issue its first proposal to substantially limit the level of PFAS in drinking water. 3M announced in December 2022 it will stop manufacturing Novec 1230 by the end of 2025 because of concerns about the rapidly evolving regulatory climate and a desire to eliminate the presence of PFAS in the environment.

While we need and want solar electricity generation, the risks associated with lithium-ion battery storage are simply too great to justify the benefits of the Rancho Viejo project.

Safer storage alternatives already exist, among them other types of batteries — including solid-state, iron flow and zinc ion batteries — and other technologies, such supercapacitors and bulk energy storage using mechanical or thermal approaches. Manufacturers here in the U.S., as well as in Canada, Germany, Israel and Australia, are providing innovative, safe and clean energy storage solutions for commercial solar generation facilities.

AES must revise its plan to use a cleaner and safer energy storage system at Rancho Viejo. Schiffbauer is right — we do need to say "yes" to clean energy projects.

But all of us need to pay attention to the very real risks of the current proposal for Rancho Viejo Solar. For that reason, I urge you to join me in saying "no" to Rancho Viejo until AES comes back to the table with a responsible and safer proposal.

Stace Williams, an Eldorado resident who is an executive coach and leadership development consultant, holds a degree in mechanical engineering from Colorado State University. She is a passionate advocate for renewable electricity generation that is both clean and safe.