

Aaliyah Thom

Dear NMED staff,

My name is Aaliyah Thom. I live in Clovis, and I am writing because I am concerned about the risks and harms Project Jupiter poses to New Mexicans. I am submitting this comment to urge the New Mexico Environment Department to reject Yucca Growth Infrastructure, LLC's air permit application for the YGI Microgrid in Doña Ana County. Granting a permit to emit over 10 million metric tons of CO₂ annually violates NMED's mission to protect public health and prevent air quality deterioration, disproportionately harming BIPOC and low-income communities.

The application relies on an unproven, unregulatable, and inadequately tested design:

Unprecedented, Unproven Scale: YGI proposes using 2,275 Bloom Energy Solid Oxide Fuel Cells (SOFC). Though several projects have been announced with much fanfare, the largest operating Bloom installation is a 40 MW facility - 60 times smaller than what is proposed here. Scaling this technology to a mega-utility application remains entirely unproven.

Fuel cells generate hazardous waste. Fuel cells filter out sulfur and other contaminants in the methane stream. These contaminants accumulate as hazardous waste in "desulf canisters." The power plant will be generating enormous amounts of hazardous waste. Jupiter claims that any pollution from opening and changing the filter media in the desulf canisters is exempt from air permitting regulations (because there is less than 1000 lbs/yr).

Suspect Estimates & Inadequate Testing: The emissions data provided is based on testing of a single, 65 kW unit four times for four hours. Extrapolating data from a unit 37,876 times smaller than the proposed plant capacity - and adjusting it with an arbitrary 15% safety margin - fails to provide credible empirical evidence. The emissions data provided by the company cannot be trusted.

Enforcement Impossibility: The design routes 2,275 individual cells through separate stacks with no add-on pollution control mechanisms or integrated continuous monitoring for particulate matter, VOCs, or shifting CO₂ intensity. NMED cannot practically enforce compliance under 20.2.72.210 NMAC across thousands of individual, degrading units.

Severe Public Health & Environmental Impacts: The microgrid will emit 161.2 tons/year of CO and 124 tons/year of VOCs near existing EPA non-attainment zones. It will generate a thermal plume and a "heat island" effect, raising downwind temperatures by up to 3.6°F in a sweltering desert climate, threatening vulnerable populations.

Furthermore, concentrating 10M metric tons of climate-warming CO₂ into 275 acres - exceeding the combined emissions of Albuquerque, Santa Fe, and Las Cruces - creates localized health risks. Emerging 2025–2026 research links elevated CO₂ levels to permanent changes in human blood chemistry, oxidative stress, and cognitive decline. Because CO₂ sensitivity exists on a normal spectrum, even minor baseline increases can induce anxiety and panic attacks in sensitive individuals.

Santa Teresa Elementary and High School are located within five miles of this project site. 96% of students at the high school are hispanic. There are also day care centers located within miles of this site. This is an environmental injustice to these children who are especially vulnerable to the health impacts of NOX, CO, and VOCs.

Tribal governments like Tortugas Pueblo, Ysleta del Sur, and Pueblo communities with landholdings in Doña Ana county near the site have not been properly notified of this air permit application request.

The Chihuahuan Desert borderlands are not a barren dump site for Bloom Technologies to test their experimental technologies. Santa Teresa should not serve as ground zero for Bloom Technologies to scale their toxic technologies.

YGI must not be allowed to greenwash a fossil-fueled plant that erases New Mexico's climate progress. NMED's mission is "to protect and restore the environment and to foster a healthy and prosperous New Mexico for present and future generations." Granting these permit applications is a direct contradiction to that mission. I urge the NMED to reject YUCCA Yucca Growth Infrastructure, LLC's air permit application for the YGI Microgrid. If NMED does not reject the permit, I ask the department to please hold a bilingual hybrid public hearing near the Santa Teresa community, so that residents can learn about the risks associated with fuel cell technology. NMED should give the public 60 days of additional time to review and comment on the application to ensure everyone can meaningfully comment and participate.

Sincerely,
Aaliyah