

David Constable

I live in Southern Doña Ana County and under no circumstances do I want experimental technology deployed at an unprecedented scale in my backyard. Yucca Growth Infrastructure's gas-powered fuel cell plant is 1,000 times larger than Bloom Energy's biggest existing fuel cell plant. In fact, worldwide, Bloom Energy has developed 1.4 GW of fuel cell technology across more than a thousand locations, yet Yucca Growth Infrastructure is asking for nearly double that (2.46 GW of fuel cells) at a singular location. The largest fuel cell plant in the entire world is more than 30 times smaller than the fuel cell plant under consideration in Santa Teresa. There is absolutely no way to know, with certainty, what the actual pollution levels will be given the tremendous size differential, and thus gap in data, between operational fuel cell plants and this theoretical plant proposed by Yucca Growth Infrastructure. Betting the livability of our county on this unpredictable and unproven plan would be a total capitulation and betrayal of your so-called values: "protects the public health of New Mexicans...by preventing the deterioration of air quality;" "protect and restore the environment...foster a healthy NM for present and future generations"

Though approximations of annual air pollution were provided, the testing used an extremely weak methodology leaving us, ultimately, with pseudoscientific guesses that have large margins of error. Estimated pollution levels for this gas-powered fuel cell plant are based on only three 4-hour pollution tests from a very small unit (only 65 kW). This is a far cry from thousands of sweltering fuel cells operating 24/7 at maximum output in close proximity, all in the scorching heat of our open desert. The lack of rigorous testing at even this small of a scale is lazy and very concerning, especially given that the gas power plant Yucca Growth Infrastructure wants to build is 37,000 times bigger than this unit.

A 15% "safety margin" was added to the numbers provided by the applicant. Safety margins are not usually added if a company is confident in the accuracy of their pollution estimates. Even small variations from this superficial test will result in massively different levels of pollution and given that the plant will be 37,000 bigger than the testing unit, a 15% safety margin is completely insufficient—it could work as a margin for a single unit, but not the entire plant. If a unit has a 0.01% chance of failing (sounds promising right?), the odds of 37,000 of those units working perfectly at the same time is 2.47% (pathetically low feasibility). That means there is a 97.53% chance that the plant will experience at least one failure. What will the exact level of redundancy be? Will more fuel cells be rubberstamped or pollution levels overlooked in five years or less due to age-related inefficiencies?

What about cases of catastrophic failure? Are we approving those deadly incidents of pollution in advance without any real data informing us of the risks at this scale? Highly flammable hydrogen under high pressure only needs a microscopic crack to leak out, ignite, explode, and level entire neighborhoods and schools while sending shockwaves into nearby counties. Assuming this risk, an act of gross negligence, at a scale that has never even remotely been demonstrated in practice would be unbelievably careless. These permits must be denied outright. If further deliberation is desired, a public hearing in Santa Teresa is non-negotiable.