

Introduction

Yucca Growth Infrastructure's (YGI) application to the New Mexico Environment Department (NMED) for an Air Quality Permit for their proposed solid oxide fuel cell facility, if approved, will not only work against statewide climate goals but constitute a clear example of state-approved environmental racism of an especially egregious kind given its proximity to the Santa Teresa High School.

According to the April 2026 YGI application, the facility will:

- 1) Produce 10,144,115 metric tons of CO₂ annually;
- 2) Emit federal hazardous air pollutants (benzene, methanol, and xylene) at a rate of 0.325 lbs/hr;
- 3) Have no emissions control, add-on controls for regulated pollutants, continuous emissions monitoring equipment, or parametric emissions measurement equipment;
- 4) And run 24hrs/day, 365 days/year while located
 - a. 3.6 miles from Santa Teresa
 - b. **And 1,500 meters – less than one mile – from the nearest school.**

Climate Considerations

Project Jupiter will emit more than 10 million metric tons of CO₂ annually. In context, the entirety of New Mexico's agricultural sector which supports over 265,000 jobs¹ (a typical data center creates about 50 full-time jobs²) produced ~7 million metric tons of CO₂ in 2019.³ The operation of YGI's system would singlehandedly increase New Mexico's statewide emissions by ~15% when compared to 2019 rates.⁴

As a result of climate change, the Rio Grande Valley and Southwestern Basins will experience a predicted 5-degree Fahrenheit increase in daily maximum temperature in the next 50 years. Additionally, Elephant Butte Reservoir is expected to lose 2 feet of water due to increased

¹ See "Economic Report: State's Agriculture Industry Shows Growth." 2026. NMDA. New Mexico Department of Agriculture. March 23, 2026. <https://nmdeptag.nmsu.edu/new-release/2026/economic-report-states-agriculture-industry-shows-growth.html#gsc.tab=0>.

² See Joint Legislative Audit and Review Commission. 2024. "Data Centers in Virginia." Joint Legislative Audit and Review Commission. Joint Legislative Audit and Review Commission. December 9, 2024. <https://jlarc.virginia.gov/landing-2024-data-centers-in-virginia.asp>.

³ "New Mexico Climate Strategy." 2019. New Mexico Interagency Climate Task Force. https://www.climateaction.nm.gov/wp-content/uploads/2024/09/NMClimateChange_2019-condensed.pdf.

⁴ *Ibid.*

evaporation, a change that will further complicate the state's legal responsibility to provide Texas and Mexico with water.⁵

The State's Climate Action Plan describes itself as a "strategic roadmap to reduce greenhouse gas emissions and build a healthier, more resilient, and more equitable future."⁶ NMED's website reads, "Our mission is to protect and restore the environment and to foster a healthy and prosperous New Mexico for present and future generations."⁷ For NMED to approve the YGI's permit is to welcome an industry with immense climate considerations into New Mexico and thus to run counter to the goals that supposedly guide the state of New Mexico. New Mexicans already feel the impacts of climate change; in a state of local and global climate emergency, the State should not invite more emissions-intensive industry in.

Health Impacts

Beyond these climate considerations, matters of injustice arise. Elevated levels of CO₂ in the body can cause acute or chronic respiratory acidosis, a condition in which the blood's pH is lowered, causing a variety of symptoms including increased metabolic stress, minute ventilation, and, in more extreme cases, vomiting and loss of comprehension. Chronic respiratory acidosis can decrease memory retention, cause both excessive sleepiness and insomnia, and temperament fluctuations. Beyond acidosis, short-term CO₂ exposure can cause headaches, difficulty in concentration, vertigo, and unconsciousness.⁸

YGI's proposed facility will also emit xylene, methanol, and benzene -- all federally recognized hazardous air pollutants -- at a rate of 0.325lb/hour. A 2010 study states that xylene impacts health at both acute and chronic levels of exposure. Low levels of exposure can depress the

⁵ See Bauer, Paul, ed. 2022. "Climate Change and New Mexico's Water Resources: A 50-Year Outlook." *New Mexico Bureau of Geology and Mineral Resources*. New Mexico Bureau of Geology and Mineral Resources. <https://www.nmlegis.gov/handouts/WNR%20072522%20Item%205%20Gutzler1.pdf>.

⁶ See "Climate Action Plan State of New Mexico." 2025. *New Mexico Climate Change Action*. New Mexico Environmental Department and the Energy, Minerals and Natural Resources Department. <https://cloud.env.nm.gov/resources/translator.php/ZjYyZjgzMGM3ZDMwYmMwYmUzYzZIMTNjY18yMTU4ODI~.pdf>.

⁷ See "New Mexico Environment Department." n.d. New Mexico Environment Department. New Mexico Environment Department. Accessed June 25, 2026. <https://www.env.nm.gov>.

⁸ See Naiyer, Sarah, and Syed Safdar Abbas. 2022. "Effect of Greenhouse Gases on Human Health." In *Greenhouse Gases: Sources, Sinks and Mitigation*, edited by Saurabh Sonwani and Pallavi Saxena, 85–106. Springer Nature Singapore Pte Ltd. https://www.researchgate.net/profile/Sarah-Naiyer/publication/358031936_Effect_of_Greenhouse_Gases_on_Human_Health/links/63d594e362d2a24f92d7b673/Effect-of-Greenhouse-Gases-on-Human-Health.pdf#page=96.

central nervous system, causing headache, nausea, and vomiting. These impacts “become more noticeable and serious as the length of time of exposure increases.”⁹

The EPA has linked acute methanol exposure to visual disturbances, including blindness, neurological harm, particularly permanent motor dysfunction, and chronic exposure to insomnia, nausea, blindness. In rats such exposure caused decreases in brain weight. The EPA states that methanol’s carcinogenic level is unknown as are its impacts on reproductive and developmental systems.¹⁰

The CDC writes that benzene is carcinogenic (linked specifically to leukemia), has decreased the size of ovaries in some women, and over one year of exposure shows impacts to bone marrow and decreases red blood cell counts, causing anemia, excessive bleeding, and increased rates of infection.¹¹

All of these emissions – CO₂, xylene, methanol, and benzene – will be **unmonitored and uncontrolled**. Additionally, this facility will be operating at a capacity more than double what Bloom Energy, the company behind YGI’s facility, has installed over its lifetime.¹² New Mexico should not be Bloom Energy’s testing ground for scaling their microgrid system to a level never yet attempted, an endeavor which shows no regard for New Mexican residents as revealed through their unmonitored and unabated emissions of pollutants harmful to human health. This notion is only affirmed by YGI’s siting choice.

The numbers in YGI’s permit separate us from the reality of the situation. **One two-lane road separates 1,177 teenagers at Santa Teresa High School from the proposed facility.**¹³ For those concerned with benzene exposure, the CDC writes, “Get fresh air by leaving the area where the benzene is. Moving to an area with fresh air is a good way to reduce the possibility of

⁹ See Kandyala, Reena, Sumanth Phani C Raghavendra, and Saraswathi T Rajasekharan. 2010. “Xylene: An Overview of Its Health Hazards and Preventive Measures.” *Journal of Oral and Maxillofacial Pathology* 14 (1). <https://doi.org/10.4103/0973-029x.64299>.

¹⁰ See “Methanol.” 2000. *Environmental Protection Agency*. Environmental Protection Agency. <https://www.epa.gov/sites/default/files/2016-09/documents/methanol.pdf>.

¹¹ See “Benzene.” 2026. U.S. Centers for Disease Control and Prevention. U.S. Centers for Disease Control and Prevention. June 10, 2026. https://www.cdc.gov/chemical-emergencies/chemical-fact-sheets/benzene.html#cdc_generic_section_5-exposure.

¹² See OutspokenGeek. 2026. “Bloom Energy Q1 2026 Earnings.” Substack.com. OutspokenGeek. April 29, 2026. <https://outspokengeek.substack.com/p/bloom-energy-q1-2026-earnings>.

¹³ See “Santa Teresa High School.” n.d. US News & World Report. US News & World Report. Accessed June 25, 2026. <https://www.usnews.com/education/best-high-schools/new-mexico/districts/gadsen-district-independent-schools/santa-teresa-high-school-12933>.

death from benzene.”¹⁴ **If approved by the NMED, nearly 1,200 high school students will face not only benzene but xylene, methanol, and CO₂ -- all of which cause well documented harms to human health on short- and long-term bases -- on a daily basis and with no escape in order to access their state-guaranteed public education.**

Furthermore, a National Institute of Environmental Health Sciences studying the long-term impacts of air pollution on children noted that increased levels of air pollution increase the frequency of respiratory infections which ultimately leads to increased school attendance.¹⁵ Is this what the NMED wants for not only the town of Santa Teresa located less than 4 miles from the proposed facility, but the high schoolers who will be forced to their days less than one mile from this highly polluting facility?

Environmental Justice

More strikingly, Santa Teresa High School’s student population is about 96% Hispanic.¹⁶ Nearly 84% of Santa Teresa’s population is Hispanic.¹⁷ On the state level, less than half of the population is Hispanic or Latino.¹⁸ The state’s poverty rate in 2023 was 17.8%.¹⁹ In Santa Teresa, that number is more than six percentage points greater.²⁰

Given this overrepresentation of two groups already historically and systemically marginalized -- Hispanic and individuals experiencing poverty – and the overlapping of these two identities in Santa Teresa, the siting of this facility should be of significant concern for the NMED. NMED’s website reads, “no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations

¹⁴ See “Benzene.” 2026. U.S. Centers for Disease Control and Prevention. U.S. Centers for Disease Control and Prevention. June 10, 2026. https://www.cdc.gov/chemical-emergencies/chemical-fact-sheets/benzene.html#cdc_generic_section_5-exposure.

¹⁵ “Air Pollution and Your Health.” 2026. National Institute of Environmental Health Sciences. National Institute of Environmental Health Sciences. March 6, 2026. <https://www.niehs.nih.gov/health/topics/agents/air-pollution>.

¹⁶ See “Santa Teresa High School.” n.d. US News & World Report. US News & World Report. Accessed June 25, 2026. <https://www.usnews.com/education/best-high-schools/new-mexico/districts/gadsen-district-independent-schools/santa-teresa-high-school-12933>.

¹⁷ See “Santa Teresa, NM.” 2024. DataUSA. 2024. <https://datausa.io/profile/geo/santa-teresa-nm#demographics>.

¹⁸ See “New Mexico: DEC Demographic Profile.” n.d. United States Census Bureau. United States Census Bureau. Accessed June 25, 2026. <https://data.census.gov/table?q=040XX00US35&d=DEC+Demographic+Profile>.

¹⁹ See Sena, Raymond. 2024. “Poverty in New Mexico.” Labor Market Review. https://www.dws.nm.gov/Portals/0/DM/LMI/Poverty_in_NM_2023.pdf.

²⁰ See “Santa Teresa, NM.” 2024. DataUSA. 2024. <https://datausa.io/profile/geo/santa-teresa-nm#demographics>.

of policies.”²¹ Far from a white, affluent community, the Department must conduct comprehensive, cumulative analysis to identify the impact of this proposed facility on local air pollution in this majority minority community at the intersection of two marginalized identities.

Although, for the first time in thirty years, federal agencies are no longer required to pursue environmental justice,²² the NMED should protect its most vulnerable citizens and act in accordance with its own statements in spite of changes at the federal level. The NMED should give the public 60 additional days to review and comment on YGI’s April 2026 permit application to ensure meaningful participation to all, after which point NMED should reject the application. If NMED does not reject this application, NMED must hold a public hearing in Santa Teresa with remote access in both English and Spanish.

²¹ See “Equity.” n.d. New Mexico Environment Department. New Mexico Environment Department. Accessed June 25, 2026. <https://www.env.nm.gov/general/environmental-justice-in-new-mexico/>.

²² See McElfish, Jr. , James M. 2025. “What’s Left of Federal Environmental Justice?” Environmental Law Institute. Environmental Law Institute. April 10, 2025. <https://www.eli.org/vibrant-environment-blog/whats-left-federal-environmental-justice>.