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Comment on Yucca Growth Infrastructure, LLC, YGI Microgrid, Initial New Source Review Application Submitted to the NM Environment Department

YGI Microgrid is Project Jupiter's new, dedicated power source that is expected to produce 2.45 GW (gigawatts) of electricity, non-stop, all day, every day. Construction of the YGI Microgrid first requires approval by the NM Environment Department (NMED) and YGI Microgrid submitted an application (648 pages long!) describing the types and amounts of air pollution expected from the power plant. NMED is now reviewing the application and is accepting public comments on the application. I encourage you to submit individual comments in English here and Spanish here. **The comment period closes July 6th.**

Remember, the application is specific to air quality. Comments need to have the same focus. Water issues are handled by the State Engineer.

Here is a draft comment that I hope you can use either as is or as a guide for writing your own.

I request that you reject the Yucca Growth Infrastructure's (YGIs) air quality permit application to construct a methane-fueled power plant near Santa Teresa, NM in southern Doña Ana County. I also request that you hold both a public meeting and a formal evidentiary hearing on the application.

The bottom line is that pollution from this power plant has the very real potential to harm people and the environment. YGI's pollution will add to the already unhealthy levels of both ozone and nitrogen oxides that New Mexicans are being exposed to in this area, two toxic chemicals that cause harm to our lungs, hearts, and brains, among many other health issues. This damage to air quality will also harm the surrounding ecosystem and ultimately add to the global climate crisis. YGI's power plant will be *the single largest source of greenhouse gas emissions in the state of New Mexico*, emitting more carbon pollution (10.1 million tons per year!) than New Mexico's three largest cities – Albuquerque, Santa Fe and Las Cruces – combined.

The proposed power plant will use a new technology, methane fuel cells, manufactured by Bloom Energy. The application includes results Bloom Energy's technology does not have enough of a track record to justify approving a 2.4 gigawatt (GW) power plant. Bloom's largest *operational* power plant project is a 40 megawatt (MW) system that began operation on Dec 22, 2025, at Chunju Eco Park in South Korea. The power plant uses 120 of Bloom's 330 kilowatt

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(kW) fuel cell stacks compared to more than 7000 that will be needed for Project Jupiter. The Chunju Eco Park installation is *60 times smaller* than the proposed Project Jupiter power plant and has been operating for only six months. No public data are available regarding air pollution emitted from the Chunju Eco Park installation in those six months.

YGI plans to replace the fuel cells approximately every five years. This raises important questions about the performance of the fuel cells during their lifespan. The Application assumes that the fuel cells will maintain the same pollution efficiency throughout their entire lifespan, but YGI provides no evidence for this assumption.

YGI's likely grossly underestimates the power plant's greenhouse gas emissions. The application estimates *zero* methane emissions are expected even though it will consume 7,345,000,000 pounds of methane per year. That is 200 pounds per second all day, every day. Zero emissions means no unreacted methane is emitted from the fuel cells and no leaks occur from any of the pipes, valves, and pumps in the facility.

The new power plants would add to existing ozone pollution. Ozone is a corrosive gas formed in the air by the action of sunlight on oxides of nitrogen (NOx) and volatile organic compounds (VOCs) and methane. Air in Sunland Park and El Paso routinely exceeds national ambient air quality standard (NAAQS) for eight-hour ozone of 70 parts per billion (ppb). researchers at New York University and the American Thoracic Society, elevated ozone levels in the El Paso-Las Cruces area cause, on an annual basis, about 22 premature deaths, 110 emergency room visits, and over 224,000 missed work or school days. YGI would add to those grim statistics.

Ozone concentrations will go up for two reasons. The first is emissions of ozone precursors including 37.20 tons per year of NOx and 124.01tons per year of volatile organic compounds (VOCs).

The second reason is due to the almost 5 GW (gigawatts) of waste heat that will be dumped into the Santa Teresa region. That is as much heat as produced by six Hiroshima-size atomic bombs detonated *every single day*. In the western US, ozone levels typically increase by about 1.1 to 1.7 ppb for every 1°C increase in temperature. A study of data centers in Phoenix shows air temperatures downwind of data centers up to 2.2°C higher than the corresponding upwind locations. The Phoenix data centers were significantly smaller than Project Jupiter (ranging from 34 MW to 169 MW), and did not have co-located power generation.

Analysis performed by Dr. Rob Davies, a Professor of Physics at Utah State University, found that a 5 GW AI data center in Box Elder County, UT, would increase daytime temperatures in the

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area by up to 2.8 °C, with nighttime temperatures increasing by up to 6.7 °C. The Utah environment is much more like Santa Teresa than is Phoenix. Dr. Davies noted that a temperature increase of this magnitude would have an “extreme” ecological impact, causing additional desiccation due to elevated evaporation and reduced condensation during the day.

As proposed, YGI’s microgrid is disaster for our environment, and climate. The power plant would threaten the health and imperil the environment of people in New Mexico, Texas, and Mexico. New Mexico is already the fastest heating state in the continental United States. The application violates state and federal air quality laws, and NMED must reject it.