

Executive Summary

Tulare County lies in the San Joaquin Valley, nestled in Central California between Fresno and Bakersfield.¹ It is one of the top producers of agricultural commodities in the United States and has the highest number of dairy concentrated animal feeding operations (CAFOs) in the state, up to 295 dairies according to records obtained from Tulare County.^{a,2} This has come at a significant cost to the health and well-being of county residents, workers, farmed animals, and the environment. Now, a push to expand the use of anaerobic digesters to convert animal waste into so-called “biogas” could exacerbate these harms.

Around a third of California’s dairy cows reside in Tulare County, and the vast majority^b of the county’s dairy operations have 500 or more cows.³ The proliferation of industrial-scale dairy CAFOs has created significant environmental and public health concerns in Tulare County due to the overwhelming volume of animal waste produced by these facilities. Community members struggle to access clean water and are suffocated by dismal air quality. Yet rather than reign in the explosive growth of dairy CAFOs, California has gone in the opposite direction, encouraging the development of anaerobic digesters—a technology that captures methane emissions from animal waste to produce manure biogas, also known as factory farm gas—claiming they will help reduce the climate impacts of animal agriculture. The reality is the state’s full-throated support of factory farm gas will exacerbate the region’s air pollution and further entrench industrial dairies and all the harms that come with this sector.

An anaerobic digester, a closed, oxygen-free environment, is employed to capture methane released from livestock manure and turn it into biogas. During anaerobic digestion, bacteria break down organic material (in this case, animal waste) in the digester.⁴ What is left behind from bacteria “eating” the waste is a combination of gases, primarily methane and carbon dioxide, as well as solid and liquid material (also called “digestate” or “effluent”).⁵ Biogas can be burned for heat or electricity or processed and injected into natural gas pipelines or used as vehicle fuel. Labeling this gas as “biogas” or “renewable” is industry greenwashing; manure “biogas” is inseparable from the highly polluting factory farming industry. Because “factory farm gas” better reflects the true nature of this form of dirty energy, these terms are used interchangeably throughout this report.

In Tulare County, there are 49 dairy digesters operating, which accounts for roughly 11% of all manure digesters in the entire U.S.^{c,6}

^a These data are based on Tulare County Annual Compliance Reports, which dairies and feedlots are required to submit to Tulare County as part of its Animal Facilities Confinement Plan (AFCP). Herd sizes are self-reported by the facilities. Tulare County’s Annual Compliance Report Data (Appendix A) and the U.S. Department of Agriculture’s Census of Agriculture reported very different numbers for total dairies in the county in 2022: 295 versus 187. We regularly found inconsistencies between available data sources. See the call out box Unverified, Incomplete, and Inconsistent Herd Size Data for Tulare County below for more information.

^b Both the Census of Agriculture and Tulare County’s Annual Compliance Report Data support this claim despite reporting different figures for the overall number of dairies in the county: The Census of Agriculture reports 94% of dairies having 500 or more cows, and the Annual Compliance Data reports 97% of dairies having 500 or more cows.

Daizy, a mother of three who has lived in Tulare County for 14 years, told us point blank: *“I can’t make it clear enough that digesters do not benefit the community.”* This is because factory farm gas production not only fails to resolve existing environmental and public health concerns for communities living near CAFOs, but it can also exacerbate already toxic conditions. Tulare County community members continue to face contaminated water, widespread toxic air pollutants, and putrid odors from the CAFOs nearby. Due to the digesters, they must now also contend with increased ammonia emissions,⁷ increased air pollution due to biogas combustion,⁸ and a perpetuation of the factory farm system that continues to consolidate smaller farms into mega-dairies.⁹

This report, based on research, public records, and interviews with residents, highlights the harmful community impacts of factory farm gas in Tulare County. While the report tells just one locality’s story, it reflects many communities’ concerns with the buildout of manure biogas in California as well as across the United States. Not only do factory farm gas systems fail to resolve the negative environmental and public health impacts of CAFOs, they worsen pollution and safety risks to communities living near industrial livestock operations and biogas plants.¹⁰ They also entrench the current, inherently unsustainable system of factory farms—all for overstated and inadequate methane reduction benefits.¹¹ Under the deceptive banner of “renewable natural gas,” anaerobic digesters are portrayed as a technology that can substantially reduce the emission of methane, a potent greenhouse gas.

However, evidence, including previous research from Friends of the Earth and Socially Responsible Agriculture Project, shows that anaerobic digesters yield a much lower reduction in methane emissions than estimated by both the federal government and California and that these reductions are highly variable and uncertain due to a lack of monitoring.¹²



⁶ There is a slight difference between Environmental Protection Agency’s AgSTAR Database and Tulare County’s Annual Report of Dairy and Feedlot GHG Emissions in 2022 (referred to as “Annual GHG Report,” which the county is required to prepare and publish as part of a 2019 lawsuit settlement) for total digesters. EPA lists 42 as operational while the Annual GHG Report lists 49. Since EPA acknowledges it cannot guarantee the accuracy of its data, and it did not always have accurate facility names, we chose to rely on the county’s data. We do use the AgSTAR database for nationwide digester numbers because it is the only data source available that attempts to catalogue anaerobic digesters across the U.S.