

Aera Energy's Plan to Drill Santa Barbara Tar Sands

Aera Energy ("Aera") is looking to drill hundreds of wells to tap heavy, dirty crude oil in the northern part of Santa Barbara County.¹ An intensive well stimulation method called cyclic steam injection would be used to tap the thick, bituminous oil — an unconventional drilling technique that is sometimes referred to as steam fracking.² If this drilling is permitted, Santa Barbara would be vulnerable to pollution, water depletion, and an increased risk of sinkholes and earthquakes. The Santa Barbara County Planning and Development Department must not allow Aera to expand its operations.

The Company

A joint venture of Shell and Exxon, Aera is one of the largest oil producers in California and the largest in Ventura County.³ It has used its deep financial coffers to influence organizations and politicians and to challenge anti-fossil fuel initiatives. Since 2001, Aera has poured about \$40 million into state political campaigns, mostly ballot measures.⁴ In 2016, Aera funneled close to \$2.8 million into fighting ballot measure Z to ban fracking in Monterey County.⁵

Aera brags that it gives money to various organizations.⁶ This common propaganda practice enables oil and gas companies to present themselves as good community stewards. But their deep-pocketed donations detract attention from heinous and polluting industrial practices.

The Proposal

Aera has proposed a massive development project to revive production in the East Cat Canyon oil field in Santa Barbara.⁷ The plan includes drilling hundreds of tar sands oil wells in the Sisquoc formation (atop the Monetary Shale),⁸ which would lock in decades of polluting oil production.

The oil would be tapped through a method called steam injection, a thermal oil recovery process that involves injecting highly pressurized, super-heated steam into tar sands wells to liquefy and separate the thick oil, then pumping the resulting mixture to the surface.⁹ Toxic solvents or acids can be added to loosen the oil from the sand.¹⁰



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The plan also includes a 14-mile gas pipeline to transport fuel to onsite steam generators, as well as various processing facilities, which bring risks of leaks and explosions.¹¹

The Dangers

The underground pressure from steam injection can push bitumen, and its contaminants, into nearby rock formations and aquifers through naturally occurring fissures and faults.¹² The risk of groundwater contamination is greater than with other drilling techniques because of steam injection's propensity for breaking well casings.¹³ Faulty well casings are a common cause of groundwater pollution.¹⁴

Steam injection can also stress water resources, which is bad news for drought-ridden California. Steam injection wastes about half a barrel of water for every barrel of oil — 1.6 to 5 times as much as conventional oil drilling.¹⁵ During 2016, California's steam fracking industry used 17.8 billion gallons of water, comparable to the water use of 572,127 California residents in a year.¹⁶

Steam fracking can also cause earthquakes and sinkholes, and California tar sands oil is among the most climate-polluting fuel sources in the world.¹⁷ Moreover, state regulations on gas fracking do not apply to steam injection techniques, and California's oversight and enforcement is inadequate to safely oversee this drilling method, according to the U.S. Environmental Protection Agency.¹⁸

Shoddy Track Record

Aera's poor track record compounds the inherent risks of drilling hundreds of new oil wells. Over the past decade Aera has racked up about \$1.6 million in penalties for environmental, offshore drilling and health violations.¹⁹

In 2007 in Ventura County, Aera was fined after a chemical release at a production facility caused over 300 nearby residents to report burning eyes and noses to the fire department.²⁰ Two years later in Kern County, Aera was ordered to pay a farm \$9 million for contaminating groundwater

needed for its crops; the farm had to remove 2,000 acres from production.²¹ And in 2016, equipment failure at an idle Aera well in Ventura County resulted in a gas leak and a dusty cloud over the production site, causing road closures and resulting in an evacuation order.²²

Aera Must Be Stopped

Santa Barbara's Planning Department must reject Aera's proposal to revive production in the East Cat Canyon oil field, and California Governor Gavin Newsom must ban drilling, fracking, and all forms of well stimulation.

Continued investment in oil and gas operations prolongs dependence on dirty fuel, delays the shift to clean, renewable energy and forestalls any meaningful reductions in greenhouse gas emissions. Instead of locking in decades more of dirty fossil fuels, California needs to rapidly transition to 100 percent clean, renewable energy.

Endnotes

- 1 County of Santa Barbara Planning and Development. Energy Division. "Aera East Cat Canyon Oil Field Redevelopment, Draft Environmental Impact Report." November 2018 at 2-1; Dixon Risk Consulting. Prepared for Aera Energy LLC. "East Cat Canyon Oil Field Redevelopment Project. Quantitative Risk Assessment Update." March 2016 at 13 and 29.
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- 8 Isaacs, Caroline M. U.S. Department of the Interior. U.S. Geological Survey (USGS). "Preliminary Petroleum Geology Background and Well Data for Oil Samples in the Cooperative Monterey Organic Geochemistry Study, Santa Maria and Santa Barbara-Ventura Basins, California." Open-File Report 92-539-F. 1992 at 6; County of Santa Barbara Planning and Development (2018) at 2-1, 2-10 and 2-16; Woodring, W.P. and M.N. Bramlette. U.S. Department of Interior. USGS. "Geology and Paleontology of the Santa Maria District California." Geological Survey Professional Paper 222. 1950 at 121.
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- 10 Food & Water Watch. [Fact sheet]. "The environmental perils of steam fracking Oxnard's tar sands." May 2018 at 1 and endnote 4.
- 11 County of Santa Barbara Planning and Development (2018) at 2-1, 2-2, 2-16 and 2-68; Dixon Risk Consulting (2016) at 1 and 13.
- 12 Food & Water Watch (2018) at 1 and endnote 9.
- 13 *Ibid.* at 1 and endnote 10.
- 14 *Ibid.* at 1 and endnote 11.
- 15 Lightbrown, Vicki. "New SAGD technologies show promise in reducing environmental impact of oil sand production." *Oil, Gas, and Mining*. Vol. 1, Iss. 2. 2017 at 1.
- 16 Food & Water Watch (2018) at 1 and endnote 18.
- 17 *Ibid.* at 1 and endnote 19.
- 18 Cart (2015); U.S. Government Accountability Office. "Drinking Water: EPA Needs to Collect Information and Consistently Conduct Activities to Protect Underground Sources of Drinking Water." (GAO-16-281.) February 2016 at Highlights, 1, 39 and 40.
- 19 Good Jobs First. Violation Tracker. "Aera Energy." Available at <https://www.good-jobsfirst.org>. Accessed February 4, 2019. Good Jobs First notes that some penalties in this database are partial or complete duplicates of other penalty records. For that reason, we deleted any violation that appeared to be a duplicate before aggregating a sum.
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