

Geothermal Questions We Need to Ask

Residents of Hawaii need time to answer these vital questions about geothermal development:

1. What happens to the state's power supply in case of a lava flow? "The possibility of an eruption in the geothermal resource or state-wide cable path within any 50-year period is between 60 and 90 percent," according to the Hawaii Volcano Observatory.
2. Will geothermal actually raise the cost of living in Hawaii? Would this huge investment be made if consumers weren't ultimately footing the bill? The undersea cable is way too costly, and too risky. Massachusetts studied, and ultimately rejected undersea cables using similar technology as a "high-risk" installation, too expensive to construct, with too many severe environmental impacts and too difficult to maintain... and Massachusetts isn't in a Lava Zone 1.
3. The existing Puna Geothermal Venture (PGV) well in Puna has a history of 18 civil defense emergencies and one total blowout (from 1991-1999), in which residents were evacuated from their homes. Why is there no data after 1999? What is a worst-case scenario if all these wells are built?
4. Is it true that air quality monitors were set 12-15 feet above ground level, so that these heavier-than-air gasses, which blanket the ground, would be under-reported at the existing PGV plant?
5. What levels of mercury and arsenic could be released into the environment, as in the blowout? How do all these toxins interact with each other and with vog?
6. How many properties are within a 1-mile radius? 5 miles? 10 miles? How will owners be compensated?
7. If geothermal drilling created a "wild well" in California, isn't it possible that an uncappable environmental disaster could be the result here?
8. Is it true that Hawaii's geothermal resource (drilling 7000+ ft into a live volcano) is far more polluting than California's "clean steam" geothermal, which taps geysers?
9. Can geothermal cause earthquakes, massive land subsidence, or lifting up of the land here, as it has elsewhere? Reinjection of geothermal pollutants caused Basel, Switzerland to experience upward of 10,000 seismic incidences measuring up to 3.4 on the Richter Scale within 6 days after a nearby geothermal plant started its water injection program. Both Switzerland and California have abandoned geothermal plants due to earthquakes caused by geothermal. New Zealand has land subsidence of over 40 feet at the Wairakei geothermal well, and Breisgau, Germany has experienced lifting up of the land, cracking structures nearby, including the city hall.
10. When toxic emissions are re-injected, what happens if an earthquake ruptures underground pipes or containment basins? Will this poison groundwater, and hence, the ocean?
11. How will the toxic waste solids be handled? Will this 'geothermal sludge' containing arsenic and other heavy metals be stored in sumps on site? What happens if containment basins are fractured? Will precipitation and erosion eventually release these toxic compounds into the soil and aquifers?
12. Hydrogen Sulfide is much more dangerous than was previously known. H₂S is a chemical asphyxiant, similar to carbon monoxide and cyanide gases.

13. Isopentane is a highly flammable liquid, with a boiling point of 82°, which can explode if vapors contact air. How will this chemical be transported to the geothermal wells safely? In trucks over our roadways? Is it true that the small existing well stores around 60,000 gallons, but “loses” 40 gallons per day? How is it released into the environment? Is it true that the fire in 2003 was caused by an explosion of isopentane from a lightning strike? What would the blast zone of 60,000 gallons of isopentane be? (worst case scenario)
 14. What will be the effects on animals, plants, and sea life, as well as humans?
 15. Does emergency open venting occur automatically? Yes. When PGV is providing power to the grid, and the plant trips off line or there is a sharp decrease in power provided to HELCO, a steam overpressure is created at PGV; relief valves lift; and H₂S, other gases, and particulate matter are released to the atmosphere. This can happen during lightning storms, breaker malfunctions, line and equipment failures.
 16. Aren't there better alternatives?
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If you wish to stay informed about community action and receive the Puna Pono Alliance Newsletter and Bob Petricci's Updates, email newsletter@punapono.com with NEWSLETTER in the subject line.

Puna Pono Alliance needs funds to keep up the fight for Puna. Please contribute by credit card or PayPal at punapono.com/contribute or by check to PO Box 492668, Keaau, HI 96749.

If you want to help in other ways please call (808) 339-4344.

We sometimes ask for people to come out and support us with testimony, especially when important legislation is being passed. This can be done in person or by email. If you have never given testimony but would like to, we can guide you in this process. It is an empowering thing to do and an action that is of immense value when it comes to passing legislation. When the people speak en masse, the politicians listen.