

# Incompetence or Indifference

(An open letter to Senator Hirono, Senator Schatz, Representative Hanabusa, Representative Gabbard, Governor Abercrombie, Mayor Kenoi, Region 9 EPA Administrator Jared Blumenfeld, HELCO President Jay Ignacio, and Hawaii State Legislators.)

People were hurt, and property and equipment were damaged during Tropical Storm Iselle. The community is grateful to the first responders and relief providers that have worked so hard and done so much in Lower Puna. But some of the serious effects of the storm were entirely preventable.

As Tropical Storm Iselle began battering lower Puna on August 7, 2014, Puna Geothermal Venture (PGV) went offline and began a release of geothermal fluids through the plant's emergency steam relief system. The release dumped noxious gas into the community surrounding the geothermal power plant for some time. Residents that were trapped in their homes by the tropical storm reported smelling stronger noxious gas odor than they had ever smelled before. Many developed symptoms that could be associated with exposure to hydrogen sulfide, several people passed out, and one man could not be awakened for several hours, possibly due to exposure. Respiratory and neurological symptoms lasted for several days.

Many questions will need to be asked about the cause and consequences of this upset, but one question can be asked right now:

**Why was the plant operating when Hawaiian Electric Light Company (HELCO), PGV, and State and County regulators all should have known that operating the plant during a major storm would possibly, in fact probably, lead to an upset?**

To understand why the decisions made or not made must immediately be called into focus, we need only to review the upset at PGV on March 13, 2013. On that date with PGV operating near its maximum power, maintenance on one of the two transmission lines and a malfunction on the second caused a loss of load at PGV, forcing the plant to instantly go from near full load to no load. This caused a dangerous over-pressure condition in the power plant, which required the emergency steam relief system to dump geothermal fluid and hydrogen sulfide into the air. Discussions between the US Environmental Protection Agency, the State Department of Health, the County Civil Defense, and the community continue regarding corrective actions stemming from this incident.

Now 17 months later, we learn that PGV was operating at power during Tropical Storm Iselle. Anyone who understood the causes of the March 13, 2013 upset cannot help but be perplexed by this fact. Were HELCO, PGV, and State and County regulators simply indifferent to the potential danger to the community or were they incompetent? Any informed person clearly understands that transmission lines will be lost and electric grid malfunctions are likely during a predicted major storm. Anyone with knowledge of lower Puna knows that during even a local storm, fallen trees make access to PGV difficult. Certainly anyone with knowledge of lower Puna knows that evacuation from homes during high winds, even if possible, is dangerous.

Although we do not know the exact chain of events that caused the release of geothermal fluid and noxious gas to the air on the night of August 7, we do know that an upset could have been easily predicted based on the March 13, 2013 incident. We also know that as hydrogen sulfide was pouring into the community, the three PGV perimeter hydrogen sulfide samplers required by the State Department of Health to regulate PGV emissions and to inform the County and

community of PGV emissions went out of commission. The Fire Department's Hazardous Material Team could not reach the area to sample for noxious gas due to dangerous conditions on the roads. Suggested evacuation for residents feeling discomfort from exposure required exactly the same roads that were impassable to the Hazardous Material Team.

Many of the issues discussed here have been discussed for many years. Hawaii County Emergency Procedures recommended by the US Environmental Protection Agency in 2000 have not been fully implemented. In 2012, after the Hawaii Island County Council passed an ordinance requiring creation of emergency procedures for PGV and practice of those procedures, the ordinance was vetoed based on an assertion that additional procedures and practice were unnecessary. The **Geothermal Public Health Assessment Report's** criticisms of the State's hydrogen sulfide "monitoring" system have not been addressed by DOH.

Now is the time for our political leaders to forcefully address these issues., Puna Geothermal Venture should be shutdown until a fully functioning and tested Emergency Response Plan is in place and an adequate, storm hardened, and robust site monitoring system can be designed, installed, and tested.

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