U.S. DEPARTMENT OF ENERGY

PUBLIC SCOPING MEETING

RE: HAWAII CLEAN ENERGY PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

TRANSCRIPT OF PRIVATE AND PUBLIC COMMENTS

Friday, September 14, 2012

Speakers 5:50 - 6:07 p.m.

Public Speakers 6:28 - 9:13 p.m.

Hilo High School

556 Waianuenue Avenue

Hilo, Hawaii 96720

REPORTED BY:

TERRI R. HANSON, CSR 482

Registered Professional Reporter

APPEARANCES

FACILITATOR: DAWN N. CHANG

PANEL: JANE SUMMERSON
U.S. Department of Energy

JAMES J. SPAETH
U.S. Department of Energy

MARK GLICK
Energy Administrator
Hawaii State Energy Office

MARK ECKENRODE
Bureau of Ocean Energy Management

I N D E X

Index (Continued) PAGE

Index (Continued) PAGE

U.S. DEPARTMENT OF ENERGY

PUBLIC SCOPING MEETING

DAVID A. ANDERSON: First of all, it seems to me that this geothermal is a scam for making money for people who already have a lot of money. Because if it wasn't just a scam, there's so many other alternatives that we could use that don't have any problems with the local people and the environment.

We can do the wind. We can do the solar panels. The amount of money that they're putting into a cable that will go under the ocean is incredible and somebody is estimating a billion dollars, and it's going to cost significantly more than that. That would produce a lot of solar panels.

Nobody's going to complain about solar panels. Nobody is going to complain significantly about the use of wind.

But if you're doing geothermal and you're drilling and producing a wall of noxious gas and noise, disturbing the area for all the people around bringing in heavy vehicles and heavy materials that require restructuring, reworking the roads and all sorts of other problems that will develop from this, why don't we go for something that's simple and won't have opposition

from the community? Thank you very much.

HALDA ZSOLTIMA: For the record, MA equals mother, a living, life-giving force which gives us, the human family, a chance to experience light, soul in matter.

LA equals light which is the true law. When surrounded by two MAs, it is malama, to take care of the living mother with the light of the father providing clarity.

The two goddesses on this land are Poliahu and Pele, whom are the balancing forces of heat and cold. The point to the spiritual insight is that she doesn't appreciate intrusion. And drilling and tapping is not pono upon the aina which we are supposed to protect as guardians. We must re-guard her as a living life force to be respected, not raped. She can turn the tables of stability at any time!

The father's solar endless energy source is clean and zero intrusion upon mother in forms of drilling, dams, oil excavation.

And for a political point, question: Does Bill 55 (1155) give the Public Land Development Corporation ability to bypass regulations and develop state land? What can citizens do against this scam?

THEODORE NAVARRO, JR.: I live in Hawaiian

Acres on Road 6 and D. So my comment is that part of their presentation so far is that they have those programmatic projects and so on and so on, and programmatic developers. But what I would like to know if it could be answered, could the programmatic developers come under Bill 55, which is the bill that created the Public Land Development Corporation?

If so, I oppose it and say that the bill is a monstrosity and should not have been passed or put up for legislature. That is my comment.

Another comment is if, indeed, they want the geothermal to run to Puna, to make sure that some of the directors and developers live a quarter mile downwind from those plants to taste the ambiance of living by those plants. Thank you.

ANNE CRILLY: I was told that there's going to be a lot of experimental wells put all over Puna. I've seen a map. I don't know how accurate it is, but I am very concerned.

And I went to a gathering for the civil defense where the head was -- Ben was his name. I don't remember his last name. And he offered me to sign up on a paper where they call people if there's some kind of an emergency before the sirens and stuff go on. He's very friendly to me.

And when I asked him, Well, do we have an evacuation plan for geothermal? His attitude completely changed. I was kind of shocked. And I thought maybe I should introduce myself. I reached my hand out and told him my name, and he really crushed my hand shaking it.

And I said, Ben, you've got quite a grip on you. And he laughed.

What kind of evacuation is for geothermal? He told me there is no evacuation for geothermal and there was no need for it.

And I asked him, What kind of emissions monitoring is there? And he said that the monitoring for the emissions is done by the geothermal people themselves.

And I asked him, Isn't that kind of like having the wolves protecting the hen house? And he said that he felt completely comfortable with them telling him what the levels were, and if there were any problems, that's the Department of Health's problem, not civil defense. Well, that shocked me.

And then later I went on to find out that he was even misinforming me and that there are independent monitoring that people in Leilani and that the people there have a monitoring device. And then I was really concerned to think that why doesn't the head of civil

defense know? And he could have me feel much more comfortable by telling me that.

And his whole attitude, and he said that he used to work for Green Harvest too, which really upset me. If I'm against geothermal, he thinks that I have something to do with Green Harvest. I just could not fathom where he was coming from. And to think that he's a public official gives me nightmares.

I believe that geothermal can be a viable energy source on our planet, but there's nowhere in the world that they have a geothermal plant within 10 miles of human beings. And there's a reason for that.

And thank you for your consideration. And please keep people safe. That's what our officials' jobs are. Thank you very much.

BETH LERER: More focus and money should be put on the type of energy that's just for people that doesn't require electrical transmission by cables and electric companies. It should make people really independent and more self-efficient and less reliant on electric companies whose only motive is to make money.

Geothermal in Hawaii is not a truly viable alternative resource due to the nature of our geologic situation and human population areas.

DON PETTY: My question is involving the

part about the federal decision on environmental review. What exactly involves the environmental review?

The second one is involving 70 percent renewable resources. What is being put in place for control and disposal of the 30 percent?

TRANSCRIPT OF PROCEEDINGS PUBLIC TESTIMONY

FACILITATOR CHANG: The first three speakers will be Richard, Elaine and Henry. So I'm going to ask you to come up. Again, I'm going to ask that everybody in the audience respect the speakers. The speaker is going to be here, we've got the panel there, and the court reporter. You need to state your name and speak clearly. So again, can everybody please take your seat.

We've got a young man here, Greg, who's going to hold up a sign at one minute. So please pay attention. And I am going to come very close to you, and that is going to be your signal that your time is just about up. Okay, Richard.

RICHARD BIDLEMAN: Thank you. My name is Richard Bidleman.

AUDIENCE MEMBER: Louder.

RICHARD BIDLEMAN: My name is Richard Bidleman. Can you hear me now?

All right. I'm going to read you a statement that I got from James Kauahikaua, who is the lead scientist in the Hawaiian Volcano Observatory. And some of you have heard it before, but many of you may not have heard it. I'm going to read it to you.

I asked Jim if the Hawaii Volcano Observatory had ever weighed in on geothermal. And here is his response.

Richard, good question. HVO has not been formally asked to testify or submit information on geothermal development in Hawaii in the last several years. You have identified a relevant point that we have made before but seems to have been overlooked in the current flood of interest in geothermal. That what makes geothermal so attractive at Kilauea also poses a threat to the power generation facility and the customers that depend on it.

You are correct that the Lava Flow Hazard Map that was developed designated Hazard Zone 1 as the most hazardous for lava flow because it is directly over a volcanic rift zone that erupts frequently. (Applause.)

That hazard threatens homes and power plants alike. Of course, it's the same rift zone that is the most lucrative geothermal target in the state.

Now, I have one other comment, and it's

relatively new. I've been talking to a fair number of people about the loss of ohia trees. In our area alone there have been over a hundred, and it's not some -- it just kind of happened overnight. And I'm beginning to see some things in the literature that we need to take a look at the effect on our ohia trees.

I'm not saying that it's geothermal. I'm just saying it's an environmental issue that I think that this group needs to take a look at.

We actually had some tests done by both the state and U.S. Forest Service on some live and dead ohia trees in our area. And their testing basically said we didn't find anything. (Applause.)

FACILITATOR CHANG: Thank you, Richard. Next is Elaine, and then Henry, and then after that is Corey, Corey Harden.

If anybody wants to leave their comments so the court reporter can confirm your statements, please feel free to do so. Elaine.

ELAINE MUNRO: Thank you. Okay. I'm going to be talking about utility-scale biomass energy. Two points. One is on health and human safety and the other is on energy efficiency.

When it comes to biomass plants, what has not been commonly known is that here in Hawaii there is a

salt deposition that goes on the trees. And because of that salt and combustion there's a much higher likelihood of dioxins and furans to be produced up the smoke stack.

Dioxins and furans are particulate matter that does not dissolve. It gets carried away in the wind. We breathe it. It becomes accumulated in our tissues. It gets taken up by roots of plants. It becomes part of our food chain. It can become part of milk from grasses that cows eat.

So dioxins and furans are very important because they're very toxic. They've been know to be associated with high rates of respiratory disease as well as cancer.

At this point no biomass plant on a small scale here in Hawaii is required to put in continuous emission controls for dioxins and furans. That is a mitigating feature that should be considered for the health and human safety of our population. No one has gauged the wind drift of these particles whether in breathing or in food chain. It is very important.

My second point is on energy efficiency of biomass plants. The state of Massachusetts recently did a science-based legislation that said that any biomass plant in Massachusetts must attain a 50-percent

efficiency rate. The efficiency rate here in Hawaii are 23 percent. Why is that important? Why burn more wood to achieve far less efficiency? Make our resources go farther. Require that these plants become more efficient. That's good for everybody, and it's really good for having the resources last longer. Thank you. (Applause.)

FACILITATOR CHANG: Thank you. Henry, Corey and then Pierce Myers.

HENRY CURTIS: Aloha. I'm Henry Curtis, executive director of Life of the Land. (Applause.)

We're in a federal energy regulatory commissions office dealing with liquified natural gas because the gas company wants to bring in, and we're a party to four regulatory proceedings with the Public Utilities Commission completing aina koa pono (ph).

I want to address two issues. The first is the Hawaii Clean Energy Initiative. The energy agreement calls for: 1. Streamlining regulation; 2. Automatic approval; 3. Minimizing public input; 4. Presumption that the utility knows best; and 5. Termination of the net metering program.

I don't know of anybody outside of the utilities that thinks it's a good idea. That's why they wrote it, and that's why it mentions HECO and its

companies 400 times and KIUC once, because it's HECO centric document.

The second one deals with palm oil. A few years ago the utility proposed getting palm oil to power their power plants. Eighty-seven percent of the palm oil in the world is grown in Indonesia and Malaysia. They count for 91 percent entering the world trade. It was a very weak industry standard developed by the round table on sustainable palm oil, called for 39 very weak international standards.

HECO proposed that they should have to follow 6 of them, and 33 as long as the company was working towards them that was fine, and it didn't matter what they were doing on other plantations, just they had to be working towards them on the plantation that they got the biofuel from. So as long as the company was, "Working towards no child labor," and working towards "Free and prior informed consent of native people," that was fine.

So is palm oil legal? Yes. Is it renewable energy under state law? Yes. Does it meet RPS? Yes. Is it moral, ethical or value driven? No.

So I would hope that since clean energy is not defined, that you include that it has to be responsible energy forms. Thank you. (Applause.)

FACILITATOR CHANG: Next is Corey, Pierce, and Kathy. And I will say, I really greatly appreciate that the speakers are keeping to the three minutes. Thank you.

COREY HARDEN: Good evening. The Department of Energy should be commanded for expanding the scope of the big wind EIS and creating an opportunity for wise choices, and I hope those choices will include planning that involves everyone and that can refocus as times change, that we plan for environmentally friendly energy, that we have solutions that are creatively adapted to individual needs and individual places, that we have solutions that boost global economies, and we have lots of negawatts, that's negative watts otherwise known as conservation.

About big wind, there were many studies done but people cannot see them until after this hearing, and I think that is very unfortunate.

I also think that perhaps this EIS should have been done years ago. What we've got is powerful interests looking to make a quick buck off anything that can remotely be called clean energy. I wonder if it is legal for clean energy proposals paid for by taxpayers to move forward before this EIS is complete.

I wonder if funding, land, and other resources

will be eaten up by proposals that look clever today but foolish tomorrow, and proposals that enrich a few people at the expense of many.

Here's questions I hope the EIS will answer. What is the best way to plan statewide energy policy? We should look at the history of how we got here today with centralized energy and AC instead of DC. We should look at other states and countries. We should think about what planning should come from the top down and what should come from individuals and neighborhoods and planners.

How will economic drivers affect energy needs? Right now the military and tourism are the major drivers, but what if that changes to self-sufficiency for food and other needs?

What happens after the EIS? We need a mechanism to monitor and report on results from impacts of EIS's recommendations and be able to change course if needed.

We need to think about the best balance between centralization and decentralization. I wonder if we should use a certificate-of-need model for any centralized energy. They use that for health care, and you have to get approval from the state planning agency before you spend a lot of money on construction of new

devices. For centralized, who can own and control it; government, business, non-profit, consumers, locals or off-island people?

And we need to look at subdivision proposed zoning, public transportation, street design. Thank you. (Applause.)

FACILITATOR CHANG: Thank you, Corey. Next I have Pierce, Kathy, and Geoff Last.

PIERCE MYERS: Good evening, my name is Pierce Myers. I grew up on Oahu and have been a resident of Lanai for more than 30 years. I traveled here to Hawaii Island because I'm not able to attend the hearing scheduled for Lanai next week.

Thank you for accepting comments and acknowledging that the Hawaii Clean Energy Initiative needs to consider all renewable energy sources for possible use in our state. And as I'm speaking and later tonight I ask you please to take a look at the vinyl banner that's hanging back there on the windows. That's a representation of what is planned for Lanai for a wind turbine farm.

I believe that the Department of Energy should focus its expertise on helping make each island in Hawaii energy self-sufficient. (Applause.)

I ask that included in this PEIS, the

Department of Energy provide our state decisionmakers with data comparing utility-scale energy production to smaller community based systems. (Applause.)

These data need to compare construction costs, energy costs to make repairs, and environmental impact. The data on environmental impact needs to be presented during three periods: The period of construction, during the life of the project, and during decommissioning. These data also need to show the cost to taxpayers and utility ratepayers for construction, maintenance and demolition. (Applause.)

Given government tax credits and other incentives to developers, I would also like to see how much financial risk the utility and the developer are incurring in the utility-scale project. I ask for these data because I suspect that there is little risk to the developers and there will be huge energy cost increases passed on to ratepayers to fund these projects. (Applause.)

This means the developers and utility will pocket profits at our expense. Should a utility-scale wind project be developed on Lanai, I'm deeply concerned about the responsibility for the removal of wind turbines after their useful life. As proposed the footing alone for each turbine will contain 1,100 cubic

yards of concrete. Removal of this footing and restoration of the area will be a huge expense. I suggest that should even one turbine be constructed on Lanai or anywhere in this state, decommissioning and restoration funds need to be escrowed or otherwise secured and set aside prior to the first shovel cutting the soil. (Applause.)

FACILITATOR CHANG: Thank you. I have Kathy Brindo, Geoff Last, John Ota. Kathy, are you here?

KATHY BRINDO: I didn't realize I was next, and to tell the truth I would rather be eating brown glass instead of being up here in front of you. It's very scary. I don't like to speak in public. But I'm from Lanai also.

People don't realize that on Lanai this project would take a fourth of our island. A fourth. And possibly it would change the harbor and access roads more than that. It's mind boggling.

I was trying to think of anything at all that would justify destroying a fourth of an island. Your island. I couldn't think of anything at all.

The cable itself, another problem going through the whale sanctuary. That's got its own problems.

I do believe that every island should be

self-sufficient. In biology there's a tenant that states, stability in diversity. And I think we need that diversity. We need to be individuals and have a lot of different resources for our energy. I'm shaking here. I'm scared.

I think the windmills on Lanai, ecologically I think it's a sin. Sociologically for our town, it's a tragedy. Economically for Murdock and Castle & Cooke, it's wonderful. They're going to make a 100 million a year to a billion during the time of the project.

For Lanai's people it's going to be a mistake. People come to Lanai because it's unspoiled. We don't have a lot. We have 30 miles of paved road, the rest is four wheel. They rent Jeeps, they rent Hummers, they go four-wheeling. They've never done that before. They don't see a two-story building. They don't see anything.

But there are only really three places to go in our hale. Our mountain area is locked in from rain. There's only one other place, and then this area, which are going to be wind farms. So that's going to be a disaster.

I've said this before, and in closing I'll say, Castle & Cooke, I read from Castle & Cooke, 95 percent of the people live on Lanai do, and they won't put up a

clothesline because it looks bad. (Applause.)

FACILITATOR CHANG: Thank you. Next Goeff Last, John Ota, and Phil Barnes.

GEOFFREY LAST: Aloha, my name is Geoffrey Last. I have lived in lower Puna for almost 30 years. I chose to live in Volcano Zone 1, and I'm willing to risk losing my home to the volcano because of the sheer beauty of living here where everything is so alive. Therefore, myself and all my neighbors should be part of this EIS and impact statement.

However, we in the community feel that we are under attack by outside groups wanting to industrialize our beautiful, quiet countryside with complete disregard for the procedures, Bills 55 and 97. You are our last line of defense before the courts. I have been told that there are 10 to 20 drilling companies waiting in line to invade our community, and the only thing that's slowing them down are you folks.

Having said that, I want to talk about geothermal and the health effects. There has never been a complete study of the effects of H2S exposure in Puna near the geothermal plant. The EPA has now stated that low-level exposure to H2S warrants H2S to be listed in EPCRA 313 as a dangerous toxin. The monitoring of toxic gas releases into the community is shoddy and should be

looked into. There is no warning system and very little follow-up of complaints of rotten egg smell in the community.

PGV has admitted that on average 40 gallons of pentane is unaccounted for daily. Average is that exactly. What about spikes? What if huge amounts of pentane should blow up in an earthquake? The nearest resident is 2,000 feet away from PGV. Lots of time to get them out.

Seven years ago in November we had 29 inches of rain in one day. There was flooding over the rest of the island. The water was up to the ankles in my back yard. Two hours after the rain stopped, the water was gone. Lower Puna is a sieve with cracks, tubes, and rocks over cinder.

In order to produce 30 megawatts of energy, PGV reinjects 3,000 gallons a minute, 180,000 gallons an hour, 4,320,000 gallons a day of brine to produce 30 megawatts. The project is called for 1,000 megawatts of electricity generation, 30 times the amount of PGV geothermal production. Simple math, 142,560,000 gallons a day are going to be reinjected into Puna.

What about our ground water with those numbers? There's a question. Reinjection on a small scale has proven to produce earthquakes. What is 142 million

gallons going to do?

What about our pristine ocean? Who is responsible for monitoring the injectate and the ocean quality?

The brine eats up the seals and the steel pipes. No leaks in this closed system?

If resource cools down, as it appears to be doing (check with PGV) are they then going to start fracking for heat source in our unstable and volcanic zone?

Okay. Anyway, I'll leave my comments. But the noise, we have to have a study of the low-frequency noise, low-frequency emissions. People live 2,000 feet from this plant, and it constantly is going for 24/7. What about their health effects? Okay. Thank you. (Applause.)

FACILITATOR CHANG: Thank you. If you have a written comment, you can leave them with the court reporter. Next is John Ota. I've got John Ota next, John Ota, Phil Barnes and Moanikeala Akaka.

JOHN OTA: My name is John Ota. I was born and raised on this island. In my travels I have been to many parts of this world. I've worked 13 years in Saudi Arabia. In 1976 Saudi Arabia had a whole village, 22,500 people powered and supported by solar power.

(Applause.)

At that time United States had never even heard of solar power. Before I left Saudi Arabia they had light bulbs throughout the larger towns, Jeddah, Riyadh, Dhahran, all those places all powered by solar, all light bulbs controlled by computers, off and on. That was it. The whole place was powered by solar.

Now, we're talking about alternative energy here. The United States is so far behind the rest of the world it's not even funny. (Applause).

They haven't even thought about some of these projects other countries are using. I found out that in my travels, like I say, that there are many, many other countries technologically that are more power advanced than we will ever be for quite a while. Like the big wind turbine that they proclaim that they're going to use to generate electricity for Lanai. That gentleman was just up here.

Anyway, I can say that they have created wind power that does not use 400 feet of space to drive a blade. They have created smaller versions of it that is more efficient that can provide 65 percent more efficient electrical power with other alternative means.

This is something maybe that the DOE should look into because what they're trying to build in Lanai,

that's too much, too much play, too much wind is required to even drive those blades. And then the birds going to go right into all those things. What about all those things? The destruction that's going to create. The big platform.

This other alternative I'm talking about doesn't require six feet space to put it up, and it can put out more electricity than those big turbines can. Thank you. (Applause.)

FACILITATOR CHANG: Phil Barnes, Moanikeala Akaka, Larry Gering.

PHIL BARNES: Hi, I'm Phil Barnes, and I'm the Hawaii island representative from the environmental caucus of the democratic party of the state of Hawaii.

There are several underlaying principles that must be taken into account when looking at the energy needs of our island. First, is the reduction of greenhouse gas emissions by reliance on fossil fuels for our energy generation.

Another concern is the high cost of our rates per kilowatt hour.

The first step in any clean energy scenario is to undertake immediate energy conservation protocols to decrease our energy demand. This is by far the most cost effective way to reduce our reliance on fossil

fuels on a long-term basis. Once energy demand is decreased, it is much easier to meet our energy needs with renewable energy sources.

And two, in terms of producing our energy costs, renewables have a big advantage in our state and our island particularly. With all the talk about renewable --

(Technical difficulties.)

PHIL BARNES: With all the talk about how renewable energy is becoming much more viable on the mainland, imagine how much more viable it must be here in the islands where energy costs are three times as high. It just makes it, you know, three times more viable here.

I mean, if they can have wind farms in Indiana where they've got cheap coal and natural gas in abundance, you know, what's the holdup with our renewables here? Hawaii island along with other islands must meet our energy needs independently at the local level. Energy loss due to long-distance transmission is just another missed effort at energy conservation.

As with other islands in the state we have our unique local sources of energy. Distributed solar energy with rooftop PV panels should be greatly encouraged throughout the state. All of the road blocks

and obstacles that are limiting what percentage of houses in a given area can be cleared for PV should be eliminated immediately. Local loans and grants should be expended to make this option available for a larger percentage of our population.

For utility scale on renewable energy we also have many opportunities here. Wind energy expanded in locations with sufficient wind resources will also need appropriate environmental and cultural consideration.

I was going to say a word about geothermal, but I'm sure there's going to be 50 people that testify about it, so I'll just skip that.

On the leeward side of the island, there is a possibility --

(Technical difficulties.)

PHIL BARNES: On the leeward side, it's possible to greatly expand solar thermal generation in the north Kona area. This concerns the baseline power generation as power is produced for hours after the sun goes down.

OTEC is another energy source that has long been explored in Kona, and with new pumping technology could be expanded. The future tidal and wave energy biomass application, many other options.

As stated previously, these options are now

viable on the mainland, and with our high electric rates they should be more cost effective here in Hawaii. We need to move for renewables. (Applause.)

FACILITATOR CHANG: Thank you. Remember, if you have a written statement, please give them to the court reporter. Moanikeala Akaka, Larry Gering, and Don Petty.

MOANIKEALA AKAKA: Aloha, my name is Moanikeala Akaka. Several decades ago about 120 of us were arrested at Pau Kaili Puna related to geothermal, and the problem -- (applause.) And some of those problems still exist. You hear someone talking about hydrogen sulfide poisoning. We had a pharmacologist go get his master's degree in pharmacologist -- in pharmacology who did a study on the detrimental effects of geothermal energy. And part of that was hydrogen sulfide poisoning which is still talked about. And although geothermal was out of the public view for a number of years, to find out that the people in Puna have been suffering --

THE COURT REPORTER: I can't hear. Can you come over here?

MOANIKEALA AKAKA: The fact that people in Puna are still suffering from the ramifications of the geothermal energy that's now going on, and we're talking

decades later. You know, it's absurd. People are still getting sick, and yet no one has done anything about it in these past decades. Why weren't the government officials doing anything about this? And why didn't the Department of Energy step in? The fact that people are suffering from the ramifications of geothermal energy from the now existing plants. You know, we need more solar energy. (Applause.)

And is it because they can't charge us for the sun, that there's not more of a concentration being put on solar energy? (Applause.)

In a place where we have so much sun, especially on the Kona side. You know, it's absurd. We should have -- oh, there's ocean energy as well. And this whole thing about using limu and seaweed for energy at the cost of $26 per gallon is absurd. We should have -- every island should provide its own energy. (Applause.)

We live on the neighbor island out of choice because we want a quality of life that's very positive. (Applause.)

This cable that popped out of the legislature out of nowhere at the end of the legislature, you know, that can have environmental ramifications, not to mention what it can do to our reefs at a time where

globally they talk about protecting reefs because there are fewer and fewer fish that reefs spawn in and come from. And this is happening globally. Yet they talk about wanting this cable? We should not be industrialized for Oahu's electric lights at a time when they're taking their best farmland and utilizing it to grow more houses. (Applause.)

And the neighbor islands are supposed to sacrifice our quality of life for Oahu's electricity lights. That is nuts.

I went to the democratic party convention and state convention, and you should have seen all those Oahu people saying, Oh, no, we're all one state. We're all in this together. You know, you've got to sacrifice in so many words they were saying, the neighbor islands for Oahu's ever-expanding electricity, and that's a bunch of shabai. (Applause.)

And this whole thing about price per barrel of oil that's been going on. We've had this geothermal for all these decades. That is a gift from the aina, and there are many of us that feel it's a desecration of Pele. (Applause.)

That they are charging us the same price as electricity. We -- you know, it is up to us. We the people of the Big Island and the neighbor islands to

move against this oppression of might makes right from Oahu that wants us to be sacrificed for their electric lights.

Also, I want to add that within last year there was an article in the newspapers by HELCO saying that we will save a couple of cents with geothermal in there. A couple of cents and in 20 years we'll save a dollar and a half. Now what do you call that? I call that us being exploited and enough is enough.

THE COURT REPORTER: I can't understand you.

MOANIKEALA AKAKA: Thank you. (Applause.)

FACILITATOR CHANG: For us to make this time, we're going to have to stick to three minutes. So I'm trying real hard to show you by standing as close as I can to you.

So the next speaker is Don Petty, then Paul Kuykendall, and then Suzanne Wakelin. So, Don, are you here?

MS. SUMMERSON: Dawn, please ask people that they have to be looking at the court reporter.

FACILITATOR CHANG: Did you hear that? You have to stand here so that the court reporter can see you. And I know this is really emotional, but to accurately get your statements she needs to be able to

take it down.

So Don. After Don, is Paul Kuykendall and Suzanne Wakelin.

DON PETTY: I have a question. You guys were talking about 70 percent renewable resources. What is being put into effect for management and for waste management and deposal for the other 30 percent?

FACILITATOR CHANG: Don, what we decided was we were going to hold the questions after everybody made a comment. So would you like to make a comment?

DON PETTY: That was the question.

FACILITATOR CHANG: Okay. So if you don't mind, what we've decided to do was the group said let's take the comments first. So Don, if we have time, we'll take your question.

Okay, the next one is Paul Kuykendall, Suzanne Wakelin, and then Russell Ruderman.

As long as you keep it to three minutes and face the court reporter.

PAUL KUYKENDALL: Mahalo for allowing the community to comment on energy development on the Big Island in the state of Hawaii.

I would like to request the DOE and the State of Hawaii to take a serious look at the recommendations of Henry Curtis and Life of the Land regarding

alternative energy distribution especially ending the grid as we know it and focusing on microgrids or energy independent homesteads. (Applause.)

This will alleviate the need for utility-scale power generation and the inherent problems they include, including high costs and environmental and community impact.

I live within one mile of Puna Geothermal Venture, Hawaii's utility-scale geothermal plant. I'd like to share with you my experience with that plant and those of my neighbors. I'm doing this as an experienced way based of describing my concerns about any utility-scale geothermal in Hawaii.

The common theme between what has happened in Puna and any proposed geothermal plant is that Hawaii's geology makes the development of geothermal more toxic than in other locations. This coupled with poor oversight has lead to numerous problems which I'm afraid will be repeated with any geothermal development. It has also resulted in significant opposition to geothermal development in Hawaii and Puna.

The DOE should not fund geothermal development because it offends Pele. Another way of saying this is that it is folly to build industrial-scale development that drill into the volcano in Lava Zone 1.

One major concern about geothermal power is the lack of community involvement and lack of state regulatory oversight. I ask the DOE to review this history of the damage that has been done to the people and the land of Puna. I request that the DOE study the steps the state has taken to bypass environmental laws and local and cultural needs. With passage of Hawaii Act of 97 this year, the counties have been stripped of their land use control over geothermal development.

We are concerned about the toxic and radioactive nature of geothermal brine and the health effects of low-level and high-level exposures. The geothermal brine contains, among other things, hydrogen sulfide, lead, nickel, chromium, radon, and mercury.

We are concerned about catastrophic releases when there is a blowout or if a well is severed in an earthquake. In 1989 a catastrophic accident at PGV had a well blowout.

AUDIENCE MEMBER: 1993.

AUDIENCE MEMBER: 1991.

(Technical difficulties.)

PAUL KUYKENDALL: So in 1991, excuse me, there was a catastrophic accident that had 2,000 pounds of hydrogen sulfide over a 31-hour period killing animals and forcing the evacuation of the Puna

residents.

Right now the PGV is pumping 3,000 gallons per minute of toxic brine back into injection wells. If a pentane explosion, earthquake or a hurricane breaks their pipes, it would take minutes for the air, land and water to be irrevocably fouled.

We are concerned about a poor emergency plan, we're concerned about health risks, we're concerned about ongoing noise, and we're concerned about release of explosive gasses such as pentane.

For these reasons we request the DOE and the state of Hawaii pursue no further utility-scale geothermal development in Hawaii. We feel it is unsafe, unwise, costly, inefficient and unnecessary. Mahalo. (Applause.)

FACILITATOR CHANG: Thank you. Next is Suzanne, Russell, and Barbara.

I really appreciate the emotion. I just want to let you know that when you clap, you're just taking time away from the speaker. And that's okay. I don't want in anyway to stop you from doing that. But understand that that's cutting into their time. Thank you.

SUZANNE WAKELIN: Aloha, I'm Suzanne Wakelin. I will be submitting a written testimony with

detailed questions and concerns, but for now I want to go on the record that I support efforts to shift from petroleum-based energy to renewable sources.

I want energy development to properly address the Hawaiian cultural, historic, environmental, economic and health concerns. I request that the DOE investigate and address this.

I do not agree with the proposals for large scale land systems. We must look to smaller distributed systems, energy efficiency and conservation. I request that the DOE investigate this.

I do not accept the approach by the state for geothermal in Hawaii. Solar is a far better option, and I request that the DOE investigate this.

I do not accept the industrialization of Hawaii or the long-distance power transmission. I request that the DOE properly investigate this.

I do not accept energy development as a money-making enterprise at the expense of the land, the nature, Hawaiian culture and people. I request that the DOE investigate this. (Applause.)

This is an opportunity, and I appreciate that the EIS process can help us determine and implement the very best policies for our islands. Mahalo. (Applause.)

FACILITATOR CHANG: Thank you. I have Russell, Barbara Kahn-langer, and John Olson.

RUSSELL RUDERMAN: Aloha, my name is Russell Ruderman. Thank you for doing this EIS. I'm going to talk briefly just about geothermal in Hawaii. You're hearing so much about it here. It's because we're the folks -- as you go around the state, we're the people who have direct experience with it. And I hope that when you analyze geothermal options for the state, that you look at the real experience of geothermal in Hawaii, which is different from geothermal elsewhere. And I hope you pay attention to the experience of the people who have actually lived near this plant and take that into account.

Here we have not yet found out the cost of geothermal in Hawaii. We're still relocating people. We haven't done the health studies. We haven't seen the massive lawsuits that are going to come after the health studies.

I hope that you will have -- in sympathy with the people from Lanai. One of the things that I want to urge is that you value healthy communities and plan energy that will not harm our communities. We have precious little land here. It's very highly loved. And we don't want to sacrifice any more of it because it's

not necessary.

I really think that the safest and most reliable technologies should be highly valued for those reasons. To me that's solar, wind and efficiency investments. We need to address the issues that keep us from maximizing solar and solve that problem.

In regards to the cable, I just want to hope -- I hope that you'll analyze the cost of the cable compared to the cost of localized sources, the cost of the same power sources located on each island, analyze the benefits of each island's self-sufficiency, analyze and compare it to what power sources we could put at the location of demand such as solar and analyze the energy losses in transmission.

I hope that in addition to comparing the cost of these options versus a cable, we'll also look at the reliability and the incredible problems we're going to have if the cable -- when the cable fails.

I just want to briefly address the cost issues. We do face incredibly expensive electricity here on the Big Island even more than in Hawaii. I run a group of grocery stores, and I'll say that unlike anywhere else in the country our electric bill is higher than our rent in every one of our locations. And that affects people every day. It affects people in the price of

electricity. It affects people in the price of their food. It affects poor people disproportionately.

So please take that into account especially with regards to the desire on the behalf of certain developers to add very expensive new items into our electric bill such as the cable and interisland connectivity that's going to increase our cost forever. They're trying to get that in under the wire before you guys do your study. It's going to be disastrous for you. Thank you very much. (Applause).

FACILITATOR CHANG: Thank you. Next speaker is Barbara, John, and Rodney.

BARBARA KAHN-LANGER: My name a Barbara Kahn-langer. I want to reiterate what Russell Ruderman just said. My energy background is from a time I worked for a very large nuclear power utility called Whoops in the state of Washington. Oh yeah, it's not quite that funny.

But what I did at that time was I was a lowly technical editor, and my job was to read and edit all kinds of energy scenarios from biomass to different kinds of nuclear energy to solar and everything else.

At that time the big joke was, Jimmy Carter and his solar-powered truck which wouldn't go anywhere if there was a cloud overhead. That was in 1978. Look at

us now.

Just about everybody here uses some form of solar energy. In our house, in our place, we have panels on our roof. What I have as a great concern is that DOE will be looking at us as a large area where we need to be cared for in some way or place. And believe me, DOE people, we don't need to be cared for. We know it is way too expensive.

We are self-reliant. We are intelligent. We know how to grow and produce food. We know how to care for our own selves, and we know how to work interconnectedly with our neighbors.

We have a volcano up the road kind of. Please pay attention to Richard Bidleman's comments about speaking to the HVO staff. I thank you very much. (Applause.)

FACILITATOR CHANG: John Olson, Rodney Dorn, and Kevin Patterson.

JOHN OLSON: Good evening. I would like to address the issue of the cable. I would like to address the issue of the cable. I would like to be able to address the issue of the cable as it now stands as a theoretical entity. I would like to be able to discuss with you intelligently what it's going to cost, the impact it would have on where it runs, and what kind of

power source it might be connected to. I cannot do that.

This theoretical cable, though, has allowed the state to join all of the islands in this process to our detriment. It is no small matter that I notice that the areas that have been targeted are areas of low income, predominantly of color, and are very easy for a large entity to prey upon, the utility.

Now, where I come from, the Puna district, which has endured geothermal for 20 odd years, blowouts, leaks, explosions, the list is endless. While we may be low income, we have the highest level of home ownership in the state. As the previous speaker has indicated to you, we're not helpless, and we're not looking for a handout.

So I'll give some other comment on this, but this is simply one area that is an indicator to me and many others who have followed these issues for a length of time, the way that the Department of Energy past and present has been manipulated by the state and the conglomerate that owns the utilities on the major islands.

If you get a chance to wonder around Honolulu, you'll notice that the state capital on its north and west side is surrounded by buildings owned by HEI. That

probably isn't a mistake. (Applause.)

FACILITATOR CHANG: Rodney Dorn, Kevin Patterson, and John Thomas. Rodney Dorn? Okay. I don't see Rodney. Do we have Kevin Patterson? John Thomas? Michael Hison, Star Newman. Michael, okay. After Michael is Star Newman, and then Michael Hollinger.

MICHAEL HISON: Aloha, my name is Michael Hison. I've been working on development of energy propulsion rockets and neuroscience for a while. My time is up?

I'm sorry. Okay. Been doing a number of things, things to do with propulsion energy, physics. And I just wanted to address this whole topic, basically to kick it into the future.

The issues involved in energy supply are obviously complicated, but it is clear we need to move toward self-powering this island and the state with localized power.

While we can do a lot with solar, wind and ocean energy and the like, we are at a technical watershed. We are on the brink of having clean power from things like cold fusion, sonofusion and other low-energy nuclear reactions and perhaps even energy from the volcano itself.

The low-energy nuclear reactions recently had a 3,200 person conference where there was a demonstration of something like a cold fusion system, and that is now confirmed by hundreds of studies that several such systems are nearing the market and should soon be off the shelf. That means that all the existing technologies suggested in your EIS scoping, while useful, may soon be completely obsolete.

I strongly suggest that we look at all options including hemp for biofuel which has yet to be mentioned and can create 1,200 gallons per acre given three crops a year. All the -- let's see.

Geothermal energy has been called renewable, but the resource cools off. It's been called clean, which is obviously false since there are numerous effects of hydrogen sulfide which is three times more toxic than cyanide, radon of 200,000 picocuries per liter when they're move with those of 4 picocuries, ground water contamination, sick people near the plant, and the risk of catastrophic blowouts with up to eight and a half miles of lethal radius.

All this has been ignored by the Department of Health, which is their responsibility for over 20 years.

And finally, geothermal is hideously expensive. Some 300 million dollars to get 35 megawatts makes

geothermal at least four times more expensive than any other power plant that I'm aware of

Now, all this comes before any ideas of billions of dollars on cables that have to go to great depths in lava zones subject to undersea landslides and the like. To call geothermal safe, clean, cheap and renewable is plain wrong. It is already obsolete. (Applause.)

And we have better options. Let's preserve the island and the state and keep it the paradise it already is. (Applause.)

FACILITATOR CHANG: Thank you. We have Star Newman, Michael Hollinger and James Hedgecock.

STAR NEWMAN: Well, aloha, first of all, and I want to thank you for joining us because it means a lot out here in the middle of the ocean that the federal government comes this far to hear what we have to say. So we greet you with much aloha and appreciation for your willingness to hear us.

For members of my community it was nine years ago this week that I have still been suffering from the loss of smell and taste from a geothermal well blowout released in the days sometime between September 9th the 12th, 1993.

When this happened I was in complete shock to

be sure, and I was scared because I was told this could be permanent. And I spent three weeks wondering, I am ever going to be able to smell or taste anything again. Now, this was kind of a moderate blowout, one that was hardly even reported, but I was scared.

Currently I'm working with honey bees. We have the Bee Buddy Project which the mayor supports and we're doing a big event in Kalapana tomorrow.

But if just a little bit of a blowout threw out my sense of taste and smell, what is it doing to our honey bees? Our honey bees are already so severely and profoundly endangered on this island. So many things that are involved, and now all these things are going to all the other islands. Everything we can do to temper and mediate their environment and ours is well and good for all of us.

And the other day when I read that story in Star Kona about Kikikau and Kulauli (ph) up there and whatever, I was driving down the red road and I said, Oh, my god, what are they thinking? I could be driving to the red road and seeing drilling rigs like I'm in Texas or Oklahoma or California.

People spend years of their lives working to create a holiday so they can come here and visit Hawaii, our beautiful paradise, and they're going to come here

and want to see that? Zero.

I don't want to live here if that should happen. I'll do everything I can to help stop it.

I went to a meeting with John Olson and a number of community people some years ago about what we would do if there was a geothermal blowout. I went to about three of these meetings in the last month. What he said when it could blow out and the whole land could melt and run down the hill like lava. I was like, this is too scary. I've got to stop going to these meetings. 'Cause if it's that bad, what are we going to do? We just have to stop. We have to be mindful of what we are doing.

So I've been thinking about this along with other things, and the first thought that comes to mind, especially after India lost its power for two days and a billion people had zero electricity was, we have to diversify.

I came up with a concept of self-power, and I came up with the idea of asking our mayor to please call some kind of challenge to the brilliant people of our island to come together, to come out of your basements and your garages, the inventors, the girls, the boys, the men and women, who are out there figuring out what they can do to make things better. We're here to make

things better. We came to this island to help make a difference. This is our opportunity to do that. That's it. We're here seeking solutions. Thank you. (Applause.)

FACILITATOR CHANG: Next is Michael Hollinger, James Hedgecock, and Henry Horton.

MICHAEL HOLLINGER: Aloha guys. Thank you so much for coming out here and having the opportunity to listen to everybody. Right now most of us really appreciate to be a part of the process.

So many people touched on so many things that I wanted to touch on. One of the things I wanted to make sure you guys thought about was you take into effect what the energy plans for the entire state would do for development, because that very much is a environmental impact.

What does this much energy do for the developers and what they would possibly want to do with our islands, especially with the new state entity, the Public Land Development Corporation. So please, just keep that in mind. Realize that we are not Oahu. We live here because we are not Oahu. We do not want to be Oahu. The other islands are not Oahu. Lanai is not Oahu. All right. Thank you so much. (Applause.)

FACILITATOR CHANG: Okay. We have James

Hedgecock, Henry Horton, and Bill Collins.

JAMES HEDGECOCK: Thank you folks, for giving us all the opportunity to speak about this. I didn't have anything prepared today. I don't think I needed to be because a good many of the points that I would have spoken about have already been covered. I can't think of any one issue that's more important -- well, there probably are, but I can't think of one that's more important than the others. So I'll not get into specifics. But I want to go on record as being vehemently opposed to almost every project that you mentioned tonight; the transocean cable, the geothermal, which I'm personally interested in and involved in because I live a mile and a half from PGV, and my wife and I have both suffered major illnesses because of it. We have no jobs because of geothermal and our health problems that have occurred.

I don't know -- apparently nothing's going to get done tonight, but I hope some of the information that you've collected will go toward the EIS that you will be working on and producing. And I just -- I'm amazed that I've got about 20 pages here of stuff that I could have gone through and picked out a few major points. But I don't see any point to it because it's all baloney. Mahalo. (Applause.)

FACILITATOR CHANG: Thank you. Next I have Henry Horton, Bill Collins, and Tracy Hedgecock. Could you state your name for the record, too, 'cause I know I'm calling your name, but I want to make sure the court reporter is getting it as well.

HENRY HORTON: Aloha, Kakou. Can you hear me? I haven't been able to hear hardly a thing because the system is so terrible. Mahalo for being here, for giving us this opportunity.

We are dealing with the oldest story in human history, one with huge environmental impacts. The city eats the country and spits out garbage. It destroys the land and calls it development. With talk of 1000 to 1,400 megawatts of geothermal development on this island, we are looking at Puna becoming -- and Kau becoming an industrial wasteland. Windmills on Kauai (sic) and Molokai is the same story. Let each island develop and utilize its own energy.

And I have a question? Why do you think they call it "power?" Well, the real power is looking at me right now. (Applause.)

And we will not let this happen. I first heard of Puna from the 22nd April 1986 Time Magazine cover when all of the heros were up there. I live right next door, and I'm in the middle of it, and it's not going to

happen.

Let each island develop its own power. I live on solar, by the way. (Applause.)

FACILITATOR CHANG: Thank you. I have Bill Collins, Tracy Hedgecock, and then Haley Johnson.

BILL COLLINS: My name is Bill Collins. I'm going to speak quickly. I'd like to discuss industrial hemp as part of the solution for Hawaii's energy situation. (Applause.)

It can address four out of to five of your categories and can be tailored as needed.

In Hawaii 1996 Cynthia Theiland introduced Hawaii's first hemp bill HB305 to allow a research plot to be planted. The research was conducted by Dr. David West and completed in 2003. His conclusions stated that it would be possible to create a variety of hemp that will grow to 10 feet tall in 3 months here in Hawaii. That's 90 days from seed to 10 feet. It's 16 years later, all we have is more hemp bills allowing more research that are to take effect 2050, if they are passed, rendering them completely ineffective. In those same 16 years Canadian has created a billion dollar hemp industry.

Hemp biomass derived fuels and oils can replace every type of fossil fuel energy product. Hemp can be

easily precessed for biodiesel, cellulosic ethanol, methanol, feedstock for gasification and pelletized. The biomass has five to eight thousand BTUs per pound. One acre produces an average of 10,000 pounds of biomass and 1,000 pounds of seeds every three months.

With these numbers, I conservatively calculated that less than one million acres would satisfy the state's entire 284 trillion BTUs of consumption. And if we commit to 10 percent of our 100,000 acres, this would satisfy 10 percent of our consumption and keep 10 percent of the 6.9 billion that we spend on petroleum products, which means nearly $700 million remains here in our farmers' hands, in small business hands, and in our local economy. So as our energy needs grow, our community will become stronger.

Hemp has been an important crop for humankind for thousands of years. In addition to energy, hemp has thousands of benefits. It could be used as food, textiles, building materials, livestock feed, bioremediation which means it will repair damaged lands. It requires zero pesticides, zero herbicides, there's zero waste and zero sulfur emissions.

Hawaii is the perfect place to seek biological energy solutions, and hemp can grow in all of our 11 different climates up to 12,000 feet with some

varieties. Eight states now grow industrial hemp and 23 more have legislation introduced. Thirty-one countries grow industrial hemp. The Hawaiian people deserve to be included and sharing the benefits of a long-term, sustainable, renewable green energy solution like industrial hemp.

There are challenges, new legislation needs to be written, but we have recently seen how quickly legislation can move through Hawaii with the passage of the PLDC legislation. Possibly support from the DOE and the people may be the incentive necessary to overcome these challenges. So please consider industrial hemp as a real solution for the people of Hawaii. (Applause.)

FACILITATOR CHANG: Next is Tracy Hedgecock, and Haley Johnson, and Maria Steele.

TRACY HEDGECOCK: Aloha, I am Tracy Hedgecock. Thank you for joining us here tonight. I agree with everything that's been said here tonight, so I'm not going to go over it all again. Environmental impact statement, I oppose -- I am opposed to geothermal windmills, inter-island cables to be developed here anywhere in the State of Hawaii. Thank you very much and good evening. (Applause.)

FACILITATOR CHANG: Next is Haley Johnson, Maria Steele and Matt -- is it Richards?

HALEY JOHNSON: Aloha, my name is Haley Johnson. Thank you for being here. All right. Some questions I'd like to propose to the EIS are: What are the risks of drilling in a Lava Zone 1 with high volcanic activity when there are studies that link geothermal wells to causing earthquakes and inducing seismic activity?

Has the EIS considered the huge economic losses if operations are disrupted by this volcanic activity?

Why locate geothermal plants in an area where HELCO is ranked fourth as the energy source for people who love solar energy technology?

Why hasn't solar energy been a safe, cost-efficient energy source and been considered before such an destructive, dangerous and highly toxic option?

How will the industrialization of Puna affect the tourism industry which is a source of income to many residents? The EIS should conduct a third-party health study on the impact of chronic exposure to hydrogen sulfide emissions. (Applause.)

The EPA has determined the cause of irreversible human health effects and the affect of constant noise and night light and toxic emissions on the plants, animals, birds, insects. How will this affect our environment and the bees?

How will the population be compensated for the reduced property value caused by the close proximity of the geothermal plant? Will a relocation program be implemented for those living close to the wells?

Yet should they identify the entity responsible to provide insurance for those have have to move due to the problems arising from the projects considered?

And finally, has the EIS considered the negative publicity and civil unrest likely to occur if future geothermal drilling attempts try to proceed? Thank you. (Applause.)

FACILITATOR CHANG: Next I have Maria Steele, Matt Richards, Toby Hazel.

MARIA STEELE: Aloha, my name is Maria Steele, and I live about two miles away from the current geothermal well, and these are some of my concerns that I just wanted to highlight which arose. Everyone who has talked about the geothermal has already addressed, but I just want to make a few points here.

The EIS should address the impact of hydrogen sulfide gas produced by the geothermal plants, which is a lethal poison, on the people, plants and animals in the surrounding areas. They should address the impact of geothermal drilling in a highly unstable region such as Puna with high seismic potential. The EIS should

address how rural infrastructure will be effected by industrial-scale traffic and activity.

They should address the scope of an evacuation plan for geothermal activities in rural areas and what standards will be used and how will it be enforced and executed.

They should implement an independent third-party health study to address the issues of noise and toxic emissions and mixtures of nasty chemicals are released. And the small existing PGV well has produced already, emissions that have exceeded a lethal dose for humans with 18 civil defense emergency blowouts and leaks.

The DOE and EIS should address the cost for the undersea cable to Oahu expected to exceed $10 billion. That's totally crazy. That amount of money could put a solar hot water system on every roof in the state. That's phenomenal. (Applause.)

I agree with what everyone here is saying and about having each island develop its own truly effective, sustainable power which encompasses economic, moral, cultural, and environmental solutions. Thank you very much. (Applause.)

FACILITATOR CHANG: Okay. Matt Richards, Toby Hazel, and is it Dylan Johnson?

Okay. I really thank all of you. You're really doing a great job. We're about halfway through the list, so the thank you for your corporation.

Matt Richards, are you here? Okay. Toby Hazel, are you here? Dylan Johnson.

DYLAN JOHNSON: Here.

FACILITATOR CHANG: Okay. And after Dylan is Judith Mura and Laura Travis.

DYLAN JOHNSON: Hi. The EIS should address the impact of hydrogen sulfide gas produced by geothermal plants which has been proven to be a lethal poison. I know this has been talked about many times, but I don't think it can repeated too many times as this is a serious, serious health threat to people of Puna.

The EIS should address the effects on the ground water considering the reinjection of contaminated pollutants at geothermal plants. Specific questions regarding ground water are:

What distance from the plants will ground water from the plant affect plants, animals, and people's wells?

How will the plant protect against damages to pipes that could occur in a natural disaster such as an earthquake to prevent the ground water pollutions from seeping into the ocean and surrounding area?

What kind of radius will the ground water be affected?

How will ground water be monitored to ensure that people's wells are not poisoned as well as the ocean and the plants and the surrounding environment?

The EIS needs to address the handling and disposing of pentane and the dangers of an explosion caused by an earthquake, lightening strike, lava or other natural disaster and the aftermath such as uncontrolled venting in Puna which can cause unimaginable damage to Puna; irreversible.

What is a safe distance to locate a geothermal plant from residents considering air, water and noise pollution? This is a serious question that needs to be answered with a real house study and real science.

The EIS should address the psychological damages due to loud noise and sleep depravation caused by loud noise that goes on 24/7.

How will hydrogen sulfide and other pollutants be monitored to ensure only a safe level is being released, and how will this be enforced?

The EIS should address real people living near new geothermal developments who need to be relocated from their homes. Who will compensate the people who need to be relocated?

Considering that PGV, one small well, which has caused 18 civil defense emergencies and one blowout and a required evacuation, how could a large scale that has been estimated at approximately 10 or 20 times that size in the same community affect the surrounding community? (Applause.)

FACILITATOR CHANG: I have Judith -- is it Mura,, Laura Travis. Is Judith here? Okay, great. After Judith is Laura Travis and Tom Travis.

JUDITH MURA: Aloha, I'm so glad that all the people from my community are here to support our community. And it's really a shame actually that we are here because we shouldn't have to be here if our country was looking out for us and for our interests. (Applause.)

They want to talk about clean energy. Just because you put the word "clean" in front of energy doesn't make it clean.

Another one is that you mentioned the preservation of parks, endangered species, et cetera. What about its residential communities? What about its people? If the United States cannot lead as an example to the rest of the world, let's follow Germany and Spain. And I oppose this endeavor, and I know you all do, too. That's all. (Applause.)

FACILITATOR CHANG: I have Laura Travis, Tom Travis, and Daniel Cunningham. Is Laura here?

AUDIENCE MEMBER: They left.

FACILITATOR CHANG: They left?

AUDIENCE MEMBER: What number are we on?

FACILITATOR CHANG: We are on No. 30 -- did Laura and Tom leave?

AUDIENCE MEMBER: Yes.

FACILITATOR CHANG: So we are at No. 37. Daniel Cunningham. Okay. And then after Daniel, I've got Joyce Folena and Gregory Smith.

DANIEL CUNNINGHAM: Thank you. Rothschild made a statement, perhaps people have heard this before, If I control the currency, I care not what laws they make, I will determine their destiny.

Until we have publicly owned currency -- and our economy was a canvas economy until Rockefeller said, Competition is a sin, and petroleum took over canvas. We have a petroleum economy, and now the petroleum is high priced and in short supply. And nuclear is a suppressed science and deserves recognition to be a free energy technology that would set us free in the hands of an informed people.

Hemp, nuclear and the prospect of a state-owned bank upon which to build a floating city make living on

land obsolete. Turn us back into a bird sanctuary. Wouldn't that be a nice idea? Thank you. (Applause.)

FACILITATOR CHANG: I have Joyce Folena, and after Joyce is Gregory Smith and Martin Blackwell.

JOYCE FOLENA: Thank you. My name is Joyce Folena. I've been a resident of Hawaii since 1983 in November, and I'm going to say that I am very strongly opposed to any further geothermal research, development, drilling in my Puna district. And the reason I oppose this is because I was living in Kalapana Seaview Estates, which is the Kahena area of Highway 137, the coastal road of Puna. During the blowout -- we in about 8-1/2 miles straight -- we're at the coastline -- from PGV. During the blowout I was wakened at 8:00 in the morning, which is late for me to sleep, and I was lethargic. I heard a roaring sound. I thought Pele had erupted up on the ridge above me. Seaview Estates is on a hill from the shoreline on up. I called the police department at 8:00. I was experiencing classic H2S symptoms. I didn't know they were symptoms of H2S. I had a headache, my synovial joints hurt, I had running water diarrhea, I had running clear mucus from my nose, and I was shaking, and I was very, very frightened.

I called the police department and they said, they have a small problem at PGV.

I said, Small problem my A.

And he said, Look, lady I told you they have a small problem at PGV. And he hung up in my ear.

I want this EIS and its scope to include the wind drift -- the trade wind wind drift from PGV to an 8- to 10-mile radius to the coast. Because while PGV was exhibiting venting, the blowouts, well cleanouts, we were sick.

And then when I researched H2S poisoning, I realized we have to have studies for low-level, long-term H2S poisoning and all the rest of the -- (Applause.) -- particle matter that PGV is expelling.

I want to clear up something that was said in a county council meeting recently by Mr. Michael Kaleikini, the plant manager. When Mr. Kaleikini was asked -- we've been having complaints of some of the residents that their houses were shaking because of PGV and the drilling. I was in the house that shook. I was visiting my friend Aurora Martinovich because I wanted to check up on her story that her house was trembling during drilling procedures which went on for 120 some days. Their permit was originally for 45 days of drilling. I sat in that house and a quarter of 6:00 it started shaking.

So I asked Larry, who is living with Aurora

Martinovich, and Aurora has been relocated since then, thank God. And Larry said it happens every night, they step up their drilling.

So when Michael Kaleikini was asked about this by Rick Porter (ph), our council -- and I want EIS people to understand this because this is why we do not trust Ormat.

Michael said, Well, there are papaya farmers around here, and maybe it was their bulldozers. There are no papaya farms within that close vicinity of that house and no papaya farmers use bulldozers. This is one of the lies of the many lies we've heard from Ormat. Please help us. (Applause.)

FACILITATOR CHANG: I have Gregory Smith, Martin Blackwell, and Galen Kelly.

GREGORY T. SMITH: Gregory Smith, Puna makai. Thank you very much for coming out, and I'm very happy to say as a word to, you know, the people that are fighting this insanity, this greed that we are being imposed on, is that, you know, the grid is dead. The grid is gone. (Applause.) It's a rotting corpse.

The fact of the matter is that this company has actually scooted itself into a corner it can't get out of. No matter what they do in the future, your rates, if you're silly enough to be on these companies'

services, if you call it that, you guys are going to get higher rates no matter what they do.

The alternatives that have been mentioned tonight are the wave of the future, particularly in the way of biofuel, biomass. I mean, we have close to 200 times more farmland on these islands open because of the old sugar industry that we actually need to actually grow food. There is absolutely no conflict with food or fuel in the state of Hawaii, none. Particularly with our year-round growing.

The fact of the matter is four percent of our farmland on this island would only have to be used to take care of all our energy needs. The brother mentioned, you know, the hemp. Well, there are hundreds of different feed stocks that can be site specific, specific to the islands, that could be used in biofuels.

If we used, for instance, the Brazilian model -- which they do grow sugar down there. Yes, it's a sugar mill, but it's not like the old sugar mills here. What they do is not to produce just molasses and sugar, they produce -- they're supposed to produce and they do produce 2,400 of these sites -- these plants that are in Brazil today, they produce alcohol and electricity. In other words, these people have broken the back -- Brazil has broken the back of the oil-archy in their country.

They have a thriving economy while the rest of the world is dying economically right today. And that's the point.

We have the bright future here. All we have to do is get away from the corporate stranglehold that we're in today, and we're doing it.

I've lived off power for 24 years. We've had 15 of these brownouts, blackouts and other crap that HELCO has put on us. And guess what, my lights have always stayed on, and I'm solar. Thank you. (Applause.)

FACILITATOR CHANG: I have Martin Blackwell, Galen Kelly, and then Jim Albertini.

MARTIN BLACKWELL: Aloha everybody, my name is Martin Blackwell. I drafted the resolution senate for change. Mahalo for you being here this evening.

There's an old saying, The only thing constant is change. That being said, that means that change is the one thing that we're always dealing with, and it's always creating some level of stress for us. It's what our stress response is attached to. If we're not willing to stare that in the face, then we'll make horrible decisions for resource management and we are at risk of blindly going forward doing things that are not in the long-term comfort and best for the community, just for the immediate comfort in the moment.

If this is going to change, we're all going to have to change the way we look at it and the way we approach it -- energy and our own selves and always be willing to look at ourselves and our struggle with change.

So those people in Puna who are struggling and reacting to this understandably, we have to be aware that the powers that be are just seeing it as your own overreaction to change. Change is the common language where we will build a bridge.

So imagine change is in the room with us right now, and this is what change has to say, from the eyes of change. Hopefully it won't go over my three minutes, but hopefully it will be worth it.

From the eyes of change. I see you adults struggling to know what is best. Be careful not fight like children claiming that what they have is better rather than sharing your toys and personal perceptions. Try not to shoot down each others' views out of fear rather than combining them in the middle for optimum resolution and results.

Be careful not to claim to know with certainty what you cannot. As you can all be blind to your own need for comfort and how it rules you. You may claim, Don't worry, this is best for the community. Yet

whatever you promote is best for you and your specific family and not necessarily for the greater community. You may say, Oh they are just overreacting and resisting change.

Maybe. Maybe not. Perhaps you are selfishly unaware of your own selfish fear-driven greed for comfort. Maybe their fear is valid that the greater community is changing not for the better but ultimately for the worst.

Perhaps there is a better way that you have yet to see as you are perhaps blinded by knowing. Were you ever wrong? You did not think so at the time. What if this is one of those times?

You cannot know. You cannot see the future. You can easily blindly roll forward like a moth into the light seeking excessive comfort, and when their wings are burned it is too late. You larger groups or corporations can go blindly into other areas to develop and end up frequently raping the resources for your own unaware selfish fear-driven greed. The families may overreact, resisting to change and the fear of uncertainty it delivers. You may under-react unaware that what you do is only best for you and your family as the greedy addiction to escaping discomfort destroys the very greater community you plan.

I'm going to cut it short because I already have the one-minute thing held up. So I'll get to the point, I guess.

An open mind is willing to doubt everything it believes and believe everything it doubts. Otherwise, if you cannot answer with an open mind, leave the process. You are crippling yourselves and your family and your community. Hold yourself accountable to your deeper insecure self. Unite in the middle to share perceptions as if they may or may not be correct. Go forward open to change.

Remember to breathe together. And if the tension rises, be quiet immediately. Breathe and let the tension, fear and anger subside. The truth only comes in the calm between the waves of change. I will be watching. Remember and unify, for united we stand, but divided we fall. Mahalo. (Applause.)

FACILITATOR CHANG: I have Galen Kelly, Jim Albertini, and then Molly McLaughlin.

GALEN KELLY: Aloha, I'm Galen Kelly. Uncle Sam, are you still here?

AUDIENCE MEMBER: He just left.

GALEN KELLY: For some of us it's been a long night. So Alikapu, are you here?

Well, to any of our kapuna who are here, I'd

like to say my heart and prayers are with you and that I hope that one day all of the outcome of these decisions will be again in your hands where they belong because of your wisdom and your experience that's hundreds and hundreds of years of knowing how to manage the land and the resources here without creating any suffering or scarcity.

I would also like to say thank you to Jim Albertini and Robert Petricci for letting me know the urgency of this issue and making me want to fight harder especially for our keiki, so we can let them know we're leaving them a safe and beautiful world.

I'd like to be on the record in complete, profound opposition to geothermal. I see it as anti-aloha (applause), anti-pono, and very scary.

I also want to add beyond that in terms of the presentation here tonight, one of the suggestions was for smart grids. If you have any experience with studying U.N. Agency 21, smart grid comes out of there. They're trying to implement it globally in communities everywhere, and it basically is supposed to be monitoring our carbon footprint and our energy usage. And what it does do besides that is it creates a control grid that is very into surveillance and invasion of privacy.

It will start out with wanting to know how many times a day you flush your toilet and when you're lights are on and when you do the laundry, but the repercussions from that can go into greater spying and greater invasion of privacy.

It's being implemented first for what they call smart meters, which are now being proven to be very toxic and dangerous. Some are even blowing up. So there's a whole-refuse-the-smart-meter movement going on. If you're not aware of that, try to get informed about it and refuse the smart meter. It's what some call a form of global totalitarianism. And what it does is it makes our rulings come from a half a world away at the U.N. deciding our policies and it kills local self-determinism. And so we have to be really careful of that.

And I just want to say in closing that I want to be able to tell my grand babies that I fought, and I did what I could to stop the poisoning. God bless you all. (Applause.)

FACILITATOR CHANG: Jim, and after Jim is Molly McLaughlin, and then Pua'ena Ahn.

JIM ALBERTINI: Aloha. Like many of you, I'm a Puna resident, and for the last 32 years I've been living off of the grid on small-scale solar power. And

one of the first things I learned was that putting money into efficiency is a much wiser choice and always increasing energy production. That's number one.

Number two, I think the county and the state needs to declare immediate moratorium on every aspect of this geothermal and the wind cable systems (applause) -- that are being planned for this island and Lanai. Stop that process until the whole EIS thing is complete. Otherwise, the cart is before the horse.

Number three, the county and the state should require bonding for the damage that PGV admits can be done. In the earlier environmental studies they said a major earthquake could shear off the wells causing massive blowouts requiring a permanent eight-mile diameter evacuation zone with the real estate value of over a billion dollars.

PGV told me that their current insurance policy is 25 million. So what that means is that the taxpayers will be stuck holding the bag when Ormat leaves Hawaii after a major disaster.

Point four, I hope you are aware that HELCO's parent company is HEI, Hawaii Electric Industries, and the president and CEO of HEI is Constance Lau. And the Bloomberg Businessweek disclosed that her annual compensation for the year 2011 was $5,296,000. That

makes every ratepayer a contract slave laborer for the obscene salary of the electric company's CEO. (Applause.)

Point five, one of the major electric consumers in the state is the U.S. military. It occupies the independent nation of Hawaii, and they've been pushing for massive taking over of ag lands to fuel -- to create biofuel for it's warships and bombers. I say not one square inch of ag lands should go for biofuels to fuel the war machines. (Applause.)

And the last point is a boiler point, and I appeal to all of you, many of us here are non-Kanaka Maoli, but we're blessed to live in this sacred place of Hawaii. And we need to be reminded that the native people's religion has Pele as its deity. And we're seeing the international news today, that when people make films that disrespect other people's religion and when we drill into people's deities, we're asking for trouble. I ask you all to support the native people in respecting their religion. No geothermal drilling. Pau. (Applause.)

FACILITATOR CHANG: Molly McLaughlin, then Pua'ena Ahn and Ronald Fujiyoshi.

MOLLY McLAUGHLIN: Aloha, thank you for being here. I am Molly McLaughlin, and I live in Puako,

I live on the Kona side, south Kolaha. So I'd like the DOE, the EIS to know, everyone to know that it isn't just Puna here today. This is the entire island.

I agree with what everyone has said tonight, and I am in opposition to the geothermal project in Puna proposed.

I am here out of love. Everybody here tonight is here for love. Nobody is hateful. I love all of you that I'm speaking to now, the DOE as much as I love everybody in this room. I am here because I love the land, and I know that this project is not in the highest good. We all know that. If you are in support of this project, you do not have all the facts or you are lying to us and lying to yourselves. (Applause.)

You may not even know that you are lying to yourself. You have told this lie so many times. I ask you to look within your heart deeply. It is clear that this is not the best option. I live on the side where solar panels can fill the desolate land. I live on a side where HELCO took the windmills, bought that company and wiped them out. We know this is not the best. We know this is about money, this is about greed. It's not sustainable.

Thank you very much for listening. Please make the right decision. Thank you. (Applause).

FACILITATOR CHANG: I have Pua'ena. Is Pua'ena Ahn here? Right. I apologize. And after Pua'ena, is Ronald Fujiyoshi, and then Lisa Hildwine.

PUA'ENA AHN: First of all, Dawn, I'd like to commend on your pronunciation of my name. Nine out of 10 butcher it as much as the geothermal company has butchered Puna.

Okay. For the most part I'm going stay away from the geothermal issue because fortunately residents from the Puna community have been coming out and showing opposition to this issue. And, of course, this EIS scoping and all this has to do with more than just the geothermal issue.

However, what I would like to recommend to the -- I don't know if you guys are committee or what, but to the EIS people, is that, for one thing, I'm glad that so many did people touch on this, and I'd recommend a more stringent definition of what is considered to be clean and renewable. Geothermal being the obvious one, and then biomass, you know, a wood stove; a really, really big wood stove. Come on, guys. Okay.

But something that I am going to point out to you is that over the course of your EIS, what you're going to find is that there is an increased likelihood of detrimental environmental impact from

industrial-scale energy production. Again, geothermal, the wind farm on Lanai with the massive cable. And I'd like to remind you folks that feasibility should be synonymous with practicality.

Now, let's think about the practicality of, for example, subsidizing micro turbines on every building bigger than two stories. You know, at least one tiny little solar panel for every house, and that in itself should at least match or offset to some degree what these industrial-scale energy producers would be spending on -- geez, I mean, think about how massive these turbine powers are. Let's be practical here.

Let's see. What else here? Well, you know, in the ending of the presentation that I did catch, I did notice that, you know, these folks are going to give a fair shake to everything. You know, but I have to honestly say that, you know, any of these profit-driven industrial utilities, they don't deserve a fair shake because, back to my original point, you're going to find an increased likelihood of detrimental impact.

And my last point that I want to make to you folks, is that you do exercise caution in whatever recommendations that you make because the consequences of these recommendations, these public -- they are far reaching.

The geothermal issue started 25-some odd years ago. The issue only just came back up within the last six months, and people are still harping on it because it's still affecting people. And yes, the environment, the people who live here are part of the environment, these are the endangered species. I mean, the limited amount of land that we have to deal with here, I urge you people and I -- I'm sorry, you people. All due respect. But I sincerely hope that you folks are here to do the right thing because that's what every single person here has been imploring you, whether or not it's regarding the geothermal issue or the wind issue or the cable issue. We really hope you folks are here to help. And not just -- well, essentially not just do what all these other public officials that we've been dealing with in the last few months have been doing. Don't sit here and pretend like you're listening, but to go back and do what the master's telling you. Thank you. (Applause.)

FACILITATOR CHANG: We have Ronald Fujiyoshi, Lisa Hildwine, and Sara Steiner.

RONALD FUJIYOSHI: Good evening, my name is Ronald Fujiyoshi, and although I am a Christian, I'm a proud member of the Pele Defense Fund. (Applause.)

Although I served in Asia as a missionary of

the United Church of Christ for 20 years, I am retired and am part-time farmer of a small macadamia nut farm. I feel compelled to testify, although I have not yet decided whether to submit written testimony for this hearing.

Although I must believe that you who are sent to listen to us are good individuals, I hope you understand and take seriously the cynicism that you have heard especially from Kanaka Maoli. I for one do not believe the United States of America has any jurisdiction here in Hawaii. (Applause.)

We are critical because we think at the end of this whole process huge funds will be given to corporations whether based in Hawaii or other parts of the world to make large profits at the expense of damaging the beauty of Hawaii.

Today I want to make a statement on the big picture. We've heard a lot about peak oil especially from my friend Richard Hau. I think he's my friend. We shake hands when we meet. Peak oil is the point in time when the maximum rate of petroleum extraction is reached, after which the rate of production is expected to enter terminal decline.

Today I want to talk about peak true Hawaii. Peak true Hawaii, I mean, the point in time when the

best of what we know of Hawaii has been reached. The best of Hawaii is defined in a lot of ways.

One, what draws us and others to live and visit Hawaii. Two, the number of endangered species in terms of animal and plant life. Three, the beauty of Hawaii's nature. Four, the affordability of homes to purchase or to rent. Five, the Hawaiian culture and spirituality as reflected in its people, the Kanaka Maoli.

These are just a few ways to define the best of Hawaii, and EIS or environmental impact statement should be based on how much a project destroys true Hawaii. Although this is debatable, I for one believe we have passed peak true Hawaii. Therefore, any EIS done here in Hawaii must be done very carefully to help true Hawaii. If not done carefully, it would be what us locals call shabbai, lies or deceitful actions. Thank you. (Applause.)

FACILITATOR CHANG: Lisa Hildwine, and then Sara Steiner, and Bob Ernst.

LISA HILDWINE: Aloha, my name is Lisa Hildwine, H-i-l-d-w-i-n-e. And I'm extremely grateful to be standing -- sitting here today. I am in the process of recovering from a fatal event, a pulmonary embolism and a DVT with severe anemia. On 11/11/11 while in the hospital I actually crossed over to the

other side but choose to return to this beautiful home here, heaven on Earth to witness the birth of my third grandchild born 10 days later.

This recovery process has been slow and painful. I lost my job, my car and my home due to this disease. I'm now living in a tent, my career of 27 years as a medical transcriptionist is no longer something I'm able to do. I worked for 22 years from home, and prior to my pulmonary embolism the quality of my world began to suffer where I began receiving warnings. I have a reputation for being the best in my field. You can understand that, and now I can't even count change.

Through it all it became evident that my disease process is multi-dimensional. Not that I'm going to go too much deeper into my process. It's very painful. My spine is turning into mushy structures, my bone marrow is depleting, and too many things to mention here.

In my field, I have worked with some of the greatest physicians in the USA. Part of my work involved research and helping autistic and special needs children. When I got sick, when I'm sick now, there's no reason for this because I have lived a very healthy lifestyle. When I was 16, trained and started a great

nutrition practice and physically active and living a sustainable life here in paradise including growing my own food, living by the grace of the sun and the rain.

My chosen path to return to our original being of living on this Earth. The only possible cause to what happened became an environmental issue. I happen to live one mile from the PGV territory and Ormat. I call it ground zero paradise.

Through my knowledge of medicine and my instinctive self as well as my environment, I'm subjected to mitochondrial disease where I am suffering mitochondrial disease. Many my community members are suffering with mitochondrial disease. Not to educate you on this issue, I invite all of you to research this for yourself.

What I'm here to testify is that I have a great commitment and love for the community of Puna and for this island and for the land and for the Earth and all her beauty. I realize that the issue at hand is from Ormat, and I'm asking for help for our community to get independent health studies, independent technology studies, and independent agricultural studies to prove that PGV is not operating within safe design.

They're not going to do it for us, people. We're going to have to this for ourselves. This is a

fight against the government and its control. We have to do something.

Being in the medical field and having the Department of Health turn their backs on us angered me to the point of making a change. Due to my post on their site, I received an ugly email from a man named Andrew Jenson (ph). On that site you can see his anger and denial of the situation, yet the private email he sent me was long and very demeaning including stating that the problem with Hawaiian spirituality is that it was created in a void, calling me uneducated, white entitlement, et cetera, because I stated on the PGV website the drilling is at the heart of Pele. I know I read that on the PGV website. He said, You will make you -- he came up with all these statements. Well, it doesn't say that anymore. It says drilling on the Big Island. So a change has been made. And I'm grateful for that because there were other people who were drilling into the heart of Pele, and it has been changed.

And I have interviewed people who have worked in the '70s when they were drilling, and it was over at Lava Tree Park where the land was raped, they're now dumping into the ocean. This is the beginning.

Anyway, to get a health survey, that is going

to take six months after any approval of funding. I propose that you get back and work right away on healing our community. What we need to heal are innovative treatments. There is a cure for this -- not necessarily a cure. We can't reverse the damage that's already been done, but we can start now by healing ourselves. It's going to take too long -- it's too late to wait for them to help us. So we have to bring it in.

I also make a cry for testing for outside independent resources. If they want to come in here, let's get an outside source to do something about it. And we're going to have to fund this ourselves, people. We're going to end this. This is where I stand. We are the guardians of Eden, and we are the ones to make this change. And taking responsibility for yourselves, we become the government. (Applause.)

FACILITATOR CHANG: We are on No. 49, and we've got, I think, a total of 72. So the next person is Sara Steiner, Bob Ernst, and Cindy Heberton.

SARA STEINER: Aloha, my name is Sarah Steiner, and I'm here -- I'll be really quick tonight. And I just want to say that I think that the Department of Energy is here on this island because the military needs more energy, and they're planning massive geothermal and other biofuel development like Jim

Albertini mentioned for the warships and planes, and you need the power to send to Oahu and to Pohakuloa. And I think the Department of Energy is planning to pay for the cable, and that's why you guys are here tonight. That's why you're going to be doing this EIS.

And I want you to know that during your PEIS study, I want you to place the health and welfare of human beings above or at least equal to the endangered species, of birds and bugs and animals and national parks and far above your need for the war-mongering military expansion. (Applause.)

I feel that I speak for most people here tonight in saying that we the people will not stand by and let the federal government, big developers and the military ruin our islands. Thank you. (Applause.)

FACILITATOR CHANG: Bob Ernst and Cindy Heberton, and then after that is Cindy Sellers.

BOB ERNST: Aloha, my name is Bob Ernst. In case you have not heard, we as the ratepayers pay the highest kilowatt rate in the nation, maybe the world. Connecticut, a suburb of New York City, is the second highest, but HELCO is 30 percent higher than that.

Our transportation fuel, because that's on your agenda also, is also some of the highest in the country, substantially high. This is my two-cent PowerPoint. I

didn't have $2 million to do a PowerPoint. So this is my two-cent. It was the screws I had to put in here to hold the wood together.

This is our pre-EIS. This is our spreadsheet. First our goals. You have the goals right here, very prominently, our goals and positions.

We want the least installation cost for our energy. We want the least operation cost for our energy. We want the least environmental footprint for our energy. And HELCO has told us and we agree, retire the fossil fuel power plants. This is common sense. It didn't take a lot of consultants to come forward with these goals and objectives.

Second, our all-important conservation element because conservation would be the biggest power and energy saver on the island. And we are looking at, of course, water heating, whether it be solar, instant or the tutu. Does anybody know what the tutu is? It's named after my wife. It will cost you less than $30. Tutu is a hot-water fanatic. So it's got to be done right, and this does it, and I'm not going to waste time on it tonight, but for less than $30 you can cut your bill tremendously. Just think instead of 24/7, less than one.

Refrigeration, freezer, lighting and

electronics are the conservation issues that we're dealing with.

Okay. Over here it says 70 percent, 30 percent efficiency, 20 percent renewable. That's not acceptable. We're looking at 100 percent. (Applause.)

In closing, if anyone wants to help with our EIS comparative analysis, please see me. And we cannot wait two to three years for a $2 million EIS. Mahalo. (Applause.)

FACILITATOR CHANG: Cindy Heberton and then Cindy Sellers, and I am so sorry. I'm having a hard time reading No. 50. Gretchen Ellis?

AUDIENCE MEMBER: Graham.

FACILITATOR CHANG: Graham Ellis is No. 54. Let's do Cindy first.

CINDY HEBERTON: Thank you so much for coming. We were so disappointed when the Department of Health couldn't come to a county council meeting because their budget didn't allow it. Something like that. So we appreciate it. You've been doing this all week, and you've got another week of it.

Everyone here has already said everything. I've live on Pohoiki Road, Lower Pohoiki Road, for about a year. It's absolutely stunning. I thought it's the most beautiful place. I came down lower Leilana and

turned on to Pokohiki one Sunday afternoon, the sun coming through the trees, and I'm like, Yeah, this is nice. I lucked out and was able to find a place about a little less than two miles from the plant.

I'm tough. I'm not a whiner, but, you know, I get goopy eyes in the morning. I can hear the power plant about two miles away on up Pahoa. So I'm really, you know, not suffering fortunately. But a friend of mine is. She lives right -- she's right near the power plant, and she can't live -- sleep in her house anymore. She sleeps at the bottom of my quarter mile driveway. She can't come to my house 'cause she can still hear it.

We hear so often about the delicacy of this land, the precious ecosystems. I think there was more of an uproar over croaking frogs than there is over geothermal. Oh, my God, we've got get rid of them. This is very delicate land. We have to be very careful with what we do. Anything man made is not forever. The island is forever.

The technologies continue to change and improve. I think by the time they get geothermal down, it will be an obsolete technology. If all hell breaks loose, and we are going to -- I was going to be short, wasn't I?

I have a mic in my hand. My first time

talking. Sorry. If this world -- if we run out of oil, which we will in some time, you know, we will run out of these things, I think that we're perfectly suited for taking care of ourselves just fine anyway. Fine, just do the oil embargoes. We don't care. We're set up better than anybody else. We already take care of ourselves. Money doesn't really exist. We live on a barter system. And we have to consider what is man made is not forever and that aina is. Thank you.

(Applause.)

FACILITATOR CHANG: Thank you. I've got Graham Ellis, Danny Li. I do not want to miss this person, but I'm so sorry. I can't read the handwriting. If anybody can recall and you signed up No. 53, it looks like a Ralph, Robert. Is that you, Robert?

AUDIENCE MEMBER: No.

FACILITATOR CHANG: Okay. Well, if we don't call you, that probably because I can't read your name.

So I've got Graham Ellis, Danny Li, and Robert Petricci.

GRAHAM ELLIS: Aloha, my family and I have lived on solar power for 28 years, and I'm here to share some solutions. And it's a high quality of life that we have. Some observations and considerations I'd like to

share with you is that when we started solar power it was about $5 a watt, and it's now $1.25. Committing back then was a pretty easy process. Today it's not easy at all. The rules and regulations have changed considerably. It's considerably more expensive today.

With solar power you don't need any health studies. We don't need an evacuation plan.

So I'd like to ask the Department of Energy to consider in their environmental impact statement, why is it that the Germany has 50 percent solar power? Why is it that Vermont and Colorado allow solar power on residential facility houses up to five KW without any permits at all? Why is it that Oahu that has the same amount of sunshine as the Big Island has so little solar power? Thank you. (Applause.)

FACILITATOR CHANG: Danny Li, Robert Petricci, Kerri Marks.

DANNY LI: Aloha, I'm Danny Li. I live in other Keaau. I have two quick points, I think.

Number one is I support the Life of the Land comments made to this group. And the main point is that, again, I think Henry had mentioned a little bit, is that the grid system is an old-fashioned, 19th century centralized power system that doesn't need to exist anymore. Okay. (Applause.)

We need decentralized power, not only in terms of power but also political power. But that's another story.

But the second point I want to make is that, you know, in this election season all we hear about is there's no money for anything, right, for schools, for health, anything. Of course, the military always gets it and the banks always get it, right?

Since 2008, and this is a conservative estimate -- and you can ask economists, they have bigger numbers, at least $16 trillion have been loaned interest free to the banks, 16 trillion. That works out -- you do your own math. I did it already. At per capita, that means we are already on the look for $50,000 per capita, per man, woman, and child. We've loaned it out at zero percent to the banks. The top less than one percent. Okay. 50,000 per man.

That's a solar PV system, residential system, with -- back then everything is way less than $20,000 for a system. It's a no-brainer. Why don't we build up to 99 percent? (Applause.) And that's my proposal. Mahalo. (Applause.)

FACILITATOR CHANG: Robert Petricci, Kerri Marks, Matthew Yarberry.

ROBERT PETRICCI: Aloha. First of all, I

want to thank the community. I want to thank all the people that came here tonight. I am in awe of the Puna community and of the Big Island community. They don't see this where they go anywhere else. Thank you all very much. (Applause.)

You know, the power that we are creating is, I hope, something that we can build on that we can use to form energy policies for the island and for the whole state.

So the state legislature and the governor have been steadily and deliberately stripping us of your voice and any kind of home rule legislation such as Act 97 and Act 55 and senate resolution or bill 25, and to speed an easement process for projects like geothermal to exclude us with no public comment, and I think DOH seems to be participating in that -- I mean, the Department of Energy seems to be participating in that.

With the Department of Energy money being thrown around in amounts of loose money looking for a place to land, so I would suggest we need to redirect that money to help people, like what Graham was talking about, with the upfront cost of independent solar systems.

The biggest obstacle that we have to solar is that we need upfront money. They've got millions and

millions of dollars for these guys. Ormat got in 2009 $8 millions in grant money to do exploratory from the Department of Energy. There's millions of grants now. I was talking to -- I'm sorry, I forgot the name -- Jim earlier, millions of grants through the Department of Energy. All this exploration, we're paying for it.

But the poor people out there that have created a sustainable community, I mean, we don't have a grid. We all live on solar, we farm, we use biodiesel. We are doing exactly what the state says they want to see. They want a sustainable community, energy efficiency. We're doing it.

But they won't come out there and look at us as a model and talk to us. Instead they want to come out there and destroy it. They want to come out there and build industrial power plants that we don't need. I'm never going to get through this.

So I'm requesting a complete accounting of the Department of Energy grants for geothermal in Hawaii. I'm requesting a study of the effect of the Department of Energy grants that have had on geothermal starting with the HGPA, the notorious experimental plant that has made so many people ill.

Is the Department of Energy responsible for those harms by funding these projects?

In 2009 the Department of Energy gave PGV over $8 million in grants. Don Thomas, who has decided against testifying tonight, has secured millions more in grants. All the companies looking to do exploration here are looking for federal grants. There is money from the DOH -- Department of Energy, right now. I want to where it is, I want to know how much it is, and I want to know in this EIS.

In 2011 Ormat received $528 million in loan guarantees for TARP funds. They have already defaulted on $98 million of that. I mean, we could power this whole island for the money they've giving Ormat. And, you know, come on. (Applause.)

Well, I guess my time's up, guys. (Applause.) And just keep doing what you're doing. You know what? We're going to win this thing. I don't care what they say. Just thank you all for coming. (Applause.)

FACILITATOR CHANG: Thank you. And again, if you want to provide more comments, please send them in.

So we have Kerri Marks, and then we have Matthew, and then Ross.

AUDIENCE MEMBER: We have some more in the back.

KERRI MARKS: You've got to write in all

caps, everybody. Print in all caps when you're signing up on the signup list. Words of the wise. Thank you, and thank you. And I would also like to thank you for being here. If you can't tell, Hilo loves a good meeting, so please come back. And we will, too. Well, we sent out many emails from many different points, and I see a few people got one. So good job, guys. Aloha.

I didn't say that yet. Hi everybody. Okay.

Well, geothermal's bad. You got an earful of that already. Cable is bad. Okay. I hope you hear from every single outer-lying island that we do not want to be Oahu's battery pack. (Applause.)

That's pretty much what's going on here tonight. It is absolutely imperative that each island take care of their own needs. Okay. We will not be subjugated by Oahu. It's not going to happen. Okay. So a really good tip for you guys is to not study the inter-island cable at all. It's a waste of money. (Applause.)

I will guarantee half of these people will throw themselves into the bay before you hook this cable up to this island. It's not going to happen. So let's just cut that short. Unless, of course, you're going to study small cables, little ones, they go from buoys to each island. I'm a big fan of buoys. Buoys is firm

power, people. Okay. It's clean. It's awesome. It doesn't trap fish. In fact, fish like it. Fish hang around it. So then fishermen like it. People like buoys. Fish like buoys.

What else was I going to say, Dave? Is that enough? Don't subjugate the outer island. Don't build a stupid cable. No cable, no cable, no cable, no cable, no cable. How much time do I have? Aloha. (Applause.)

FACILITATOR CHANG: Next we have Matthew, Ross and Beverly. Matthew? Ross? And then Beverly, and then Frank.

ROSS ARMETTA: Aloha, everyone. I've happen to have a background, I'm an electrical contractor, and I do solar systems, and I work with all kinds of alternative energies, and I've studied this in physics labs, I quantified the numbers, I have a pretty good understanding, I've worked years on biofuels and research and such. I came into this with very neutral perspective because I have enough science training to know that you try to look at things neutrally, quantify them, study them and, you know, give it a fair shot.

I believe I've given it a fair shot, and I can tell you I think it is not a good decision to go with geothermal in this case for a lot of reasons. The technology is not there, at least at this point. We're

putting it -- or proposing to put it in an incredibly volatile and dangerous area, not only for the people but amazingly enough for the project itself. It just doesn't seem sensible.

We're also talking about another centralization of power, corruption and money, because let's face it, this is what's going to happen. This is what it's probably primarily all about.

There are many alternatives including solar with nonconventional application, hydrogen, pumping and storing the things with water. There's many ways we can do this. It doesn't just have to be traditional solars or batteries and grid ties. There's a lot of things we can do.

I also would like to say that to you, commissioners, please, okay, I ask you to keep this transparent, fully listen to the people, communicate, let us follow the money, let us see what's going on, let us see the contracts, and please, I beg you, quantify the numbers, give us the cost for fuel, give us the cost per watt, give us the upgoing costs. And I know these things change and it varies. But give us numbers, okay. I know that you may or may not have that ability, but please -- because I know for a fact from my studies numbers tell the truth. The rest of it is BS. It

really is. You've got to look at the numbers, and then yes, there are some things we can advance and go forward on.

But again in summary, please consider us. This island, I believe, is being walked over and it seems to be -- I know it's a good idea. We have a problem. We need to solve it. It can be done. And we can do it with respecting our people, their health and our land. Aloha. And thank you for taking our testimonies. (Applause.) Ross, R-o-s-s, A-r-m-e-t-t-a.

FACILITATOR CHANG: Okay. The next is Beverly Frederick, Frankie Stapleton, and this is another one -- is it Walter or Water.

BEVERLY FREDERICK: I'm Beverly Frederick. A lot's been said, and I'll probably be redundant. But yeah, no big cable, no big cable, no big cable. It's a waste of money, waste of money to even study big cable. Makes me think PGV needs -- now, that's a California version -- HELCO, HEI is behind all of this when I hear big cable because it doesn't make sense in any other way.

So I'm looking at you person to person. I live here. I love this island. I chose this lifestyle. I'd rather live nowhere else and take care of myself. Please leave us alone. Don't let them do this.

(Applause.)

We know it is about money. We know it is not about saving any watts because we have the most expensive energy with our geothermal already. So we know it has nothing to do with saving money. It has to do with certain people getting money and HELCO is getting money.

So I beg you if you have to do this study and you have to deal with it, deal with it honestly. You've heard us all, and you've heard the stories of people's health being destroyed. And I've heard it, and I've seen it, and -- breathe.

Yeah, bad cable, bad geothermal. And really we need to decentralized. We know, in fact, Puna, who's maybe destroyed by geothermal, if this crazy plan goes through is one of the most efficient taking care of themselves, off-grid bunch of people that exist. So to destroy that with this intention is so ironic I can hardly stand it.

I put my whole life in being here as many of us have, and I don't want to see it destroyed, and I won't sit back and see it destroyed. And please do the science for this, on the science that shows -- an economics that shows how absurd and obscene the whole idea is. Because if that doesn't happen, we'll take it

into our own hands. You know we will. Thank you.
(Applause.)

FACILITATOR CHANG: Next I have Frankie Stapleton. Frankie here? Next -- and I am so sorry. Is this Walter Grace, Water Grace, Hope L. Is Hope here? Aurora. Aurora, and then after Aurora, I have Larry Gering, and Phillip Kissinger.

AURORA MARTINOVICH: Hi, my name is Aurora Martinovich, A-u-r-o-r-a, M-a-r-t-i-n-o-v-i-c-h. That does not count on my three minutes.

Aloha, everyone. Thank you, thank you for being here. And I start everybody out at 100 percent, so I'm just going to trust that you're here in good sense so I come to you in that way.

I have lived next to geothermal for 26 years. I know PGV better than anybody on this planet, except for maybe Mike Kaleikini, who is the plant manager, and Mike's a decent person. I have three concerns that I would like you to look into.

First, the most important in our Puna community is the process that the people are involved in. And we've been kept out of the process, we, the whole community, in regards to geothermal. We recently had meetings in Pahoa this past year when we heard about this thousand megawatt cable project. And working for

real democracy, we took a vote on what was the issues in regards to geothermal.

And the thing that got the biggest vote and my biggest concern to share with you is consultation with the indigenous people. These are people who have lived here longer than all of us. And when I say consultation, I'm speaking specifically to cultural practitioners, people who still are carrying the flame and the knowledge of ancient culture. And in any project you're looking at on the Hawaiian islands, I'm begging you to consult with practitioners, cultural practitioners, first and foremost. Learn what the names of the lands are, what they've been used traditionally. Because that is -- I would like to say host culture, but they haven't been a chosen host. They didn't choose to have us come here. So let's -- if you're going to deal with respect, let's deal with that first.

Specifically with geothermal, Pele, how does it effect Pele? She's been in the middle of giving birth to another island right now. How is it going to affect the long-term relationship and the ancient knowledge of relationship of humans to their boss.

The second was the community exposure. Geothermal power plants have a 30-year lifespan. I'm going to give you paperwork that talks about the

chemicals in geothermal. So please consider, whether it's geothermal or big wind, the impacts that the people will have over the lifetime of the power plants.

The third is -- this is my last one. The third is corruption in regards to having money. So I would beg of you, it is highly important for you to consider the impact of Act 55 and the newly developed Public Land Development Corporation that has basically given itself the authority to develop geothermal power in Hawaii and has absolutely no laws or restrictions involved in that. So please look into that.

And I'm going to give to you some paperwork. Oh wait, one more thing I want to say on the record, is make life easy for you. You can request CDs from the county council from all the energy hearings that would go into things in detail. I would also recommend also that you look up the recommendations of the State of Hawaii Geothermal Action Plan. I have some information here for you. But that will give you some history. I know you said you're not looking into specific projects, but you're looking into the impacts for the future. If you don't look at was happens now, what happened before you won't know.

And the last one I will give to you in regards to corruption is the geothermal energy in Hawaii, an

analysis of promotion and regulations. It gives you -- basically it indicts all the people involved this, Pirelli, cable, their son is the lobbyist that promoted $10 million for this cable.

Thank you and my address and phone number is on here. As a 26-year residence, if you want to know anything, I can tell you what it's like. (Applause.)

FACILITATOR CHANG: We have 20 more speakers.

AUDIENCE MEMBER: More have signed up in the back?

FACILITATOR CHANG: Oh yes.

AUDIENCE MEMBER: And there's a list of back there.

FACILITATOR CHANG: I've got up to 77. We've got that. So the next is Larry Gering, Phillip Kissinger, and Nohaila. So Larry.

LARRY GERING: Thank you, and thank you DOE for giving us this opportunity to speak up and take back our island, to testify our input for the EIS analysis.

And thank you all for sticking around as long as you have. It's been a grueling evening and in particular, Greg, who is a city counsel and the other mayoral candidate. Mayor Kenoi was here also. You know, it really, really bothers me that events like this

to have county participation, county-elected officials, where are they at? You know, they're not hiding. They're just -- I don't know. They're bored or something. But keep that in mind when you go to the election on November the 6th. Those who participate deserve to stay on, and those who don't, throw them out. And that includes the state legislature also.

(Applause.)

Thank you. Efficiency, we can help a lot with our energy costs for efficiency whether you're at home or whether you're at work or whether you're at play. It goes back to, I don't know, some administration says, who was going around turning off all the lights? I don't remember. Some president advocated that.

But it's the same thing here. If you leave a room, turn the light off. Whether or not you're on solar or whether you're on a generator or whether you're on the grid, every time you turn something off it doesn't cost that much more to turn it back on.

And a case in point would be, if you've ever stopped to think about your water faucets in your house. Some ingenious lobbyist a thousand years ago convinced some legislative body to put the hot water handle on the left side. Most of us are right-handed so we hold something with our right hand, and we reach to rinse it

off with our left hand. Well, we automatically go to that hot water faucet because it's easier than turning -- or crossing over to the cold water faucet. And every time you turn on the hot water tap, it uses more hot water out of your tank and eventually -- I'm already up to one minute. This is going to add up real quick.

So think about those things. And elect only those officials who are consumer friendly. With all due respect, solar is not the only solution. We need a mix of biomass, solar, geothermal, maybe we could even talk to PLDC, and some of you were at that PLDC meeting to help purchase the HELCO and create a municipal utility, convert it to propane. I don't think they have propane on the island here. But we can convert it to propane, which is more plentiful, cheaper and cleaner. I have a lot more. Thank you for your time. (Applause.)

FACILITATOR CHANG: Okay. Phillip Kissinger, Nahaila, Wai'ala, Dana Smith, Rafa, Nadia, and Kim Pinkerton. So Phillip Kissinger Nohaila?

AUDIENCE MEMBER: Nohaila left.

FACILITATOR CHANG: Nohaila left.

PHILLIP KISSINGER: Hi. I don't mean to offend anyone by bringing it up, but I don't believe that it was mentioned earlier, with the Tokushima plant, the disaster that happened in Japan. I don't think that

the government should allow any kind of plant, any kind of facility that pollutes the environment on its own and especially if a natural disaster occurs.

We should be focusing on things that don't harm the environment and aren't at risk for people if anything should occur especially on this small island.

And then Puna literally means spring of water. And the geothermal plant that's in right now was supposed to be a closed system, but everybody knows it leaks, and they regulate themselves. So they say that there's no leaks.

But even if it is a closed system, they use the ground water here in Puna, and they put it back into the ocean, and that water goes down to the ocean, all across from Cape Kumukahi all the way down to South Point. The water that reaches up on Mauna Loa comes down and goes under water -- under the land and comes out on our coastlines. It's fresh water, and all that water is being polluted by the geothermal right now and is continually polluted with the closed system that they want to impose for all of their geothermal plants.

And the sun reaches every spot on the islands, and I think that you should be focused on using solar power on each individual island. Thank you.

(Applause.)

FACILITATOR CHANG: Nohaila, Wai'ala, Dana, Rafa. After Wai'ala, I have Dana, and then Rafa, and then Nadia, and Kim Pinkerton.

WAI'ALA AHN: Hi everyone, I'm Wai'ala Ahn. I am going to read so I can say all of this. I am here because I have lived 24 out of 26 years of my life next to the geothermal plant, with the closest person my family has fought it, worked for solutions along with everyone else that's here, and it's good to see so many people here.

My big question is -- I have a big question. One of the main reasons why you're doing this and why this is bad is because Oahu is suffering because of its industrialization. But why do you want to industrialize the rest of the islands? Because it's going to do the same thing that you're doing there.

My family is from Oahu, and most of them moved here because they don't want to be in that anymore. And it's scary to think that you're doing that here. And I know firsthand the effects of what geothermal does. And if people tell you that they're for it and it doesn't do anything bad, everyone I know that thinks it's not bad is getting something out of it. I don't know what it is, but they're getting something. (Applause.)

And I'm not opposed to them, but they are.

I can tell you firsthand that there's nothing good that comes from it. It makes you sick, it makes people around you sick, it causes deaths. And I'm 26 now. I've been -- I was there for 24 years, and I still don't know everything that I'm dealing with health-wise, and a lot of doctors don't. And it scares me that whoever is pushing this wants to put this around everyone else. No one knows what's going to happen to the children there. Nobody knows what happened to me and more important, no one asks. No one has offered to help and no one wants to know.

So if this happens and goes through, and we will be relocated, are you going to relocate every island? Where is everyone going to go? You want to put stuff on Molokai and Lanai. There's big winds. We can't go there. It's just wrong. Don't industrialize us and make us Oahu because we're already trying to fix what's happened to Oahu.

And thank everyone that's here fighting and doing what's best for us because like I aloha our aina. I aloha Hawaii island. I aloha Hawaii Nei. And everyone that says they do needs to think twice about this because it will change everything, this culture, the people and the land. Thank you. (Applause.)

FACILITATOR CHANG: Dana Smith Givens.

DANA SMITH GIVENS: I'm Dana Smith Givens, and first I want to thank you DOE for being here and for hearing us. I want to thank all of you for standing up tonight and being present. I want to thank Bob for your advocacy and letting us all know about this. You worked really hard. I really appreciate that.

As the mother of six children, I have a deep concern about the health and safety of my family. It is my job to care for them and keep them safe. I actually relocated to the Big Island of Hawaii, Puna in particular, because it provided them the cleanest air and the freshest food that I could find. My concern is whether that will still be the case as they grow up. I have little two-and-a-half-year-old twins, and I look at them and I wonder what Hawaii is going to look like in 10 years, in 20 years.

Hawaii has been severely violated and exploited. I can only imagine the pristine beauty of the aina 120 years ago before the U.S. invasion. I feel very honored and incredibly grateful to live here. I actually feel ashamed in a way that we're even having these discussions, as if somehow we know what's best for Hawaii.

I believe that we actually need to return the land to its rightful owners, the Kanaka Maoli, and let

them make the decisions. I can assure you that their choices would likely be very different from our own. I doubt that any would require environmental impact statements or any evacuation considerations.

You know, sustainability is not just a trendy buzz word, and it's not even a lifestyle choice. As an isolated rock in the most remote part of the Pacific Ocean, it's a necessity. Self-sustainable is just that, self-sustainable. Not corporate sustainable.

For the record, I fully support solar energy and thank you for all of you who presented solutions tonight. Let's make wise, respectful, healthy choices for ourselves, our keiki, and the aina. Mahalo.

(Applause.)

FACILITATOR CHANG: I have Rafa, Nadia, and Kim.

RAFA SELVAS: Aloha and good evening. My name is Rafa Selvas. And first I want to start off by just asking a simple question. Sitting here looking at you guys make reference to this great marketing slick slides that you have here. How much money did you guys spend on that? Research, development, training costs, all that? Why not invest that into substitution for alternative forms of research and development for energy? First point.

Second point, you guys aren't here without a legitimate claim to this land. What are you guys doing here? What do you think if you did this to the United States and Key West? What would we do? Simple as that. This is not your land. You do not deserve to be here. One hundred and nineteen years has been enough. It was an act of terrorism conducted by the United States government by marines and wealthy land owners here who have taken the land over from the rightful owners. Let's do this in Florida. Let's see what happens. Right?

Last point. In November 2008 President Barack Obama prior to getting elected made a promise to constituents in the general election in Sarasota, Florida. He said -- he voiced his voice as a Hawaiian and said that the kingdom of Hawaii will be free.

Now it's time to make your promise count, because otherwise we're going to make a new change. Thank you. Aloha. (Applause.)

Another point. The last point is that the only way that we're going to be able to change this, if you guys are not listening to us here speak to you clearly, is going to be the same way that things happen in third-world countries, by a revolution, kidnapping DOE officials or the people from the power plant, blowing up

roadways, blowing up the power plant, kidnapping individuals and hijacking transports. We can do that. We do it at different countries, and we have people here that could help us do it here. So it's time to let our kingdom be free again. You have no right to be here. Aloha. (Applause.)

FACILITATOR CHANG: Okay. I have Nadia, and then after Nadia I have Kim.

NADIA UNDE HOEMO: Thank you all. I am Nadia Unde Hoemo. I'm a mother and a doctor with, and people call me Auntie quite a bit. And for me it's not only -- you've heard everything already. And it's not really an argument here. I ask you to listen. I love this island. I love the people. Thank you so much for being here. And what I really love about the island is the heart of the community and the heart for this land and the beauty of it.

So I ask you to listen to our people and the suffering that you've seen. I know that many words (singing Hawaiian.)

I'm a doctor. I've been a doctor for over like 25, 30 years. There are people suffering here on this island with symptoms, diseases, illnesses that we haven't seen. You've heard the testimony of this mother who went from being a successful leading professional is

now living in a tent and cannot function.

So I say that the studies are a waste of money and time. Well, if there's one person hurt by this geothermal whatever, you should stop it, period. If this was your son, your mother, your wife -- so long. So for our children, I certainly didn't care what the studies show. I've heard and seen enough here tonight, but I am happy for my kids to live by candlelight and sun rather than geothermal.

There's love of power and love of people, and I vote for the people. I've seen also a lot of violence here on the island, and so I pray that you really see us and feel us. Yeah, just hear. Just hear us. Yeah. I don't want to see any more violence. I want to see a beautiful place for my children, our children, our people, our community. So thank you. (Applause.)

I know you mean well for real. And yeah, when we play God, it's -- yeah. Just thank you.

FACILITATOR CHANG: I have Kim Pinkerton.

KIM PINKERTON: Thank you so much for allowing me to comment. I'm strongly opposed to throwing a wire over to Honolulu. The transmission loss is ridiculous. You're going to -- all this transmission loss. That's not problem. We've got plenty of heat we can produce electricity. I strongly disagree.

Okay. That being said, I understand all the people in here who have these needs. I have needs. I bought my place in 2003. I'm running on four solar panels, four solar panels. I'm not having brownouts, blackouts. The one rule you've got to remember, if your outflow exceeds your inflow, your upkeep becomes your downfall.

Edison had it right for the homeowners, but these people are dealing with something different. We've got Hawaii spring water. I went and had a powwow with this guy. This was a tough meeting. We had to drink two bottles of wine to get through this.

When we started a conversation, he said, We've got to have this kind of electricity because we can't make our plastic bottles. We went through all kinds of stuff that's way over my head about what it takes to make plastic bottles.

And at the end of two hours, we concluded that, well, you know what, you can run your plant on solar if you use a different source of heat.

One of the things I would strongly recommend you look at is the manufacturers making available manufacturing equipment that requires electricity to produce heat. This is very inefficient. If you produce your heat with something other than electricity, then

you can run the rest of the machine with solar. There are ways to do this.

Thank you so much for coming and listening to us. Thank you for considering everything. (Applause.)

FACILITATOR CHANG: Kim was the last person who signed up. We actually should have been out of here by 9:00. I want to thank all of you for truly your patience and your participation because we really wanted to hear what you have to say.

You know, there are some people that I couldn't read the writing. Is there anybody here that signed up that I did not call?

Okay. With that, thank you so very much.

AUDIENCE MEMBER: Questions.

FACILITATOR CHANG: Okay. Well, the questions are not part of the formal record. So the court reporter is not going be taking any more notes. She's not going to record this.

Before we take the questions, what I did want to say, you have opportunities to make comments. You have up until October the 9th. There are different ways to do that; the website, email, fax, and mailing.

We are going to be on Maui on Monday, Molokai -- Lanai Tuesday, Molokai Wednesday, and then Honolulu on Thursday. So please come out and submit your

testimony or your statements up until October the 9th.

(Concluded at approximately 9:13 p.m., September 14, 2012.)

* * * * *

STATE OF HAWAII )
) ss.
COUNTY OF KAUAI )

I, TERRI R. HANSON, RPR, CSR 482, do hereby certify:

That on Friday, September 14, 2012, at 5:50 p.m.; that the foregoing U.S. Department of Energy, Public Scoping Meeting, Re: Hawaii Clean Energy Programmatic Environmental Impact Statement, was held;

That the foregoing proceedings were taken down by me in machine shorthand and were thereafter reduced to typewritten form under my supervision; that the foregoing 116-page transcript represents to the best of my ability, a true and correct transcript of the proceedings had in the foregoing matter.

I certify that I am not an attorney for any of the parties hereto, nor in any way concerned with the cause.

DATED this 14th day of October, 2012, in Kapaa, Hawaii.

_____
TERRI R. HANSON, CSR 482
Registered Professional Reporter