1	U.S. DEPARTMENT OF ENERGY
2	PUBLIC HEARINGS
3	
4	RE: HAWAI`I CLEAN ENERGY DRAFT
5	PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT
6	
7	TRANSCRIPT OF PUBLIC COMMENTS
8	Wednesday, May 21, 2014
9	6:18 - 7:01 p.m.
10	Prince David Kawananakoa Middle School
11	49 Funchal St, Honolulu, Hawaii 96813
12	
13	ON BEHALF OF THE U.S. DEPARTMENT OF ENERGY:
14	JANE SUMMERSON
15	ON BEHALF OF THE STATE OF HAWAII STATE ENERGY OFFICE:
16	ANDREA GILL
17	
18	FACILITATED BY:
19	ROBIN CAMPANIANO
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21	REPORTED BY:
22	JESSICA R. PERRY, CSR, RPR
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MR. LLOYD: Alan Lloyd. I'm a licensed professional engineer, and in the submittal that I got a copy of, I was very pleased to see heat pumps mentioned, but mentioned in a very wrong context. It says there I'm not recommending ground source heat pumps. Well, good because ground source heat pumps are primarily used for space heating in residential properties on the mainland. To my knowledge, we don't have any ground source heat pumps in Hawaii. We probably do, but I never heard of them.

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However, heat pump water heating is a major item in the state of Hawaii. The Hawaiian Electric Company introduced this in the late 1970s when they put in the six million BTU centrifugal type heat pump water heater at the Ala Moana Americana Hotel. I was told that it was the largest one in the world. When this heat pump went in, it completely eliminated the gas bill for this 1200-room hotel and it did not raise the electric bill.

The reason why is it captured the waste heat from the existing cooling tower, which was undersized, and so for the first time the air-conditioning system worked as properly designed. And so the heat pump did not increase the electric bill, it eliminated gas consumption for water heating

purposes. By the next decade there were 600 large commercial heat pumps chugging away in Hawaii. All the major hotels have them.

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Back in the beginning, the Senate gave some very nice Senate certificates encouraging customers to consider heat pump water heating. done extensively throughout Hawaii. Typical big heat pump, like the one at the Ala Moana Americana, had a COP of 6. That means for every unit of waste, every unit of electric energy that it consumed, it reached into the cooling tower, grabbed five units of energy and delivered all six to the existing hot water system. It eliminated the gas bill for water heating and it did not increase the electric bill at all, because the air -- the cooling tower had been undersized, and for the first time in its life it ran as designed and the improvement and efficiency of the air-conditioning system more than made up for the addition of the electrical load of this at the time, the largest heat water system in the world.

Eventually by -- before I retired, we had over 600 large commercial heat pumps chugging away on Oahu. And not only that, every year the Edison Electric Institute offered some great competition in the U.S., and that is of the -- for the Edison Award.

So Hawaiian Electric applied and I have submitted copies of our application, and yes, this little utility way out in the big ocean won the 1994 U.S. Edison Award because of our tremendous work in introducing heat pump water heating to Hawaii.

So to sign off, I'm glad you mentioned

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it. You don't want to forget those ground source. We don't use them out here, but for the water source and air source heat pumps, and better yet, the high-lift lead chillers where the heat pump becomes part of the air-conditioning system and it takes the waste heat from the building and recycles it for water heating purposes, those systems have a COP of 8. In other words, for every unit of energy that it increases to make it run, it delivers eight units to the water heating system. So thank you for putting in heat pumps, but do change the description.

MS. SUMMERSON: Thank you for your comment.

MR. LLOYD: Very good. Thanks for the opportunity. Good luck.

MR. CAMPANIANO: And as you come up, could you please introduce yourself so our court reporter can record your testimony. And just a reminder, if you're having trouble with the time, Joe

will remind you about how much time you have left.

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MR. PURCELL: Thank you, Rob. Dan

Purcell. And this is really old technology. Some day

you'll be able to come up here probably and not even

hold a microphone. Probably won't even need to speak,

it will read your brain, you'll be able to stand up

here and think and thoughts will be broadcast. Maybe

the NSA can do that already, who knows, I don't know.

I went through this thing and it was It's like an encyclopedia. Lot of good information in it, but I think it misses the mark regarding the future and the policies for the state of Hawaii. I was in Hawaii at Parker Ranch in the community of Waimea. I spent some time in Hilo and in Kona, and I think they've got it right, what they're putting together out there, a combination of energy sources, more community off the grid, the microgrid, distributed type energy. And like they're talking about, I can see the whole west Hawaii all non-HECO, non-HELCO distributed, no power lines running in the air. And I don't think there was an appetite for these inter-island extension cords, these giant extension cords. I don't think that's going to happen. It might happen. But we'll see.

energy is transportation. We had to close the doors here this evening because there was so much noise from this vehicular traffic outside. And you know what it is? It's not the engine so much, it's those big fat tires people have to have because they look good, they're fancy and they like the big mag wheels. A lot of the vehicle noise you're hearing out here is big fat tires going down the road because they look cool and because people have been driving these gigantic vehicles with the seat they're in, the seat next to them, couch in the back, maybe another couch back there, play area for the kids, stereo system, TVs, all that stuff, and they're rolling down the road in these gigantic contraptions. Huge.

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What we really ought to have is something similar to a bicycle, but a vehicle. A capsule made of composite materials, thinner tires, smaller brakes, quiet, electric, thin. You don't get stuck in traffic jams. You can go around. You don't have to build the infrastructure, all the streets. And these gigantic vehicles with all these seats and these giant wheels and these mag wheels, and the third, fourth, fifth road, kid play areas, they're killing machines. They add up in safety and everyone has to armor themselves

with all these gigantic vehicles, and I don't see any mention of really a shift in thinking in a plan like this, but that's the type of shift we need to make in terms of looking to the future, having a healthier, quieter, cheaper, more practical lives for all of us, and we're just not there yet. This is kind of old school, just like this old microphone.

Mahalo.

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MR. CURTIS: Aloha. I'm Henry Curtis, executive director of Life of the Land. I want to talk first -- I first want to thank the Department of Energy for coming out here and DBEDT. There are a lot of great people, but I think we're caught in political intrigue, and I think we rushed through this document. I will document what I say in our comments that we file later in July. I will footnote it with the laws, the rules, the regulations and the citations.

must consider reasonable alternatives, alternatives that are beyond the scope of your agency, that are beyond your desire, that are beyond your funding, and even reasonable alternatives that you have to change the laws for. That is explicit in the NEPA rules and regulations. If an alternative is reasonable, it must be considered.

Now, let's separate for a moment a goal and a roadmap. If your goal is to get to Haleiwa, you can take the H-1 to the H-2 or you can go up the Windward side. There are different roads to achieve the same goal. The goal is 70 percent renewable by 2030. Throughout this document, it says that a roadmap, the path taken is the HCEI initiative. That is one of several reasonable alternatives to achieve the goal.

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There are several other reasonable alternatives that have nothing to do with the Hawaii Clean Energy Initiative. For example, NRG, the largest independent power producer in the country, largely dependent on coal, has said they see the change coming and the answer is a gas grid with solar on the roof and to disconnect from the electric grid.

The gas company in Hawaii has existed for over a century. The EIS explains that there's over a thousand miles of underground pipes throughout our state. The gas company delivers gas to places that do not have pipes. It is possible to redesign the system so we have not an electric grid, but a gas grid with solar and the possibility of batteries. That is entirely feasible, it's being considered, but it's not given weight in this document.

The second alternative is community power. Dan mentioned in the beginning Parker Ranch. Microgrids are a reality. This 1370-page document listed on part of one page microgrids, and only discussed military microgrids, even though Parker Ranch is proposing a microgrid for Waimea and has proposed that the long-range answer might be for them to take power away from HELCO on the west side of the island.

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Microgrids are islandable systems. UCSD,
University of California at San Diego, La Jolla, was
lit up during the great southwest blackout that
knocked out power to tens of millions of people. The
person who was in charge of that is designing the
Lana`i system.

A third alternative is vehicles and buildings interacting together. The Japanese are experimenting with this where the vehicle is the battery. During the height of the day, the power goes from the solar panel into the battery of the car.

When the house needs energy, it can suck it back out of the vehicle. This is reality, it's being tested, and it's simply missing because the HCEI agreement is all about how you keep HECO whole. And it is not a goal to keep HECO whole, the goal is 70 percent

renewable by 2030.

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I want to conclude with one other statement that's absolutely key. NEPA requires a table that lists the alternatives and systematically looks at each of the alternatives for each of the impacts. NEPA calls for a table. Even if you assume that I'm wrong on these three other alternative roadmaps, the no analysis alternative is simply listed and then there is no comparison whatsoever in the document for the preferred alternative and the no analysis by the different possible impacts. That is simply missing from the document.

Thank you.

MR. CAMPANIANO: Thanks, Henry.

MS. BRADY: Aloha. I'm Kat Brady. I'm a justice advocate, and I'm going to direct my comments to that. I am also the assistant executive director of Life of the Land, and in that capacity I have reviewed numerous documents, EIS's over the years, including several programmatic EIS's. So I was kind of curious why this was a programmatic EIS, and I went on the web to do kind of a search of programmatic EIS's, and what was really weird to me is most of them seem to have required a supplemental document, and I was wondering why that was, because not many EIS's

that I've reviewed have actually required a supplemental.

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So I do have some familiarity with these documents, and I'm kind of perplexed on a number of levels about this. It's clear that in the last decade at least, the community has expressed strong, strong support for roof top solar. That has been the number one thing that communities all around Hawaii have said. And in 1984 the president of Hawaiian Electric actually said by 2000 Hawaii is going to be a hundred percent renewable. So it's kind of confusing to me that in 2014 we're reviewing a document that said should the federal government provide guidance or not. So that I found very interesting.

We know that emissions are rising. It appears that the corporate giants are not really interested in reducing emissions, but they're really into adaptation. So, you know, let's adapt to the fact that, you know, more people have respiratory problems, that there's more devastating storms, that our oceans are acidifying. I'm here to say that the community doesn't really want to adapt. We want the federal government to tell these guys to stop polluting, we're going to enforce the laws and you cannot do this anymore.

So this document does a really good job of laying out different technologies, and we really appreciate that. But it seemed to me that a lot of this information is available in other places. So wouldn't it have been better, and probably cheaper, just to do a website with links to all the different technologies and that kind of stuff, where people could then go into the public library and pull up the link that they're most interested in. To get a community person to look at a 1300-page document and go through it to find what they're really interested in, that ain't gonna happen.

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So my next point is the timing of the release of this document, which I find really concerning during a very heated election season, and this is one of the most heated election seasons we've had in Hawaii for a while. So the money that the taxpayers have spent and will be spending on this document, I think the community wants to say, why don't we instead actually start doing something that will move us down the road to energy self-reliance. I know that final EIS's generally have an ROD, a record of decision in the final. So I'm wondering what this one is going to be. You're either going to provide guidance or you're not going to. It seems like a lot

of money is being spent on that question.

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So with Hawaii families struggling to stay afloat, to me it's kind of unconscionable that the government would spend money on a process like this. It's actually kind of insulting. We have a lot of people struggling here. Thank you.

MR. CAMPANIANO: We have Milton, followed by Jonathan Starr and then Luwella Leonardi. Wilton Ching. Okay, so Jonathan Starr, followed by Luwella.

MR. STARR: Good evening. My name is

Jonathan Starr. I'm actually a resident of southeast

Maui, and I appreciate that I could come here tonight

on Oahu because I was at another meeting on Thursday.

But I'm appreciative that the process is moving along. I'm a little concerned that this programmatic EIS may be a little bit of a step backward in one way, in that I really feel a sense of urgency to move forward with actual specifics and projects and ways of creating more renewable energy in different forms and making it useable on a large scale.

I'm a bit unique in that I've been living in southeast Maui off the grid since the mid-1970s with wind power, PV power as it's become affordable, and small scale hydro, most of which we built

ourselves over the years. In fact, in the '70s we were manufacturing windmills for a number of people in east Maui. And it is possible to do it in a very isolated place, cut off from the grid, but it's not efficient. It takes a lot of expertise and a lot of work, where my experience with renewable systems is they work better the more interconnected they are.

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And for that reason I believe that even a unit such as one of our counties or islands is too small to really be able to sustain the percentages of renewables that we would need, and also a lot of us like to see to be able to move away from fossil fuels. And certainly if we're talking about getting up into the 70 percent range, even with efficiency we're going to have a very large amount of wind, solar, maybe pump to hydro storage, maybe wave energy, geothermal. And if it's mixed together and if the wind and PV is staged in different places so that one cloud does not take out all of the PV at once when windy or less windy conditions don't affect all of the wind energy, then I think that it will function a lot better.

So being a proponent of interconnectivity of the islands and more renewables, I would like to see us move forward with more specific and large-scale projects as soon as we can so that we can move away

1 from our current practices, and I'm glad that the 343 2 process will remain intact. I served as chair of the 3 Maui Planning Commission for many years and we were 4 the accepting agency for many documents, and that 5 process works when it's done well. So thank you very much for being here, 6 7 and i mua. Luwella Leonardi. 8 MR. CAMPANIANO: 9 MS. LEONARDI: My name's Luwella 10 Leonardi. I am from Waianae. 11 This process has been very injurious to 12 those of us who are living on Hawaiian Homestead, to 13 those of us who are living in Waianae. We have the 14 highest, I believe, BTUs out in Waianae, and so 15 Waianae is being inundated by solar energy companies. 16 And every kind of trick you can think of in their 17 process of putting solar energy on our roofs is 18 happening to us. And our land out there, for example, 19 there is 400 acres that are being set up for solar 2.0 energy. I believe the 400 acres is on ag land. 21 I was here the last two meetings. In the 22 first meeting I kind of took a step back because 23 Lana`i people were in town, as well as Molokai. 2.4 wanted to make sure that their voices were heard,

which is good. And then when I got up on the mic, the

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moderator kicked me off before I could even begin to speak, and I -- you know, I took it to heart and I said, okay, it's another time, you know, I can lose this one and lose this battle, and I'm sure there's going to be many battles. So I find out two years later that moderator is in the pocket of this project.

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So I am so disturbed about what's happening out in Waianae. HECO -- there's limited hookup to HECO's line out in Waianae and we're losing our credits. I say "credits" because I don't know how else to describe it. We're losing it pretty quickly. Kapolei, which is my -- our sister community, they're almost to the max. But tonight I heard something which is really good: gas and solar. So that's exciting to me. So a little bit of positive there.

But let me tell you what I've been doing for the last I think it's around 13 years, which is my most concern. For 13 years we have had many public meetings with the military. In 2001 I brought up the issue of depleted uranium. The military said it to my face as well as soldiers saying it to my face, depleted uranium was not used at all or existed in Waianae. Moving fast forward to 2005, they find depleted uranium being used in the '60s and the '70s. So we have depleted uranium in my community.

I don't care about the one minute. Don't ever kick me off this mic.

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through the NRC came to us. We didn't -- I didn't go to the NRC. The NRC came to our community. Trying to move fast forward, we have to go before the AEC, which is to the Atomic Energy Commission. I went home from that meeting, from that court meeting with -- with tremendous amount of sadness because that was in 2010, 2011, 2012, 2013, and just last week, 2014, we battled again over and over with the military about live bombing.

What this means to me is the live bombing using DU. They have the right to use the DU as of 2013, I'm talking about the military, as of 2013. We did our best to fight it and we lost. So now I'm going home looking -- because I live in a native Hawaiian community where only Hawaiians, for Hawaiian families live and there's about a thousand of us in the valley. There's this idea that came up in the process and that's called hoppers. What that means is sustainable buildings, meaning that you can live in the building and all your air will be cleared, cleaned up, and you can live a little longer. Many of us out there are very sick because of the continuation and

the past use of live firing.

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So that's why this is so important to us.

It's not about filling your pool and warming your swimming pool. It's about our lives. It's life and death for us. That's what this project means to us.

Now, ask yourself why am I here? Where's OHA? Where's our advocators? You know for the last -- and it's been horrible for us, for the last year we've been fighting with Hawaiian Homestead.

They're coming up with policy and we had up until, I believe, the 16th was -- May 16th was the last day to bring in our comments for water. We had statewide meetings on water, water policy. Hawaiian Homes is coming up with water policy.

Within that process we're finding out that Jody, who is our director of Hawaiian Homestead, is possibly will be signing off our geothermal to DLNR. So for us steam is water, water is steam. It's really important to us because we have rights to water. So I have no idea where that's going.

The other part, too, I participated in the other meetings with the coastal zoning management, and this has been quite a while now. Coastal zoning management, the governor recently did NERR, which is from mountain to sea in Kaneohe, where the science

1 community will have the estuary. This is an 2 international estuary. From mountain to sea, from the entire -- I shouldn't say entire ahupua`a of Heeia, 3 but I think that's what it is, because that boundary 4 5 What I was concerned is they might keeps moving. 6 choke out the water that's coming in from Kahana Bay. 7 So again, this is our life. We need to put our children -- we have the highest leukemia rate 8 9 out there among children. We need to get -- we need 10 to either filter our -- we need to filter our air or 11 figure out how we're going to stop the military from 12 using depleted uranium. 1.3 So thank you for not interrupting. 14 appreciate it. 15 MR. CAMPANIANO: Wilton. 16 MR. CHING: I'm Wilton Ching. I live in 17 Kalihi and I'm a civil engineer, construction. 18 I would like to suggest to the state to 19 look into acquiring the roof of -- at Waiau Power 2.0 Plant. On the mauka side is a Sears Roebuck 21 distribution center, and it has a roof there of about 22 25 to 50 acres. That would be ideal for putting solar 23 panels and make arrangement with Sears to lease

that -- lease that right to put solar there and you're

right across street from the Waiau Power Plant.

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Also, on the Pearl Harbor side of Waiau Power Plant is Pearl Harbor east lock or west lock, east lock or middle lock, and the Navy cannot use that for any ships at all because it requires a lot of dredging, and that's ideal area to put in a lot of panels and put a solar field over there and you have hundreds of acres there that the Navy can't use anyway.

I would suggest the state department look into those two places and expand a very enlarged solar panel field.

Thank you.

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MR. CAMPANIANO: Is there anybody else who had not signed up to testify that would like -- to provide comments that would like to? Please.

MS. MITCHELL: Hi, my name is Lisa Mitchell.

I was at that same meeting from Makua valley, and I honestly was told about this meeting through Luwella, we just spoke, and so I didn't really do my homework about it, but I totally have been listening to the testimonies that have been given and am somewhat familiar with how this big machine or system, whatever you want to call it, special interests have a way of being a lot more powerful

in -- when they want something done, they're going to just do it. At least that's been in the past. So I'm only speaking up now because I heard Luwella's concerns and I've been out to Waianae and they have been taking a lot of ag land away for so-called new energy.

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I'm also familiar with science that is not necessarily mainstreamed. Maybe it was along the lines of -- but I just want to say ditto for what Henry has talked about, a more smaller scale, I don't know if that's the right word, but a more toned down application of renewable energy use or development.

And Luwella actually kind of brought up about, well, who is going to use this energy that's being developed on the west side? Is it going to be for the community? And it doesn't appear that way. And I'm just really am concerned about that as well, the military influence in this whole process, or not just the process, but the end result. What are the military constantly doing that they should have so much say, so much power, you know?

I'm -- it's over with them, you know.

I'm over it with them, as far as that goes. It's like enough already. They've not proven themselves good citizens of the world. There's no proof that what

they do has created a better world for anybody, anybody, and that's why I want Hawaii to say no more anymore. They kill people for no reason, you know. A lot of things going on that before was, you know, kind of maybe in the dark or whatever. You know, I'm here to say we're going to bring it more into the light and we don't want them here anymore. We just don't want them.

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good things, great, great, great, great. But from what I've seen and read in the paper about all of their ballistic missile defense stuff, it's over.

They -- who are they afraid of? Who? Who are they afraid of that they have to constantly go after little people, people who just want to enjoy life.

So I want us to do the right things, and if, yeah, people are saying it's not a good process -Henry has been doing this for over 20 years. I wonder if he ever gets listened to. I don't know. I don't think so. And there are many other different alternatives out there and we need to be listening, paying attention and utilizing that good information.

Don't let good information go to waste anymore.

MR. CAMPANIANO: Is there anybody else

Thank you.

that has not had an opportunity to talk story that would like to?

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For those of you that came up before, would you like to come back and...

MR. PURCELL: I'll make just one quick comment. Mahalo. Dan Purcell.

I don't want to hold everybody up, but I am seeing this trend -- I go to a lot of meetings, and I am seeing this trend on these solar panels on ag land and different places where it's almost like they're trying to tie up the property with long-term leases on this land. I was at a burial council, Hawaiian burial council for Oahu the other day, and they were talking about this new Hawaii Community Development Authority area out by the military base that they're giving up, and there's all these burials all over the place. And they said they're right on the coast, what can we do? Well, we'll just slap a bunch of these solar panels all over the place.

We have so many roof tops all over the place that we can put solar panels. To be tying up this real estate long term, this ag land and other land long term with these solar panels, I just think it's a play. There's just so much greed when it comes to energy and other -- I have a degree in finance from

American University in Washington, DC. It's nothing fancy. I used to be an investment advisor. But I see all of this, I see the greed and the energy, and we have some individuals here, fortunately, that take more of an egalitarian approach to things. They dedicate their lives to trying to find solutions for their community and for society that actually work for people, that are actually in the best long-term interest of the economy of Hawaii.

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I feel like so often we have people that are trying to profit, through corporations or otherwise, have shortsighted views on things that are actually hurting the overall economy, but they get access, they get their voices heard, they get what they want, and I just think that's shortsighted. I think that's not going to move Hawaii forward. So I understand how it works.

I understand Vintech strategist. I understand how Vintech strategist works when you put that Monte Carlo simulation in there and it's like garbage in, garbage out with the video. And you can't get the input, it's all proprietary, you know, what did you put in to get that result out of that. They told you that's what you should do, that was the resource you should have selected, we can't tell you,

it's proprietary, you know, I've seen stuff like that.

And then there was a case where Vintech strategists

had gone in and fixed the software and had to get

court subpoenas and everything to get the data put out

of it, not HECO, this is another part of the country.

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But anyway, I'll say one more thing. I was in southern California when we had all the Enron stuff going on, and the joke was like the Lusitania, at least California will go down with its lights on or whatever, off, whatever it is. So I've seen the ugly side of this. I've seen the ugly capital market side of energy. That's why I'm in more support of the community based microgrids, bringing it back to the community. It's just there's a conflict with an old group like HECO, and I'm not battling the water board over here. That's something different. They're not profit based, but it's a similar -- similar mentality.

MS. LEONARDI: I got -- thank you for letting me speak earlier and get a lot of things off my chest here.

There's a couple of things that's going on in my community. A lot of people coming in using our roofs, but they're making money off of our roof, and we're supposedly paying -- paying for it, I'm not

sure. Anyway, it's called bundling, and what's going to happen to the people, because these are older generation that are putting these solars on their roofs, the next generation will lose their house.

That's what the bottom line is for bundling and putting solar, working with these companies.

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The other part, too, I would like to see that nuclear isotopes in our community become part of this process here. Only because of Kirkland Air Force Base is where you're working out of, and I'd like to go before the AC and have mitigation started, and because I'm looking for a longer life.

And the other part, what's going on in our community is we have 200-year-old trees. They're just cutting it down. Cutting it down. I mean, it's just -- you just -- you wake up in the morning and this beautiful tree that was up there is gone, and that's just because the solar and they need the UV and whatever. So that's pretty much one of the problems that's going on in our community like really quickly.

Waianae suffers from a lot of fires, so almost every hillside has been burned within the last ten years. It's been burnt. I mean, it's gone. All our tall trees on the hillsides are all gone, bull ahead.

1	So anyway, I just want to put some of
2	that information in there and see if we can start, at
3	least for Waianae, the mitigation process for us.
4	Thank you.
5	MR. CAMPANIANO: Further comments?
6	Well, so we'll adjourn this portion of
7	the meeting, but the Department of Energy and the
8	DBEDT representatives will be sticking around and
9	would like to talk story with you further. So other
10	than that, thank you so much.
11	(Off the record at 7:01 p.m.)
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1	CERTIFICATE	
2	I, JESSICA R. PERRY, do herby certify:	
3	That on May 21, 2014, at 6:18 p.m. the public	
4	hearing was taken down by me in machine shorthand and	
5	was thereafter reduced to typewritten form by	
6	computer-aided transcription; that the foregoing	
7	represents, to the best of my ability, a full, true	
8	and correct transcript of said public hearing.	
9	I further certify that I am not attorney for any of	
10	the parties hereto, nor in any way concerned with the	
11	cause.	
12	DATED this 9th day of June, 2014, in Honolulu,	
13	Hawaii.	
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17	Jessica R. Perry, RPR, CSR No. 404	
18	Notary Public, State of Hawaii	
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