### INFRASTRUCTURE AND TRANSPORTATION COMMITTEE

Council of the County of Maui

### MINUTES

### August 30, 2021

### Online Only Via BlueJeans

**CONVENE:** 1:31 p.m.

**PRESENT:** VOTING MEMBERS:

Councilmember Yuki Lei K. Sugimura, Chair Councilmember Kelly Takaya King (in 9:09 a.m.)

Councilmember Alice L. Lee

Councilmember Michael J. Molina Councilmember Tamara Paltin

Councilmember Keani N.W. Rawlins-Fernandez

NON-VOTING MEMBERS:

Councilmember Shane M. Sinenci

**EXCUSED:** VOTING MEMBERS:

Councilmember Tasha Kama, Vice-Chair

**STAFF:** Laksmi Abraham, Legislative Analyst

Lesley Milner, Legislative Analyst Richard Mitchell, Legislative Attorney

David Raatz, Deputy Director

Clarita Balala, Committee Secretary

Lenora Dineen, Council Services Assistant Clerk

Evan Dust, Executive Assistant to Councilmember Tasha Kama Lois Whitney, Executive Assistant to Councilmember Tasha Kama

Davideane Kama-Sickels, Executive Assistant to Councilmember Tasha Kama

Axel Beers, Executive Assistant to Councilmember Kelly Takaya King Ellen McKinley, Executive Assistant to Councilmember Kelly Takaya King Dianne Shimizu, Executive Assistant to Councilmember Alice L. Lee

Sarah Pajimola, Executive Assistant to Councilmember Keani N.W.

Rawlins-Fernandez

Jordan Helle, Executive Assistant to Councilmember Yuki Lei K. Sugimura

ADMIN.: Jennifer M. Oana, Deputy Corporation Counsel, Department of the Corporation

Counsel

Eric Nakagawa, Director, Department of Environmental Management

Shayne Agawa, Deputy Director, Department of Environmental Management Robert Schmidt, Solid Waste Operations Program Superintendent, Department

of Environmental Management

OTHERS: Robert Street

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Faith Chase Tim Gunter Patrick O'Rourke

Trevor Malecha, Innovative Power Technologies, LLC Eric Bolte, Innovative Power Technologies, LLC Sam Chasen, Innovative Power Technologies, LLC Erfan Ibrahim, NuCarbon Technologies, LLC Kaimaile Makekau, NuCarbon Technologies, LLC Patrick Furlotti, NuCarbon Technologies, LLC Gordon Fuller, NuCarbon Technologies, LLC Charles A. Smith, Gold Seal Industries (2) additional attendees

PRESS: Akakū: Maui Community Television, Inc.

CHAIR SUGIMURA: ...(gavel)... Good morning, everybody. Welcome to the Infrastructure Transportation Committee. It is now 9:01 a.m. and I welcome all of you to this...to talk about Central Maui Landfill, and we have two very interesting items, Solid Waste to Energy Conversion Project (IT-45), and the Central Maui Landfill, I'll be taking it in that order. Welcome, everyone. Good morning, Chair Lee, what is our...what is our welcome for the day?

COUNCILMEMBER LEE: Okay, we're...we're running out time to help our colleague, Tamara Paltin because she's going to be leaving, so bonjour, content...okay...bonjour, content de te voir.

CHAIR SUGIMURA: Oh my God --

COUNCILMEMBER LEE: Content de te voir.

CHAIR SUGIMURA: Bonjour...look it up.

COUNCILMEMBER LEE: Content...just look in the chat...content...

CHAIR SUGIMURA: Bonjour...

COUNCILMEMBER LEE: De te...

CHAIR SUGIMURA: De te...

COUNCILMEMBER LEE: Voir.

CHAIR SUGIMURA: Voir. Bonjour, de te voir. Good to see you in French. All right. Good to see you, Chair Lee. Next we have Tamara Paltin, since we are directing this for you and your trip to France.

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UNIDENTIFIED SPEAKER: Oh, wow.

CHAIR SUGIMURA: Still can't hear you. Your...your volume is off.

COUNCILMEMBER PALTIN: Bonjour, content de te voir. And . . . (inaudible). . .

CHAIR SUGIMURA: Bonjour, Tamara Paltin. Next we have Mike Molina. Mr. Molina?

COUNCILMEMBER MOLINA: Aloha and good morning to you, Madame Chair. Bonjour, content de te voir to you and my colleagues on this wonderful Monday morning, aloha.

CHAIR SUGIMURA: Bonjour. Good to have you Mr. Molina, and Keani Rawlins-Fernandez, bonjour.

COUNCILMEMBER RAWLINS-FERNANDEZ: Aloha kakahiaka, Chair, my Moloka'i nui ahina. Content...content de te voir, and I'm here at the Moloka'i District Office by myself.

CHAIR SUGIMURA: Very good, and also with us today, although not a voting member...I'm really glad you're here, Shane, because I think the Central Maui land...I'm sorry the Waste to Energy Project may be of interest to Hāna...Shane Sinenci.

COUNCILMEMBER SINENCI: Bonjour, mademoiselle, content de te voir. Quoi de nuf? And aloha nui.

CHAIR SUGIMURA: Aloha nui. All these talented Councilmembers. So good morning, everybody, and welcome. We have Kelly King who's going to be joining us late...she'll be logging in...and from the Department of Corporation Counsel we have Jennifer Oana; Department of Environmental Management for both items we have Eric Nakagawa, Director. Hi Eric, thank you. Shane Agawa, Deputy...is Shane here? I thought I saw his name earlier. Oh, hi Shane, thank you. Also we have Robert Schmidt, who is the Operations Superintendent for Solid Waste...so we have him...oh, there you are, Robert. Thank you very much, Bob. Other...other representatives that I hope you allow us to be bringing them in as...as resources...for the first item, we have Trevor Malecha from the Innovative Power Technologies, Inc., and from NuCarbon Technologies, LLC, is Erfan Ibrahim, Patrick Furlotti, Gordon Fuller, Kaimaile Makekau...which she's...I already saw her logged in earlier...Ekolu Kalama, and then from Gold Seal Industry, we have Chuck Smith. Committee Staff...Laks Abraham, Legislative Analyst; Lesley Milner; Budget Committee Analyst; Clarita Balala, Secretary; Richard Mitchell, Legislative Attorney; Kristeena Locke [sic], Council Services Assistant Clerk, and Members that is all the people who are making possible today's meeting. So thank you, Members. As I said, we have two items on our agenda which is IT-45, Solid Waste to Energy Conversion Projects, and IT-60, Central Maui Landfill. We have testifiers signed up and so...let's Oral testimony via phone or video see...let's begin with public testimony. conferences...conference...will be accepted. Testifiers wanting to provide video testimony should join the online meeting via the BlueJeans meeting link, bluejeans.com/886005668 as noted on today's agenda. Testifiers wanting to provide

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audio testimony should dial 408-915-6290, and enter meeting code 886 005 668, also noted on today's agenda. Written testimony is highly encouraged through eComment link listed for today's agenda for mauicounty.us/agenda. Individuals are free to provide testimony via eComment or as many...on as many agenda items as they would like, and instructions on how to submit testimony via eComments can also be found on mauicounty.us/eComment. Let's move on to oral testimony. Oral testimony is limited to three minutes per item. If you're still testifying before that time, I will kindly ask you to complete your testimony. When testifying, please state your name. If you are testifying in behalf of an organization or a paid lobbyist, please inform the Committee. Please be mindful of the use of chat during the meeting. Chat should not be used to provide testimony or chat with others. If you're here to provide testimony, please be courteous to others by turning off your video and muting your microphone while waiting for your turn to testify. Once you're done testifying, you will be asked to disconnect from the call, however, you are welcome to continue to view the remainder of the meeting on Akaku, Channel 53, Facebook Live or on mauicounty.us. Participants who wish to view the meeting only without providing testimony, please also disconnect at this time and instead use the meeting...view the meeting on Akaku, Channel 53, Facebook Live, or on mauicounty.us. Only Councilmembers, Staff, and designated resource personnel will be connected to the video conference once testimony is concluded. I remind Committee Members, Administration, the public, to please be patient as we...as we run into any technology issues. So I'd like to now proceed with oral testimony. Oh, Kelly King, welcome Kelly King, nice to see you here.

COUNCILMEMBER KING: Good morning, Chair. Sorry I was late, I was finishing up a weekly meeting.

CHAIR SUGIMURA: Nice to have you, welcome. Laks, would you like to proceed with taking testimony, and could you also time the testifiers?

MS. ABRAHAM: Yes, Member Sugimura.

CHAIR SUGIMURA: Thank you.

MS. ABRAHAM: Good morning, we have five testifiers waiting to testify. Our first testifier is the phone number ending in 7900. Please press \*4 to unmute yourself and proceed with your testimony.

#### ... BEGIN PUBLIC TESTIMONY ...

- MR. FULLER: Hi, Gordon Fuller here, I just wanted to thank the Council for giving us this opportunity with NuCarbon to share information about the waste to energy solutions, and I'm here to listen. Thank you, that is all.
- MS. ABRAHAM: Our next testifier is Patrick O'Rourke. Patrick O'Rourke, please unmute yourself and proceed with your testimony.
- MR. O'ROURKE: Hi, good morning. My name is Patrick O'Rourke, and I'm here in a...in a

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listen only mode.

CHAIR SUGIMURA: Thank you.

- MS. ABRAHAM: Our next testifier...our next testifier is Mr. Street. Mr. Street, please unmute yourself and proceed with your testimony.
- MR. STREET: Good morning, I'm testifying on the Central Maui Landfill, and I'd like to be specific in my comments here, and it regards Eko Compost. My understanding is that they have to remove themselves from the County Landfill and they're under some time constraints and this is a time-sensitive issue, and I'm recommending that Council and this Administration seriously consider shifting Eko Compost operation from the Central Maui Landfill up to the proposed agricultural park that's bordered by Omapio and Pulehu Road, and I'd like to give everyone an opportunity to respond to that...that request, but this is a time-sensitive issue and it needs to be handled quickly. As somebody that uses Eko Compost and I know they're dedication to taking green waste and selling it, there...it's a...this is a public-private relationship and partnership that is worthwhile keeping. Maui County needs Eko Compost, Eko Compost needs Maui County, and Eko Compost needs a new home, so I'm proposing that this Council and this Administration seriously look at the new agricultural park that's bordered on Omapio and Pulehu, and shift Eko Compost operation there. Thank you for your time.
- CHAIR SUGIMURA: Thank you, Mr. Street, anybody else have any questions for him? Kelly King has a question for you Mr. Street.
- COUNCILMEMBER KING: Thank you, Chair. Aloha, Mr. Street, do you know who owns...currently who owns that property?

MR. STREET: This property is owned by Maui County.

COUNCILMEMBER KING: It's a Maui County property? It's at the corner of Omapio and Pulehu as you go up...Upcountry?

MR. STREET: Oh, right. It's 200...excuse me, it's 260 plus acres --

COUNCILMEMBER KING: Okay.

MR. STREET: -- and it's for the future home of the Kula Agricultural Park...it's their expansion, and I'd like to see the Eko Compost get a shot at relocating their business there.

COUNCILMEMBER KING: Okay, thank you for that clarification.

MR. STREET: Yup.

COUNCILMEMBER KING: Thank you for being here. Thank you, Chair.

CHAIR SUGIMURA: Thank you, anybody else have questions for Mr. Street? Seeing none,

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thank you, Mr. Street --

MR. STREET: Thank you.

CHAIR SUGIMURA: -- for testifying. Thank you. Laks, next testifier?

- MS. ABRAHAM: Our next testifier is the phone number ending in 7089...7089, please press \*4 to unmute yourself and proceed with your testimony. We can move on to the next one, and we'll come back to this one. Our next testifier is Faith Chase. Faith Chase, please unmute yourself and proceed with your testimony.
- MS. CHASE: Aloha, Chair, aloha Council. I'm so excited for this presentation today. I just want to remind everybody that in April 2019, Dr. Albert Ratner came to (audio interference) Environmental, Agricultural Protection Committee, and he (audio interference), and I also featured him in my annual Resource Recovery Maui event which I send invitation and updates and follow-ups to all the Councilmembers including the State Legislators. This is a really good technology. It's refreshing to see that...the...I know some of the people that are in this newly formed business to promote this...I just want to very, very clearly say that when it comes down to that negotiating point, that you don't sell...that the County don't sell themselves short, there's a lot of money in trash. I don't know if that is going to fare well on the ears of the investors and the producers, but this is important because sometimes I think when people come and say, we'll...we'll do all the infrastructure, we'll do the...we'll do the beginning shipping, we'll do all this, and then you...you...it seems attractive at first, but please don't remember the value and take care of your County in that fashion. On top of that, you need to make sure that you have that education component...that community give back. The outreach, the input, and the community education right now with...the only person who...the only entity who is giving agricultural...start some good, does some good, but the only person, business, entity, company who goes willingly...no cost to the Department of Education...to give agricultural education is Monsanto, and that's unacceptable. So I think it's the responsibility of this industry to do the same. You don't...just because we know what to do with trash does not mean that you forget how to reuse, recycle, repurpose...that kind of thing, and then also, I would like to really speak in favor of Eko...the previous testifier. You know, Ruben Fonseca has done amazing amounts of...I mean over 20 years, I want to believe...he deserves to be umbrellaed by the County...whatever he needs, you know, he shouldn't be on his own, he has done this County a huge service so whatever Eko Compost needs, should be attentioned [sic]. Thank you, you guys.

CHAIR SUGIMURA: Thank you, anybody have questions for Ms. Chase? Seeing none, thank you, Faith, for testifying. Any more testifiers?

MS. ABRAHAM: We'll give that phone number one more shot, phone number ending in 7089. 7089, please press \*4 and unmute yourself and proceed with your testimony.

MR. GUNTER: Hello?

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CHAIR SUGIMURA: Oh good.

MR. GUNTER: Good morning, am I on?

CHAIR SUGIMURA: Yes.

MR. GUNTER: Okay, good morning, Madam Chairman and Councilmembers. representing Waste to Energy Solutions Technology. My name is Tim Gunter. I have known some of you for many years, and my involvement with the County goes back to Hannibal Tavares. I have been involved with trying to improve the environment since 1968, when they originated the concept of Earth Day. I have been on the island for almost half a century. I have worked with the University of Hawaii, Bishop Estate, and hundreds of businesses, hotels, condos, farmers, schools, landscapers, and backyard gardeners. I've gotten 5,000...five to six thousand Maui residents to become organic farmers and backyard gardeners. I have brought many products into the island to replace chemicals, road covers, rejected insulation backing for aphids, control the ... a bacillus to control mosquitoes for HC&S and others. I got Haleakalā Ranch to stop using Tordon, a herbicide to control gorse that move readily in the soil above the reservoir. I help stopped the use of Diazinon, an organophosphate that can kill birds and bees. I found three new invasive species, the hala scale at George Harrison's place, Gall wasp at the Diamond Resort, and the California Pepper Tree at...up in Conrad's (phonetic) place. I have come to the County and past Administrations speaking to Members, trying to persuade them to look into switching to electric lawnmowers, chainsaws, weed eaters, which many...many municipalities across the country have done. I had nothing to gain financially from these meetings, my motives was to improve the island from combustion engines, oil spills, while saving the County on fuel and maintenance. In 2000, I was awarded Island Business Magazine's innovator of the year, small business category, for my work in recycling dry wall...calcium sulfate. When you plant Seashore Paspalum, you can kill the weeds with salt, you can then take gypsum to remove the salt which is toxic to shrubs close to the lawn. I wanted to highlight myself and my partners who have our roots entrenched in the Island of Hawaii. At the end of the day, we are promoting the same technology...the same mousetrap as our friends from Iowa. It wasn't IPT that gave a presentation to the County several years ago, it was me. The company split with both companies vying for involvement...the information of Maui comes from me. IPT has never been to Maui. Their company, WEST was aligned with the company that Dr. Ratner aligned with. Dr. Ratner, Professor at the University, has researched downdraft gasification for 14 years. He has written almost 80 peer-reviewed papers on combustion. He is...he has Elon Musk on his cell He is highly respected across the country, even his wife has designed components for NASA. I entertain Dr. Ratner and Tina Wildberger at my home to go over the presentation we would be making at the Capitol. Waste to Energy Solutions Technology is not going to bring outside help to construct anything, we know who could do it here, we know the players in recycling service and repair, and are committed to being involved with schools and the University for future environmentalists. questions?

CHAIR SUGIMURA: I have a question, what is the name of your company, Mr. Gunter?

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- MR. GUNTER: It's W.E.S.T, Waste to Energy Solutions Technology.
- CHAIR SUGIMURA: Waste to Energy Solution Technologies, and you said...you're...did you open and say that you were part of the Innovative Power Technologies, LLC at one time, is that what you said?
- MR. GUNTER: No, I was HC...Hawaii Energy Incorporated was...was a company that I started and we have since evolved and...for the better, and brought on Guyton Galdeira and Janai Kealoha.
- CHAIR SUGIMURA: Okay...okay, so you're a...you're another waste to energy company, is that what you're saying?
- MR. GUNTER: Correct.
- CHAIR SUGIMURA: Okay, and have you spoken to our Department of Environmental Management?
- MR. GUNTER: Yes, and also the Mayor.
- CHAIR SUGIMURA: Okay.
- MR. GUNTER: And gave a presentation to the County Council, and I've spoke several times to the Waste Management...Environmental Management.
- CHAIR SUGIMURA: Okay, thank you. Members, you have any questions for him? Seeing none, thank you very much, Mr. Gunter.
- MR. GUNTER: Thank you.
- CHAIR SUGIMURA: Next test...thank you. Next testifier?
- MS. ABRAHAM: Aloha, our next testifier is Eric Bolte. Eric Bolte, please unmute yourself and proceed with your testimony.
- MR. BOLTE: Yeah, hello, my name is Eric Bolte. I...I'm actually with the IPT team. I was actually just on here to help with the presentation. I'm...I'm actually blocked out, it's showing that I don't have the ability to screenshare, but...so just assisting in the tech side on this.
- CHAIR SUGIMURA: Okay, thank you.
- MS. ABRAHAM: Our next testifier is the phone number ending in 4785. 4785, please press \*4 and unmute yourself to proceed with your testimony.
- MR. CHASEN: Yes, this is Sam, can you hear me, this is Sam Chasen. Hi, this is Sam Chasen,

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I'm also from IPT, and I'm just one of the interested parties...Trevor Malecha is going to be our presenter.

MS. ABRAHAM: Member Sugimura, there are no more testifiers at this time.

CHAIR SUGIMURA: Sam, can I have your last name again?

MR. CHASEN: My name is Sam Chasen.

CHAIR SUGIMURA: Chasen...thank you.

MR. CHASEN: Thank you.

CHAIR SUGIMURA: Members at this time then, if there's no more testifiers, we'll do a last call if there are any other testifiers. Okay, if not then I'm going to close public testimony, and I will also ask Member's permission to include written testimony into the meeting.

COUNCILMEMBERS: No objections.

#### COUNCILMEMBERS VOICED NO OBJECTIONS.

CHAIR SUGIMURA: Thank you.

#### ... END OF PUBLIC TESTIMONY ...

CHAIR SUGIMURA: Okay. At this time, Staff will ensure that only required personnel such as Councilmembers, Staff, Administration, and resource personnel remain on the call, everyone else will be disconnected at this time, and if they're interested, they can continue to watch this...watch us on Akaku, channel 53.

#### IT-45: SOLID WASTE TO ENERGY CONVERSION PROJECTS (CC 21-96)

- CHAIR SUGIMURA: I'm going to take up the first item on the agenda, which is Item 45, Solid Waste to Energy Conversion Projects, and the reason that I am taking this up is to keep the Members informed as to what we have in store for us with our progress to try to be more energy efficient, and we're taking...this is a presentation, so there's no...no action will be taken...no Legislative action will be taken. So at this time, I'd like to introduce Eric Nakagawa, our Director for Environmental Management, as well as Shane Agawa, and they are...they have put together presentations from Innovative Power Technologies, LLC, NuCarbon Technologies, LLC, as well as Gold Seal Industries. Eric and Shane?
- MR. NAKAGAWA: All right. Good morning, Chair...Members. So essentially today, we're here...like Yuki said...is really just communication right now, and I...I think the whole idea is...is that we...we are all kind of looking into the future, what are all those possible technologies, and so today I wanted to introduce you to three potential technologies that are out there. There are...like one of the testifiers said, there's probably many more, and at that time when we decide to pursue this...you guys and us, and it's going to be

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open to all, and then we'll figure out which way we want to go. So the whole idea with this one was kind of similar to what Member Keani Rawlins-Fernandez and I was kind of working on with this Japan technology from Thomas I think it was called, and we're trying to get like their pilot study to come here...I mean get a project...do a pilot study...what it would do is show us as a community, you guys, as well as us, and...as well as regulators on...are these technologies viable here in our County, and do they meet all of the State, Federal, County regulations also, right. So that's kind of the idea behind it, and so potentially one or two of these companies may end up doing a pilot study, and so at that time, there'll be an actionable item that comes before you guys and because we'll be granting them some tonnage of waste, right...like whatever...it's 40 tons of waste or whatever it is, and at that...and as well as potentially using couple acres of our land. So at that time, you guys will actually get a actionable item saying, "yes", we want to grant them...give away our trash. I know it sounds kind of funny, but yeah, it's just an actionable item, right, and then you guys would...so I think we all learn from our previous attempts with trying to do some type of waste to energy, right, and kind of doing it a little more joint than open effort right on, so that everyone kind of understands where we are, where we're going, and is that something that we want to pursue in the future, yeah. So...so I...I don't want to take up too much time from the presenters. So we have three presenters, I told them try to keep it ten minutes each and then after that we're all open for questions. Thank you.

CHAIR SUGIMURA: Thank you, Mr. Nakagawa. So is there an order that you have asked the presenters to give or I have Innovative Power Technologies first, and then NuCarbon Technologies second, and last is Gold Seal Industries.

MR. NAKAGAWA: That's perfect.

CHAIR SUGIMURA: Okay. So Trevor Malecha is here as long as...and I heard from testimony that Sam Tesher [sic] and Eric Bolte is also here to assist you. Trevor?

MR. MALECHA: That is correct. Eric would like to be able to share the presentation screen, and doesn't have the capability to do that right now. I would request that we allow him to do so.

CHAIR SUGIMURA: Okay, so what...what...what does he need in order to do that? When you say he doesn't have the capability to do it?

MR. MALECHA: He is trying to share with the share screen...yup...okay, we got it up and running.

MS. ABRAHAM: Member Sugimura?

CHAIR SUGIMURA: Yes --

MS. ABRAHAM: If you can have --

CHAIR SUGIMURA: -- Laks can you help them.

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MS. ABRAHAM: Sir, if you could try again, we've just opened the opportunity for you to share screen, so you should be able to now.

CHAIR SUGIMURA: Oh, there, okay.

MR. MALECHA: There we go. Aloha and thank you for inviting us to present at this morning's Committee meeting. In this introductory video, we are introducing everyday plastics into the gasifier. Here we even introduce an armed car rest...a car armrest. Now we shot this video in 2008, which explains the poor resolution, but nonetheless as you can see, the gasifier is processing these items with ease producing emission results that are well below all established EPA standards. This is simply amazing. We've achieved the same results...shredded tires and RDF pellets which is an exciting new innovative technology. We are looking forward to sharing our vision of the new-age of waste disposal with you today. Here is a brief overview of what we will be covering today. Who is Innovative Power Technologies? What is gasification? What makes the CN2020 downdraft gasification technology unique? On a pilot project plan making the pilot project a reality, finally a project plan summary. So who is Innovative Power Technologies? We are innovative technology development company located in Des Moines, Iowa. Our manufacturing operation is located in Thurston, Nebraska, and it's 50 years of experience in high-quality, precision, industrial manufacturing of an industry leading products. We have the capacity in Thurston to produce in excess of 5,000 individual gasifiers per year. After nine years of testing and data collection at the University of Iowa, and 20 plus years at the Innovative site in Tama, Iowa, the CN2020 downdraft gasifier is now tested and proven with peer-reviewed white papers and published emissions test results. Technology is now ready for the pilot project in Hāna. So what exactly is gasification? Gasification is a biomass conversion process. There are three types of gasification, the two most common being updraft and cross-draft. Ours is a patented downdraft gasification process branded as the CN2020 downdraft gasifier. Now there are four processes of gasification, drying, pyrolysis, combustion, and reduction. The drying process takes place in the drying zone pictured here on the right in green. Pyrolysis occurs directly below the drying zone as pictured here in yellow. Thin gas is first created in the combustion zone shown here in red located below the pyrolysis zone. Reduction zone in dark gray for the syngas is scrubbed free of carbon, tars, and other contaminants. The resulting syngas leaves the gasifier through the closed conduit located in the lower chamber of the gasifier and is routed directly into the fire. The biochar and fry ash precipitate out of the bottom of the unit via a turntable where it is gathered for repurposing. This patented technology was developed by Egg Biopower and is exclusively licensed to IPT to market, manufacture, and distribute. The IPT management team is now primed to continue developing applications of this transformative technology - waste to energy industries. Shown on the right is the research unit at the University of Iowa providing valuable energy for several critical oncampus applications. There are also waste disposal units located at Fox Converting in Green Bay, Wisconsin, and SolEco in Melbourne, Australia, as well as additional research and development unit represented in a previous video at the Innovator's site in Tama, Iowa. The CN2020 gasifier produces biochar as part of the process...about 20% by mass, much cleaner than all other processes. Biochar breaks down organic

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vapor into simple components such as hydrogen, oxygen, carbon monoxide, and carbon dioxide. The resulting gas is known as syngas or synthetic natural gas commonly referred to as producer gas. This clean gas is then burned for energy in either an internal combustion engine or in a traditional boiler-steam turbine, or flared off for disposal. Testing with a range of materials including plastics, tires, and sorted trash pellets, produce exhaust well below all EPA emission standards. Our gasifier produces cleaner air emissions than landfills and everything else. Now this short video, about two-and-a-half minutes long, illustrates our gasification process as it operates at the Tama, Iowa facility, processing municipal solid waste and waste seed corn . . . (video). . . Now here, we're going to be feeding waste seed corn along with RDF pellets into the top of the gasifier. Looking down into the gasifier from the top, you will notice there is absolutely no smoke coming out of the gasifier, part of the heat being generated inside. This is due directly to the downdraft component of our gasification process. As long as the material is sized right, we can gasify any biomass material including waste, tires, and plastics. This is also an example of the massive energy output of the syngas produced. We are firing it here just to expel the gas from the process as we will do initially in Hana. Notice the birds in the background on the wires about 20 yards from the exhaust system. As shown here, emissions are produced at zero percent opacity, processing waste with the CN2020 gasifier. Notice how clean the gas is burning from emissions at the top of the stack. Now here's a neat fact concerning landfill methane gas emissions. Every year, the amount of methane gas that is not able to be captured from the decomposing waste materials in landfills across the United States and is released into the atmosphere, equals the yearly emissions released into the atmosphere from operating approximately 600 million passenger vehicles. There are only approximately 300 million passenger vehicles in the United States. remarkable technology. So the Hana project plan...carbon neutral to carbon negative CN2020 waste elimination gasification process, replaces the need for expanding existing or constructing new landfills. It also provides the opportunity to repurpose existing jobs and create new jobs to fill the needs of the gasification project. The MSW inputs represented here are sorted, sized, shredded, dried, and densified in the refuse derived fuel pellets at a 50% total moisture content. The green waste shown here is then mixed in with the RDF pellets at the appropriate ratio to fuel gasification process. The Hana project plan benefits are vast. As you can see, there are several benefits to using the CN2020 process for waste disposal. The Hana project provides the following environmental benefits: impacts landfill methane emissions and reduces leaching, improves the soil quality, and will improve the water quality, as well as offering hazardous waste processing. The biochar byproduct has several applications as well, including but not limited to water filtration, captures, and retains nitrates present in water as it passes through the biochar. As a soil amendment, those retained nitrates and moisture in biochar provide agricultural soil enhancement when field applied, and air filtration. Now the downdraft gasification process sequesters carbon during the process from both the ambient air intake and the material being processed. Carbon sequestration generates carbon credits for both processors and farmers. Carbon credits are marketable, saleable, and transferable. So the three provisions for Hana pilot project funding are simple, we need to execute a Memorandum of Understanding for the Hana pilot project with the County, we need to secure the availability of throughput materials for the pilot project term, we need to execute a land grant agreement with Maui County

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for the Hāna pilot project location. In conclusion, let's join together to make Hāna the first U.S. location processed waste using the first...utilizing the first and only carbon neutral to carbon negative technology...challenge is in front of us, solution is on the table, funding is secured, technology is proven, project is ready, table is now set. Let's work together and make this happen. We are now taking questions if you have any, folks.

CHAIR SUGIMURA: So thank you very much. I'm going to take questions after --

MR. MALECHA: Okay.

CHAIR SUGIMURA: -- we hear the presentations. Thank you.

MR. MALECHA: Mahalo for providing us with . . . (inaudible). . .

CHAIR SUGIMURA: Thank you very much. So you're going to stick around, Trevor, for questions.

MR. MALECHA: You got it. Thank you very much.

CHAIR SUGIMURA: Thank you. So the next company is NuCarbon Technology, and Erfan Ibrahim will be presenting.

MR. IBRAHIM: Yes, good morning to you all, Madame Chairperson and the Councilmembers. It's a pleasure to be on this call with all of you, and I'll be happy to present the technology from NuCarbon. So let me see if I can activate...I'm not able to activate screenshare for some reason...ah, there we go.

MS. ABRAHAM: I'll be with you in just a moment.

MR. IBRAHIM: I got it. Okay, let's see. Are you able to see, everybody? Okay. So today, what I'm going to do is talk a little bit about technology...pyrolysis technology that can take pretty much any carbonaceous waste such as municipal solid waste, plastic waste, biomass, used tires, medical waste...anything that has...is rich in carbon, and convert into useful products and avoid placing toxic ash into landfills as well as minimize the emissions to the atmosphere. So the goal is to, as I said, reduce the need for landfills, and I know that in Maui County this is a serious problem because there is a finite amount of land and the landfills are getting filled up, and also avoid incineration because incineration of waste creates a lot of what I call dioxins, which are harmful to humans, and animals, and plants, as well as a lot of carbon dioxide, and sulfur dioxide, and nitric oxide...all of those are harmful. Nitrate oxide and carbon dioxide are greenhouse gases so the effects are quite obvious, but in addition, the sulfur dioxide can cause acid rain. So to avoid all of that, it's important not to go in the direction of So the goal of this project would be, of course, to improve the environmental sustainability and produce a renewable fuel for transportation because all the fuel that's being used in Hawaii is being imported, and so it's important to have an indigenous supply of transportation fuel. In addition, there will be production of

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industrial oils and lubricants as well as char, and this char can be used as a soil enhancement or it could be used as activated carbon and water filtration, and the plant would naturally create jobs both for the indigenous people as well as the ex-pats, and it'll improve the economy of Hawaii, and also improve the reputation of Hawaii and the U.S. national environmental movement. So what we are proposing is to process 200metric tons of a combination of MSW, used tires, agriculture residue, tree trimmings, food waste, that's generated in County of Maui, and in speaking with Eric Nakagawa, there is an idea of a pilot project for 40-metric tons...wet metric tons per day of MSW for a period of time, so we would definitely take that, but in addition, through the private sector, we will negotiate a waste feedstock agreements with the private companies so that it adds up to 200-metric tons. We cannot do a pilot with 40-metric tons simply because the smallest module of the technology we're talking about after drying the waste is 40-metric tons. So...and it would be a significant financial investment, so doing a pilot just for the sake of pilot is not sufficient for us. This is why we are planning on doing a private sector project in which we take a portion of the waste that the County can give us, and once we are done with the pilot project, then we can respond to an RFP for the larger amount of MSW that could be potentially available to us, but we're not solely depending on the County for the waste feedstock. This will be privately funded and NuCarbon would be the solution provider. The technology provider is a company out of Singapore, but the technology is actually Japanese, and there are plants running with this technology in South Korea since the 2006-2008 time frame with MSW, tires, plastic...you name it, all types of waste are being processed in South Korea, and we would build, own, and operate this, we'll get a long-term lease for land that we could put this plant on, and these are some of the products that we would produce. We would produce the char, the oils and lubricants, the renewable fuel including the highest quality diesel fuel that's available in the market today which is the EN15940, and that has about half the sulfur of diesel-2 or ultra-low sulfur diesel sold in the U.S., and 20point higher c-tane number than the one that is sold in the United States. We would power this plant by itself, so we don't need power from HECO, and we can produce this process heat for the pyrolysis from the calorific value of the waste. I am having some difficulty here, let me see. Okay, there we go. So some of the advantages of pyrolysis...the previous presenter spoke about gasification. Gasification has serious issues just like incineration because there is combustion in order to maintain gasification, and that produces a lot of carbon dioxide, and this is why those technologies, at best, can be carbon neutral or slightly carbon negative, and as you will see with pyrolysis where there is no combustion happening with the waste that you get significant carbon savings each year, and the other thing about pyrolysis is that if you produce electricity and do pyrolysis to produce diesel fuel, char and oils, you can get as much as 50 to 60 percent energy efficiency as opposed to gasification at 30 to 35 percent, and incineration which is even lower. Some of the technology benefits for GGII, this is the Global Green International Investments, we have proven technology. We've got operating plants running for 15 years, technology partners are major Japanese companies in this space for drying and cutting, processing the waste as well as the hydrocracking and refining technologies to produce the diesel, jet fuel, and kerosene. The technology is very modular and it's scalable so you can just keep putting modules of 40-metric...dry metric tons next to each other and scale up to any amount, so as I understand from Eric, you produce about 720-metric tons...wet metric tons of MSW, we

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can easily handle that in about 3 to 4 modules of this plant, and then it's very flexible in the type of the waste we can take. There's no requirement upfront to separate all this waste out. We have a pre-sorter in which we take the metal and glass out, and after pyrolysis, any dirt and ceramic is sent to the landfill...it's completely inert. This...each module produces about five kilograms of ash which is completely inert and can be used in construction, and the CO2 emission is only limited to the combustion of the syngas to maintain the heat and produce some electricity for the plant. The vast majority of the carbon is sequestered in the char as well as in the industrial oils, and as I mentioned, the energy efficiency is about 34% for diesel only, and 50% or higher for the hybrid fuel and electricity which is a possibility...we can generate electricity down the road using a CHP engine and converting some of the same gas into electricity. Very little production of carbon dioxide, sulfur dioxide, and nitric oxide which is very good, and that's how we get the carbon CO2 savings, and it meets all global air, soil, and groundwater emission standards, both U.S. EPA as well as State of Hawaii, it's not a problem, and we minimize the waste to landfills because it's only limited to the ceramics and the dirt that comes out of the waste. The...here's some high-level numbers. We're thinking of processing 200-metric tons and dried down becomes 100-metric tons, sorted glass and metal is removed, bringing it down to 84.6 metric tons, 350 days of operation, daily capacity we'd need is about 88 tons, and two modules of 40 to 45 tons would do the job. Here is the "schematic of the module," each module is about 70 meters long, 10 meters wide, 8 meters high, and will keep about two weeks of storage capacity on site, there's fencing around the perimeter, we create a concrete base, and we have a metal enclosure which is prefab, and about 300 square meters for the administrative building. The good thing about this plant is that it's prefabricated, so at the same time the plant facility is being developed, we can also manufacture the prefabricated thing, and then the high-level technical people are sent to Japan for training on the equipment, then it's disassembled, sent by ships and containers, and assembled here. This is why we are able to do this in a very short period of time as you will see. Here are some capacity and power specifications. As I mentioned, two modules will take care of it...will have enough LPG on site...liquified petroleum gas for the twenty minute startup every time we need to start up, we got to have the energy, so we're not relying on external power at all. We'll have a 230KVA generator per module that provides the power for the plant, and we also have enough to run the administrative building. Minimal water requirements, especially with MSW where there's so much moisture coming out of it, but we will connect to a water main, and the water that is discharged is considered gray water into the streams and the lakes. So we don't have any issue with contamination, and no electric grid required. Here is just a summary of the fuel output per module at the top, and for two modules at the bottom, so you can see we will produce 30,000 liters of diesel per day, 7,500 liters of industrial oils and lubricants, 6 metric tons of char per day, 10 kilograms of hash per day, and 70,000 metric tons of carbon credit per year, and as you evaluate technologies, see how precise they are in their numbers for output rather than saying a lot very much, because that shows how little empirical evidence people have. This is the best test is when someone can give you precise numbers on their technology, it's usually a good sign that they have operational experience. Here is just the process, we'll manufacture this in Japan and we'll jointly approve any PC company in Maui that will then start doing the civil works, and then after the plant is produced, we'll send our people over there from Maui to get trained in Japan, and then

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the stuff will be brought here. It will be reassembled and GGII will help NuCarbon in getting this thing commissioned...ten to twelve months from the initial order. This shows you the economics, it's about \$14 million per module --

CHAIR SUGIMURA: Can you wrap up your presentation, please? It's been ten minutes. Do you have more...

MR. IBRAHIM: Okay, I'll wrap it up very soon.

CHAIR SUGIMURA: Thank you.

MR. IBRAHIM: Yeah...thousand dollars per square meter for the plant cost, then to develop it, the physical plant will take about 5,000 square meters, and I'm just giving you the breakout and you'll have a copy of this to see the economics, but we are finding ROIs of around three years, and this is assuming no gate fees initially. So it is very, very promising, and as one of the ladies in the testimony said, "yes, the waste is very valuable," and this is how valuable it is that a \$33 million investment can be returned in three years, but it's the technology that makes it valuable. Without the technology the waste is useless other than for burning and producing pollution. So this is a very important point...is choosing the technology right is very important, and so what we are trying to do as next steps is seek some private investor money for this, and finance the rest of it, get about five-acres of land, develop the venture, and then we'll sell the diesel. We have opportunities with British Petroleum and other sources for off-take agreements for our fuel, and provide under three year ROI to the investors, and the next part is really to compete for the waste feedstock from the County because ultimately we want to help the County at a macro-level, and the only way we can do that is by proving the technology to all of you, and then bidding for the remaining waste, and that's the conclusion, is that we want to help Maui, we want to help the local people, we want to improve the environment, and we have viable technology proven that can do it. And that's it. Thank you very much, and there are background slides that I would encourage you to look at which shows you the value, and just to give you an idea, each module produces 35,000 metric tons of carbon credit per year, so that means 70,000 carbon...so we're not talking about neutral...we're not talking about slightly negative, we're talking major negative, and each one of those metric tons cost \$35 in the U.S. market. So with that, I yield it back to Madame Chairperson.

CHAIR SUGIMURA: Thank you very much for your presentation, and then we'll take our last presenter which is Gold Smith [sic] Industries, Chuck Smith. Mr. Smith?

MR. SMITH: Yes, I'm here.

CHAIR SUGIMURA: All right, very good.

MR. SMITH: I'm here. I think they're going to put the slide presentation up...oh, there it is. Can you see that?

CHAIR SUGIMURA: Yes, we can see it.

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MR. SMITH: Okay. How do I get it to full screen, is that a possibility? Yes...

CHAIR SUGIMURA: Laks, can you help them?

MS. ABRAHAM: Mr. Smith, it is appearing in full screen for our audience.

CHAIR SUGIMURA: Oh.

MR. SMITH: Oh, it is?

MS. ABRAHAM: Yes.

MR. SMITH: Oh, okay. All right, thank you very much Madame Chair and Honorable Members of the Council, and the Committee. I appreciate this opportunity. I am here to present...I'm not seeing the full screen, that's my problem I guess. I'm sorry, I'm not able to see the screen, the whole screen, to give the presentation.

MS. ABRAHAM: Would you like us to scroll up? It's because it's in a pdf...yeah.

MR. SMITH: Yeah, okay. How do I be able to move the others though, Laks? Can we go back and try do a screen share?

MS. ABRAHAM: We can.

MR. SMITH: Okay. Oh, it's the wrong one. Is that visible?

CHAIR SUGIMURA: No.

MR. SMITH: No?

CHAIR SUGIMURA: We can't see your screen anymore.

MR. SMITH: Okay. That's not visible either?

CHAIR SUGIMURA: No.

MS. ABRAHAM: Member Sugimura?

CHAIR SUGIMURA: Yes?

MS. ABRAHAM: If we could take a brief recess, we can have him email us the PowerPoint and try to do it that way.

CHAIR SUGIMURA: Okay.

MS. ABRAHAM: We do have the pdf, but we can't show the whole page at once.

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CHAIR SUGIMURA: Okay. So I'm going to...call of the Chair I'm going to take a two minute recess, Members. Thank you. . . . (gavel). . .

RECESS: 10:00 a.m.

RECONVENE: 10:06 a.m.

CHAIR SUGIMURA: . . . (gavel). . . Thank you, everybody, for taking that break. We have Mr. Smith who's doing a presentation, and I...I think we got your presentation set up, so Mr. Smith?

MR. SMITH: Thank you very much. Can you hear me?

CHAIR SUGIMURA: Yes, we can hear you...from Gold Seal Industries.

MR. SMITH: First slide, please. Madame Chair and Honorable Members of the Committee and Council, we appreciate this opportunity from Gold Seal Industries. I'm with Stonebridge Sustainability Solutions, Inc. in collaboration with Gold Seal Industries in bringing up this new technology that has tremendous potential for Maui County. Next slide, please. We ask the question, first of all, what could we do for Maui, whether it be a...a total solution or contribute to a solution. I'm not going to read all these because you can read faster than I can speak, but it'll give you an opportunity to see there are many many areas that we can make a contribution to solving water shortage areas...carbon sequestration is part of our program, carbon neutrality...we focus on zero landfill deposits. Next slide, please. These all could be reviewed later. There's some additional items that...these are all the categories that we believe we can make a major contribution to the County. Next slide, please. I'm going to give you a very quick thumbnail sketch of the technology. It is an advanced technology. electromagnetic induction heating, a proprietary patent in process, for the conversion of waste, and we do that in order to create valuable market demanded commodities are generated from the process. We create multiple revenue streams which gives us the opportunity to deal with market fluctuations and/or market scarcity that takes place, and this...and you'll see why it...we have a guarantee on our operation because of that. We have no emissions whatsoever from the system...we have zero emissions from the We have no landfill deposits from the system. The system is fully mobile...we can move it by plane, by tractor-trailer, by helicopter, by ship, by train. We are self-powering, we do not need a grid connection, we produce all of our power on...on the...within the units using microturbines, and also using storage batteries and fuel cells. We have a low decibel reading, we're very good neighbors...our...our units are insulated with the same insulation in space shuttles. Everything is built within a 53foot ISO trailer which is stackable, scalable, fire suppress...and each unit has its own fire suppressant, and full operational redundancy of parts because we operate 351 days a year, 7/24. The operation is guaranteed, the performance is guaranteed by Lloyd's of The feedstocks are inclusive of sewage sludge, raw sewage, agricultural, biomass, tires, water and soil contaminations, dairy cattle waste, plastics, MSW...the only thing we cannot process in our system is nuclear explosive or radioactive

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The commodities we generate are renewable energy, biofuels, biochar, materials. black...regenerated black char, steel, chemicals, waxes, plastics, medical grade water, and syngas. Next slide, please. This is an illustration of a particular module unit. The upper right hand corner of the...is the picture where we have five of the units lined up together during a particular type of feedstock agreement...feedstock process I should say, and so this is an example of the 53-foot ISO trailer. Next slide, please. Not only are the units able to be arranged horizontally, but they can also be stacked. If real estate became a particular concern or issue and limitations were involved, we can stack the units as well. Next slide, please. This is a simple system diagram of the system. The feedstock bin receives the...whatever the feedstock may be, it goes into the vacuum auger, the electromagnetic heating system is processed to it...ultra-conversion system, and it travels through the auger, biochar comes out the one end of it, the rest of it is pulled off in terms of the vapor...the product vapors, it's pressurized into gas, it creates our syngas which creates our water cycle, our electricity is produced from the CHP units...we use either microturbines or fuel cells. Next slide, please. This is a simple diagram of a simple flow chart if it had been wood. Wood is processed into the shredder, the shredder sends the material to the feedstock storage...sends it to our electromagnetic induction system, it produces a syngas which produces the power, and then the power is fed back to each and every one of the operations including the fuels that we produce...the biofuels and the biochar. So our interest is to create everything into a saleable commodity to make it a very viable capital invested project. Next slide, please. Our strategic partners are all companies that you may recognize, they're a 100 to 125 years old. The units are produced in Indiana...the State of Indiana. Each one of these companies guarantees that each component because what we've done is we've merged together patent technologies and product technologies together to create a...a...an end product, and the end product is produced and installed in a Wabash trailer in Indiana before it's shipped. Next slide, please. Okay, the next slide please. After this...this is what we do with this. Feedstock diversity, I've already talked about what most of those are already. Next slide, please. We...we have an aversion to landfills. We...we really want to try to help reduce and eliminate landfills in every way that we can, so we don't make any contribution to the landfills. We...we think that there's a lot of money in the landfill business in terms of converting that waste into commodities rather than burying it in the ground, and I know that you have a situation coming up on 2026 is a potential for a landfill fully filled at the Central Maui Landfill. Next slide, please. We...as I indicated, we are zero...have zero interest in landfills, we want to eliminate them, so we use...we're trying to...we...what we're doing is developing a full circular economy of reducing, repurposing, reusing, and recycling so that we really don't have to make deposits to landfills. The way you eliminate landfills is eliminate deposits. Next slide, please. These are some of things we can do. We can process construction demolition, it's also great for a catastrophic situation because as soon as we go on the site with the debris that's laying around, we can produce heat, water, and electricity immediately, and we can process on the site which helps eliminate this going to a landfill. Next slide, please. We've processed medical and pharmaceutical waste, we...the...the steel and the tips of the steel is one of the most valuable commodities in the marketplace, but more importantly, we're trying to keep them off the beaches and out of other areas. Next slide, please. Sixty percent of most of the water...of MSW that goes into the landfill is water. Now that changes somewhat from 40/60 percent

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depending upon what kind of recycling program may be involved, but it eliminates the transportation costs, and what we want to do and what we do do is to convert this into clean drinkable water. It's the highest quality water...it's medical grade quality, so we think this would be a way to help...like in September 8th of 2020 when the first stage of water rationing was...was implemented on the island, we're looking for ways in which we can produce additional water for you, this is one of the ways to recapture this water into really clean drinkable water or for deposit in aquifers. Next slide, please. We can do desalinization. We produce...desalinization is a way without any brine, so what we're doing is creating commodities off of it for sale in the marketplace. We also look at this as a way of helping to produce additional water for an agricultural restart industry on the island. Next slide, please. Sewage and raw sewage, and sewage sludge...most of them is...the sewage sludge is used to put on the ground and then you have to market and say, you know, people be aware or it gets used as landfill areas. We feel what you should be doing with that sludge is turn it into electricity. We can produce enough electricity to power the entire sewage treatment facility, and in treating that facility at...at...at a cost...a lot lower than what you're having to pay right now for electric charges. Next slide, please. We like with a...with the scope and scale of the hospitality industry and the food industry on the island, incredible amounts of used oil and grease, we like that. We process that and turn it into waxes...we turn it into raw materials for makeup, number of other things as well, but we ... we really have no problem. Next slide, please. Well, we can also convert algae into electricity. We can also capture the water off of it for additional water source supply. Next slide, please. Ships and tankers whether they be passenger liners or whether they be freighter liners, we can process the ugly stuff that they have and we can also capture the MSW as additional feedstock supply as when the ships are in port. Next slide, please. Biomass is an incredibly interested technology...our technology is incredibly interested in this, with the catastrophic wildfires on the West Coast, the Northwest, and the Southwest of the United States, the mobility is the big issue. We can move our units right to the source of where the feedstock is being generated without any construction activities whatsoever. Next slide, please. Ocean plastics...we welcome ocean plastics, we are able to convert that into a...a raw material that can be used to make slip sheets and also to make pallets out of plastic so we can keep that wood out of the ... out of the landfills and also from other sources where it doesn't belong in C & D waste, et cetera. Next slide, please. Next slide. From that activity, this is what we produce, highest purity distilled water quality...medical grade quality. We can generate up to a million gallons per day through all the sources...feedstock sources that we use. Next slide, please. We produce biofuels. Not only do we produce the diesel fuels, we produce the jet fuels and we also produce hydrogen for fueling vehicles in operations. Next slide, please. We generate energy...renewable energy. We can do it into the grid, we can do it behind the grid, we can do it into a microgrid as the illustration I gave earlier where we can process the necessary electricity to power a...a sewage treatment facility. Next slide, please. Biochar...Biochar is becoming quite a...kind of valuable commodity in the marketplace through off-tech agreements, it's not only used for rejuvenation. We'd look at the biochar as having a good component if for example, since our system can do brownfield clean up, if we were to clean up the contaminated soils caused by the sugar cane industry and also the pineapple industry and clean those up and turn them into usable agricultural tracts of land again, adding the biochar to it would give it soil enhancement

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and by desalinization or by other...reproduction of our water, could provide water to jump...to...to...to enhance the opportunity of agricultural business again on the islands. We're basically trying to help the island reduce its imports and we're...and if possible, can rate some exports for the island. Next...next slide, please. This is an example of how we do a tire. We take a tire, we break it down to a one plus or minus size, we extract the regenerated carbon off it, we extract out the sulfur...the phosphorus, and all that goes back into the production of tires again to create the full recycling business. Next slide, please. Carbon black is...is a regenerated carbon black that comes off the unit, and we either package them into the trailers and ship them off to off-take agreements. If you are familiar with it or not familiar with it, it's that material that's used to build your telephones, your computers, and anything of a plastic nature. Next slide, please.

CHAIR SUGIMURA: Mr. Smith, can you start wrapping up your presentation? Thank you.

MR. SMITH: Yeah, I should be right at the end. Next slide, please. This slide is only to show you in the lower righthand corner all the metals that can be extracted to have value out of the MSW operation. Next slide, please. This is an example how you can maximize the benefit of...of processing what would normally go in the landfill. Just from the tires alone, you can create the carbon black, the sulfur, you can create the electricity, and you can produce both hydrogen and fuel and diesel fuel from it. They could be used by the ships that come on shore, it could be used by local operational units...MSW units, pick-up units and everything else. Next slide, please. Next slide, this would not be applicable here. As I mentioned earlier, our operational performance of the unit is guaranteed by Lloyd's of London Worldwide. This is a...this is risk adverse...a financial risk adverse component. Most of our operations produce an ROI of anywhere from four years to six years on expenditure. What we would be looking at is a private-public partnership as one option, and then we're...we would be sharing in the revenues along with the operational program. I'll just stop here. I do have some additional slides, but I'll stop right here and allow for questions and answers or to bide my turn. Thank you very much for this opportunity.

CHAIR SUGIMURA: Thank you, Mr. Smith, for presenting. Members, it's right around 10:30. I was going to give each of you like three minutes to ask questions and then go to the next item. You want to take your morning recess first and then we'll go to questions? Yeah? Okay. So at this time, I'm going to recess. Presenters, if you could standby, I'm going to take a ten minute recess and then we'll come back with each Member can ask you questions. Thank you very much.

MR. SMITH: Thank you.

CHAIR SUGIMURA: Meeting is now in recess. . . . (gavel). . .

RECESS: 10:22 a.m.

RECONVENE: 10:35 a.m.

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- CHAIR SUGIMURA: . . . . (gavel). . . Welcome back to the Infrastructure Transportation Committee meeting. Members, welcome back, and at this time we're going to take questions from the Members to the different presenters. But before I do, I just wanted to make an announcement that we...we are online...can be viewed on channel 53, but on television, channel 54 is the available source for this meeting, and of course always Facebook Live on...is available, but tv is on channel 54, not on channel 53, so I wanted to make that announcement. I hope Mr. Street could...is connected and can listen in. One of...one of the testifiers. So at this time Members, I would like to take questions, so who would like to start first? Chair Lee, you have a question?
- COUNCILMEMBER LEE: Not really, I think all of these new technologies are very interesting, but I'm not an engineer and I wouldn't know which one would be best for us. That's why we have Eric Nakagawa.

CHAIR SUGIMURA: That is right.

- COUNCILMEMBER LEE: It'd be...it'd be great if we could adopt any one of these new technologies because if you just...obviously we're old school on the landfill, and that has to change. I mean, 25 years ago we were...we're looking into this and we still haven't converted over to new technology, so...and probably one of the major hurdles is cost, but...but we can't use that as an excuse anymore, we have to get going no matter what, and you know, it's just a matter of picking the right one. So I really don't have any questions. I thought those...the three presentations were well done, however, I'm not sure which one is the best. Thank you.
- CHAIR SUGIMURA: Thank you, Chair Lee. I had seen Member King and Tamara Paltin with their hands up.
- COUNCILMEMBER KING: Thank you, Chair. Yeah, I...I agree with...with Chair Lee. I've actually...because I've been working in the renewable energy space for 25 years, I've seen components of all three of these technologies that have come and gone, and some of them...some components are good and some of them are worrisome, but I worry the most probably about the extracted nature of, you know, picking a company from a foreign country or another state and creating...creating components that will have to be exported off the island, so...which to me is kind of the opposite of the circular economy we're all trying to get to. So I...I agree with Tim Gunter who came in earlier, and you know, he talked about a lot of these ... a lot of these types of technologies have been proposed by local entities. I mean, myself, I've been involved in what I thought was pretty new technology...bringing biodiesel to the landfill, and somehow that got kicked out by the previous Mayor, so you know, I...I...I question how we're going to get to a point where we're actually going to be choosing another winner, and how...how is that going to last, and why are we not looking within our own community and the people that...the collective intelligence of our own community and the people who have been doing...similar types of...of efforts for years, but I...I...one of the things that happened in...when Neil Abercrombie was running for Governor the first time...was it...he made a promise that he was going to create a committee or commission...a...a research-based commission to...to make these kinds of judgement calls, and maybe...we're all going to

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be people that don't have a dog in the race that weren't...didn't have something to gain. So I wanted to ask the Director if they have...if they thought about putting together some kind of a Committee like that, that could look at, very objectively...you know, technically and objectively, at this different technologies and try to find the components of the ones because, you know, I've seen...I've seen components of all three of these proposals come and go in the last 20 years because they didn't work for one reason or another, but...but there's a components of them that I liked too. I just like...like...like Alice said, I don't consider myself an engineer, I've been around a long time and I've looked at a lot of these different technologies, but I haven't seen any of them actually work yet because some of the them take such large levels of investments, but I think if you are...if that's where you're headed is picking a winner out of these types of technologies, then it would really behoove the Department to put together an objective, you know, non-political, non...no dog in the race committee to really...really judge these different types of technologies. So I'm...do you have any comments on that Director Nakagawa?

CHAIR SUGIMURA: Mr. Nakagawa?

MR. NAKAGAWA: Yes, Chair. Yeah. So ... so you're absolutely right. So to me, I think once again, we kind of learn from the past, right, and these types of projects or this one particular project...waste to energy, was kind of done out of the Director's Office last time. So I came up through the County system, right... Wastewater, and so my thing was for this one is really like every other project, right? Is really I...we're a little bit more open, we're kind of...normally we don't this, but show you guys the different technologies because really that's done by either the Committee or a consultant who's hired with the County, right, which you guys approve every year in budget through CIP, and so that's...that is the road that we're going to go down...is really, we kind of just a little...there is so much interest in it, whether it's from Moloka'i, Hāna, and...or from you know, Yuki Upcountry, so I just kind of show you guys, hey, we are kind of doing something and potentially a pilot project, and so we just kind of wanted to have this open communication from the beginning. But you're absolutely right, the...the first step is really the Integrated Solid Waste Management Plan which you guys are all aware of, right? That'll outline our long-term future...I guess...goals, right, for the landfill. From that we'll be able to figure out, okay, what are the recommendations and what...what avenues do we want to pursue? And maybe it's a little bit of everything like you said. Maybe it's still eco-composting, whether it's still recycling, but hey, maybe a small portion of that which is the landfilling portion, we want to pursue, maybe not something that's super big, but maybe like the last one, it's modular, right, with these different containers, and therefore then we implement that. So I...I...I think you're right, you know, all this is very high level, I mean it went from gasification to this electromagnetic, but at the end of the day, it really comes down to what benefits us as a...I guess...as a community as a whole, right, and how do we get there, and that's the Integrated Solid Waste Management Plan, but this is kind of where everybody is going, I can tell you from just in general whether it's international or in the nation, and everybody is trying to figure out how do you gather these resources in a more beneficial way. So you will see somebody who is a neutral person with...whether as a consultant or a committee, you know, this one because it's so big maybe we have three different members or

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whatever it is other than just a...a consultant that we select through QBS process, yeah? And then that will kind of open that door of, you know, what is the best interest and how to...and then at the end of the day, once again, you guys are the ones who allocate the funds, right. And you guys are the ones that are going to decide on...represent the community, is this something we want to pursue in the future or not? And then...it's easily for us to just tailor our...our CIP every year, right, in that, right. And that's kind of where you guys' stake is, but I wanted...it's such...it's such a big new thing.

COUNCILMEMBER KING: Yeah, I appreciate that.

MR. NAKAGAWA: So...that's my point.

COUNCILMEMBER KING: Yeah, I appreciate...appreciate you...you know, expanding your horizons and looking beyond, but I think we also need to possibly, Chair, put together a panel of folks who are already working in the community and have made these similar types of proposals...have landed on, you know, some kind of...kinds of technologies that may work from within, and I think that's what Tim Gunter was trying to tell us in his testimony. So it's good to look at...it's always good to look at what's happening around the world and what proposals are out there and new technologies, but it's also good...we're going to focus on a circular economy that works best for our community, and we also have to look inward into our community, and see what's already happening. Let folks like Eko Compost have a chance to come to us and tell us what they've been doing and what their future plans are, and what technologies they may be exploring as well. So that...that's...and I think...I think --

CHAIR SUGIMURA: Okay.

COUNCILMEMBER KING: -- Director Nakagawa's doing...is doing that in some level, but we only seen one side of it so far.

CHAIR SUGIMURA: Thank you. Thank you very much. Yeah, so I'm going to keep to the three minutes. I think though, Dr. Ibrahim wanted to say a response to that if you don't mind, Members, what Kelly was talking about.

MR. IBRAHIM: Thank you. So there a few things that I wanted to bring to the attention of the Council. First of all, the proposal that I made was based on something that Eric shared with me where he explained that if we want all the resources of the County, we'll have to go through a pilot project and go through a formal RFP process, but whatever we want to do on our own in the private sector is up to us. So we took option B. The purpose of my presentation today was simply to inform you that in the private sector, we are planning to do this for the County of Maui, and if you choose to collaborate with us, you can, at no capital cost to you...you don't even have to give us a square foot of land, and we will take the waste from you if you give it to us, and if you won't then the private sector waste handlers will. So this...the purpose of this is to just share with you. Now going further in response to what Kelly said, this Councilperson Kelly, this project that we are proposing is about the circular carbon economy. The diesel fuel, the jet fuel, the kerosene will be used locally. The char will be used locally. The industrial

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oils and lubricants will be used locally, so you're taking waste that would otherwise have ended up in an incinerator producing electricity for HECO with all kinds of toxic gas, and instead what we're doing with that is producing valuable fuels and oils and things that your economy needs in Maui, so that's the second thing, and then the third thing is, not all technologies are equal. When we have 15 years of operational experience in countries like South Korea with plants going up in Australia, New Zealand, Indonesia, and Philippines versus presenters that are providing technology that is anecdotal at best, there is a difference, and I'm sure that Eric and his team when they evaluate these technologies will look at things quantitatively. There was a reason why I provided very specific values of diesel, jet fuel, kerosene, oils and char because I wanted to show how real this thing is. This is not a science project.

CHAIR SUGIMURA: Thank you. Yeah.

MR. IBRAHIM: Thank you.

CHAIR SUGIMURA: Thank you, thank you very much. Okay, Tamara Paltin, and Laks is going to do the three minutes, thank you.

COUNCILMEMBER PALTIN: Thank you, Chair. My first question was for Director Nakagawa, is the whole Anaergia thing gone already? Is that pau? Did the deadline pass and they didn't produce anything? Just verifying.

MR. NAKAGAWA: Yes.

COUNCILMEMBER PALTIN: So we're done with them?

MR. NAKAGAWA: Yes, I know you like you "yes or no" questions. Yes. Yeah, so it's all done. Yeah.

COUNCILMEMBER PALTIN: Okay, and then the second question is the first presenter...are they doing a pilot project in Hāna or they'd like to do a pilot project in Hāna?

MR. NAKAGAWA: They're...they would like do a pilot project.

COUNCILMEMBER PALTIN: Oh, okay, and then I guess for the first presenter those pellets that they were talking about, who...this question is for the first presenter...forget their name...but who's buying those pellets that you wanted --

CHAIR SUGIMURA: Trevor Malecha.

MR. MALECHA: Those are pellets that actually go into the gasifier, so we would make those pellets and that would be the fuel source that we would use from the waste that we get from the County. We would actually make the pellets and mix them with the seed corn and put them into the gasifier, or the woody biomass or whatever agricultural waste that we were able to obtain.

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COUNCILMEMBER PALTIN: Okay, and is there emissions from that?

MR. MALECHA: There are emissions, but as you saw in the video that we showed you, those pellets were the...were the feedstock for that video. We have our...the . . .(inaudible). . . is at zero percent, so there's actually no smoke or no carbon smoke that's coming out or carbon emissions that are coming out of the smokestack. It's got a 98 percent reduction in carbon monoxide. It's got a 90 percent reduction below EPA limits of particulate matter, our efficiencies are well over 90 percent as far as electric generation go, when we actually capture the gas and put it through the electricity producing equipment --

COUNCILMEMBER PALTIN: But you're not all carbon --

MR. MALECHA: -- that's not what we'll be doing...

COUNCILMEMBER PALTIN: -- negative, right?

MR. MALECHA: It's carbon neutral to carbon negative, correct, and it's --

COUNCILMEMBER PALTIN: Right. Thank you, you answered my question.

MR. MALECHA: -- ten percent of your total input.

COUNCILMEMBER PALTIN: I only have a limited amount of time, so sorry to cut you off. Director Nakagawa, has an RFP been put out?

- MR. NAKAGAWA: No. So once again, we're just...just to...so to kind of clear with everybody, right, like these are just potential technologies that, you know, that they came to us for a potential pilot project, yeah. So all of your guys questions will get answered at a future time, right, if they ever come to fruition, yeah.
- COUNCILMEMBER PALTIN: Okay, so if an RFP gets put out, would it be specific in the type of technology that we're looking for? Because this is...seems like three different types of technology...would it just...would it be specific in the technology or only in the outcome?
- MR. NAKAGAWA: My initial thought is no. It's not a specific technology. So just kind of letting you guys know, like...like any other project, right, we...we don't how...how should you say...we...we develop it so that everybody can bid, right. And then what is...and the outcome is what is the best interest for the County, and how does that come about, yeah, in a short and easy way. 'Cause typically what we're...what we would ask, Member Paltin, is...I mean, as you are aware like...oh, you're coming to us, so where have you done it, how much facilities have you done, can we talk to the people? I mean, you know, all the different stuff...kind of what Erfan was getting at, but right now, we're so in the beginning stages, and we just wanted to keep it open communication with you guys...that we'll cross that bridge later, so all of those questions kind of will be answered, and we'll just continue to schedule this regularly so that as questions come up you guys

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can ask.

COUNCILMEMBER PALTIN: Okay, thank you. Thank you, Chair.

CHAIR SUGIMURA: Thank you, thank you very much. Mr. Molina, you have your hand up, and then Keani Rawlins, and then Shane.

COUNCILMEMBER MOLINA: Yeah, thank...thank you very much, Madame Chair. I develop writer's cramp from listening to all the, you know, comments from all our presenters, and thank you, very interesting technology. For myself, I like to look at how other municipalities are using your respective technologies. I believe the first presenter, Innovative Power Technologies, mentioned the states of Wisconsin, Iowa, and Australia using their technology. NuCarbon Technology mentioned South Korea, and I'm not sure for Gold Smith [sic] Industries, if you mentioned where else...what other municipalities are using your technologies if I could get that information, and yeah, let...let's start with that first. Any response?

CHAIR SUGIMURA: Chuck Smith?

COUNCILMEMBER MOLINA: Yes, Mr. Smith from Gold Smith [sic] Industries --

MR. SMITH: Yes?

COUNCILMEMBER MOLINA: -- what other municipalities are using your technology?

MR. SMITH: The technology we developed...we've been developing over the last six to seven years traveling all over the United States to perfect the technology. The first operation will be in the area of North Carolina in a poultry operation, and...and...and we're working on nine other projects across the United States.

- COUNCILMEMBER MOLINA: Okay, thank you, and...and what would be the cost...I think the other presenters mentioned the cost related to implementing their technology in Maui County. What would Gold Smith Industries cost be as far as a potential pilot project or anything of that nature?
- MR. SMITH: Well, the...to do a full project...if we're...that there is a variation in that cost and the reason is if we're...if we're producing fuels...biofuels or if we're producing...whatever commodity we're producing, if we're doing water only...recapture, usually it's in the area of \$38 million to \$42 million.
- COUNCILMEMBER MOLINA: Okay, thank you, and one other question, in your presentation you mentioned reducing, recycling, and on...it is unhealthy operations cost, how...how would your technology do that? If you could, you know, just elaborate a little bit more on that?

MR. SMITH: I...I.m sorry, again, could you ask your question again, please?

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- COUNCILMEMBER MOLINA: Yeah, in...in your opening, you had a bullet point that mentioned reducing, recycling, and unhealthy operations cost, how would your technology do that?
- MR. SMITH: Well, the...using electromagnetic induction heating concept, I...I mentioned that it is...is open to all feedstocks...feedstock being what goes into the unit, and what we do with that by the breakdown...because we have no...we have zero emissions, we capture everything within the unit, we don't have any waste at all to...to go to a landfill. Basically process --
- COUNCILMEMBER MOLINA: Okay, thank you.
- MR. SMITH: -- 100 percent of everything that goes into the unit...as a...as a. . . (timer sounds). . . or a process.
- COUNCILMEMBER MOLINA: Okay, thank you very much. Madame Chair, can I ask a real quick question --
- CHAIR SUGIMURA: Yes.
- COUNCILMEMBER MOLINA: -- of the gentleman of Innovative Power Technologies? You mentioned the global...I guess, global air, soil, and groundwater emission standards. How is that different from that of the EPA...from the...I guess the American or US standards. Is it much more demanding or are US emission standards and groundwater and so forth more stricter?
- MR. MALECHA: US groundwater and...and soil, and...and air emissions are some of the strictest in the world. There are some areas of Europe that are a little bit more strict, but our...our emissions fall well below all of those standards as well.
- COUNCILMEMBER MOLINA: Thank you. Thank you, Madame Chair.
- CHAIR SUGIMURA: Thank you...thank you, Mr. Molina. Keani Rawlins-Fernandez?
- COUNCILMEMBER RAWLINS-FERNANDEZ: Mahalo, Chair, my questions are for Director Nakagawa. I appreciate all the presentations today, I thought...I think they were all awesome. Mahalo, Director Nakagawa, I wanted to first thank you so much for working with our community to do a pilot project with Thomas Technical Institute from Okinawa which because of the pandemic didn't end up panning out as we had hoped. So I wanted ask about what kind of...so the approach of, you know, waiting to see who comes to us, has there...has the Department ever gone out to do research to find out what is out there, and what would make sense to each of our three islands instead of the approach of waiting to see who comes to us.
- MR. NAKAGAWA: Okay, Chair. Okay, so let's see...what have we...so I guess the quick answer is no, right. These are all the different...whether it's Thomas, right, or the other...these IPT or...they all came to us. We've...I...I think we've done it a little only from the previous

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Administration of...they've put out an RFP before, right, and then there were like 40 different applications I think, and then it came boiled down to like three, but for us to do like a formal project where we actually looked at different people and called them and that kind of stuff for like a real, I guess, CIP project, the answer is no. We were actually trying to wait, once again, for that Integrated Solid Waste Management Plan to see like maybe that plan differs maybe it'll be what we're doing now is kind of the way to go, right. I...I highly doubt it, but that may be the plan and kind of like Member Kelly King was talking about, right, but if it...it...we should finish...we should be able to wrap that up next year, and then develop an actual project for this, and then we would be able to put out a...a...maybe a little \$50,000, \$200,000...whatever it is...thing...where we can invite people and figure out what that technology is for the future. So hopefully...

- COUNCILMEMBER RAWLINS-FERNANDEZ: Mahalo for your response. Yeah, I think, you know, all the presentations today gave us all like a good flavor of what is out there as well as the public, you know, being able to see the technologies that are on island, and each island has its own needs...creates its own tonnage of waste, and so in writing up the Integrated Management Plan, how much do you...do you intend to incorporate the communities wishes to see how waste is managed on each of our islands?
- MR. NAKAGAWA: So...Chair, yeah...so for that one, the...there is a I think it's call SWAC, Solid Waste Advisory Committee or something that's part of the Integrated Solid Waste Management Plan, and what they tried to do is develop...it is limited so that...I think there's like nine spots, and they made half kind of the industry side and half on the recycling, maybe be little bit more innovative side, I guess, and what they do together, collectively, they just chose who kind of knows best on each side of the, I guess, fields, right. Like whether it's composting, whether it's recycling, whether it's traditional type of landfilling, and then together they all will, I guess, help give their input, and then the communities also welcome to attend those meetings, and then give their input as far as that goes. So hopefully...I think that's kind of what you're asking right? Like how...how does the...each industry or community give their input, and that's kind of where those meetings are...public meetings and they all get recorded and then everything gets compiled, and then written into the Integrated Solid Waste Management Plan.
- COUNCILMEMBER RAWLINS-FERNANDEZ: Mahalo, Director. Chair, may I just ask a quick clarifying question on what Director meant by industries in the context of half of the SWAC would be industry representatives?
- MR. NAKAGAWA: Oh...oh, sorry. Yeah...Chair? So what I meant by that was like you have different people who's already inside the solid waste management industry, I guess...whether that's...I forget all the different like...I think Aloha Waste might have been or Maui Disposal was one of them...I can't remember who exactly was on the list, and that's kind of what I meant by like all the different professionals in...in the solid waste industry, yeah.

COUNCILMEMBER RAWLINS-FERNANDEZ: Mahalo, Director. Mahalo, Chair.

CHAIR SUGIMURA: Thank you very much. Mr. Sinenci, do you have questions? Can't hear

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you, Shane.

- COUNCILMEMBER SINENCI: Mahalo, Chair Sugimura for my opportunity, and mahalo to all the presenters today. My first question was for Director Nakagawa. So for...you mentioned all of these presenters, they would still have to go through the RFP process, yeah?
- MR. NAKAGAWA: Yes, Chair. Yes, so at the end of the day, yup, once we put out a project, you have a formal RFP, and everybody is available to present whatever or...
- COUNCILMEMBER SINENCI: Would the...would the RFP apply to the pilot project? Who chooses the pilot participants?
- MR. NAKAGAWA: Okay, yeah, so...thank you, Chair. So the pilot project the way we did it was all the different people who came to us, which was only these three so far...oh, sorry, the Thomas Group...the way we handle it was that you...we told each person, right...each entity that we've done pilot projects in the past in the County, we can give you or provide you with just like a piece of land, you are responsible financially to bring whatever you need. You are responsible for any permits, and you're responsible for the final report at the end of the day on did you meet our expectations and regulatory requirements, so that's no different than any other pilot, yeah. So no RFP for that.
- COUNCILMEMBER SINENCI: No RFP for the pilot it was just come down to a MOU with...a Memorandum of Understanding with the pilot companies?
- MR. NAKAGAWA: Yes, so...so your guys involvement in the future, like what I said in the beginning is, once somebody financially can do it and it can get the permits and everything, we will provide...I think it's called a Grant Agreement, not an MOU but a Grant Agreement because we'll be granting them our trash, right? Like I know we're just throw it away so it sounds...that's why I said it sounds kind of weird, but we're willing to grant you the trash, and you guys will vote and say, "yea" or "nay" or whatever, because you guys are the grantors, yeah.
- COUNCILMEMBER SINENCI: Okay, thanks, Director. Chair was that my...was that my timer or it's still going? Okay, my question for Trevor at IPT was, we're a small Hāna community, and so if...if they were granted the pilot project in...in Hāna, would their operation have to rely on getting the RFP at the...at the Central Landfill? I mean because he's bringing in all these equipment...expensive equipment to do the pilot in Hāna, I guess my concern is we're a small community and wouldn't be able to . . .(timer sounds). . . excuse me. After the pilot timeline, I don't know how we would pay for it if it continues, would it have to rely on the RFP for the Central Landfill for them to make numbers work?

CHAIR SUGIMURA: Director?

MR. NAKAGAWA: Yeah, Chair...

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MR. MALECHA: Councilmember Sinenci...

MR. NAKAGAWA: Did... or Member Sinenci, did you want Trevor to answer or --

COUNCILMEMBER SINENCI: Yeah, go ahead.

MR. NAKAGAWA: -- I can answer from the Department's aspect. Let...let Trevor go first, yeah.

COUNCILMEMBER SINENCI: Okay, thanks.

MR. MALECHA: Thank you, Councilmember Sinenci. The answer to your question is we would not be relying on the Central Maui Landfill RFP at all for Hāna. In the future, if...if at some point in time there was an RFP issued and IPT was granted or awarded that project in the future, it would have an impact on Hāna only in that at that point in time, we would more than likely negotiate with...with you and your office, and...and the folks in Hāna to actually turn over full operation of that plant to the folks in Hāna, and just remain as a silent minority partner to assist with any issues that would arise, and any additional equipment upgrades that would be necessary would be...we would be still involved to make sure that those equipment upgrades and those equipment innovations would be fully available and implemented as they come.

COUNCILMEMBER SINENCI: Thank you, Trevor.

CHAIR SUGIMURA: Mr. Nakagawa?

MR. NAKAGAWA: Yes, thank you, Chair and Member Sinenci. So kind of remind everybody, right...so let's...I...I kind of sticking...I mean kind of very focused on what your question was right? So let's say IPT did a pilot project in Hāna, right. Zero costs, zero whatever to the County. At the time we put out the RFP, it...it potentially will be for county-wide, right, but even at that like kind of what IPT is suggesting that we take it over or...and then their minor something partner or something...we look at that, right. We...you know...me coming to you guys saying, "hey, I think it's worth it" or I say, "you know what, we need to spend \$50 million and it's going to cost us x amount of dollars, right, I don't think it's worth it," so I think for now...at that time, I can just rest assured that, you know, we can have that...we'll have that discussion in the future to figure out what is the best benefit or best interest for the County.

COUNCILMEMBER SINENCI: Mahalo, thank you. Thank you, Chair.

CHAIR SUGIMURA: Thank you, Mr. Sinenci for joining us today, and so that...that wraps up the questions from the Members. I just had one for NuCarbon. I know that you had opened with that...you would be interested in doing this because the possible RFP was too small of a project that you would be able to function, so I wondered what you would do? Are you going to wait for our RFP to come out and make that decision or are you taking steps to possibly implement this for Maui County regardless of what the Department is planning on doing in the future?

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MR. IBRAHIM: Yes, thank you, Chairperson. Couple of things. NuCarbon is not a vendor. We are a solution provider and as part of that exercise, we vetted pyrolysis technologies, gasification technologies, and plasma-arc furnace technologies globally before we picked Global Green International Investment. So we did a lot of the homework for you for free, Number two, it is part of NuCarbon's global strategy for island communities to establish GGII plans to take care of MSW waste in the island communities, Maui County being one. So we're getting funded by some very large investment funds that are going to put money into this because they see the value...first of all, the math that I shared with the Council on how quickly you can get the ROI, but in addition to that, the circular carbon economy that it will create and the global impact as a mitigation to climate change. In that endeavor, we're not dependent on the...the RFP process on Maui. We have enough connections with the private sector in Maui County that has shown us enough waste sitting on private land...woody chips, cane grass, used tires...you know, a lot of the crap that's coming out of the tourist industry in Maui that is unfortunately in the host culture land polluting...in the future even sewage. We want to work with the County on sewage also, because right now with all the aluminum and polymers and stuff in your sewage, it's very hard to process it. So we want to...after having this pilot project, work with you to get raw sewage from you that we can convert directly without requiring coagulants like aluminum and iron. So in answer --

CHAIR SUGIMURA: Okay, thank you.

MR. IBRAHIM: -- to your question, real quick is, we are moving forward no matter whether the...the RFP process occurs or not. Maui County is one of our target locations. We're currently working with private sector to make it happen, but we would love the collaboration with the County.

CHAIR SUGIMURA: Okay, thank you. You have a other comment also...I want to say Kaimaile?

MS. MAKEKAU: Can you hear me now?

CHAIR SUGIMURA: Can't hear you. Now I can hear you.

MS. MAKEKAU: Aloha, can you hear me? Okay.

CHAIR SUGIMURA: Yeah, now I can hear you.

MS. MAKEKAU: I didn't have a question, I just wanted to say that, you know, looking at...being a local here on Maui, I look at the dump and I see the microparticles of dust and garbage flying all over Kula, and you know, look...looking at Honokowai and the Honokowai stream, and how beautiful this fish farm could be, and watching the R-1 water, and understanding and doing a download of what's happening with the R-1 water into the Honokowai stream...floating and watching the Kahekili Beach, how the...the dyes...the chemicals that...the aluminum that's flowing into our streams and it's rising towards Honolua, one of the meanest surf breaks, I'm so honored and thank you, Madame Chair

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and all of you Councilmembers for putting a solution to this. I was pulled on to this through Patrick Ekolu and Erfan through NuCarbon because I was fighting against the homestead next to the sewage plant. I believed that the Hawaiian Homestead could have been somewhere better, but when I found out they were still going to continue with building this Hawaiian Homestead right next to the sewage plant and offering the Hawaiians this hauna section in Kāʻanapali, it broke my heart. To meet Erfan that went through this solution...that can be the solution and we can clean up this ahupua'a, my kuleana of Paki Maui Hotel all the way up to Pu'u Kukui, that's my home, and to be honored to be working on this project and have you guys addressing this project as a solution of what I've been working so hard on for so many years, I just want to say thank you guys, aloha, and Erfan and Patrick Furlotti, I know you guys did the homework, and I'm with you guys, brah, NuCarbon.

CHAIR SUGIMURA: Okay, thank you very much, I know you've been dying to say a few words, so thank you very much. So Members, I'm going to wrap up this item. I look forward to hearing this again, Eric, along with the Integrated Management Plan once it's completed, and it sounds like then, it will take us to the next steps forward, and I'm most interested in knowing what kind of budget items you may need assistance with to make this a reality, and I'm...I'm also interested to hear more from...from Tim Gunter. I guess he was...must be he presented to another Administration...it wasn't one of the ones that you picked up, so we'll...we'll try to schedule this again, and then maybe bring his thoughts forward because it sounds like he also has some...had presented to DEM probably before you got there. So Members if you don't mind, I'm going to defer this item, and them I'm going to bring up the other...the next item which is about the Central Maui Landfill into this also. Director Nakagawa? Tamara, yes?

COUNCILMEMBER PALTIN: Oh, I just was wondering the next time when you bring this up, if we could also get like the types of permits that are needed and who issues them for these types of projects, because Director Nakagawa said that, you know, they'd be responsible for getting all their own permits and things like that, and I believe Mr. Gunter them presented in Shane's Committee last...might've been last term.

CHAIR SUGIMURA: Okay.

COUNCILMEMBER PALTIN: Thank you.

CHAIR SUGIMURA: Okay, thank you. Kelly?

COUNCILMEMBER KING: I just wanted to reiterate that I think it's great idea to have Tim Gunter come, and then...and if you could also bring in maybe Maui Eko and Kīhei composting. There's a lot of stuff happening around that could be affected by any of these projects.

CHAIR SUGIMURA: Okay.

COUNCILMEMBER KING: So you know, just...let's just look around and see who's doing what already in our own community.

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CHAIR SUGIMURA: Okay. All right. Mr. Nakagawa, thank you. You have anything more to say, Mr. Nakagawa?

MR. NAKAGAWA: I was just going to say, at that time when you schedule it, I can ask City and County, like you --

CHAIR SUGIMURA: Oh, yeah.

MR. NAKAGAWA: -- if you still want it from them.

CHAIR SUGIMURA: Yeah, City and County of Honolulu has their waste to energy which is...which may be interesting just for us to compare, you know, what they're doing, and I...this...this actually came from Keani as an idea. So we will schedule things in the future. Thank you very much, Members, I'm going to defer this item, and then take up the next item on the agenda which is basically IT-60, Central Maui Landfill.

ACTION: DEFER PENDING FURTHER DISCUSSION.

### IT-60: CENTRAL MAUI LANDFILL (CC 21-311)

CHAIR SUGIMURA: As you remember, the last Committee I held on this, we heard from Mr. Street, and he testified today, and he expressed his interest in Maui Compost...oh, I'm sorry, Eko Compost Maui for relocating them to the ... to the ag ... ag lands ... so the 200-acres he's referencing is a new land that...new lands that the County of Maui purchased for the Ag park, but that was what he expressed, so maybe this portion, as we take up IT-60, I just wanted Director to give us an overview of what's happening at the Central Maui Landfill. The last item...the last meeting we took up the DBA basically, how we're going through the process which was asked of the State Land Use Commission, but this portion, I wanted him to just give us all an overview of what's happening there, and to talk about another concern that was brought up by email that you...that all of us...all of you got, including myself...was all the plastic bags that get stuck on the Kiawe trees, if you ever drive on Pulehu Road, as soon as you hit the Central Maui Landfill, you can tell you're there because of the amount of...you know, the mountain of trash, but the...the fencing and just what's happening there, so I wondered if you could talk about the cost, any assistance that you may be, you know, looking for with picking up the trash and trying to pick up some of the concerns that the community has expressed. Mr. Nakagawa?

MR. NAKAGAWA: All right, thank you, Chair. So how's about we start with cost and stuff, right. So it looks like...so let's talk...so you want to talk about Eko first, or you wanted me to talk about the flying trash?

CHAIR SUGIMURA: You can talk about Eko first then--

MR. NAKAGAWA: Okay, Eko.

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CHAIR SUGIMURA: -- the Eko Compost, yeah.

MR. NAKAGAWA: Okay, so we'll do a real quick review, right. So Eko Compost...when I came into office 2019, basically, we were presented a situation where we were running out of landfill space, right. And so basically we had to decide, you know, what is that course going forward. We tried to secure... I don't know if you guys remember, it's called Phase 6, but there was a piece of land along Pulehu Road next to our existing landfill site that we were going to try to purchase. I think it was like 17 or...maybe 19 acres, but it was owned by a private entity, right. So we tried to pursue that, and negotiations didn't come to fruition so we had to make a decision what we were going to do, and the other option was Phase 3. Unfortunately, Phase 3 is where Eko Compost was operating, right. So that's kind of when we came to you guys, said, "okay, we're going to...we have to develop that site because we're running out of landfill space," and then they would be shrunk down and create less Eko Compost, right. So that's how we kind of got into this situation with Eko Compost, and then we came to you guys and said, "hey, we are going to try to buy 17 acres for the FEMA emergency debris management plan from A & B," and then we actually ended up buying all 60-acres...well, 59-acres, right. So that's kind of the future for where potentially we would get Eko Compost to go, right. However, that kind of ties in to our...I...I think I explained to you guys, our DBA, so we need the District Boundary Amendment in order to get permitted to do the Eko Compost thing, right. And so I think we secured the land, we initiated the permitting process, but...and that's when we asked you guys for a little bit of help so that we could expedite that process from a five year to hopefully a three to four year window, because as soon as we get the permitting which is kind of out of all of our control, the quicker we can continue either to do compost or whatever it is in the future, yeah? So that's kind of Eko Compost. So now talking about what the testifier, Mr. Street, said about...because it's timesensitive and I think that's what he's getting at...time-sensitivity, and wanting to move them up to Kula Ag Park...I think that's what he said...bordering Omapio and Pulehu Road, it's...you know, I did talk real quick to the Director for OED, right, Joanne Inamasu, and she basically explained that they're...they just started that process...it's a...it's a...the intent for that though is really to provide opportunity for local farmers, right. To provide a sustainable...whether that's income for the residents or sell that to us commercially through...you know...for the residents for more of a sustainable food production. So I don't know...I mean we can always discuss it later on with Joanne here and other people, but I guess it comes [sic] priorities, right? Are...are we prioritizing sustainability with food, you know, growing our own food...are we going to do it with a portion of that with Eko Compost...I mean, that's kind of up to, you know, us as a committee to decide that. So that's kind of the situation with the Eko Compost, yeah.

CHAIR SUGIMURA: Thank you. You want to talk to us about the...the plastic bags and that whole cleaning up of --

MR. NAKAGAWA: Okay.

CHAIR SUGIMURA: -- Pulehu Road and what that cost is --

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MR. NAKAGAWA: Yup.

CHAIR SUGIMURA: -- and what you're doing, and any future impacts.

MR. NAKAGAWA: Okay, so now for the plastics, yeah...so I know Mr. Street kind of was nice and passionate last time about that so it's good. So the plastic bags is a combination...so as I mentioned about Phase 6, remember I just kind of mentioned about Phase 6 and not acquiring that, so it...it kind of has a tie to that in a way. So the plastic bags is due to...we...as you guys all know, we get commercial people who dump their trash as well as residential. We banned plastic bags, right, a few years ago, and essentially this is kind of one of the reasons, but unfortunately...so we talk about planning and impacts, right. So I guess in the previous Administration, they kind of push to secure that Phase 6, and what happens when they...my understanding is when you have...they would have been able to develop that land...landfill site, Phase 6, which would have prevented or definitely...significantly minimized the amount of plastics flying. The reason is...is because...my understanding is, we still would have landfilled up to the...the height that the landfill is now, but we would have had a different option of...during the windy...windy season which is the summer. So we all know it's...it's very windy in the summer, and so because we don't have a choice, we got to dump everything on the current landfill which is very high, which means that when it's very windy, it just blows the plastic bags over our 30-foot fences, right? 'Cause that's kind of what the mitigated measures are. So we've done...operationally, we've tried to wet the...you know, trash as we dump...we put up temporary ten-foot high fences on the landfills face, but unfortunately when it's high winds, it...cannot mitigate that. So it...if we did purchase that Phase 6 in the past, we would have been able to dump the landfill...the waste down there during high season...high wind seasons, and then during the winter when it's not, we can continue to dump on top and it would be significantly less. So this...that's kind of the past, but we move on from there, right? So right now, we spend roughly quarter million dollars every year. So we used to have a...Ka Lima O Maui, we used to do it every year. In 2019, they just ended up deciding not to do it again, so we tried to go out and secure with...a contract with like PWC or Teens on Call...like a long-term contract, but then we were told...I guess that's potentially a union kind of issue, right, because you having...that's technically...I guess the laborers could do that, right. we...we were able to do some PO's here and there, but we were...we requested for more manpower, so essentially, it's a manpower issue, right. I think Ka Lima O Maui had roughly five guys doing it full-time...or not full-time, but everyday...whatever it is...partial of the day, so now we're finally up to...we have five people available, however it's just hard for us to keep those employed like right now we have five positions but only three is filled. So what we do for that is really we do...we just...last week, we just got our on-call contract PO approved, so now we can respond quicker and faster, which would allow us to clean up the trash more often, right? So as we get more people, we can use less contract services, and then when we have...like now, two...two vacancies, then we can call more for those. But ultimately, at the end of the year, right, the landfill will be complete...Phase 3, that's the one we're building right now, and that will...because it's lower, right, kind of like Phase 6, the...the bags will be significantly reduced and you shouldn't be able to see the impacts from that so ... so essentially kind

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of of by the end of the year, it...it'll get, I guess, mitigated, yeah? And so right now like I said, we spend about quarter million dollars in the past, and contract services, right now if we fully staff, it's about the same amount, quarter million dollars for five people annual salaries. So maybe potentially in the future, in the next four months, we're going to use some of the operational funds if we find out that it's not enough, we will definitely let you know, and maybe we'll say we need an extra hundred thousand dollars for our operational budget to address the litter control...just picking up trash and that kind of stuff. However, I think Deputy Director Shane Agawa did discuss with Director Michelle Yoshimura from Budget that, you know...they...I think they may have identified additional funds from the highway beautification that we collect from our tipping fees, so they may be able to tap into some of that in the future...that's kind of handled with EP & S. So we should have an answer for that in the next few months, so any future funding, we can put on pause, and I'll...and I'll definitely let you guys you know by then, maybe beginning of next year, whether or not that's needed or not.

- CHAIR SUGIMURA: Thank you, any Members have any questions for Mr. Nakagawa? Ms. King?
- COUNCILMEMBER KING: Thank you, Chair. So Director, didn't we use this...my understanding that when we had that big issue crossing the landfill, you know, we used to call it the plastic bag forest where all the bags...plastic would blow across the street, and then I thought we were using MCCC labor to almost do like daily pick up on that...that trash...I mean they would pick it up, it would blow back, but is that an option for litter control?
- MR. NAKAGAWA: Thank you, Chair. Yes. So we can...I can look into it, I can call Parks, they're the ones who kind of coordinate the MCCC workers. My understanding, we didn't use them, we always had Ka Lima O Maui, and they were kind of --
- COUNCILMEMBER KING: On the . . . (inaudible). . .
- MR. NAKAGAWA: -- I guess they wanted . . . (inaudible). . .
- COUNCILMEMBER KING: Oh, you mean on the street...on the street...on...on Pulehu?
- MR. NAKAGAWA: On the street as well as...I think you're taking about Mahi Pono land, yeah, right across?
- COUNCILMEMBER KING: Yeah, I was just told by couple people that we were using MCCC to come out there and pick up and almost on a daily basis at one point. I didn't realize it was Ka Lima O Maui, right?
- MR. NAKAGAWA: Yeah, it's...,
- COUNCILMEMBER KING: You know, Ka Lima...Ka Lima would still be a good option I think, because it wouldn't be...necessarily have to be hiring people, and you know, so we'll be giving those folks, you know, the contract. I thought they did a good job, it just...it

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wasn't their fault that they would pick up the garbage and then it would blow back every...every afternoon almost, but...but no, I would...I...I had a couple people that I...that I thought were, you know, in the know that told me that there was MCCC labor being used, but maybe check into it as an option.

MR. NAKAGAWA: Yeah, and I...I definitely will. I...I...I know who runs the MCCC program with Parks, so I'll ask him. But unfortunately...so Ka Lima O Maui did a super good job but they're the ones who kind of...for whatever reason, in 2019 or at the end of '18, they kind of are the ones that kind of pulled out and said it's not...I...I mean, you guys know the conditions out there, it's kind of harsh, so I guess they felt that it was not beneficial for their employees anymore, so they kind of pulled out and we kind of scrambled to figure out, okay, how are we going to address it, yeah.

COUNCILMEMBER KING: Okay, well thank you for that response. Appreciate it. Thank you, Chair.

CHAIR SUGIMURA: Thank you, Ms. King. Mr. Molina?

COUNCILMEMBER MOLINA: Yeah, thank you very much Madam Chair, and thank you for that suggestion Member King because I kind of was thinking about that as well...using the MCCC labor to...as a substitute for the Ka Lima O Maui personnel. You know...and the plastic bag laws, it's a reduction law, so not all plastic bags were banned under this current law. It was just those t-shirt bags, the real light ones that once they get caught in the wind, they fly all over the place. So...so Mr. Director, so the types of plastic bags that are, you know, flying all over the place, these are the heavier bags, yeah? So these are not the ones that we banned, right, 'cause those shouldn't even be on island, and if any of...of those types of bags are out there, it's probably the ones that the supermarkets give out for their wet products, you know, their meats and vegetables, so those are still allowable, so maybe...maybe we should start considering expanding the plastic bag ban and banning other bags as a potential consideration, but the bags...have you had a chance to analyze the types of bags that...that have been flying around because of now we have to go throw those bags and whatever else into the mount...Central Maui "Mountain" Landfill instead of a...a newer site that's lower...below the...the windscreens that catch all those bags.

MR. NAKAGAWA: Yes, thank you, Chair. I...I mean, I haven't analyzed them, maybe...I know Bob Schmidt, he's Operations Superintendent, maybe he can touch a little on it, I not too sure if he knows, but I...I...I really think at the end of the day, it...it will go away. Whether or not we want to expand to the different types of bags, whether it's the groceries bags or that kind of of stuff, I...I'm totally open if you guys want to suggest, I can actually talk to Tamara, right, because...Farnsworth...because she would probably know more of the ins and outs of that, and we can bring her on, but quite honestly, I think...like...even though we banned certain amount of bags...like...I've just heard, I don't know, but I...I...I know a lot of people still...that commercially they don't sell it, right, but we as residents...locals, you're like...we get so used to something, right, so they order them, I know, and they...then they use it for whatever...however, they want to use it, right. And I guess we're so...I guess, stuck in our ways kind of thing, and so

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then I know people who just order them, and use it for whatever reason and throw them away. We just ask that people bag 'em...put 'em all in trash...that prevents it from flying, right...I mean, that's kind of the key is really bagging it and then tying your bag before you throw it into the trash, that way when you dump, the bag will just fall, it won't fly out, right? That's kind of the key...it's not all loose, but maybe Bob can talk a little bit about...Bob if you know or not, yeah?

CHAIR SUGIMURA: Thank you, Bob.

MR. SCHMIDT: Yeah, we haven't done any kind of studies to analyze particulars, but....but just from experience out there, I mean...it's...any...any light trash, a lot of packing materials for sure, even to and including, you know, cardboard boxes, chunks of cardboard, so not just light stuff, I mean, we're up there pretty high now, and really exposed to wind, and...and anything...anything light just gets to fly away, and...and I do want to comment to...I mean, what you see in the tree is...is a tiny, tiny percentage of what blows every day, I mean operationally like Eric mentioned, I mean we got...we got approximately, you know, 270 per...excuse me, a 170 commercial vehicles dump everyday and from the time it dumps to the time the dozer pushes it up and the compactor can fix it where it doesn't fly away anymore, it's exposed. I mean, 170...175 loads a day, so we're up in the high winds and...and looking forward to the end of this year when we get off that hill, it will make it easier.

COUNCILMEMBER MOLINA: Okay, thank you very much, Mr. Schmidt, and thank you Mr. Director. Thank you, Madam Chair.

CHAIR SUGIMURA: Thank you, Mr. Molina. Anybody else have questions regarding the...oh, Tamara...Tamara Paltin?

COUNCILMEMBER PALTIN: Thank you, Chair, my question was for Mr. Nakagawa, what zoning is allowed for commercial compost? Like can you do commercial compost on ag land, 'cause is that what the Kula Ag Park is ag zoned, and --

MR. NAKAGAWA: Yeah.

COUNCILMEMBER PALTIN: -- we do commercial composting on ag zoned land, if you know?

MR. NAKAGAWA: Yeah, Chair. Yeah, great question, Tamara Paltin.

CHAIR SUGIMURA: Maybe we can ask Corp. Counsel.

COUNCILMEMBER PALTIN: Or Corp. Counsel.

MR. NAKAGAWA: I'm going to say...yeah...but...I...from the top of my head, Member Paltin, I'm going to say, no. I don't think ag land...because what happened is Eko had a special permit with the County when they were doing Eko composting on...on our land. So they were...I don't know what you want to call it, "co-permittees," so that's why like...I...my initial answer is going to say, no, I don't think ag can because they may consider it as

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some type of industrial process, right? But it may be possible. I guess they can...I think Jordan Hart, Deputy Director, he would be the best to...and so we can get that answer for you.

- COUNCILMEMBER PALTIN: Okay, and then if they can't do it on ag land, is there a type of permit that would allow for it? Would it be like a State Special Use Permit or a Conditional Permit or would it be within the County's jurisdiction or the State's? 'Cause like I think currently we have the concrete batching plants in West Maui on ag land, and I think they have a conditional and a State permit so maybe we wouldn't have to change zoning, because I mean, even if it's the...the purpose is food security...food security means fertilizer or compost and so it would be kind of helpful to have it right next to the folks growing food compost that they could use for their food, and then they wouldn't have to import like petroleum-based fertilizers and things like that if they want to go more circular economy...we were talking about earlier. So I mean...I'm not...do you know how much acreage that Eko Compost takes up or would need?
- MR. NAKAGAWA: Yes, Chair. Yeah, so they operated on ten acres. They always said that 20 is better, but to answer your question is, yes, I think they would just need a...a permit, and if they kept it under 15 acres, then they wouldn't need a State's Land Use Special Permit. I think they can just get a Maui Planning Commission through...through us...a Special Permit, which would be significantly (audio interference).
- COUNCILMEMBER PALTIN: And do you know if Eko Compost does want that Kula Ag Park, maybe 15 acres or was it just some random outside guy saying like, give it to them, and you don't know if they want it?
- MR. NAKAGAWA: Yes, Chair. Yeah, I...I...I'm not too sure how that testifier got that information, but I...I kind of thought that they were...from my brief talks, that they were looking at a different location.

COUNCILMEMBER PALTIN: Oh, okay, all right, thank you, my time's up.

CHAIR SUGIMURA: Thank you. Thank you very much. Keani or Chair Lee, do you have any questions for Eric?

COUNCILMEMBER LEE: No, I don't, thank you.

CHAIR SUGIMURA: Thank you, Chair Lee. Keani? No? Okay, so we're at the end of...

COUNCILMEMBER RAWLINS-FERNANDEZ: Chair?

CHAIR SUGIMURA: Yes?

COUNCILMEMBER RAWLINS-FERNANDEZ: I just wanted to say thank you for bringing forward this item to discuss.

CHAIR SUGIMURA: Oh good, yeah, very interesting. I think Eric has worked hard on this,

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and I'm glad you're able to bring the progress of what you're doing because it's a important part of our whole...for our whole community. So the two items together will...will make us better in the long run, so thanks for charging forward and doing this. I am in the future going to bring up...ask you to talk about the Integrated Solid Waste Plan, once you get closer to its completion, and...and then ask for Mr. Gunter to also present one day, 'cause it sounds like he has...I guess to Shane's Committee, and see if there've been any updates or progress that you can see that you may want to include in this RFP in the future. So okay...so Members, I see no other questions, I'm going to defer this item because for sure we'll be talking about this again in the future. Thank you very much, Director, and Mr. Agawa for taking on these two items today, and the different presenters from Innovative Power Technologies, NuCarbon Technologies, and Gold Seal Industries, so thank you all of them also for putting their presentations together and we'll learn more about this in the future.

ACTION: DEFER PENDING FURTHER DISCUSSION.

CHAIR SUGIMURA: So at this time, Members, the meeting is now adjourned. ... (gavel). . .

**ADJOURN:** 11:41 a.m.

APPROVED:

YUKI LEI K. SUGIMURA, Chair

Infrastructure and Transportation Committee

it:min:210830 Transcribed by: Jaylene K. Hamilton

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### CERTIFICATION

I, Jaylene K. Hamilton, hereby certify that pages 1 through 42 of the foregoing represents, to the best of my ability, a true and correct transcript of the proceedings. I further certify that I am not in any way concerned with the cause.

DATED the 6th day of September 2021, in Wailuku, Hawaii

Jaylene K. Hamilton