

# CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE

Council of the County of Maui

## MINUTES

February 2, 2022

Online via BlueJeans Link

**CONVENE:** 9:01 a.m.

**PRESENT:** VOTING MEMBERS:  
Councilmember Kelly Takaya King, Chair  
Councilmember Shane M. Sinenci, Vice-Chair  
Councilmember Gabe Johnson  
Councilmember Alice L. Lee  
Councilmember Michael J. Molina  
Councilmember Tamara Paltin  
Councilmember Yuki Lei K. Sugimura

**STAFF:** Lesley Milner, Legislative Analyst  
Wilton Leauanae, Legislative Analyst  
Brittney Sunderland, Legislative Analyst  
James Forrest, Legislative Attorney  
Jean Pokipala, Committee Secretary  
David Raatz, Deputy Director of Council Services  
Lenora Dineen, Council Services Assistant Clerk  
Renee Fernandez, Council Services Assistant Clerk

Ellen McKinley,	Executive Assistant	to	Councilmember Kelly Takaya King
Axel Beers,	Executive Assistant	to	Councilmember Kelly Takaya King
Sarah Sexton,	Executive Assistant	to	Councilmember Kelly Takaya King
Dawn Lono,	Executive Assistant	to	Councilmember Shane M. Sinenci
Kate Griffiths,	Executive Assistant	to	Councilmember Gabe Johnson
Roxanne Morita,	Executive Assistant	to	Councilmember Gabe Johnson
Angela Lucero,	Executive Assistant	to	Councilmember Tamara Paltin
Christian Balagso,	Executive Assistant	to	Councilmember Tamara Paltin
Jordan Hele,	Executive Assistant	to	Councilmember Yuki Lei K. Sugimura

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**ADMIN.:** Alex de Roode, Energy Commissioner, Mayor's Office of Climate Action, Sustainability and Resiliency (CARE-11)  
Hannah Shipman, Green Building and Resilient Housing Specialist, Mayor's Office of Climate Action, Sustainability and Resiliency (CARE-11)  
Scott Teruya, Director, Department of Finance  
Guy Hironaka, Real Property Manager, Department of Finance  
Graham Resell, Law Technician I, Department of the Corporation Counsel  
Keola Whittaker, Deputy Corporation Counsel, Department of the Corporation Counsel

**OTHERS:** Josh Stanbro, Policy Fellow, Elemental Excelsior (CARE-79)  
Nicola Hedge, Deputy Director, Honolulu Office of Climate Change Sustainability and Resiliency (CARE-79)  
Char O'Brien, President, Carbon Drawdown Solutions, Inc. (CARE- 11)  
David Sands, Founder, Bamboo Living (CARE-11)  
Keisa Liu  
Kai Liu  
Mike Moran  
Faith Chase  
Others (2)

**PRESS:** *Akakū: Maui Community Television, Inc.*

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CHAIR KING: . . .*(gavel)*. . . *(Audio begins mid-sentence)*...Environment Committee. Will Members please come to order. Thank you for being here. Happy World Wetlands Day today. And it is 2/2/2022 today. So happy birthday to my sister as well. I don't think she's listening though. We have a greeting here from Vanuatu, South Pacific Island nation, which I have actually been to. And it is--oh, say three times--mon-ning, mon-ning, mon-ning. That correct, Chair? Okay. And good morning to everybody. Aloha kakahiaka. I'm Kelly Takaya King, I'm the Chair of the Climate Action, Resilience, and Environment Committee, and today we have all Members with us. Thank you for being here, Members. And so we'll...I'm actually at my home today because I was having some issues at the District Office yesterday. So knock on wood everything works today. And nobody is in the house with me. So we'll go down the...start with our Committee Vice-Chair, Shane Sinenci. Mon-ning, mon-ning.

VICE-CHAIR SINENCI: Okay. As Mr. Nakoa would say, mon-ning, mon-ning, mon-ning, everybody. And aloha kakahiaka hau'oli la muli wai hau'oli la'a nau *(phonetic)*. We're here in Hāna at the Hāna Cultural Center with my EA, Dawn Lono. Aloha.

CHAIR KING: All right. Well, you left out Junya's yassah. So we'll go next to Chair Lee. Mon-ning, mon-ning, mon-ning.

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COUNCILMEMBER LEE: Mon-ning, mon-ning, mon-ning, everyone. And I'll leave out Junya's BA words he always has for us. I'm here in my work space alone, and looking forward to another wonderful meeting on climate change, resilience, and the environment.

CHAIR KING: Awesome.

COUNCILMEMBER LEE: Thank you.

CHAIR KING: Hooray. Thank you. All right. I'm just going to go down in order of who I see. Next is from...all the way from Lānaʻi, Councilmember Gabe Johnson. Mon-ning, mon-ning, mon-ning.

COUNCILMEMBER JOHNSON: Mon-ning, mon-ning, mon-ning to you, Chair and other Councilmembers. I am home alone in my office in Lānaʻi City. I looked over the agenda, and no one can say that this Council does not put in its work. We work really hard on this Council, and look at all these bills we got. So looking forward to a great meeting. Aloha. Mahalo.

CHAIR KING: Aloha. Thank you for that. Yeah, I'm almost afraid to start looking back at all the bills we've been passing because it's like looking back and seeing a shark in the water. It's kind of scary how fast we move. All right. Next, we have Councilmember Tamara Paltin from the West Side. Mon-ning, mon-ning, mon-ning.

COUNCILMEMBER PALTIN: Mon-ning, mon-ning, mon-ning and aloha kakahiaka on this World Wetlands Day in the month of ʻŌlelo Hawaiʻi and Black History Month. So much going on in this tiny little month. Broadcasting live and direct from the West Maui District Office. And with me I have my EAs, Angela Lucero and Christian Balagso. And we're open as a courtesy site if anyone wants to come down and testify. Aloha.

CHAIR KING: Aloha. Awesome. And congratulations on getting your new person in your District Office. And next we have Councilmember Yuki Lei Sugimura, all the way from China...no, I mean Kula, Upcountry. The Great Wall of China.

COUNCILMEMBER SUGIMURA: Yeah, you saw my Great Wall. Yeah, great...

CHAIR KING: Mon-ning, mon-ning, mon-ning.

COUNCILMEMBER SUGIMURA: Mon-ning, mon-ning, mon-ning. Yeah, I'm in Kula and utilizing my new modem. And I hope I never ever again lose connection. I'm grateful that this was finally done yesterday. Looking forward to a good meeting. Thank you very much.

CHAIR KING: All right.

COUNCILMEMBER SUGIMURA: Oh, and I'm the only one here.

CHAIR KING: Okay, great. And last but not least, we have Councilmember Mike Molina from under his proverbial bridge. Mon-ning, mon-ning, mon-ning.

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COUNCILMEMBER MOLINA: Back at you, Madam Chair. Mon-ning, mon-ning, mon-ning and aloha to you, and my esteemed colleagues, and everyone else joining us for our CARE meeting this morning. For the record, I am transmitting from my home up in Makawao all by myself today. Aloha.

CHAIR KING: Okay. Aloha. And I kind of jumped the gun and didn't go through the disclaimer first, so I'll go through it now. This online meeting is being conducted in accordance with the Governor's most recent emergency proclamation on Sunshine Law in-person meetings, which has been...which has suspended the use of in-person testimony and viewing locations due to the recent COVID pandemic. Members, the revised Sunshine Law includes the following mandate, as you all know. A board holding a remote meeting, pursuant to this section, shall not be required to allow members of the public to join board...to join board Members in person at nonpublic locations where board Members are physically present, or to identify these locations on the notice required by 92-7, HRS, provided that at the meeting, each Member shall state who, if anyone, is present at the nonpublic location with the Member, which we have already done. In accordance with the Sunshine Law, if you are at a nonpublic workplace with your...with your...when your name is called, you must identify by name who is present with you at the nonpublic location. Okay. We already did introductions. We have also no Committee Non-Voting Members here today. From the Administration, we have with us Keola Whittaker, Deputy Corporation Counsel; Alex de Roode, Energy Commissioner, Mayor's Office of Climate Action, Sustainability, and Resiliency; Hannah Shipman, new employee there, Green Building and Resilient Housing Specialist, Mayor's Office of Climate Action, Sustainability, and Resiliency, here for CARE-11; Director of Finance, Scott Teruya, for CARE-79; Guy Hironaka, Real Property Manager, Department of Finance, for CARE-79. Other resource people that we will...that will be joining us today will be Josh Stanbro, Policy Fellow at Elemental Excelerator; and Nicola Hedge, Deputy Director, Honolulu Office of Climate Change, Sustainability, and Resiliency; Char O'Brien, President, Carbon Drawdown Solutions; David Sands, Founder of Bamboo Living. And he was not confirmed when I got these notes, but I just got a note that he is confirmed. And then we have our great Committee Staff. Not GREAT Committee, but our Committee Staff, who is very great. We really appreciate these folks. Lesley Milner, Budget Committee Analyst; Wilton Leauanae, Legislative Analyst; we have Brittney Sunderland, Legislative Analyst; Jean Pokipala, Committee Secretary; James Forrest, Legislative Attorney; Lei Dineen, Council Services Assistant Clerk. Mon-ning, mon-ning, mon-ning to everybody and thank you for being here. So Members, we have two items on today's agenda: CARE-79, Energy and Water Use Performance Benchmarking, and CARE-11, Construction and Building Materials as a Solution to Combat Climate Change. And so what I'm going to do...well, let's go ahead and begin with public testimony. Do we have any testifiers, Ms. Milner?

MS. MILNER: Chair, we currently have four testifiers signed up to testify.

CHAIR KING: Okay. Testifiers wanting to provide video testimony should have joined the online meeting via BlueJeans meeting link, as noted on today's agenda. Testifiers wanting to provide audio testimony can participate via phone conference by dialing 1-408-915-6290 and entering meeting code 470 076 045, also noted on today's agenda.

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Written testimony can be submitted at Maui County dot...you can find instructions on mauicounty.us/testify. And that is highly encouraged. And so folks...I think most of the people know we have the three-minute limit, and if you're still testifying at the end of three minutes, I will kindly ask you to complete your testimony. And please state your name. If you're testifying on behalf of an organization, and especially if you're a paid lobbyist, please inform the Committee. Please be mindful of the use of chat during the meeting. Chat shouldn't be used to provide testimony or chat with other testifiers. If you are 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 are 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 *Akakū* Channel 53, mauicounty.us, or Facebook Live via the Maui County Council page. Okay. Participants wishing to view the meeting only, please disconnect now or you will be added to the testifier list. And you can continue to view the meeting on those channels I just mentioned. Only Councilmembers, Staff, and designated resource personnel will be connected to the video conference meeting once testimony concludes. I remind Committee Members, Administration, and the public to please be patient if we run into any technological issues. And just FYI, my Vice-Chair, Shane Sinenci, has been fully briefed in case I lose connection. So I might have to get...go Member Sugimura's way and get a new modem or something. I don't know what's happening here. But without any objection, we'll proceed with oral testimony. And I think...Mr. Leauanae, are you calling the testifiers?

UNIDENTIFIED SPEAKER: Chair.

UNIDENTIFIED SPEAKER: Hi, this is Staff.

CHAIR KING: Oh. Somebody?

MS. SUNDERLAND: Chair, I'll be calling the testifiers today, Brittney Sunderland. Apologies for any confusion.

CHAIR KING: Okay. Okay, no problem. Okay, Brittney. Why don't you go ahead and call the first testifier, and then just mention who's next so they can get ready.

**. . .BEGIN PUBLIC TESTIMONY. . .**

MS. SUNDERLAND: Chair, the first testifier we have up today is Keisa Liu, to be followed by Mike Moran.

CHAIR KING: Aloha, Keisa Liu. Who is this you have with you?

MS. LIU: Good morning. This is my son, Kai. He wanted to do testimony, but he got nervous. So he's just going to...can you say hi?

MR. LIU: Hi, everybody.

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MS. LIU: Okay. He waved.

MR. LIU: . . .*(inaudible)*. . .

MS. LIU: Yeah, sorry. So mon-ning, mon-ning, mon-ning to everybody here today. Happy Black History Month, Happy World Wetlands Day, and xīnnián kuàilè, for all of those who celebrate Chinese New Year. My name is Keisa Liu, and I'm here to testify on two agenda items today, CARE-79 and CARE-11, and I will be brief. So the first one I wanted to talk about was CARE-79, and the benchmarking tool specifically. Of course, I am in full support of this idea and everything that you guys are doing here. I love it. I think one of the things I noticed that I wanted to point out, and hopefully you guys talk about this a little bit, is just when it comes to the implementation on...with on the ground data and making sure that we invest in the technology that's necessary so that there isn't any lag time when it comes to getting that data to the tools and things like that. And know that, as a citizen and resident, I am fully supportive of what's needed to make sure that we have that technology in place. So if we have to fund it, then I'm happy to support that as well, and I just want to make sure that was in there. And then for CARE-11, I'm actually really excited to hear about this today. I don't know if I'm going to be able to stay through the whole meeting. I might have to pop in and out. But I am really interested in this because I think it opens the door for creative solutions when it comes to building materials here, which is really what we need as we talk about affordable housing and housing...and structures that we need for our houses and things like that. So I really appreciate that this is on the agenda. And that's actually all I had to say today because there isn't much for me to kind of complain about like I like to do. And I'm really here to just see what you guys to say...have to say, and of course that'll answer a lot of questions I'm sure I will have. So thank you again for having this on the agenda, and thank you for all what you're doing. And yes, you guys have been putting in a lot of amazing bills, and it's been pretty freaking spectacular to watch. So thank you. But yeah, that's all I have for today. Mahalo for your time.

CHAIR KING: Thank you. Mahalo for your testimony. Questions for our testifier? If not, I will thank you. And I was going to ask your son if he had anything he wanted to say, but I'm sure it would probably be something like, what she said.

MS. LIU: Yeah. Or a weird question. So we'll just...we'll let him go.

CHAIR KING: But he...yeah, he should know that we are doing this for him and the future generation.

MS. LIU: Yes.

CHAIR KING: Thank you so much for your . . .*(inaudible)*. . .

MS. LIU: Thank you. Mahalo.

CHAIR KING: Mahalo. Okay. Brittney, next testifier.

MS. SUNDERLAND: Chair, the next testifier we have up is Mike Moran, to be followed by

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caller listed as Guest 1.

CHAIR KING: Mike Moran, are you...are you there, Mike? He might be having some technical difficulties. Okay. Do you want to go to Guest 1, and then we'll come back to Mike? Or is that Mike?

MR. MORAN: Yeah, I couldn't...I don't know. Something happened to the..it went off screen. So I couldn't get on, but we're all used to technical difficulties. And today's supposed to be a lucky day with all the other things, with all the wild...deuces are wild. So I don't know, not lucky for me. But anyhow, thank you for the opportunity, Chair King. I'm Mike Moran for the Kihei Community Association, speaking briefly on both items. On 79, we think this is certainly prudent to...for the County Government to look at their own facilities and make sure that they're kind of leading the community in doing the right thing for what this Committee stands for. So we think that's a...is prudent action. And I really did...I got flustered there because I couldn't get in, but I wanted to echo what Councilmember Johnson said. You...this certainly is a industrious Council. You've accomplished so much already, and you're really just in the beginning of your second year. So we certainly echo that...those sentiments. And we're really excited on the second item, CARE-11. I did take the time to scan through the pictures on the presentation of all the bamboo, and to see that some of it was in Vietnam, and some of it's right here on Maui. And yes, one more way that we can make our island self-sufficient is to have materials here. Recently, we just saw the...another gut punch to the affordable housing when these builders are telling us, oh, wait, the housing is going to cost much, much more because this imported wood price went way up. So if we can find a way to do this, to grow the bamboo here and make sure it passes all the restrictions we have for a building material...it certainly seems like it is. It's certainly strong and lightweight. So that certainly seems like it's something we should be able to use, grow here, and get it more...less expensive for building, but we also see the challenges. I look at just one...as a consumer, at...we see the...our local bananas seem to be growing in everybody's yard. So they're so plentiful, but if you go into a supermarket, why are the imported bananas so much cheaper, when they're...we can get these here almost free? So we have to watch and not assume, well, if we grow it here, it'll be cheaper here. But we think this is an excellent thing to look at and try and find more ways...maybe the hempcrete will come along. We know some people are growing hemp. So maybe we can get hempcrete as a building material. But today we're looking at bamboo, and we think this is a great move today. So thank you for the opportunity to mention that. Aloha.

CHAIR KING: Aloha. Thank you so much, Mike. And you're right about the bananas, but you know, when I checked into that a long time ago, they ship them over green, and then they gas them to get...make them turn yellow. So you know, the ones you get that are local are usually vine ripened. They're much better.

MR. MORAN: Absolutely. Worth the price.

CHAIR KING: Worth the price. And worth supporting our friends and neighbors.

MR. MORAN: Yep.

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CHAIR KING: Okay, any questions for Mr. Moran? Seeing none. Thank you so much for being here again. And we'll...

MR. MORAN: Okay, I think...just if it can knock me off, because, again, it disappeared on my screen. So I can't...

CHAIR KING: Okay. Our Staff will probably do that.

MR. MORAN: Thank you.

CHAIR KING: Okay. Next testifier, Brittney.

MS. SUNDERLAND: Chair, the caller listed as Guest 1 has dropped off the meeting. So the next and last testifier we have signed up today is Faith Chase.

CHAIR KING: Okay, great. Aloha, Faith.

MS. CHASE: Good morning, Chair Kelly King. Good morning, Committee. I...just really quickly, I am so excited about this agenda. Thank you so much. I agree with the first two testifiers about the industrious work of this Council. Particularly when it comes to the water, I just wanted to...the water measuring and efficiency sort of aspects, I just wanted to put a bug in your ear about Roth Ecological Design. I don't know if you...if you've ever met Lauren, but I went to a rain garden workshop about five years ago that changed my life. One of the examples about saving water...it was at MCC, and one of the examples was about, you know, diverting all the gutters. And we had walked out to the cement sidewalk, and you could see the stained sidewalk white from the gutter that was running off the roof onto that one section of the cement, and not even 12 inches to the left in the grass was a sprinkler head. So it was a really...it was a really freaky contrast. And so I can't look at buildings the same when I think about the water. So I look forward to the presentation. And then also, the second item on your agenda...I would really...I don't think you're going to take any legislative action and you'll likely defer it, but I think this will match...this will work in perfect alignment with the temporary investigative group from the healing solutions for homelessness. We have a sustainable housing TIG. And so we pushed the end date to about June to sort of match the fiscal budget year of you folks. So I hope that stays as a current item because I think it might bridge well, and it might be a speaking point when we...it might be a deliverables sort of speaking point as we wrap up that TIG in that Commission. Thank you so much. Have a great day.

CHAIR KING: Okay, great. Thanks so much, Faith. And you know, you might...I've been sort of...as we go through different projects, I've been asking developers if they would support this, you know, affordable construction materials. I've been getting a resounding yes. So you might want to, through your TIG, contact some developers too, and get them on board. I'm sure that they'd be willing to help you.

MS. CHASE: Yes. Thank you for that suggestion. And also, we have some...I have some of the unions in mind as well.

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CHAIR KING: Yeah, awesome. Okay. We'll continue to keep in touch about this issue. Any questions for our testifier? Seeing none. Well, thank you, Faith, again, for your insight and your input.

MS. CHASE: A hui hou.

CHAIR KING: A hui hou. Okay. Anybody...so no other testifiers signed up? Is that right?

MS. SUNDERLAND: Chair, we have no one else signed up to testify.

CHAIR KING: Okay. Anybody out there who wants to testify, speak now, five or ten seconds. And if there is nobody, if there's no objections, I'll close testimony and receive any written testimony into the record.

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

CHAIR KING: Okay, great. Thank you, Members.

**. . .END OF PUBLIC TESTIMONY. . .**

**CARE-79: ENERGY AND WATER USE PERFORMANCE  
BENCHMARKING (Bill 23 (2022))**

CHAIR KING: Okay, Members. We'll go right into our first item, Energy and Water Use Performance Benchmarking, CARE-79. Members, today...put my glasses on here. Today, we have before us Bill 23 (2022), "A BILL FOR AN ORDINANCE AMENDING THE BUILDING CODE RELATING TO ENERGY AND WATER USE PERFORMANCE BENCHMARKING." In our review of the Paris Climate Agreement on December 1st, 2021, the Committee discussed energy benchmarking initiatives around the United States, including Honolulu. Benchmarking is an important tool for determining which energy improvements will be most effective, identifying underperforming buildings, and verifying efficiency initiatives. Bill 23 (2022) would implement the procedures for providing energy use data, benchmarking energy performance, and publicly disclosing energy performance for covered facilities owned by the County of Maui. We are joined today by Director of Finance Scott Teruya, Energy Commissioner Alex de Roode, and Real Property Manager Guy Hironaka. We're also joined by Josh Stanbro, Policy Fellow with Elemental Excelsior; and Deputy Director Nicola Hedge from the Honolulu Office of Climate Change Sustainability and Resiliency. If there are no objections, I'd like to designate all these folks as resource people, pursuant to...

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

CHAIR KING: Okay, great. Thank you. And just to let you know, Mr. Howard Wiig of the State Energy Office is also listening. Just...and I wanted to go through...I want to go through...have Wilton--because Wilton Leauanae worked on this bill--answer any questions you have about the bill, but we've had some...since we posted this bill, we've

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had...we found out some information about the County's...and I wish we had known this when we were writing the bill, but we actually found out through another source, and not the Mayor's Office, that the County is actually engaging with Johnson Controls in performance contracting, which is similar to what we're trying to do with benchmarking. So as we go forward in looking at this bill, we forged this bill about...to focus on County buildings, like the O'ahu bill did when we had Josh Stanbro on as a resource person previously because that's...we thought that was the first and best way to go forward, and then expanding into the private sector. But what's happening now, as we will hear from Alex in a little bit...it sounds like the County may be going ahead with these efforts on its own without needing an ordinance. And we might be able to hold this bill, reconfigure it for the private sector and get it...and work on it when we're working...as we're working on the international energy conservation code because these are...these are very relevant documents. That was one of the...one of the suggestions of our Corp. Counsel, Keola Whittaker. So what I'd like to do right now is just have Wilton just explain the bill, and we don't have to go through it word by word, but just give an overview, Wilton. Since you worked so hard on this bill, can you just give us an overview of the bill? And then I'm going to ask Josh Stanbro just to talk about what's happening, or maybe Josh Stanbro and Nicola Hedge to talk about what's happening in Honolulu. Because they have this bill, they also have other contracts that they're doing, and how those two things are working together. So Wilton, you want to go ahead and just give a brief overview of the bill? Still here?

MR. LEAUANAE: Chair, thank you.

CHAIR KING: You can unmute your video if you want. Great. Welcome to the meeting. You're on mute.

MR. LEAUANAE: So this bill is basically focused and modeled after the City and County of Honolulu ordinance, as well as other ordinances throughout the country. As you mentioned, we did look at other ordinances around the country to see how they did it. And so this is a...a kind of a collection of those bills as well. It provides requirements specifically just for the County buildings for now, as what you're...what you intended, and then hopefully in the future it can be expanded to other buildings within the County. And there is also...it's based on the national energy performance scores as well, through the--I'm just pulling it up--the standards set by the national energy performances in other jurisdictions. It also is based on...sorry, just bringing up the bill as well. But yeah, that's mainly it, it's just to focus on County buildings right now. And then I did insert a certain square footage that it applied to with...for buildings within the County, starting at 10,000 square feet. But it could...that could be discussed today as we go through the bill, what is needed specifically for the County of Maui. It has reporting requirements as well. And so the main purpose of this is just to ensure that energy efficiency in the County buildings and efficiency for both the energy and water are being compared and monitored through a certain time period as well. That's basically it for now, Chair.

CHAIR KING: Okay. All right. Thanks for that overview, Wilton. And then we'll go next to Alex. Alex, if you're here, maybe you can talk a little bit about what the County contract entails, the Johnson Controls, and then we'll go next to City and County and they can

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maybe talk a little bit about how their current contracts interact with their ordinance.

MR. DE ROODE: Sure thing, Chair. Thank you. Can you hear me okay?

CHAIR KING: Yes, we can, mask and all.

MR. DE ROODE: All right, good. Yeah, so to update you on our progress with energy savings performance contracting, we have gone through our RFP process, and as you mentioned, Johnson Controls was recently selected as our energy services company that we are right now in...negotiating a contract with to pursue an investment grade audit of all County facilities. So that's the first step of building out an energy savings performance contracting program. We estimate that the IGA will take about six to nine months to complete, and that will identify what are known as ECMs, or energy conservation measures, that the County can then review and then pursue the ones that the County feels, you know, make the most sense. It will cover multiple Departments, so there'll be consultation with affected Departments. And we will...although it's called energy conservation measures, it does include renewable energy, energy storage, and electrification of transportation. So it's not only looking at energy efficiency, but on that energy efficiency side it is looking at improvements to lighting, improvements to HVAC--heating, ventilation, air conditioning systems--improvements to building envelopes. It can also make other improvements that are required in order to pursue an energy project. So as an example, if a facility has a roof that's too old to put a PV system on, that reroofing could be basically bundled with the PV project. So there are many, you know, innovative ways to kind of structure these and really advance a lot of the work that's otherwise relying on year to year CIP budgets and, you know, goes...moves along very incrementally. This can really allow a lot to happen at once. So within that contract, and we have this in our RFP, we have a requirement for energy benchmarking and using ENERGY STAR Portfolio Manager as the platform to basically input data from the audited buildings. And we have...so I would say just in response to your comment about, well, maybe since the County's pursuing this through ESPC, there may not be a need for an ordinance. I would say that an ordinance could help to strengthen that initiative, and really ensure that it's as comprehensive as it can be, and that it, you know, continues on. Because ESPC...we may not pursue projects on every County building, it depends on what the ESCO comes back with in terms of recommendations and proposed projects. So I think an ordinance would be more, you know, all encompassing. And it...I do think it makes sense to have the County lead by example and kind of take that first initiative to demonstrate what energy benchmarking is, what it can do, and then show progress and improvement over time.

CHAIR KING: Okay.

MR. DE ROODE: I did read the draft ordinance, and one...a couple comments I would have. One is that I saw that it was the Finance Director that was identified as the responsible party. And although I understand that the...I think that the thinking there is because it's tied to energy bills, that they would involve Finance. What I...what I would recommend, perhaps, is thinking about it more from an operational or operations aspect, where it may make more sense to have Department of Management as the lead

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on it. And in terms of the billing for the energy bills, each Department is kind of responsible for that. So they get their bills...like the Department of Water Supply gets its own bills, Parks and Rec gets its own...and then, yes, the...you know, the totals kind of go up to Department of Finance so that they know what the energy budget is for each Department year to year. But I think the Departments are more...have more kind of granularity, or more detailed perspective on their buildings and how it's tied to their energy bills, so...and energy consumption. One thing I'll refer you to is a website that was developed by Johnson Controls for the City and County of Honolulu, who they also have ESPC contracts with, and that website is [sustainablehonolulu.com](http://sustainablehonolulu.com). And if you look at the tracker section of that, it actually shows all the different buildings that are being looked at, and what projects are occurring within their ESPC work. So this is a similar type of effort that we'll be asking Johnson Controls to partner with us on so that there's visibility and more, you know, public access to knowing what's going on with our ESPC effort, knowing how the progress is going over time. And it'll also tie into our climate action and resilience plan. We'll be identifying that as a strategy that...we're already ahead of the game a bit on that, but at least it will be still, you know, emphasized in the Climate Action and Resilience Plan as an important program.

CHAIR KING: Okay. Great. Thank you so much for that input. And yeah, I kind of wondered about the Department of Finance too. So I'm happy to have your input as far as the...have you discussed it with the Managing Director at all?

MR. DE ROODE: I have not, and Scott Teruya might have his own perspective on that. So I'm just giving, you know, my initial perspective. I have not had a chance to have a conversation with either Scott or with the Managing Director, but I know that our CIP and Energy Coordinator position is housed in Department of Management.

CHAIR KING: Right.

MR. DE ROODE: And Management also is involved with overseeing the fleet initiatives across the Departments for the fleet vehicles. The thing that could be a good place for it to, you know, be housed, our office as well. Although we're under Office of the Mayor, our office could play a support role or facilitation role in that, especially since, at least currently, we're kind of spearheading the energy savings performance contracting effort. But what we really want to do with that effort, the ESPC effort, is to empower each Department to kind of take ownership of that. Because ultimately, it's their Staff, their facilities, that are going to be affected, and we need them to work closely with Johnson Controls to make a lot of this work happen. So we really see our office more in a facilitation role, and as a resource for the initiative, but ultimately having those Departments kind of take ownership of it.

CHAIR KING: Okay, great. That's great input. And anything on the water use that you folks are doing now, or planning to do in the near future? Do you have any comments on tracking water use and trying to...

MR. DE ROODE: Yeah, so...sure. As part of the ESPC, water efficiency and water conservation is also included in the investment grade audit, and so especially where you can find that nexus between energy and water. So if we can realize energy savings

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as a result of water conservation measures, or water efficiency measures that we put in, that's where a lot of those projects will make sense as part of ESPC. And for most projects, you can find energy savings tied to water savings. I mean, whether it's the pumping of water, or the heating of water, or the treatment of water, there's a lot of opportunity there for water efficiency and conservation. Also, as part of the energy benchmarking, in ENERGY STAR Portfolio Manager, we will also require the ESCO to put water data for the facilities that they're working on. It will have both the water and energy data entered into ENERGY STAR Portfolio Manager. That program has the ability to upload both of those.

CHAIR KING: Okay, great. Well, that's great news to hear, that you're already working on the water issue too. So before I go to questions, I wanted to get some input from Josh Stanbro and Nicola Hedge. If you folks could...hi, Josh. Are you in D.C. right now?

MR. STANBRO: Hi, Chair King. Nope, in Honolulu. I've got a team in metropolis and policy center. So...

CHAIR KING: Oh. Okay. Okay. So what I wanted to ask you folks to speak to, if you could, is how...you know, I know you have contracts with Johnson Controls, and how that works with your ordinance, you know, is it...is it...is it in line with what your ordinance says, and is it helpful to have that ordinance?

MR. STANBRO: Yeah, I mean, I think I'll...Deputy Director Nicola Hedge might have more up to date information than I, so I'd, you know, defer to her on the details. But I do...you know, I just want to echo...first applaud that you guys are putting this forward, and agree with Alex's, you know, take that these are...these are separate. You know, your energy performance contracting is really the implementation and, you know, driving down the energy use in the buildings. Benchmarking is really about disclosure and transparency around energy use across all the facilities. And so they are different, and I think especially for the public, the benchmarking is really important because you want to be able to show all the facilities, and not just the ones that are being impacted by the select group of...you know, the ones that Johnson Controls is potentially going to work on. It sounds like you guys are doing it similar to how Honolulu approached it. I...the...we had a couple of contracts with Johnson Controls and other ESCOs before benchmarking was passed, and then a couple after. And so really, benchmarking was the...you know, the thorough effort to make sure that there was a trend line in year over year data that was collected. I think when I talked to your Committee before, we talked about the fact that just by being transparent and disclosing the data, even without doing any energy improvement sort of projects, you get a 3 to 5 percent improvement in energy use. And mostly that just comes from people being...Departments, agencies, and the operators being aware of how much energy each building is using, and having that sort of in a public format where, you know, you can see the trend lines over time. So agree, you know, with Alex that this is...this ordinance is important. It's great that the energy performance contracting is moving ahead. And actually, that gives you a chance to sort of jumpstart the benchmarking process if your ESCO provider...if Johnson Controls is going to put in that initial bunch of information into, you know, the ENERGY STAR...the Portfolio Manager, that's great. But you'll need that software tool for all the different covered facilities. I will just

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mention one difference that I noted between the Maui ordinance and the way that Honolulu's, you know, approaching it, which is I think you have the smaller buildings reporting first, and then the larger buildings reporting later. And I would assume that that's an effort to stagger it so it's not too much on the Department at one time, whichever Department is monitoring. But at least in Honolulu, I know that the approach that is being looked at is to do the larger buildings first because they're actually easier. There's less of them, the data tends to be more readily available because they have larger operations, and you can kind of work out the practice on the larger buildings. And obviously, they use the most energy too. So you want to get to them first, and then move down to the smaller buildings, which sometimes are a little bit more rascally in terms of finding the bills and, you know, there's just greater numbers. The final thing that I'll just mention is that, you know, Alex's point about the operators being, you know, closer to the billing and, you know, potentially there might be different, you know, solutions than Finance doing the reporting. I know in Honolulu, it's actually the, you know, CCSR, it's the Climate Change Sustainability and Resilience Office that's responsible for aggregating the building energy numbers and reporting those. Part of that reason is, A, that office is...obviously, you know, got a mission to drive down the energy use and, you know meet their climate goals. But B, you know, the Finance Department, at least over here, is really just concerned with paying the bills, not necessarily like what lights are being used and whatnot. So having it closer to the operating entity, I think you'll get potentially more energy gains...efficiency gains by having the...you know, one entity that's close to the operating if you report that on an annual basis. Those are the...those are the main takeaways. I'd be interested in hearing from Deputy Director Hedge. And I'll stand by if there's any additional questions or clarification.

CHAIR KING: Okay, great. Thank you for that input, Josh. It's really good to hear from you. Good to see you. And I'll go to our Deputy Director from Honolulu. Is it [Ni'-cola] or [Ni-co'-la]?

MS. HEDGE: [Ni'-cola], you've got it. Can you hear me okay?

CHAIR KING: Yep, we can hear you great.

MS. HEDGE: Excellent.

CHAIR KING: So any comments you want to make on the . . .*(inaudible)*. . .

MS. HEDGE: Yeah, yeah. Yes, excellent. And mon-ning, mon-ning, mon-ning, also. Really delighted to be here. We certainly look to the County of Maui for a lot of great examples, and we're happy to share here from the Office of Climate Change Sustainability and Resiliency, as Alex and Josh mentioned, any experience that we can that can be helpful as you consider this, but then also, as...hopefully as this moves forward. It sounds like it's already moving forward in some way, shape, or form. We do, to echo what had already been shared, have a very similar experience. We've had a requirement now to benchmark both the energy and water use of city facilities, as Alex I think put in the chat, since late 2020. So we are going through our first iteration of doing that comprehensively for County of...City and County of Honolulu buildings at 10,000

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square feet and above. And very similarly, we have benefited from the energy services performance contract that was three steps ahead and had been in the making with previous efforts. And that has helped us to complete the first year of those buildings that they are working on for the energy services performance contract. So I think they have two phases for that contract, which is enormously beneficial to the city as it's moving forward. And so Johnson Controls is helping us to do the first year of benchmarking those facilities, which is helpful the first year. It's just a little bit more time intensive to gather that baseline data of your buildings, but then the hope is that that would be...you know, the responsibility as outlined is with our office to coordinate with other Departments managing and using the facilities to do this on an annual basis for those reoccurring benefits that we get. And you know, we certainly see this...this is something...a part of our resilience strategy and climate action plan for some time. And we're excited to move this forward and continue to offer greater transparency to the community on our facilities, how we can continue to drive energy and water savings, reduce waste, taxpayer...you know, better invest that taxpayer dollar in other community serving programs, and work towards our climate action goals. So happy to answer any questions now or in follow up that could be helpful, and just really applaud you all for the...for the leadership on these issues.

CHAIR KING: Okay. Thank you, Deputy Director. And thanks so much for being here. Really a pleasure to have you here and to meet you virtually. So next, Members, I just wanted to get a input maybe from Director Teruya, if you're here, Scott, and hear your thoughts on whether or not something like this should go under Finance or Department of Management. Totally open to, you know, however you folks think it would work best.

MR. TERUYA: Mon-ning, mon-ning, mon-ning, Members. Thank you for the opportunity to comment on this. It's not that I would aim to pawn this off to any other Department or agency, but I would kind of agree with Mr. de Roode that maybe Department of Management...at the worst case would be Public Works because Public Works does a lot of the building...they are the people who support all of the County buildings. So...but I think the greater...because you'll be dealing with multiple Departments who occupy or use different facilities, the Department of Management might be better able to respond to the various Departments. Chair, if you don't mind, I would like to give an opportunity to Guy here, an opportunity to maybe chime in, as he is our specialist who handles a lot of the leases and contracts. So if you could give him an opportunity to have a little remark, Chair?

CHAIR KING: Sure. Mr. Hironaka?

MR. TERUYA: Guy, go ahead if can.

MR. HIRONAKA: Good. Hello. Can you hear me?

CHAIR KING: Aloha. We can hear you, but we can't see you. Do you have your window covered on your computer?

MR. HIRONAKA: No. Okay. Here we go. Okay, I got it. I got it now. Thanks. Good morning, Committee Chair.

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CHAIR KING: Good morning.

MR. HIRONAKA: What would happen is, you know, for us to track it, we would have to know what building and what index code because, you know, we don't track things that we are not leasing. You know, that's what we track...you know, we track expenses for, you know, properties that we are leasing out, that we are the lessee. What we own, you know, it's the Department...as Alex mentioned, that the Departments are responsible for tracking their own bills. So unless we know what index code and what...you know, what the location is, we wouldn't know what bill it is because Accounts does, you know, pay all of the water and electric bills. And then they then provide the bills to each Department accordingly.

CHAIR KING: Okay. So you're in agreement that it should probably go under Department of Management?

MR. HIRONAKA: Right. But what we can provide them is, you know, the property, the...you know, the tax map key, the land area, the building area per real property tax records. That we can provide to, you know, whoever is the Department that is overseeing the project.

CHAIR KING: Okay. Okay. Thank you for that. I appreciate it. So thank you for that, Director Teruya. No shame if you feel like it's better somewhere else. It was...you know, we were looking for somewhere to house this, and that was the first Department, I guess, that came to mind when OCS was drafting it. So...let's see. I guess next, let's just...let's go into questions, see if there's any questions on the bill. We'll give everybody three minutes. I'll start with Vice-Chair Sinenci, and then go to Member Paltin next, who had her hand up. Mr. Sinenci, do you have any questions for any of our resource people?

VICE-CHAIR SINENCI: Mahalo, Chair. Yeah, just a couple. Would it be for buildings that the County leases or ones that we do own? So I guess I don't know who has this number. How many buildings are we talking about?

CHAIR KING: Let's see. Who would have that information? Director Teruya, do you...or Mr. Hironaka?

MR. HIRONAKA: . . .*(inaudible)*. . . exactly what would meet your criteria of 10,000 square feet or more. You know, we do have a list of all the County buildings, but we would just have to, you know, sort through the fields.

CHAIR KING: Yeah, it's covered space 10,000 feet or more, and then...and then 50,000 feet or more has a different timeline.

MR. HIRONAKA: Right. So we're assuming...you know, a lot of the community centers would probably fall under that, you know, category. And then the basic...the police station, County buildings...

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VICE-CHAIR SINENCI: Wow. That's right, exactly. Okay. And I'm...and for starters, I would love to see what kind of savings we're getting with the covered parking lots with solar panels on them, those types of things, just to see as a...as a start. And if...I wonder, does this also include maintenance fees, maintenance cost to County buildings? I would like to see what kind of costs we're doing...if we're doing significant repairs or renovations to County buildings, what are those costs being accrued on the...accrued into those as maintenance costs?

CHAIR KING: Well, Mr. Sinenci, just because this is an energy bill, so you know, really concerned with our greenhouse gas emissions and energy intensive buildings that we have from years ago. So I think the cost of energy initiatives...like the cost of Johnson Controls' energy performance contracting is...I think it's zero upfront. Correct me if I'm wrong, Deputy Director, but they don't charge anything. They take their fee out of the energy savings. So that's my understanding of performance contracting. But the purpose of this bill is not to track maintenance, it's really to try to reduce energy emissions that the building's using.

VICE-CHAIR SINENCI: Okay. And my question was just related to, you know, alternative materials. I know maybe that might be for the next item.

CHAIR KING: Yeah.

VICE-CHAIR SINENCI: But we're accruing exuberant costs for the types of materials, you know, is there a more green option? Also that is probably more expensive, but how do we look at...

CHAIR KING: Yeah, that'll be the next item. Yeah, thank you. Thank you, Committee Vice-Chair. Next, we have Member Paltin--and I thought I saw somebody else--followed by Chair Lee, and Gabe Johnson, and Member Sugimura. Okay. Go ahead, Member Paltin.

COUNCILMEMBER PALTIN: Thank you, Chair. My question was similar, along the lines of Member Sinenci's question about publicly disclosing energy performance for covered facilities owned by the County of Maui. In my Committee tomorrow, we have a listing of County owned properties, and just briefly looking through that list, I was kind of surprised to learn that we own a lot of properties that I didn't associate with being County owned. Like for example, the Cameron Center might fall under this, but it's not...it's owned by the County, but it's not necessarily run by the County. I think it's run by a bunch of nonprofits and things like that. So I just wanted to clarify, are you intending all of the County owned properties, even with buildings on...I think even some schools are on County owned properties as well. So was your intention County owned, County run properties, or just...or all the...all the properties owned by the County with buildings on them greater than 10,000 square feet?

CHAIR KING: Yeah, the wording in the bill is covered facility--that's mentioned in here--means a structure owned, leased, or managed by the County that exceeds 10,000 square feet. So it would be...we would be taking responsibility for the properties that we own, even if we lease them out, because we want to make sure that we're doing the responsible

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thing, right, and lowering greenhouse gases as much as possible throughout the County.

COUNCILMEMBER PALTIN: Okay. And then...so I guess, you know, some of it belongs to the State with the schools, and some of it is run by nonprofits and like that. And then I guess once we pass this, or if we pass this, then it becomes a law that they would need to comply with in cooperating in getting us that information?

CHAIR KING: No, it's just County owned. So it doesn't...it doesn't apply to State owned buildings or privately owned buildings at this point.

COUNCILMEMBER PALTIN: Well, so what I'm saying is there's schools on County property. So it's County owns the property, the State runs the school, and how do we get the information from the State for their building on our County owned property?

CHAIR KING: Okay. Let me...let me bring in Wilton, who wrote the bill, on this one, because you know what? We were very specific on County covered facilities, but I'm not sure. Wilton, can you...can you respond to that? Is it...you know, how would...how would this apply to if it's County property, but a State building? Then it wouldn't apply?

MR. LEAUANAE: Yeah, well, the second...the second part of that definition is that...for which the County regularly pays all or part of annual energy and water bills. That's a...that's a part that is part of the tracking as well.

CHAIR KING: For the...

MR. LEAUANAE: So that distinguishes it.

COUNCILMEMBER PALTIN: Oh, okay.

CHAIR KING: If the bills are maintained by the nonprofit or the State, then it wouldn't include them.

COUNCILMEMBER PALTIN: Oh, okay. Okay, okay. And then, I guess my next question would be for Mr. de Roode on...when you said that, you know, a ordinance could complement the work that's already been done, is there changes to this as it's written that would get us to complementing the work that you guys are doing? That...I mean, what would the changes be to what's been posted?

MR. DE ROODE: Yes, thank you for that question, Member Paltin. The...I put in the chat a couple of resources, one to...let me just bring it up here. HRS 196-30, so that's a...fairly high level in terms of how they're...the guidance that's given in that...in that Hawai'i Revised Statute, but it does kind of speak to how energy savings performance contracting and benchmarking can complement one another or go hand in hand. I would also refer you back to Ordinance 20-47 from City and County of Honolulu, where they do talk about the types of buildings that would be benchmarked, and how they would be benchmarked. One thing I did see as well in my review of the current draft ordinance is you mention buildings 10,000 square feet or bigger by a certain date, and

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then...as Josh Stanbro was mentioning, and then another kind of phase of buildings 50,000 square feet or bigger. But the 10,000 square feet or bigger includes 50,000 square feet or bigger, right? So I don't know if the intent there was 10,000 square feet or smaller, and then 50,000 square feet or smaller, but basically, 10,000 square feet or bigger includes 50,000 square feet or bigger as well, right?

COUNCILMEMBER PALTIN: And then they said to go...start with the bigger ones first anyway, because that might be easier.

MR. DE ROODE: That might be easier...yeah, it might be easier and also have a potentially bigger impact, right, because they're typically bigger energy users than the smaller buildings. So I would...I would recommend starting with the bigger buildings first. We do have, just to give you an idea here, our consultant, Engineer Economics, who's been helping with the...drafting the RFP and the RFP evaluations, and then now getting into the IGAs also serving as a...as a technical consultant for our Office. They estimate, looking at the utility bills, historical utility bills across the County, that over a 20-year contract term, which is what the maximum allowable term is for ESPC under State law, the potential savings over the life of a ESPC contract for County of Maui is estimated at about 48...just over 48 million over a 20-year period. Yeah, so you know, that's an average of over \$2 million a year in savings potentially. And just to speak briefly to Member Sinenci's question about operations and maintenance, the conversations we've had with Johnson Controls around that is if there's new technology that gets put into our buildings that our Staff doesn't currently have the expertise or the bandwidth to take on, we are asking Johnson Controls to provide an option for them to take on some of that operations and maintenance so that it doesn't negatively impact our Staff, as well as provide training for our Staff. So it's sort of getting...

CHAIR KING: Okay. Yeah, Alex, I want to move on because I want to give other Councilmembers a chance to ask questions, but thank you for that information.

MR. DE ROODE: Sure thing.

CHAIR KING: Next...thank you. Next, we'll go to...thank you, Member Paltin, for your questions. We'll go to Chair Alice Lee.

COUNCILMEMBER LEE: Thank you, Chair. Where is that echo coming from? Anyway, for Staff, I have a question. The description that's in the bill of the covered area of 10,000 square feet, would that also include like the Water Department, which is the largest user of energy probably in the world? And so they have their facilities, but then are you counting like the transmission lines? You're not counting that? Or how are you looking at, let's say, the Water Department, which is the largest user we have?

CHAIR KING: For their...for their building? Which building?

COUNCILMEMBER LEE: Well, if it...if it's confined to...strictly confined to the building --

CHAIR KING: Right.

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COUNCILMEMBER LEE: -- the use in the building, but that building is creating all that transmission of water to different areas, yeah?

CHAIR KING: Um-hum. So you want that to...for Mr. de Roode?

COUNCILMEMBER LEE: Or Wilton.

CHAIR KING: Okay.

COUNCILMEMBER LEE: Either one.

CHAIR KING: Either one.

COUNCILMEMBER LEE: Because Mr. de Roode is not really responsible for the bill, right?

CHAIR KING: No, not that we don't . . .*(inaudible)*. . .

COUNCILMEMBER LEE: So...yeah, so regarding the bill itself, Wilton?

CHAIR KING: Wilton.

MR. LEAUANAE: The...yeah, it...I guess the focus is just on the building itself. I'm not too sure about the particulars of, you know, how...if the actual square footage expands out. Is that what you're referring to, from the building?

COUNCILMEMBER LEE: Yeah, because the building is...the treatment facility building is what I'm talking about. And then it's receiving and pushing out water. And our...that one Department probably uses more electricity than all the other Departments. But if we're not looking at...if we're strictly looking at the building itself, then I guess we're not talking about the Water Department's treatment facility's operation.

MR. LEAUANAE: Yeah, I guess that would be something that your Committee can determine as being an exception. I'm not sure how that would work.

COUNCILMEMBER LEE: Okay.

CHAIR KING: Yeah, it's...

COUNCILMEMBER LEE: Maybe Alex has a comment.

CHAIR KING: Do you have a comment...

MR. DE ROODE: Yes, I can make a quick comment. In terms of building energy benchmarking, that is tied to a building, a structure with a building envelope, and you're looking typically at EUI, or energy use intensity, so energy use per square foot, right? So that's building energy benchmarking, but as far as the energy savings performance contracting program goes, we're looking at all electric meters. So that includes pumping sites, you know, well sites with pumping or distribution from

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treatment centers. All of that is going to be looked at under energy savings performance contracting. . . .(timer sounds). . . And we'll be monitoring how those improvements impact the energy use by meter, by...

COUNCILMEMBER LEE: Okay. Thank you. My time's up. Thank you.

CHAIR KING: Chair, did you want to get a comment from the Deputy Director of...in Honolulu and how they do it? She popped up.

COUNCILMEMBER LEE: Sure. Ms. Hedge.

MS. HEDGE: Oh, I would...thank you, Councilmember. I would agree with Alex that the focus of this benchmarking ordinance in particular is the buildings, but similarly, with our energy service performance contract, they're looking, you know, everywhere for metered savings that could support our work. I will note, here in Honolulu, our Board of Water Supply has had their own separate energy services performance contract because they are a different entity, but certainly we've learned from them, and we...we are certainly looking through the ESCO opportunity very broadly, and certainly hope that the benchmarking will help us out into the future, even beyond the energy services performance contract because it will include buildings that aren't included within our current contract, which started with some of the largest buildings and those that we know use the most energy. So we do hope that this will continue to be a tool to expand focus, and then also help us beyond the infrastructure improvements as well, because ongoing benchmarking will help us keep an eye on usage over time, and hopefully help us also with any of the other behavioral, you know, operations savings that we can do and continue to do beyond the infrastructure upgrades.

COUNCILMEMBER LEE: Well, thank you for that because, yeah, that would be a good consideration for us to look at the Water Department and the Wastewater Department separately. Maybe they can do their own contracts, and then we can gather that information separately. Thank you.

CHAIR KING: All right. Thank you, Chair Lee. Next we'll go to Member Johnson.

COUNCILMEMBER JOHNSON: Thank you, Chair. Excellent questions, Chair Lee. It really got my mind thinking about how, you know, those big energy users are...how we handle that. So this question is, I assume, for Wilton, but if Chair wants to answer, it's just basically why did we determine that this is...this bill was only going to be for County buildings?

CHAIR KING: Want me to answer that, Mr. Johnson?

COUNCILMEMBER JOHNSON: Sure, if you feel...

CHAIR KING: When we had the meeting back in December and we talked to Honolulu, they said that they had an intention of expanding it to the private sector, but starting with the County owned facilities was a good way to get...you know, to get everybody on board with it and to set an example. And then, so they said...you know, they suggested we

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could...we could put them both in there and kind of stagger them, or you could...you know, if you didn't want to get a lot of pushback because people don't understand it, then you could just start focusing on the County owned properties. It'd be an easier way to go forward.

COUNCILMEMBER JOHNSON: Okay. Thank you. That makes a lot of sense to me. Okay. I think that staggering it is a good idea. So in regards to...okay. So there has been a lot of talk about the Johnson Controls, and that is...do we...is there other brands or companies that do it, or is it only Johnson controls? Is it a competitive market? I don't know who that goes to.

MR. DE ROODE: Chair, would you like me to take that one?

CHAIR KING: Go ahead, Alex. I think that's a good question for you.

MR. DE ROODE: Sure. Yeah, thank you, Member Johnson. So it is a competitive market. We did go through a competitive bidding process through an RFP. And we had multiple proposals that we received and were evaluated by an evaluation committee within the County. And Johnson Controls came out on top compared to the other proposals we received. So...

COUNCILMEMBER JOHNSON: Okay.

MR. DE ROODE: That's how that happened.

COUNCILMEMBER JOHNSON: It's a great branding. So I...I'm really happy. Okay. I'm just kidding. So the next question is...okay. I really...you know, I appreciate this bill. It's really fascinating that we're finally looking at some of the large energy users, and we're gathering data on buildings that we own, and we're going to share it with the public, but the next step is...my question is, what do we do with the data? And I'm looking at the four...section 4000.6, assessing the results. So it seems like, okay, we're going...we're going to gather data, we're going to post it, and then we're going to have...then what? Are we going to do something? I mean, it seems to me that like we're going to say, okay, this is...this is the benchmark, this is where they were last year, this is where they are now. Does that...is that going to require us to say, oh look, they need solar heating or they need something built or deconstructed, whatever? It's like what do we do after we gather the data is my question?

CHAIR KING: Okay. Maybe that's another question for Alex I think. That's a...that will be part of our climate action plan I believe, but Alex, do you want to respond?

MR. DE ROODE: Correct. Yes, as you look at building energy use being tied to carbon emissions, and as we said in our climate action plan, targets for decarbonization, for reducing greenhouse gas emissions, building energy use will be a significant component of that. Transportation will be another one that we'll be looking at closely for bringing down GHG emissions, but those are kind of the two biggest ones, typically. We have, you know, other kind of process use, like we were talking about with Department of Water Supply and Wastewater Treatment. Those are big users, so that

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will also be identified in the climate action plan, but that...we're on target to get that climate action plan completed this calendar year and before Council for you to, you know, provide input as well, and then, ideally, adopt as the climate action plan...climate action resilience plan, because we're actually integrating the two for the County of Maui. And that'll...that's where that tracking will tie in, and we'll be able to say, are we on target to meet our climate action goals?

COUNCILMEMBER JOHNSON: Great. Well, I'm all for data influenced planning. So thank you. Thank you, Mr. de Roode. Thank you, Chair. I have no further questions.

CHAIR KING: Thank you, Member Johnson. And just to let you know too, I think Johnson Controls was one of the first companies to do performance contracting. I was trying to get them into the Department of Education back in the '90s.

COUNCILMEMBER JOHNSON: Oh, wow. Fascinating.

CHAIR KING: Yeah. I just...I was told by the Department of Education here that it just...they couldn't support it because it sounded too good to be true.

COUNCILMEMBER JOHNSON: One of those things.

CHAIR KING: So next we'll go to Member Sugimura, followed by Member Molina.

COUNCILMEMBER SUGIMURA: This is...this is really relevant. I think probably about, I don't know, three years ago, somebody came to my office and said we should be doing this. And I told...I told Alex that I think the difference is that a lot of things have shifted over time or become, you know, more relevant. So I'm glad to, you know, hear this discussion and find out what the update is on who is going to be taking us forward. I am with Chair Lee, where I'm concerned about the energy use for the utilities, basically. And I would like to know then, from Alex, if that is definitely one of the areas you're going to be looking at, or is it something that we need to ask for the Departments and budget something so that they can do this also?

MR. DE ROODE: Thank you, Member Sugimura. Yes, we will be looking at Water Supply and Wastewater as a part of this ESPC initiative that was in the RFP. The ESCO is aware that that's part of their scope, and the Departments are also aware. We had a stakeholder engagement process early on, before the RFP even went out, and we had all the affected Departments participate in that. So the Directors of the Departments are aware, as well as their deputies and division heads. And so they're on board and we'll be continuing to, you know, confer with them as we...as we move forward with this initiative.

COUNCILMEMBER SUGIMURA: Okay. And then one last thing. When you gave your opening comments, you mentioned...I might have misunderstood this, but I think you mentioned that as part of what you'll be doing with buildings, like if the roof is too old and it needs to be renovated to, you know, take care of the infrastructure needed for this energy efficiency, that'll all be built into your steps forward, or how does that happen? How do you get the roof and the energy discussion, you know, in the same...in

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the same CIP discussion?

MR. DE ROODE: Sure. Sure. So that...it's really case by case, site by site, project by project. If, in the evaluation of a specific building, the roof, for example, is determined to be at...towards the end of its useful life or close enough that it doesn't make sense to put PV that you're going to have to take off, you know, in five years, and then put a new roof, and then put the PV back, Johnson Controls can --

COUNCILMEMBER SUGIMURA: . . .*(inaudible)*. . .

MR. DE ROODE: -- bundle that as a...as one project.

COUNCILMEMBER SUGIMURA: Okay, great.

MR. DE ROODE: Yeah.

COUNCILMEMBER SUGIMURA: Then I want to ask you something else. We just had Senator Schatz talk to us about the IIFA *[sic]*, the infrastructure bill that passed. So are you looking at any way of utilizing some of those new funds that are going to be coming to us to be utilized for this project?

MR. DE ROODE: Yes, we are tracking that. We also had in the RFP for the ESCO and Johnson Controls to assist us in that process. So they're going to be helping to track those opportunities as well. And then we have close contact with the Hawai'i State Energy Office, who are helping us kind of track, and we're in conversations with them and the other Counties to look at, you know, when are those opportunities coming, how do we position ourselves to maximize those opportunities. So yes, to the greatest extent possible, we'll be looking to leverage those funds, as well as Hawai'i Energy rebates and other State and Federal funding.

COUNCILMEMBER SUGIMURA: Okay. Because it's a five-year bump up. So there's going to be, you know, an escalation of funding that's going to become available. So that's good you have somebody looking at that. So thank you. I will also.

CHAIR KING: Thank you, Member Sugimura. Okay, we have Member Molina next.

COUNCILMEMBER MOLINA: Yeah. Thank you very much, Madam Chair. Under benchmarking...Section 4000.3, benchmarking requirements, it mentions that it would require the Department of Finance Director to obtain an energy performance score on the schedule, as noted in the bill, and enter the data. But now, hearing the discussion this morning, that may be something more for the Department of Management. Where will they obtain the score from? I mean, would it be from a platform like the EPA or Department of Energy? Can someone answer that?

CHAIR KING: Yeah, I think that Alex can answer that.

COUNCILMEMBER MOLINA: Okay.

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MR. DE ROODE: Yes. Member Molina, it is...it is something you can do through ENERGY STAR Portfolio Manager. So you do get an ENERGY STAR rating, and basically that rating gives you a sense of how that building is performing compared to other similar buildings. So you're benchmarking against similar buildings that aren't...are either coming from a national dataset, or it could be more regional. And then you can also benchmark across your own . . . *(inaudible)*. . . you know, how is this community center performing versus another? And because you take it all down to energy use intensity by square foot, you can compare apples to apples there. So a larger facility will have an EUI that can be compared to a smaller facility's EUI. As long as they're similar enough types of buildings, you can compare them that way.

COUNCILMEMBER MOLINA: Okay, great. And then who would be responsible then for developing and, say, verifying efficiency plans after we found that one of our County buildings is an underperforming building? Who would...I guess, again, that would probably likely go to the Department of Management? Whomever, Mr. de Roode or...

MR. DE ROODE: Just a quick comment to that is the ESCO, the energy services company, Johnson Controls, is really...they're paid through savings. So if they don't perform, they don't get paid. And in some cases they even have to write us a check if the building doesn't perform as...you know, it isn't improving in performance, if we're not realizing those savings. So that's why it's called a guaranteed savings mechanism. So that's one way that we can, you know, ensure that there's a...there's high motivation to make those buildings become more efficient. And then it's really about improvement over time. So even if we're starting somewhere where, you know, we're not really happy about how a certain building's performing, as long as we're showing progress over time, at least we're headed in the right direction, yeah. And then, yeah, we'll have to monitor that when there's red flags that pop up. We'll have to...we have something called measurement and verification, M and V, that's also part of energy savings performance contracting. So we have technical assistance . . . *(timer sounds)*. . . as well as that the . . . *(inaudible)*. . . to ensure that the improvement . . . *(inaudible)*. . .

COUNCILMEMBER MOLINA: Okay. Yeah, thank you very much, Mr. de Roode. So...and then just...Madam Chair, maybe a future request whenever we take this up again, if we can get comments from the Department of Management since it's been mentioned by not only Mr. de Roode, but also by Mr. Teruya. Just to get their take on it. Thank you. Thank you for your responses.

CHAIR KING: Member Molina, we did get responses from Director Teruya that he thinks it would be better in Department of Management as well. So you know, I would like to go ahead and make a couple changes and pass this out of Committee today, and then take it to...I'll have a discussion with the Managing Director about this. But one of my goals in trying to get this passed before budget is if there are any budget concerns, that we...that we'll need to add money into either Department of Management or the CCRS Office, that I want to know what those are ahead of time. Maybe Josh, do you have any...do you have any input on, you know, what...any budgetary issues that your office had when you...the bill was passed over there?

MR. STANBRO: Yeah, so it's great timing that you're, you know, looking at doing this before

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the budget process. There are several things to consider. One is there is a cost for the ENERGY STAR portfolio management software. That may be being covered by your ESCO, you know, upfront to cover the buildings, but it is a long term sort of subscription process, and I think when we looked at it, it was, you know, several thousand dollars. You also...depending on how many buildings are going to be covered, it does take a little bit of Staff time to enter the information and monitor the information. You may...you know, you'll obviously want to check with your Department, whichever one is tasked with doing this, you know, if they have the bandwidth to do that. In the case of Honolulu, because you know, the idea was to start with the City and County buildings, and there's a lot of them, and then move to the private sector eventually, you know, we had done an analysis where we thought it would take one full-time Staff member to actually run the entire program. And that in most...you know, in a lot of cities and jurisdictions, they actually charge a nominal fee during the reporting from, you know, buildings when buildings report their energy use disclosure, you know, they pay \$25 a year or \$50 a year or whatever, and that actually supports the software cost and the Staff time to run the program. So you may want to take a look at putting in a little bit that will help with the software cost. And then just, you know...I just wanted to address real quickly, I think Councilmember Johnson had, you know, talked about that staggering piece. Part of the reason you stagger by doing the City and County buildings...or the County buildings first and then moving to private sector is it gives you a chance to get familiar with the software and build it out before, you know, adding all the other buildings. And it's a much more user friendly experience for the outside private buildings because you've already got it worked out, and they're...they don't...you know, they're not going to experience delays or snafus. And then the last thing I wanted to mention is I think Councilmember Sinenci had asked about maintenance. It depends on each different ESCO, you know, contract and negotiations, but I know when we did the street lights contract with Johnson Controls here in Honolulu, essentially they guaranteed that the lights would operate for 20 years. So if a light burns out, they're replacing that bulb and...you know, for that duration of the entire ESCO contract. So you know, that kind of maintenance is oftentimes included, and it doesn't come out of a CIP or a operating budget of the County. It actually comes out of the ESCO contract. So hopefully that helps. Really encouraged and excited that another County is . . .(timer sounds). . . . .(inaudible). . . So thank you.

CHAIR KING: Okay. I guess that was my three minutes. Thank you, Josh. Okay. Well, Members, if there are no other...any other burning questions? Member Johnson.

COUNCILMEMBER JOHNSON: Just one real quick one in response to Mr. Stanbro's points. How long should we stagger? Or do you have a recommendation on how long we should stagger this when it reaches out to the private sector?

CHAIR KING: Well, my recommendation...I think we should go ahead and pass this out for the County, and then I think what...as we're going through the International Energy Conservation Code, there might be...you know, we can...we can create an additional bill or amend this bill, or there might be some way to put it into the International Energy Conservation Code for Maui County that would address all the private structures. But you know, that was one of the suggestions given to me by

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Mr. Whittaker of Corp. Counsel was to...you know, if we look at the private sector, try to marry that with our work on the IECC.

COUNCILMEMBER JOHNSON: I see. Thank you. Thank you, Chair.

CHAIR KING: Thank you. Member Sugimura, did you have a question? . . .*(inaudible)*. . . You're muted.

COUNCILMEMBER SUGIMURA: Yeah. I just wanted to ask Josh, since he mentioned it, what is the name of the computer...or software that you recommend that we look at since Kelly's looking at this for budget? I just wondered.

MR. STANBRO: Yeah, Alex might be able to confirm, but I believe the one that almost everybody uses is the ENERGY STAR Portfolio Manager. And I think it's generally used by a bunch of public institutions. It may be an EPA tool, actually, and it's sort of a nominal cost, but Alex would probably know.

CHAIR KING: I think they're actually already looking at --

MR. STANBRO: Yeah.

CHAIR KING: -- that software for the Johnson Controls contract. So do you want to . . .*(inaudible)*. . .

COUNCILMEMBER SUGIMURA: Oh, it's not even something we would have to purchase, then?

CHAIR KING: No, it would...I think they're already purchasing it in this contract. They might have to...there might be another expense if it's expanded to all County buildings, but...do you want to speak to that, Alex?

MR. DE ROODE: Sure thing. Yes, ENERGY STAR Portfolio Manager is an EPA tool. My experience with it is that it's a free tool. So we're asking Johnson Controls, for the buildings that they end up covering under their ESPC contract, that they would enter that data into ENERGY STAR Portfolio Manager. The buildings that aren't covered would then also need to be added to that to get the full portfolio of buildings across the County. There are...there are also, when you're getting into, you know, the private sector putting data in, there are ways, through software tools like Green Button and Green Button Connect that you can take utility data straight from the utility and have that aggregated into a...to give you a better understanding of what's going on within your community. And it's automatic so that the...really, the participants don't need to be there inputting data. We just need to be able to connect it with their square footage so we understand what the EUI is, right? Not just what their energy consumption is, but what their energy intensity is, energy use intensity. I think Nicola Hedge might have a comment on that as well.

CHAIR KING: Director Hedge.

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MS. HEDGE: Oh, yes, certainly. Thank you, Chair. And happy to just underscore, the EPA tool is free. And so certainly at this point there might not be any need to procure software to do the County facilities and use the software. But to Josh's point, it is very helpful, if you are looking ahead, to...working with the broader community, as we had worked to do. And then certainly we've done a lot of outreach to date here in Honolulu on that. And if you're anticipating that, it's really helpful to look to a software tool. . . .*(timer sounds)*. . . I can put a link. There is great specifications out there, and it would be separate from EPA Portfolio Manager's tool. And that would basically help you then communicate. There's several functions that it helps you take the data from EPA Portfolio Manager. You can be communicating with building owners outside the City and the County. And so it will really help you with those next steps. If you're doing it early on, to Josh's point, it can help you practice on your own facilities and using that system early.

COUNCILMEMBER SUGIMURA: Thank you. Thank you, Chair.

CHAIR KING: All right. Thank you. Member Paltin.

COUNCILMEMBER PALTIN: Thank you. I had a question, I guess, maybe for Ms. Hedge and Mr. de Roode as well, in us talking about the responsible party, whether it's the Department of Management or CCRS, and I thought that you had said City and County of Honolulu has the responsible party as CCRS; is that correct, Ms. Hedge?

MS. HEDGE: Thank you, Councilmember. We are...we are tasked through the current ordinance to work with other Departments to ensure that that happens, especially with knowledge that our Department of Facilities Maintenance manage a...you know, a wide array of our facilities, but not all of those owned, and that would be required to comply. So we're helping in sort of that lead coordinating support education role. But certainly, the benefit is those agencies, if they...if they can do it, you know, on an ongoing basis themselves, they get the benefit of the...of the action and seeing that data on an annual basis rather than just us reporting for them. So we're sort of working hand in hand, but we're the lead.

COUNCILMEMBER PALTIN: And how did you folks choose CCRS as opposed to the Department of Management? Or was Department of Management never considered in City and County of Honolulu?

MS. HEDGE: Thank you. We are definitely working with them. One of their first tasks within the City Charter is to look at energy efficiency within buildings. And so certainly we'll continue to work with them. I think part of the opportunity was, you know, us to step up and help support, just given our interest, alignment with our climate goals. And then also, because of that fact that they don't manage all of the buildings that would be covered, it was seen to be helpful to have an additional coordinating entity such as ourselves help support. So I'm not sure how that may relate to how you're structured in County of Maui.

CHAIR KING: Okay. But you're...but in your ordinance, it says...it says your office, CCSR? Okay. And so I think...is that why you wanted to ask Alex next?

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COUNCILMEMBER PALTIN: Yeah. I was...I mean, would it be okay in the ordinance to say Department of Management with assistance from CCRS? Or I mean, I'm not sure on the wording for lawyers.

CHAIR KING: Yeah, maybe...Alex, could you speak to that, and also the fact that, you know, Department of Management is in the Charter, but CCSR is not in the Charter. So you know, it was created by the Mayor. So yeah, I was worried about, you know, if we didn't have that office. . . .(timer sounds). . .

MR. DE ROODE: So I think...I think housing it in Management gives it more permanency. I mean, I'm hopeful that CCSR will continue on for...and have a long life here within the County and will be permanent. Maybe eventually having it be its own Department or being part of the Department of Management may make sense down the road. The other...so that's where I think, to Nicola's point, it's...it...us playing a facilitation role, a support role in this is really more realistic than us singlehandedly, you know, taking utility bills and crunching all the numbers ourselves. I will say I hope that we can be as well staffed as the CCSR Honolulu Office someday, but right now we do have limited bandwidth and resources within our office. So that again could be a conversation as...you know, budget is coming up. If we wanted to expand our responsibilities in this area, that that's an option too. But I do think doing it in tandem with Department of Management and the Departments themselves taking some ownership for that makes a lot of sense.

CHAIR KING: Okay. Did that answer your question, Member Paltin?

COUNCILMEMBER PALTIN: Yeah, I just...I guess before we pass it, we just want to make sure that Department of Management is willing to accept the role.

CHAIR KING: Well...

COUNCILMEMBER PALTIN: At least aware of it.

CHAIR KING: Yeah, or...yeah, in...you know, my preference, because I don't have any more time in this Committee before budget, would be to pass it out of Committee. You know, change it to Department of Management and pass it out of Committee. And then meet with...I'll meet with Department of Management on this before it comes to full Council if that's acceptable to everybody here. And then we can do the other amendment and change...flip the building size dates. So if there's no other...if there's no other burning questions...oh, Member Molina.

COUNCILMEMBER MOLINA: Yeah, thank you, Madam Chair. Just a question for Ms. Hedge. With your legislation on...at City and County, when was that legislation passed, and do you recall how many, I guess, Council meetings it took?

MS. HEDGE: Thank you, Councilmember Molina. We...it was passed in December 2020, and I regret I don't remember offhand quite how many, but we do have the process of at least the three, you know, full Council readings and two Committee hearings just with

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every passage. I know there would've been conversations I recall about the bill because it was more expansive, it was about the role of our office modifying some of those that Josh may...you may recall having been in that. But it certainly went through at least that process over the course of a...of just a handful of months. And this was just one aspect of that.

CHAIR KING: Josh may have more information on that because I think you were around back then.

MR. STANBRO: Yeah, I can confirm it went through the full process, three full Council hearings and two Committee hearings over about a three or four-month period. And part of the reason why CCSR was ultimately tasked with this is previously there had been an ordinance requiring what is essentially our, you know, Managing Director's Office to report the fuel and energy usage of each Department annually. So it was kind of a very rough, rudimentary benchmarking, where it was just looking at how much electricity and how many millions of dollars were spent on energy and fuel use for many years. That was sort of delegated to CCSR from the Managing Director's Office, to do that coordinating role. And so part of what happened in that December 2020 bill was essentially reformulating that reporting requirement, along with benchmarking and consolidating it in CCSR. So that was part of the reason why it was housed there, because that work was already being done at the sort of baseline level at the office.

COUNCILMEMBER MOLINA: Okay. All right. Thank you very much, Mr. Stanbro and Ms. Hedge. And Madam Chair, why I ask this is because I'm kind of really not fully on board to move it out of Committee just yet for today's purposes. Like Member Paltin said, I think maybe it's important we hear from Department of Management, get them here at a Committee meeting, rather than assuming this passes out of Committee and then they come to Council. And I know Chair Lee would prefer not to do Committee work at a Council meeting. So my preference would be to at least defer. We'll get that information from Department of Management, or have them here at another meeting so we can get them right here on the floor and see what their take is on that before we take Committee action. So that's my stance, Madam Chair. Thank you.

CHAIR KING: Okay. Would you be willing to do a special meeting for that? Because I don't have any...you know, we cut out one of the meetings because of all the GREAT Committee meetings going over the Charter amendment. So the number of meetings we have before budget is really limited. Would you be willing to come to a special meeting for this bill to make this bill pass?

COUNCILMEMBER MOLINA: I guess if that's the will of the majority. I guess it just depends when we can schedule it. So I'm open, whatever it takes. And I know now...I know now we're not doing the pre-budget hearings, if I'm correct, yeah. So there is some time that's opened up. Because if you recall, the last several years, Budget Chair Rawlins-Fernandez has asked all of us in Committee to hold, you know, pre-hearings with our respective Departments. So now that's been eliminated. That might free up a little bit more time during an off week if necessary. I mean, I guess we have to decide how time sensitive this is. I mean, could this...look at this after budget? So anyway, I'm just sharing my thoughts.

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CHAIR KING: Let me...let me...let me just...let me check with...let me just take a pulse of how many folks would be supportive of passing this out of Committee today or possibly waiting until after budget. So you know, just maybe give a thumbs up if you're...if you're supportive of that. Okay. Okay. I think we should go ahead and do it. Chair Lee, did you have a concern?

COUNCILMEMBER LEE: Yes. First, I wanted to say that on O'ahu, they have a different system. They say three readings, but the first reading's actually receiving the item just as we do. So in a sense, we have three readings.

CHAIR KING: Right.

COUNCILMEMBER LEE: I fully...I fully understand what Mr. Molina's saying, but I also know that we have time constraints. And I see this vehicle as a way of saving millions of dollars for the County, and at the same time using our energy sources wisely. So yes, you know, it would be great if we could have one more meeting, but due to the Charter amendments, it's going to be a little hard to do. Possible, but little hard to do. Thank you.

CHAIR KING: Okay. Thank you, Chair Lee. All right. Member Sugimura, and then I'm going to call for the question.

COUNCILMEMBER SUGIMURA: So I hear what Member Molina is saying, and I just wonder if...from what Mr. de Roode was saying, that he already has the contract with Johnson Controls to do the ESPC. And so the benchmarking part, he said that there's two ways...I mean two things happening, right? One is the RFP that has already been awarded. And so that can proceed. And the benchmarking, if I understand this correctly, is going to capture the data and create a document, which is the Phase II. And so I...unless I'm not understanding what Mr. de Roode said, but I can understand...that's why Mr. Molina's question I think is relevant to make sure we have all...you know, the process in line before we pass it. So I believe...if I'm mistaken, then maybe there's an urgency, but if not, I think that if this happens after budget, the benchmarking can still happen as a byproduct of the contract that was RFP'd out to Johnson Controls.

CHAIR KING: Okay. Well, let's try to get a motion on the floor first, and then we can have this debate, Member Sugimura, because I think, unless you have a question...

COUNCILMEMBER SUGIMURA: I'm not debating. I just wanted to, you know, get clarification on it, but yeah, we can...we can do that.

CHAIR KING: The indication I got from Mr. de Roode was that he felt that this bill would be beneficial in backing up what they're doing with Johnson Controls. So anyway, I'm going to go ahead and entertain a motion to--and we'll do a couple of...we'll do the amendments after the motion--recommend passage on first reading of Bill 23, entitled "A BILL FOR AN ORDINANCE AMENDING THE BUILDING CODE RELATING TO ENERGY AND WATER USE PERFORMANCE BENCHMARKING," allowing Staff to make

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any nonsubstantive revisions.

COUNCILMEMBER JOHNSON: So moved.

CHAIR KING: Moved by Member Johnson, seconded by Chair Lee. And then...so I'm going to call on Vice-Chair Sinenci for amendment.

VICE-CHAIR SINENCI: Yeah, thank you, Chair. And move to amend the main motion by striking the Department of Finance, and in its place substitute it with the Department of Management.

CHAIR KING: Okay. Moved by...

COUNCILMEMBER LEE: Second, second.

CHAIR KING: Moved by Vice-Chair Sinenci, seconded by Chair Lee to replace the Department of Finance throughout the bill with Department of Management. And you want to speak to the amendment, Mr. Sinenci?

VICE-CHAIR SINENCI: Sure. And yeah, from my understanding, the urgency is to also put into the budget to help with getting the software to achieving...

UNIDENTIFIED SPEAKER: I thought the software was free.

CHAIR KING: Okay. Member Paltin, do you want to speak to the motion, or do you have a...

COUNCILMEMBER PALTIN: I have a friendly amendment to include replacing Director of Finance with Director of Management and any other nonsubstantive changes.

CHAIR KING: Oh, okay.

VICE-CHAIR SINENCI: Friendly.

COUNCILMEMBER LEE: Okay.

UNIDENTIFIED SPEAKER: Okay.

CHAIR KING: Okay. Accepted. And then we'll do this amendment, and then we can address the building size, switching the building size dates next. Okay. Any more debate on...or questions or comments? If not...oh, I guess we have to do roll call vote? Chair Lee.

COUNCILMEMBER LEE: Yeah. Since we do have time before, you know, first reading, could you...not as an amendment, but could you make contact with the Management Office?

CHAIR KING: Absolutely.

COUNCILMEMBER LEE: And make sure that, you know, they're on line with this, yeah?

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CHAIR KING: Right. I'll have a meeting with Sandy Baz and Alex together so we can discuss it. Okay. Member Sugimura.

COUNCILMEMBER SUGIMURA: I'll speak...I'll speak when you take up the main motion. Thank you.

CHAIR KING: Okay. I don't know. Do I have to go through roll call vote too, for Committee, Chair?

COUNCILMEMBER LEE: Yes, you have to because it's not unanimous.

CHAIR KING: Okay. So Ms. Milner, can you take the roll call vote?

MS. MILNER: Yes. Councilmember Sugimura.

COUNCILMEMBER SUGIMURA: Sorry. No.

MS. MILNER: Councilmember Paltin.

COUNCILMEMBER PALTIN: Aye.

MS. MILNER: Councilmember Molina.

COUNCILMEMBER MOLINA: No.

MS. MILNER: Council Chair Lee.

COUNCILMEMBER LEE: Aye.

MS. MILNER: Councilmember Johnson.

COUNCILMEMBER JOHNSON: Aye.

MS. MILNER: Committee Vice-Chair Sinenci.

VICE-CHAIR SINENCI: Aye.

MS. MILNER: And Committee Chair King.

CHAIR KING: Aye.

MS. MILNER: Chair, that's five ayes and two noes.

CHAIR KING: Okay, measure passes.

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**VOTE:       AYES:   Chair King, Vice-Chair Sinenci, and Councilmembers Lee, Johnson, Paltin.**

**NOES:       Councilmembers Molina and Sugimura.**

**ABSTAIN:   None.**

**ABSENT:    None.**

**EXC.:       None.**

**MOTION CARRIED**

**ACTION:   APPROVE amendment.**

CHAIR KING: And do we have an amendment...I'd like to recommend an amendment to change the initial reporting dates for...and switch the 10,000 square feet with the 50,000 square feet so that we're addressing the 50,000 square feet buildings first, and then also to change the wording of covered facilities containing a floor area of 10,000 gross square feet or greater, but less than 50,000 square feet. So that makes that a separate category from 10,000 to 50,000. Member Paltin.

COUNCILMEMBER PALTIN: Oh, just clarification. So are we...we're changing the initial disclosure dates as well so that the floor area greater than 50,000 is first --

CHAIR KING: Correct.

COUNCILMEMBER PALTIN: -- August 2023? Okay.

CHAIR KING: Correct. And then just, you know, renaming the second category as 10,000...greater than 10,000, but less than 50,000.

COUNCILMEMBER PALTIN: And corresponding that to the August 30th, 2024 date?

CHAIR KING: Correct.

COUNCILMEMBER PALTIN: Okay, got it.

CHAIR KING: Okay. Do we have the motion for that amendment? Moved by Member Paltin, seconded by Member Sinenci. Okay. Any discussion on that? That was a recommendation made by O'ahu folks and our...and Mr. de Roode. Lesley, do you want to go ahead and do the roll call on that second amendment?

MS. MILNER: Yes, Chair. Councilmember Sugimura.

COUNCILMEMBER SUGIMURA: No.

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CHAIR KING: Member Sugimura, followed by Member Sinenci.

COUNCILMEMBER SUGIMURA: I want to get my question clarified, if you would allow Mr. de Roode to talk about it, where I was thinking that this was like a two-step process. I understand benchmarking is...its role, as well as the RFP for Johnson Controls was sent out. So they're going to do their work. And I look at it as two separate pieces. So therefore, I didn't think the urgency to, you know, get it done at this very moment was there. But would you allow Alex to answer that question?

CHAIR KING: Sure. Maybe...

COUNCILMEMBER SUGIMURA: Thank you.

CHAIR KING: Alex, if you're there, can you maybe just repeat what you said earlier?

MR. DE ROODE: Sure. Yes, Councilmember Sugimura. So the...I think the urgency lies in not knowing which buildings will be part of the ESPC and which will not. So there may be several buildings excluded from the ESPC if energy conservation measures are not identified for those, or if the ones that are identified, the County decides not to pursue. And so it would be basically a subset of all County buildings that would be benchmarked that end up being part of the ESPC, whereas this bill would cover all County buildings and provide a little more guidance in terms of prioritization of those...of which buildings get benchmarked. And then you mentioned about the software. It is free for EPA Portfolio Manager, but what Deputy Director Hedge was referring to is additional software to help communicate and visualize the data. That's one thing we have. For example, Tableau is one such software. And then also, as we move to the private sector, that would have some additional costs. So those are...those are where the costs might come in, as well as any additional staffing needed.

COUNCILMEMBER SUGIMURA: Oh, so you're saying we need to buy Tableau, or software, or do you have it already? I know Tableau's out there already.

MR. DE ROODE: Yeah. That is something we've had. We need...basically we just need to renew the license. So that's something we've been doing yearly, but it's an ongoing cost for data visualization.

COUNCILMEMBER SUGIMURA: That you would do...that you would do it anyway? It's not necessarily because of this?

MR. DE ROODE: Correct. It's a...it's a tool you can use for many different purposes to visualize data, not just for benchmarking. But it does take...it does take expertise with the software, as well as quite a bit of time to input the data into it and get it...get it where you need it. So that's where some of the cost may lie if we...if we use that.

COUNCILMEMBER SUGIMURA: And you made that...and you made that . . . *(inaudible)*. . . already, which is...which would be budget related? . . . *(inaudible)*. . .

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MR. DE ROODE: I'm sorry, could you repeat that?

COUNCILMEMBER SUGIMURA: Oh, would you need another EP? Based upon what you just said, would you need another EP to justify the specialty to do the benchmarking with Tableau?

MR. DE ROODE: Yes, I...you know, I feel, given what we currently have on our plates in the office and this added responsibility would require additional staffing. And if we follow an example of what Josh Stanbro is suggesting with City and County of Honolulu that for the full buildout of the program, they foresee one full-time Staff needing to be there for this.

COUNCILMEMBER SUGIMURA: Thank you.

CHAIR KING: Okay. Thank you, Member Sugimura. Anybody else? Member Sinenci, followed by Member Molina.

VICE-CHAIR SINENCI: Thank you, Chair. Yeah, I wanted to thank the resources that were invited today. And hearing from our resources today, and also from the recommendations from our Staff, as well as the Department personnel that are currently working on building energy use, I am supporting the motion today. I think as the County moves forward, and including purchasing of older buildings that are saving the County money as far as new construction costs...but I believe this process would help the County inventory those buildings that we're acquiring, just kind of help to really save some of the...hopefully save monies moving forward. Thank you.

CHAIR KING: Thank you, Mr. Sinenci. Member Molina.

COUNCILMEMBER MOLINA: Yeah. Thank you, Madam Chair. First of all, thank you for introducing this legislation, but for me, I can't support it out of Committee today. Primarily, we had the turn of events here. It was assumed that Department of Finance was going to oversee this, but then upon hearing Director Teruya's comments, as well as Mr. de Roode, I felt it was necessary that maybe we wait, have one more meeting, get Department of Management here, get their take, because there's some budget considerations may...that may well have to be considered. So for me, it's just more out of principle. I...like any legislation out of Committee, sometimes there may be more I's that need to be dotted or T's to be crossed. So that's my primary reason for my hesitancy to support this and...but certainly, the intent is good. And like was stated from other Members, this is something that, you know, will benefit the County in the long run. This is about, you know, transparency too. And I know you're going to meet with them. That's wonderful, but I want to get the Department here in full view of the public to respond to any questions from not only you, but all of us as the Committee. So that's why, for me, I cannot support this. And I know we're maybe up against the clock with budget coming up, but we met before last year during an off...we had off week meetings on matters related to GREAT and even other Committee meetings. We've had PSLU meetings in the off week, Affordable Housing meetings in the off week, even maybe APT if I'm correct. So off week meetings are no stranger to us. So if we feel it's that important to meet in the off week, we'll do it. And of course, now that Budget

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Chair Rawlins-Fernandez has lifted that request for us to have pre-budget meetings in our Committees before we go into budget session...so there is some time. And as far as Charter amendments, I've not been officially aware of what Committee Chairs are going to give their Committee meetings. So it's news to me right now. If something's officially been affirmed, honestly, I'm not aware of it, but I'd appreciate, you know, if anyone is going to give up their Committee time to address all the Charter amendments, that's great. And we may not even be dealing with 40 Charter amendments. So since this topic was brought up, it may be a lot less than that because they had their hearings and members of the public have said, let's reduce the amount of Charter amendments. But anyway, I don't want to stray too far off into that topic, but as far as meeting time, if we needed to meet during the off week, I would be...make myself available. But if this passes out of Committee, so be it. Anyway...and at first reading I'll make additional comments, and hopefully we get a good, positive response from the Department of Management. But regrettably, I cannot support the matter out of Committee for today. Thank you.

CHAIR KING: Okay. Thank you, Member Molina. Okay. Any other comments? If not, for...I'll just make a quick comment that for me, you know, this is not something terribly new. We've talked about it before in Committee. And it's always great to have other Councils to...you know, a Council that passed similar legislation so we don't have to reinvent the wheel. And indeed, we have another Council...Big Island is looking at our Sunscreen Bill, you know, and they won't have to spend as much time as we did on it, because, you know, we had all the information discussed in our Committees. So I'm comfortable with passing this bill, and comfortable that we are putting it into the right Department, although I will have that discussion before it comes to first reading. And I think almost everything having to do with climate change is urgent, but certainly getting on board with benchmarking. Putting it off for another month or two, to me, is not...there's no sense in that. So with that, I would like to go ahead and call for the question. Ms. Milner, can you do a roll call vote?

MS. MILNER: Yes, Chair. Councilmember Sugimura.

CHAIR KING: You're muted.

COUNCILMEMBER SUGIMURA: No.

MS. MILNER: Councilmember Paltin.

COUNCILMEMBER PALTIN: Aye.

MS. MILNER: Councilmember Molina.

COUNCILMEMBER MOLINA: No.

MS. MILNER: Council Chair Lee.

COUNCILMEMBER LEE: Aye.

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**CARE-11: CONSTRUCTION AND BUILDING MATERIALS AS A  
SOLUTION TO COMBAT CLIMATE CHANGE (CC 20-174)**

CHAIR KING: And Members, we'll go right into our...I was so excited to pass that bill, I forgot to thank our resources. So I had to have my Staff write...send them a special email. And we have some special resources for this item as well. So we're on CARE-11, Construction and Building Materials as a Solution to Combat Climate Change. No legislative action is planned, but we have...we're joined today by Energy Commissioner Alex de Roode and Green Building and Resilient Housing Specialist Hannah Shipman from the Mayor's Office of Climate Action Sustainability and Resiliency. And if you could recall, Members, we added that...the third position in that office to focus on, among other things, the idea of a local construction building material industry. And so the person...so we'll get to meet the person who filled that...that's filling that position today. It's Hannah Shipman. We're also joined by Char O'Brien, President of Carbon Drawdown Solutions, Incorporated. And David Sands, the Founder of Bamboo Living has also joined us today. Today we will receive information and discuss sustainably sourced building materials as another avenue to assist in the battle against climate change. And of course, the side benefit is trying to find a cheaper source of building materials because with...the pandemic has just driven prices up sky high, and I'm actually personally being told by builders that, you know, the price of a piece of plywood has tripled, if you can find it. So we have issues here, and this is a way to get ahead of it. And so we're so welcome to...we're so happy to welcome the resources we have today. So if there's no objections, I'd like to designate Commissioner de Roode, Ms. Shipman, and Ms. O'Brien, and Mr. Sands as resource personnel in accordance with Rule 18 of the Rules of the Council.

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

CHAIR KING: Great, thank you. Okay. Without further ado, then we're going to go into...I think we have three PowerPoints, and I think the first one is Ms. Shipman. And just can you give us an idea...I think we allowed ten minutes for your PowerPoint. That sound right?

MS. SHIPMAN: I got 15, or was told 15.

CHAIR KING: Okay.

MS. SHIPMAN: Is that okay?

CHAIR KING: Okay. Yeah, we just...we're running a little bit tight for asking questions. So if you can try to maybe run by it quickly, just so . . .*(inaudible)*. . .

MS. SHIPMAN: Yeah. I can skip a few things.

CHAIR KING: Okay, great. All right. Thank you. Go ahead, share screen and take it away.

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MS. SHIPMAN: That look good? Everyone can see?

CHAIR KING: Yes, we can see and hear.

MS. SHIPMAN: Great. Aloha, CARE Committee. My name is Hannah Shipman, and I'm the new Green Building and Resilient Housing Specialist for the County of Maui, a part of the Office of Climate Change Resilience and Sustainability [*sic*]. So this is my first time presenting at a County Council meeting, and I'm only on my fourth week at the County. So please bear with me as I continue to get my footing. But thank you for having me today. I'm excited to chat about sustainable and locally sourced building materials as a means to combat climate change. So why is it important to generate sustainable and locally sourced building materials? So investing in local building materials can reduce our reliance on imports and foster a more sustainable production supply that keeps construction capital here in Hawai'i. Last year Hawai'i's builders experienced higher than normal material costs, long lead times, and in some cases, no availability due to global supply chain issues. So according to Harvard's 2021 joint study of housing, lumber prices increased by 90 percent from the previous year nationally, while steel prices rose 67 percent. So in Hawai'i, as Chair had mentioned, a standard sheet of plywood cost builders nearly \$100 last June, which was four times higher than before the pandemic. So today the lumber market has stabilized...you know, or is stabilizing, but the price jumps experienced at local hardware stores over the past year reminds us that in Maui Nui, we rely on a well-functioning trans-Pacific supply chain to receive our building goods. So growing, processing, and using those building materials here in Maui County allows for more job opportunities, supply chain stability, decreased carbon footprint, and promotes a circular economy. It's perhaps fair to say that climate change is the greatest threat to our future security, and our buildings are responsible for around half of greenhouse gas emissions, both during the construction process and in use and maintenance demands once inhibited. So let's explore some greener options that could be successful in Maui County. I wanted to talk about a few of those today; timber bamboo, industrial hemp, and the three Rs: reduce, reuse, recycle. I know we have someone here to talk about bamboo as well, which is exciting. So I'll, you know, let him talk about what he's done, which is really amazing, but I'll touch on a few things. So bamboo has long been a structural building material in tropical regions, such as Bali, the Philippines, and Brazil. However, bamboo wasn't allowed as a building material in the U.S. until 2007, when Hawai'i based architect, David Sands, who we get to have today--so I'm excited as well--got that single species of bamboo grown in Vietnam approved by the ICC. Bamboo's one of the fastest growing wild grasses on Earth. It reaches heights of full maturity in as little as three years, and regenerates quickly after harvesting. So some bamboo species can grow over 35 inches in a single day. What's its benefits to the planet? Aside from bamboo's rapid growth rate, the production of bamboo also yields benefits to the planet. A complex root network anchors the soil, preventing erosion when rain or flooding occurs. It also helps the soil retain water, aiding in moisture regulation throughout the rainy and dry seasons. Bamboo also absorbs more tons of CO<sub>2</sub> than trees due to its extreme growth rate, and is entirely recyclable. I'm not going to get too into bamboo because we're going to hear more about that, but something I found really interesting is bamboo has the same...some species have the same strength ratio as steel, and almost twice the comprehension ratio of concrete. So it's not bad for a hollow, lightweight grass. These

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are some of those bamboo structures, which I'm sure we'll hear more about, but I also wanted to note that we do have one, you know, here, and built in Hawai'i, in Maui County, already. And then I wanted to note Whispering Winds, who does these bamboo carport sheds and pavilions. So we're also seeing those here as well. So I wanted to talk a little bit about industrial hemp. So hemp is a sustainable building material, and with its green credentials and multiple uses, it's really set to become a valuable crop in the future. So yes, hemp is from the plant species *cannabis sativa*. However, industrial hemp grows taller in clusters similar to corn. It's also higher in fiber, and needs to have a point...0.3 percent or less of THC. So hemp structures aren't new, and date back to the Roman times. So for example, a hemp mortar bridge was constructed back in the sixth century when France was still Gaul. So hemp can grow from seed harvest in only a few months with less fertilizers than needed for industrial crops like corn, without chemical fertilizers or bug sprays, making the potential for profit really huge. So hemp is also a wonderful crop to rotate. Its long roots circulate air, which improves soil quality. Some uses of hemp in building materials are hempcrete, lime hemp plaster, and using hemp for insulation. Hempcrete consists of hemp shivs, the woody core of the hemp plant, broken up into something resembling fine wood chips, which is then mixed with a lime based binder and water. So a recent paper from the Journal of Cleaner Production found that hempcrete performs as a building material in terms of insulation, durability, structural strength, and acoustic control. Overall, they found hempcrete meets the current standards of most building applications, and in many cases outperforms materials currently used, particularly for insulation. Hempcrete has numerous advantages over other building materials, including being fireproof, nontoxic, sustainable, breathable, no mold, and highly insulative. In addition, hempcrete has a high thermal capacity compared with concrete, making it good for both the structure of the walls and its insulation. However, hempcrete is not a direct replacement of concrete because it has a low compressive strength. Basically, it can supply the loadbearing structure of a building, but...it can't supply the loadbearing structure of a building, but can insulate and cover its walls. The environmental impact. According to a recent study, hempcrete can sequester 19 pounds of CO<sub>2</sub> per cubic foot. Plants absorb carbon from the atmosphere as they grow. And due to its rapid growth rate, hemp is able to lock up more carbon per hectare than just about any other plant, including trees. This is similar to bamboo. When this biomass is harvested, mixed with lime, and put into a building, it locks up that carbon for a lifetime of the building. So the lime also offsets the energy used to manufacture it by reabsorbing carbon from the atmosphere as it sets over time. Most conventional building materials have high embodied carbon, meaning they emit significant levels of carbon dioxide into the atmosphere during their production. Hempcrete actually absorbs more carbon than it emits during its manufacture, making it carbon negative. But not only can hempcrete itself sequester carbon, but its use can help reduce the production of more CO<sub>2</sub>. Hempcrete can also cut down on another big problem, which is construction waste. So concrete represents more than half of the debris generated by building construction and demolition. The U.S. Environmental Protection Agency estimates that more than 23 million tons of concrete debris was created during construction in 2015. And while hempcrete can't be used for the structural sections of a building, it can be used to replace nonstructural elements of walls that traditionally would use concrete. Hempcrete can also be used in place of common construction materials like drywall and plaster, which accounts for about 8 percent of building construction debris. Some

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challenges with hemp. First is availability. There are only about a dozen...a little over a dozen hemp processing plants that are able to process hemp into the form usable in the creation of hempcrete, and most are in Europe. Another major challenge is the legality of growing hemp, which is still limited by regulatory constraints of hemp cultivation. But laws are beginning to change in the U.S. The 2018 Farm Bill allows for the broader cultivation of industrial hemp, but with tight restrictions on grower's licenses and the level of THC. We're already seeing hemp homes in Maui. George Rixey, an architect and designer, has actually build two. So the one shown in these images here is an 'ohana that was built in 2015, and they actually--which was pretty cool--allowed the people in the community to come and walk through this structure. In 2016, he also build a 6,000 square foot luxury hempcrete home in Kihei, and he said the building's approximately 10 percent more expensive than it would have been using conventional materials, and that increase included ordering the materials from Canada since hempcrete was not being made in the U.S. in 2016. Next, we have the three Rs: reduce, reuse, recycle. And I know we learn all of this from a young age, but it really applies to building materials. So you know, with reducing, a small carbon footprint is always going to be more sustainable. So for example, what if we just had one bathroom instead of two or three? What if we had a single garage or no garage? And I understand that for most people this sounds extreme, but smaller homes require fewer materials to construct, less energy to run and maintain, and less water. This also goes for making a home more minimalistic when building, and of course. having more high performance homes, making them more efficient and more affordable in the . . . (inaudible). . . That brings us to reuse. Reuse could also be repurposing or upcycling, for example, reusing old materials from a previous build, say you have extra lumber or flooring. This is also relevant when renovating a home. Upcycling is repurposing with added value. So you...say you take apart a door, you have a extra door. You can cut the panels off, turn it on its side, paint it, and create a one of a kind headboard. So encouraging builders to bring their scraps and things that aren't used, their extras, to resellers like ReStore by Habitat for Humanity is a great way to reduce waste and keep building materials out of our landfill. Residents or builders are able to purchase these leftovers from ReStore and use them in their own renovations. And then recycling. If you think about the sheer volume of materials used throughout the building process, recycling building components makes logical sense. It reduces the demand for new resources, cuts costs related to production and transportation of new materials, and eliminates the need to send waste to landfill sites. So many common construction and renovation materials can be recycled, such as concrete. It can be broken down and recycled as base course for building driveways and footpaths. Asphalt paving is crushed and recycled back into new asphalt for paved roads. Trees and brush are recycled as compost or mulch. Timber, large dimension lumber, plywood flooring, and molding can be reused directly. And then metals, such as steel, aluminum, copper, can be melted down and reformed into new metal products. They can also be sold for scraps. So just a few recommendations. Today we discussed a few greening...green building solutions that may work in Hawai'i. I recommend conducting a study to examine those materials, technologies, design, construction, and overall operation of sustainable building materials to determine which materials are best to succeed in Maui Nui. And then also recommend conducting a pilot program to test out these materials in our climate and topography to see how they weather. And then of course, getting it into building codes can be a parallel discussion. So these options and potential solutions

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will promote a circular, resilient economy for Maui Nui. So thank you so much for having me.

CHAIR KING: Okay. Thank you so much for giving us your presentation. Can you remove the...or do the stop share so we can get back...faces back? Great, thank you. Thank you, Hannah. I really appreciate it, and I'm so glad to have you aboard working on this issue, this really important issue. So next we'll go into...so Members, write down your questions. We're going to go right into a presentation by Char O'Brien. Char, are you here?

MS. O'BRIEN: Can you hear me? . . .*(inaudible)*. . .

CHAIR KING: Yeah, we can...we can't see you.

MS. O'BRIEN: Can you see me?

CHAIR KING: No, can't see you.

MS. O'BRIEN: Okay, let me see. There we go. Hit on.

CHAIR KING: Huh. You know, if you want to go into screen share, I think...you have a PowerPoint?

MS. O'BRIEN: I do.

CHAIR KING: And if you can...if you can try to maybe go for about five minutes.

MS. O'BRIEN: I will try. I'm not seeing my screen share though. Let's see.

CHAIR KING: There's a...an icon at the top of the...at the top of the screen that...it looks like a computer monitor. Click on that. That's the screen share.

MS. O'BRIEN: Yeah, it's not getting there. Sorry, I'm...Axel said that he could show it if I couldn't.

CHAIR KING: Could you show it, Axel? And all these presentations, I believe, are on Granicus too. Okay, yeah. Lesley said she could show it. Why don't you go ahead and pull it up, Lesley? . . .*(inaudible)*. . .

MS. O'BRIEN: I can't even...let's see. . . .*(inaudible)*. . .

CHAIR KING: . . .*(inaudible)*. . .the next, you know, 10 to 12 minutes so we have time for...

MS. O'BRIEN: Oh, there we go. Great. Great. So Hannah did such a great job I don't need to do too much of this. I just wanted to show you a few benefits, or the environmental benefits of bamboo. We can go through it quite quickly. Go ahead and just shift.

CHAIR KING: Next.

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MS. O'BRIEN: And I think each of you has this in case you want to look it up. There we go. So keep going. Pictures of bamboo. Prepare to fall in love. This is...was a gift from nature. Go ahead, go ahead. Okay. And it's a climate change hero, and I'll show you why. Keep going, keep going. . . .*(inaudible)*. . . and notice the...notice the water above the bamboo. This is in Vietnam. This was an area that during the Vietnam War was totally devastated by the Americans. It was bombed to smithereens. And they...when the...when the government came into Hanoi, they paid the farmers one kilo a day to plant bamboo, and this is what happened. They revitalized that soil, they brought back the water cycles. Water cycle's so important to an island. Pardon me?

CHAIR KING: What is one kilo? Is that a monetary...you said they paid them one kilo. Is that a monetary division?

MS. O'BRIEN: A kilo of rice. A kilo of rice. I'm sorry, a kilo of rice to plant every day. Yeah. So go ahead. So a bamboo plant, you plant it and it matures in five years. Go ahead. Since you can start harvesting it in five years and you harvest it every year thereafter, you harvest 20 percent of the total plant, which is called a comb. You...20 percent of the combs on the plant every year--go ahead--after only five years in the ground. And so it controls erosion. We don't have too many rivers, but it does control erosion, as Hannah said. Go ahead. It's a pioneer plant, which means it can establish in really bad soil. That's kind of an important thing here in Maui. Go ahead. These are photos from Whispering Winds out in Maui. So...not this one. So it means it'll turn poor soil--next--into rich soil. And notice the earthworms there. This is bamboo planted in Vietnam four years after it was planted. And look at the vitality of that soil. And this soil...Dr. My Hanh chose this soil--it was her hometown--because...again, it was called the iron triangle because they had bombed the heck out of this area. It was called the iron triangle. So not much grew there. She said, okay, I'm going to show you what bamboo can do. So she planted bamboo in the iron triangle. She...about ten acres of it, and that's what happened. And then the next photo is also worm castings. And you can see how the bamboo, when it gets dry...when drought comes, the bamboo loses its leaves so it doesn't respire as much, and the earthworms and the microbes love it. Keep going. So this is...this is Whispering Winds Bamboo in Maui. And when they first planted it, you can see there was just a bunch of weeds around. And they didn't use herbicides. They just planted the bamboo and let the bamboo do its thing. Next. So this next photo is five years later, same area. Next, come on. So it does it by out-producing its neighbors. It goes up and shades it out, shades out all its competition, just rises above the crowd. Go ahead. This is also Whispering Winds bamboo. And so it creates a nice understory without chemicals. And now in this case, Whispering has 20 acres of, you know, pretty much solid bamboo, but many, many, many different varieties. Go ahead. So they've done all the experimentation for us. We know which varieties do well in Maui and which ones don't. So bamboo stems moderate water cycles, and Maui's water cycles are in trouble. And I hope this Committee knows that. So go ahead. We need to plant as much vegetation, particularly either trees or bamboo, as possible. And in routine thinning of bamboo, you get one ton per hectare . . .*(inaudible)*. . . acres of food per...just from routinely thinning your bamboo. And most bamboos have edible shoots, which can be a new treat for our tourists and the rest of us. Go ahead. So we only use the clumping type of bamboos commercially. This is

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from the Big Island. Go ahead. So you don't have to worry about runaway bamboo. That's not going to happen. So no worries. Go ahead. Go ahead. So this is Rich out at Whispering Winds, and you can see how he marks the bamboo, the different years, so he knows when to harvest it. So you don't harvest it until it's at least three or four years old. Go ahead. And so the rest of the plant is left there to protect the surrounding ecosystem, extremely important. So this avoids erosion, right? You're not...it's not like you're going in and cutting down a whole forest. You're just cutting down 20 percent at a time. The rest of it stands there. Go ahead. And as it stands there...as bamboo stands there...this is a really good example. That plant is six years old, and I counted the combs. At six years old, there are 106 combs in that thing--106. Look at...if you harvest 20 percent of it, you're harvesting 21 combs that year. You can see why bamboo has such a huge biomass. It has ten times the biomass production per acre that pine or any other wood does, ten times the biomass production. That's a really important thing that we're talking about today. Go ahead. Yeah, same biomass. Go ahead. Same...that's the same tree or clump. And you...people think of biomass as...or bamboo is thin. It's got a very thick wall. We only use the thick walls. Go ahead. You can go quickly through the next one because I'm just trying to show that bamboo is thick, and it's amazing, and it's impressive, and there's a lot of biomass, and it's a wonderful product for both building products and for biochar production. Go ahead. And it sequesters large volumes of CO<sub>2</sub>, as Hannah pointed out. Go ahead. Bamboo sequesters...every year in every hectare...go ahead. Go ahead. Go ahead. Well, that said 20 tons per hectare in the soil, 40 tons per hectare in the root system, and 31 tons per hectare in the biochar. And then one more slide shows you that if you make building materials out of it, it captures about 50 tons per hectare in the building materials. So go ahead. So that's an amazing...at least 130 to 150 tons of hectare...of CO<sub>2</sub> equivalent per hectare per year that's sequestered or avoided from growing bamboo or a biomass crop. So these...a few years ago, I went over and spoke to Hawaiian Airlines, and Botticelli was her name in charge of their offsets...or carbon offsets, and they would be the ideal company to sell the carbon offsets to because it's such a politically wonderful thing for them to do. Go ahead. So bamboo turns scenes like this, devastation, into scenes like the next one...is things like this. A couple more slides. Go ahead. So in the past, David has been building houses like...okay, the United Nations approval of the...bamboo can restore depleted soil. It's been approved by the United Nations. And it's good for the environment, good for small farmers, and good for carbon sequestration. And this is the type of home that David has been building until now. It's not the best photo, but it's the...this is round bamboo. That's not we're talking about here. We're talking about dimensional bamboo. It's an entirely different category. Go ahead. And you're all welcome to visit this house. I'm standing in it right now. And bamboo is a renewable bio choice of sort...or choice. And that's that. And I just want to sum up by saying that the multiple benefits of bamboo, of turning bamboo into OSB, which David is going to talk about, is of course, a locally made building material. There's no guesswork because it's...we're using standard construction techniques, and there's no guesswork because, luckily, Whispering Winds Bamboo has already done, you know, 12 to 15 years of research on what types of bamboo grow well in Maui. So we've already got that under our belts. David is already making bamboo plywood in the Philippines, so the technology is known. Of course, it makes local jobs. It helps with the affordable housing construction. It...and OSB creates...what's that? What?

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CHAIR KING: . . .*(inaudible)*. . . Char, don't give away...don't give away his whole presentation.

MS. O'BRIEN: Okay, sorry. All right, but let...so let me get the part that he's not going to talk about. That is local food. So in the bamboo groves, rather than using fertilizer, you can run chickens and pigs, and let them fertilize the bamboo, and eat the bugs, and eat the cover crops that they like to eat and grow well on. So it has an impact on food as well. And then also, because you don't want to grow a monocrop of bamboo, you're using your agroforestry inside the bamboo groves. So there's another food source. And then the part that I am most passionate about is that because you're growing large amounts of bamboo, you're going to be able to have a lot of scraps for making your biochar. And once you've made your biochar, you can inoculate it. And why that is important--it's more important than climate change--is rejuvenating our soils. The soils on Maui have been through a lot of abuse. As we know, they have a lot of residual chemicals. And the only way...the only way to break down those residual chemicals is through microbial action. And the things that affect microbial action are the biochar and inoculants. And that's it. So...

CHAIR KING: Okay. Thank you, Char. Appreciate your presentation. I want to go into David's presentation next. And if you --

MR. SANDS: Sure.

CHAIR KING: -- try to --

MR. SANDS: Yeah, you bet. Let's see if I can...

CHAIR KING: -- make sure we have a chance for Committee Members to ask questions.

MR. SANDS: Yeah. Okay. Let's see. Preferences.

CHAIR KING: Did you...you could try to have...you could try to have the Staff share it. Did you send it in?

MR. SANDS: Yeah. Yeah, that's...I may have to do that. And so I can just start talking and then they can put the slideshow up. For some reason it's not...click the box next to...

CHAIR KING: Okay. We're seeing it now. But just...and just say next every time you want to change.

MR. SANDS: Okay. Yeah, sure. I'll say next a bunch of times in a row because...so the big opportunity here is...there's a huge opportunity for making a large scale carbon drawdown in Hawai'i, and in the process creating a local industry and addressing, you know, affordable housing, actually being able to ship the bamboo to the mainland. We had our expert in manufacturing who was hired to come look at the eucalyptus on the Big Island. He said it doesn't work very well, but the bamboo out here will work incredibly well. So we're standing up...go ahead and slide through a couple of slides. Let's see what we got. Yeah, so this was the DLNR fundamentals. You can keep going.

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You can keep going. And you've already heard a lot of this. So I won't repeat it. It's just the bamboo is incredibly fast. So keep going. And I've been doing homes out of it for...actually now it's over 27 years. This is a home in Waimea on the Big Island. Our houses have been through four category five hurricanes with 200 mile an hour winds. So it's a phenomenally strong material. Keep going. This is my new company. It's addressing engineered bamboo building materials. This is looking at it for replacing wood for construction, as well as concrete and steel. The local...or the U.S. building code just changed to allow wood up to 18 stories, and our approval for our, you know, initial bamboo approval was basically whatever you can do with wood, you can do with bamboo. And so we'd going for the same approvals for the engineered building materials. Go ahead. Next slide. Yeah, so basically the...you know, the construction industry is an environmental crisis right now. And it's a...the square footage of buildings on the planet will double in the next 40 years, which is really insane. If we do it the way we've been doing it, we will be digging our own grave. So we need to do something different. Those buildings need to become the storage mechanism for atmospheric CO2, and that's what the bamboo offers. Again, it's got a higher strength to weight ratio than steel. It's...again, when we did our testing, it was...we had a class A fire rating, which is much, much better than wood. You can keep going. Next slide. Yeah, so it...again, it's really between 10 and 15 times faster than trees, depending on what type of trees. With Douglas fir it's about 10 times; with pine from the south and east it's about 18 times. Keep going. And so what we've done is we've developed a carbon offset methodology. We recently sold millions of tons of CO2 drawdown for a large scale project in the Philippines, where we're planting 23,000 acres of...reforesting deforested island. And that opportunity with Maui with the Central valley, which used to sustain a dry land forest and really could be a huge agricultural benefit to the island, as well as, you know, providing the carbon drawdown. Go ahead. And we're working right now on the Island of Mindanao. It's the southernmost island in the pink. And then you can see the Hawai'i chain in purple. Keep going. And we're...we really...it has huge, tremendous social benefits as well. On the right-hand side is Merna (*phonetic*), who's our Head of Nurseries there, and in the left hand side is a representative from one of the Indigenous tribes. We're, again, planting on...right now, on thousands of acres of deforested tribal land there with our Indigenous partners. Keep going. Yeah, keep going. That's the nursery. More nursery. And this is what you get. So you...on the left hand side, you can see the person with the blue hoodie down at the bottom. That's one of the giant bamboos. That's the one we're using in...mostly in the Philippines. It gets to be 100 feet tall. It can get up to ten inch diameter. We're seeing mostly five or six, but you know, it's still a huge, huge piece of material. And it's replacing itself so rapidly. So you can harvest 20 percent of that clump every year, and come back and harvest 20 percent next year. And it's...depending on the fiber strength rate that you need, you may be able to harvest 33 percent of the clump every year. That's what we do with the pole...Bamboo Living, you know, it matures in three years. Next. So really, looking at watershed restoration, groundwater recharge, there's a number of things that the bamboo will help with. And keep going. Yeah, so that's a clump over in Kapa'au on the Big Island. The...with planting about 25,000 acres here, we could end up drawing down 5 million tons of CO2 over the next ten years, which is a huge deal. And then once that bamboo is mature, you...we're harvesting every year, and we're actually...the amount of drawdown actually increases. So next.

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CHAIR KING: Are you getting close, David?

MR. SANDS: Yeah, this is pretty much the last slide, I think. Yeah. So this is it. Yeah. So this is where we're headed. We're actually looking at turning bamboo into the most affordable building material on the planet. We're standing up...right now we're in meetings to...we're already planting in Florida, in south Florida, and we're expanding for thousands of acres there, where we're going to be putting up an OSB mill. And again, like I said, the manufacturing expert that's doing that mill for us, he used to run one of the largest plywood mills in the world and...as well as large engineered lumber materials. And again, he said that this is going to work well in Hawai'i. The economics work well, and affordable back-shipping to the mainland for an export market. So yeah, we'd love to dive in and explore how this could happen in Hawai'i quickly. I'm meeting with two investors next Monday that say they may have the resources to fund a large scale Hawai'i project, but we'd love to get the County's support and get a pilot project and feasibility up and running as quick as possible. Thank you. Thanks so much, Chairman. And thank you, Committee.

CHAIR KING: Okay, thank you. Thank you for that, David Sands. Okay.

MR. SANDS: My pleasure.

CHAIR KING: So let's see if anybody's got any burning questions. We've got about 12 minutes left in our meeting. And we'll put two minutes on the clock. So starting with Member Paltin, followed by Committee Vice-Chair Sinenci.

COUNCILMEMBER PALTIN: Thank you, Chair. Thank you to the resources. My first question is, these products, hemp or bamboo, to be used by the building industry, would it be a easy crossover for like our existing construction workers to use these products, or would we need to train them in a different way to use these products?

CHAIR KING: I think that's for Mister...

MR. SANDS: I can speak to that. Sure. It's...it...actually the products we're making in Florida, that oriented strand board, is exactly the product that they're using for all the sheathing, for floors, walls, roofs, here in Hawai'i currently. So it'll be that exact same product. And then the strand lumber that we'll be building will be similar to what you would be using in 2 by 4s, 2 by 8s, you know, 6 by 12 beams, all of that. Yeah, so it's a...it's an immediate crossover. It's very easy.

COUNCILMEMBER PALTIN: And can we grow and produce that same product here, or does it need to come from that Florida because of the processing of the materials?

MR. SANDS: No, the goal will be to process it here. And again, looking at the economics of doing that, the...our manufacturing expert said he didn't see that we would be running into any major issues out here, and he's actually looked at the economic situation because of looking at the...he was hired to look at the eucalyptus on the...Kamehameha School's land.

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COUNCILMEMBER PALTIN: And just to be clear, we're not at all advocating for the running form of bamboo, which is kind of invasive along the way to Hāna, and it doesn't have the same sort of structural integrity. Is there going to be like . . . *(timer sounds)*. . . don't even try with the running? Or...

MR. SANDS: Yeah, don't even try. Yeah, I would never plant a runner. Just never.

CHAIR KING: Good news.

COUNCILMEMBER PALTIN: Thank you.

CHAIR KING: Okay, thank you. Thank you, Member Paltin. Great questions. And Member Sinenci, followed by Member Johnson. And...

VICE-CHAIR SINENCI: Thank you, Chair. And yeah, just a really quickly, David. So currently, what are the costs with bamboo versus current inflated costs of wood significantly? Higher?

MR. SANDS: Sure. So the projection is we're...once we're up and running in Florida, we'll be the most affordable wood based product. It takes 160,000 acres of pine to feed an oriented strand board mill, and it took about 16,000 acres of bamboo.

VICE-CHAIR SINENCI: Okay.

MR. SANDS: So the land use economics are dramatically different, yeah.

VICE-CHAIR SINENCI: The majority of our costs are shipping costs as well. So you'd be shipping it into Hawai'i. Okay. And then, has there been any interest in...

MR. SANDS: No, we would actually...

VICE-CHAIR SINENCI: Produce it here?

MR. SANDS: Yeah, exactly, produce it here --

VICE-CHAIR SINENCI: Okay.

MR. SANDS: -- sell it here, and export it to the West Coast. Yeah.

VICE-CHAIR SINENCI: Okay. And has there been any interest in the local construction industries or projects like DHHL to use the product?

MR. SANDS: Yeah, there's definitely interest. We've had conversations with HPM and really, being able to provide a locally sourced product that, you know fits all of the requirements of a typical...you know, what the typical wood based products are is...

VICE-CHAIR SINENCI: Okay.

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MR. SANDS: That's the goal, and then a better price point.

VICE-CHAIR SINENCI: Okay. And then do you sell like an affordable house kit, bamboo house kit that...you know, for Hawai'i residents?

MR. SANDS: Yeah. We don't yet. That would be the goal with standing up a plant, you know, the groves here plus the factory, would be that we could create materials that would be the...create the most affordable housing materials available.

VICE-CHAIR SINENCI: Okay, great. Thanks, David. Thank you, Chair.

CHAIR KING: All right. Thank you . . .*(inaudible)*. . .

MR. SANDS: Thank you.

CHAIR KING: I guess we'll go to Member Johnson, followed by Member Lee.

COUNCILMEMBER JOHNSON: Thank you, Chair. These questions are for Mr. Sands. Thank you for that fascinating presentation. You mentioned you spoke with HPM. I imagine that's their Big Island plants, right?

MR. SANDS: Right.

COUNCILMEMBER JOHNSON: Okay. So my question is in regards to the building code issues that...they have expressed to me that they have concerns. Like some of the building codes have kind of impeded them. Now, for yourself, have you encountered any troubles with building codes for bamboo?

MR. SANDS: No, but it takes a lot of money and a lot of work to get...we got national approval for the...you know, the pole that we're using for Bamboo Living. I've got a proposal to take the engineered bamboo lumber through the code...national code approval process. It's about \$200,000 to take it through that.

COUNCILMEMBER JOHNSON: Right.

MR. SANDS: And then it costs about 20,000 a year to keep it active, but it's...you know, it's part of the cost of doing this business. So we would be doing that, yeah.

COUNCILMEMBER JOHNSON: So is that like...it would require like an engineer's stamp? Is that what I'm hearing, that 200,000?

MR. SANDS: It's actually another level up from that.

COUNCILMEMBER JOHNSON: Okay.

MR. SANDS: It's the people that write the building code, ICC, they have some approval processes for materials that are not already written into the code. All of the engineered

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lumber that's used right now, like you know, I-joist and a lot of...like the strand beams and stuff like that, are covered by what they call evaluation services reports. So we would have something similar to that for the bamboo.

COUNCILMEMBER JOHNSON: Okay. Mr. Sands, I'm sorry, I'm not an engineer. So if I'm just hearing you correctly --

MR. SANDS: Sure.

COUNCILMEMBER JOHNSON: -- the ICC guides have some already accepted building materials, and every year you have to come and say...every year you have to renew this? Is that what I'm hearing?

MR. SANDS: Yeah. There's a third-party quality assurance program. . . .*(timer sounds)*. . . We use a company out of Geneva called SGS. And so it's just part of the cost of, you know, doing...providing building materials. You have to do that. Your factory gets audited.

COUNCILMEMBER JOHNSON: Okay, my time's up.

MR. SANDS: Yeah.

COUNCILMEMBER JOHNSON: Thank you, Mr. Sands. My time's up.

MR. SANDS: Okay. Thank you.

COUNCILMEMBER JOHNSON: Just tell me the name of that company again, before you...

MR. SANDS: Sure. SGS.

COUNCILMEMBER JOHNSON: SGS, okay.

MR. SANDS: SGS out of Geneva. Yeah.

COUNCILMEMBER JOHNSON: Thank you. Thank you, Chair. I have no further questions.

CHAIR KING: Great. Thank you, Member Johnson. Next, we'll go to Member Lee. Oh, you're muted.

COUNCILMEMBER LEE: Just two questions, one for Ms. Sands and one for Charlotte O'Brien. Mr. Sands, you've build several homes. How much was it per square foot?

MR. SANDS: Yeah. We're comparable with nice conventional construction. We're not the most affordable...you know, like the HPM kits are less expensive than our building packages to fully complete. But if you're building like any kind of a custom home, then we're comparable.

COUNCILMEMBER LEE: Okay. And then for Ms. O'Brien...

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MR. SANDS: But again, this is...

COUNCILMEMBER LEE: Okay. For Ms. O'Brien...

MR. SANDS: But that's for....sorry. Excuse me. Okay, thank you.

COUNCILMEMBER LEE: Yeah, we're...we have time limits. So Ms. O'Brien, can you expand on selling carbon offsets to Hawaiian Airlines?

MS. O'BRIEN: Yes. Both the Governor's Office and Hawaiian Airlines explained to me in December of 2018 is...they said that within three to four years they're going to be required by the UN to offset any international travel--not interstate, but international travel. All international flights had to pay their carbon credits upfront before they can fly. So they were very interested in buying those carbon credits locally, as opposed to paying for them in some other country or even in the mainland.

COUNCILMEMBER LEE: I see.

MS. O'BRIEN: So...and bamboo's the ideal way to accumulate those carbon credits. And I...yeah. . . .*(inaudible)*. . .

COUNCILMEMBER LEE: And whatever they pay, they pay to...they pay to the Federal Government?

MS. O'BRIEN: No, they would pay the...to the person sequestering the carbon, to the company sequestering the carbon. So if you are sequestering it by growing something, which is the best way to do it --

COUNCILMEMBER LEE: Oh, I see.

MS. O'BRIEN: -- it's paid to that company. And...

COUNCILMEMBER LEE: Yeah.

MS. O'BRIEN: In the Philippines, David just went through this. It cost him a million dollars to go through this process, but now he is getting carbon credits for his work in the Philippines.

COUNCILMEMBER LEE: Okay.

MS. O'BRIEN: So it's an upfront cost . . .*(timer sounds)*. . . but you get paid later.

COUNCILMEMBER LEE: Okay. Thank you. Thank you.

CHAIR KING: Okay. Mahalo, Chair Lee. And I think I saw Member Molina. Do you have a question?

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COUNCILMEMBER MOLINA: Yeah, thank you, Madam Chair. Just one question for Ms. Shipman and one question for representatives from the bamboo industry. I guess, Ms. Shipman, with regards to hemp, you know, on average how long does the process to become permitted take to grow industrial hemp? Because I'm thinking if it's a long, costly process, it could potentially discourage some farmers. Would you have that information?

MS. SHIPMAN: That is a good question. Just, you know, the...first off, the...Act 14, was signed into law on August 27th, 2020, legalizing the growth of hemp in Hawai'i through the U.S. Department of Agriculture for hemp production. So that was beginning on November 1st, 2020. Individuals that wished to grow the hemp in Hawai'i could acquire that license. And so that is already underway. How long it would take in the process, I...you know, I don't have all the answers. Obviously, we'd have to have the land, grow the hemp, the machinery to kind of take the inside from the outside, which is the process through decortion (*phonetic*) of that?

UNIDENTIFIED SPEAKER: Decording. A decordicator.

MS. SHIPMAN: Which I know is very expensive machinery. So I can, you know, talk with some experts and get you a more well-rounded answer.

COUNCILMEMBER MOLINA: Yeah, that'll be great. Okay, thank you.

MS. SHIPMAN: Yeah.

COUNCILMEMBER MOLINA: I know it's a...somewhat of a new process.

CHAIR KING: Member Molina, if you're asking about how long it takes to grow a crop, it's about 100...oh, okay.

COUNCILMEMBER MOLINA: No. About 100, yeah. It's just the permit process to get to that point, but just curious. Okay, thank you. And then one question for the bamboo industry experts. Here in Hawai'i, any types of regulations as to what type of bamboo can be grown in Hawai'i, I guess, maybe to...I don't know if the State has concerns about the bamboos maybe overtaking our forests. Any types of regulations there?

MR. SANDS: Well, the simplest thing is because you want to work with...

MS. O'BRIEN: I don't know of any rules. . . .(*timer sounds*). . . Go ahead.

MR. SANDS: Yeah, the simplest thing is you want to work with the species that are already in the State. And there's a...pretty much all the major timber bamboos are here. So we'd be able to, you know, build, you know, a supply from that.

COUNCILMEMBER MOLINA: Okay, great. Thank you. Thank you, Madam Chair.

CHAIR KING: Good question. Okay. I think...Member Sugimura, do you have any questions? I think you're the only one who hasn't. You don't have to.

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COUNCILMEMBER SUGIMURA: Well, I know it's 12:00. So I just wanted to know, like for bamboo, how many acreage are you looking for, and how close are you to making this a reality? It's kind of exciting.

CHAIR KING: I think that's for David.

MR. SANDS: Sure, thank you. Yeah. And for a small OSB mill, we need about 5,000 acres. So that would be sort of the...you know, the baseline. A larger OSB mill, we'd need about 16,000 acres. So someplace in between those two.

COUNCILMEMBER SUGIMURA: And is it...are you close to seeing that happen or are you presenting thinking that maybe it can happen?

MR. SANDS: Well, I'll tell you more after my meeting next Monday. I have a meeting with two investors who say they're very interested. So we'll see.

COUNCILMEMBER SUGIMURA: Thank you.

CHAIR KING: Great. I hope one of them is Jeff Bezos.

MR. SANDS: My pleasure.

CHAIR KING: Okay. Members, this will certainly not be the last time we hear about this issue. So with no objections, I'll defer the item --

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

CHAIR KING: -- and thank our presenters. And thank you, Ms. Shipman. I guess the one question I had for you was...the recommendations, are these things that you intent to do from your office, the recommendations in your report?

MS. SHIPMAN: Yeah, they are potentially things that could be done in our office. It's something that we would have to talk about further.

CHAIR KING: They'd be budget items, separate budget items.

MS. SHIPMAN: Yeah.

CHAIR KING: Okay. Well, I'll try to talk to you about that on the side.

MS. SHIPMAN: Great.

CHAIR KING: And then hopefully we'll see them in the Mayor's budget. Okay. So Members, thank you so much. Resource people, Char, David...was it [Ha'-nah] or [Hah'-nah] for your pronunciation?

MS. SHIPMAN: Yeah, [Ha'-nah].

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**February 2, 2022**

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CHAIR KING: Hannah, yeah, okay, that's what I thought. Thank you for being here. Thank you for informing us, imparting all your information and wisdom about the potential for a new industry for construction materials. And yeah, let us know, David. Let me know what happens with your meeting . . . *(inaudible)*. . . And I hope you're working with Ms. Shipman as well because she seems to know a lot about bamboo and support what you're doing. So I think this is a good start.

MR. SANDS: Wonderful.

CHAIR KING: All right. So if there's no objections, we'll defer this item.

**COUNCILMEMBERS VOICED NO OBJECTIONS**

**ACTION: DEFER pending further discussion.**

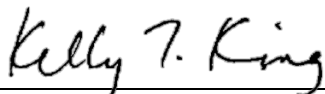
CHAIR KING: Okay. And then, I don't think...Staff, is there anything else that I've forgotten for today?

MS. MILNER: No, Chair. That's everything on the agenda for today.

CHAIR KING: Okay. It's 12:03, and the Climate Action, Resilience, and Environment Committee is adjourned. . . .*(gavel)*. . .

**ADJOURN:** 12:03 p.m.

APPROVED:



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KELLY TAKAYA KING, Chair  
Climate Action, Resilience, and  
Environment Committee

care:min:220222:bc

Transcribed by: Brenda Clark

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CERTIFICATION

I, Brenda Clark, hereby certify that pages 1 through 57 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 4th day of March 2022, in Wailuku, Hawai'i

A handwritten signature in dark ink, appearing to read "Brenda Clark", is written above a horizontal line.

Brenda Clark