

# **CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE**

**Council of the County of Maui**

## **MINUTES**

**September 15, 2021**

**Online via BlueJeans Link**

**CONVENE:** 9:00 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 Yuki Lei K. Sugimura (in 9:42 a.m.)  
Councilmember Tamara Paltin

**STAFF:** David Raatz, Deputy Director  
James Forrest, Legislative Attorney  
Shelly Espeleta, Supervising Legislative Analyst  
Kasie Apo Takayama, Legislative Analyst  
Nicole Siegel, Legislative Analyst  
Rayna Yap, Committee Secretary  
Lenora Dineen, Office of Council Services Assistant Clerk

Axel Beers, Executive Assistant to Councilmember Kelly Takaya King  
Sarah Sexton, Executive Assistant to Councilmember Kelly Takaya King  
Ellen McKinley, Executive Assistant to Councilmember Kelly Takaya King  
Lois Whitney, Executive Assistant to Councilmember Tasha Kama  
Stacey Moniz, Executive Assistant to Councilmember Gabe Johnson  
Jordan Helle, Executive Assistant to Councilmember Yuki Lei K. Sugimura  
Evan Dust, Executive Assistant to Councilmember Tasha Kama

**ADMIN.:** Alexander de Roode, Energy Commissioner, Mayor's Office of Climate Action, Sustainability, and Resiliency  
Rowena Dagdag-Andaya, Director, Department of Public Works (CARE-42)  
Keola Whittaker, Deputy Corporation Counsel, Department of the Corporation Counsel (CARE-42)

**OTHERS:** Calyn Hart, Program Officer, ICLEI – Local Governments for Sustainability (CARE-1(3), CARE-49)

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

Darla Palmer-Ellingson, Steering Committee Director, Climate Action Advisory Committee (CARE-42)  
David Sellers, Principal, Hawaii Off Grid Architecture & Engineering (CARE-42)  
John Bendon, Founder, Green Building Hawai'i (CARE-42)  
Howard Wiig, Energy Analyst, Department of Business, Economic Development, and Tourism, State of Hawai'i (CARE-42)  
Matthew McNeff, Director of Operations for Maui County, Hawaiian Electric (CARE-42)  
Kaiulani Shinsato, Director of Customer Energy Resources, Hawaiian Electric (CARE-42)  
Mike Moran, Kihei Community Association (CARE-42)

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

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CHAIR KING: . . .*(gavel)*. . . All right, good morning. Will the Climate Action, Resilience, and Environment Committee please come to order. Today is September 15th, 2021. Thank you, Members, for being here. Just as a reminder to anybody who is on the call, please silence your cell phones and mute yourselves until it's your turn to speak. Members, this online meeting is being conducted in accordance with the Governor's most recent emergency proclamation on COVID-19. Please see the last page of the agenda for information on meeting connectivity for all the members of the public. The Governor's most recent emergency proclamation also includes the following mandate, which is a board holding a remote meeting pursuant to this section shall not be required to allow members of the public to join board members in person at nonpublic locations where board members are physically present, or to identify those locations in a notice required by Section 92-7, HRS. So what...basically what that means is you don't really have to say where you're at if you're not at a public site, you just have to say...each board member shall have to state who, if anyone, is present at your nonpublic location with the Member. So you don't have to tell us if you're in your bathroom or something. You just have to tell us who else is there. In accordance with the Governor's mandate, if you are at a nonpublic workspace, when your name is called, please identify by name who is present with you in the room, vehicle, or workspace. So we'll go through roll call. My name is Kelly Takaya King, I'm your Chair for the CARE Committee. And with us we have our Committee Vice-Chair, all the way from East Maui, Shane Sinenci. Aloha, and wait a minute, I forgot to look in the chat for...

VICE-CHAIR SINENCI: . . .*(inaudible)*. . .

COUNCILMEMBER LEE: Wha gwan.

CHAIR KING: Gud mawin [*sic*]?

COUNCILMEMBER LEE: Mawnin. Supposed to be.

CHAIR KING: Wha gwan. Okay. Wha gwan and aloha kakahiaka.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

VICE-CHAIR SINENCI: Aloha kakahiaka, Chair, mai Maui Hikina, and wha gwan mon from the Hāna Cultural Center. I'm here with my EA, Dawn Lono.

CHAIR KING: Okay. Wha gwan mon. All right. Next we have our Council Chair Alice Lee. Gud mawnin and wha gwan, madam.

COUNCILMEMBER LEE: Gud mawnin and wha gwan. Wha gwan is hello, and of course, gud mawnin is good morning, Madam Chair. And I'm here by myself.

CHAIR KING: Okay, great. Thank you. And next we have Councilmember Gabe Johnson from Lāna'i. Wha gwan.

COUNCILMEMBER JOHNSON: Good morning, Chair. Good morning, Members. I am home alone, and wha gwan to all of you.

CHAIR KING: All right. Next we have Councilmember from under the bridge, Mike Molina.

COUNCILMEMBER MOLINA: Good morning and wha gwan to you, Madam Chair, and my colleagues. For the record, I'm broadcasting in my...I've been banished to my room here at my residence here in Makawao, and my wife and the pets are in the other room. Aloha.

CHAIR KING: Okay. Wha gwan. And next we have Councilmember Tamara Paltin all the way from West Maui. Wha gwan.

COUNCILMEMBER PALTIN: Aloha kakahiaka kākou from the West Maui District Office, and wha gwan mon to all of you. I'm here with Angela, my EA, and my kid's got a doctor's note, so she's back in school.

CHAIR KING: Oh, good for you. All right. And I don't see Member Sugimura. She did say she would be about an hour late, so...I think she had a meeting from 9:00 to 10:00, so we'll expect her around 10:00. Thank you for that advance notice, Councilmember Sugimura. We don't have any Non-Voting Members present, but we do have with us today Director of Public Works, Rowena Dagdag-Andaya, the Director. We also have Keola Whittaker, our Deputy Corporate Counsel, Corporation Counsel support. From the Administration we have requested, but not confirmed yet-- I'm not sure if they are going to be on the call--is Alex de Roode, Energy Commissioner from the Mayor's Office of Climate Action, Sustainability, and Resiliency, and from the same office Makale'a Ane has been invited, she is the Environmental Coordinator. Other people...we have other resource people confirmed today, Calyn Hart, the Program Officer from ICLEI-Local Governments for Sustainability; and Darla Palmer-Ellingson, Steering Committee Director for the Climate Action Advisory Committee. We also have David Sellers, who is the Principal of Hawai'i Off Grid Architecture and Engineering; and John Bendon, who is the Founder of Green Building Hawai'i. He's going to be called when we get closer to needing him. Other resource people that we have requested, but are also not confirmed, are Howard Wiig, who is the Energy Analyst from the Department of Business Economic Development and Tourism, State of Hawai'i. And I believe Mahina

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

Martin is here, she is Director of Government and Community Affairs from Hawaiian Electric. They did make a comment that they may not be resource persons. Our Committee Staff today is Nicole Siegel, our Legislative Analyst; Rayna Yap, our Committee Secretary; James Forrest, our Legislative Attorney; Shelley Espeleta, Supervising Legislative Analyst; and today, subbing for Lei Dineen, we have Kristeena Locke, who is our Council Services Assistant Clerk. Members, we have three items on today's agenda, CARE-1(3) Local Governments for Sustainability, CARE-49 Maui County's Participation in Local Governments for Sustainability's Circle City Scan Pilot Project, and CARE-42 Requiring Large, New Homes to be Zero Net Energy Homes. And we'll go ahead and begin with public testimony. My intention today is take up the first two items together, because it'll be in one presentation, and hopefully that will end by the break. And then after the break, we'll take up the Net Zero Energy Bill that we've been working on. So right now, I'd like to begin with public testimony. Oral testimony via phone or teleconference will be accepted. Testifiers wanting to provide video testimony should have joined the online meeting via the BlueJeans meeting link listed on today's agenda. And I'm going to go ahead and check...Staff, do we have any testifiers signed up?

MS. SIEGEL: Yes, we do, Chair.

CHAIR KING: Okay. We'll go through the rest of it...we have a few testifiers. Testifiers wanting to provide audio testimony should have participated via phone conference by dialing 1-408-915-6290 and entering meeting code 470076045. Written testimony is also encouraged. Instructions on how to submit written testimony can be found at [mauicounty.us/testify](http://mauicounty.us/testify). Okay, so we're moving on to oral testimony. Oral testimony is limited to three minutes per item. If you're still testifying beyond that time, I will ask you to kindly complete your testimony. And when testifying, please state your name, and also inform us if you are testifying on behalf of an organization or are a paid lobbyist...please inform us up front if you are a paid lobbyist. Please be mindful of the use of chat during the meeting. Chat should not 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. And then once you're done testifying, unless you are a resource for the Committee, we will ask you to disconnect from the call. However, you are welcome to continue to view the remainder of the call...of the meeting on *Akakū* Channel 53, [mauicounty.us](http://mauicounty.us), or Facebook Live via the Maui County Council page. Participants who wish to view the meeting only without providing testimony, please also disconnect at this time. Inform the Staff that you are not here to testify, and then please feel free to view the meeting on *Akakū* Channel 53, or the County...the [mauicounty.us/agendas](http://mauicounty.us/agendas) or Facebook Live. Okay, Councilmembers, I just wanted to remind the Committee Members and the public to please be patient if we run into any technological issues. And now we will proceed with public testimony. There's only three signed up so far, so I will go ahead and read off the testifiers starting with KCA, Mike Moran. You here, Mike? There you are.

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

MR. MORAN: Gud mawnin, Chair King and Committee Members. Mike Moran, for the Kihei

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

Community Association.

CHAIR KING: Mawnin.

MR. MORAN: I appreciate the opportunity to testify this morning. Our testimony is on 42, and we'll just restate what we stated when this item was mentioned before. I think we all, in our community at least, kind of feel we don't really need any more McMansions being built, but if they are, at least can we control how they affect the worldwide problem of climate change. So we think this is a very positive step for the Committee to take up, and kudos to the Committee for continuing with this. I think we see...consistently we see things in the media, and just one of many, many that caught us the other day was a group of...I believe it was 200 medical publications were making the point that the biggest challenge is not the worldwide pandemic, it is climate change, how that's affecting the health of the worldwide community. So we congratulate this Committee for doing your part. We can only do our part of it, but contributing, if everybody does their part, we can have worldwide effect. Thank you for the opportunity to testify this morning, and we look forward to hearing the presentations. Aloha.

CHAIR KING: Okay. Aloha. Thank you so much, Mike. Any questions for our testifier? If not, thank you for keeping up on the issues too. I really appreciate all of your input...your consistent input and support.

MR. MORAN: Thank you, Chair. Aloha.

CHAIR KING: Aloha. Our next testifier is Darla Palmer-Ellingson. I don't know if Darla had a small...

MS. PALMER-ELLINGSON: Hi, I'm here.

CHAIR KING: Oh, okay. There you are.

MS. PALMER-ELLINGSON: Yeah, we're working and testifying at the same time. I was actually called as a resource person for CARE-42, so I don't know if I need to testify now. I just wanted the opportunity to if there are some things that don't come up in that discussion. Is it possible to testify later?

CHAIR KING: Well, we'll be asking for you to be accepted as a resource person, so we will be asking for your comments.

MS. PALMER-ELLINGSON: Okay. I do have some comments, and I'll just save them for the discussion.

CHAIR KING: Okay.

MS. PALMER-ELLINGSON: Thank you.

CHAIR KING: Great. Thanks for being here. And then our third testifier is Lani Shinsato. Ms. Shinsato, are you still here? Staff, do you know if she's still on?

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

MS. SIEGEL: They are on, they're just muted on their end.

CHAIR KING: Okay. I think you need to unmute...oh, we have Councilmember Yuki Lei Sugimura joining us now. You're early, Yuki. Are you here? She doesn't know that she's...Staff, can you check with Councilmember Sugimura and see if she's actually in the meeting. I see her picture, but she's not responding. Okay, we'll go back and see if we can find Lani Shinsato. I don't see her.

VICE-CHAIR SINENCI: Chair, it looks like she...

CHAIR KING: I see her square. I think you need to unmute yourself, Lani. I think you're unmuted on our end.

VICE-CHAIR SINENCI: Chair, it looks like she's one of the resource.

CHAIR KING: Okay. So she's not...you're not testifying, I assume then. Okay.

MS. SIEGEL: She did indicate in the chat that she wanted to sign up to testify.

CHAIR KING: Can you check and see? I see her...oh, I don't see it. I did see her square, but I...

MS. SIEGEL: Oh, she just messaged in the chat, sorry, I am here. So maybe she'll be turning on her camera --

CHAIR KING: Okay.

MS. SIEGEL: -- now. I'll reach out to her privately in the chat and help her out.

CHAIR KING: Okay. Okay. We'll give her a second. Is there anybody else on the call who wishes to testify at this point? Please unmute yourself and speak up if you are...or last call?

MS. SIEGEL: Chair, did you want to do a brief recess to see if they can figure out how to fix their connection issues?

CHAIR KING: Well, I don't really want to take a whole lot of time because we've got someone standing by to do the presentations. Ms. Shinsato, do you want to try one more time to unmute yourself? You don't have to unmute your video if you don't want to, but you can go ahead and speak if you can get yourself unmuted.

MS. SIEGEL: If they are designated as a resource person, they would be able to give their comments then as well.

CHAIR KING: Okay.

MS. SIEGEL: If she's unable to fix her...

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

CHAIR KING: Okay. So Members, we can go ahead...you know, the first part of the meeting is presentations. So if there's no objections, maybe I'll just leave testimony open until after the presentation and see if Ms. Shinsato can get on, and we'll go back to her after the presentation before we get into the questions.

COUNCILMEMBERS: No objections.

**COUNCILMEMBERS VOICED NO OBJECTIONS** (Excused: YS)

CHAIR KING: Okay. Thank you. Okay. So rather than closing testimony at this point, we'll go to CARE-1(3) and CARE-49. If there are no objections, I'd like to take up these two items together.

COUNCILMEMBERS: No objections.

**COUNCILMEMBERS VOICED NO OBJECTIONS** (Excused: YS)

CHAIR KING: Okay, great. Thank you.

**CARE-1(3): LOCAL GOVERNMENTS FOR SUSTAINABILITY** (RULE 7(B))

**CARE-49: MAUI COUNTY'S PARTICIPATION IN LOCAL GOVERNMENTS FOR SUSTAINABILITY'S CIRCLE CITY SCAN PILOT PROJECT** (CC 21-224)

CHAIR KING: Members, today we'll be discussing ICLEI, Local Governments for Sustainability relating to the Race to Zero campaign and an update on the County's Participation in the Circle City Scan Pilot Project. That's the pilot project for the circular economy model. The presentation and discussions this morning will help us to understand how this forward-thinking group can help drive local action for low emission, nature-based, equitable, resilient and circular development in Maui County. Today, Members, we have with us Calyn Hart, Program Officer with ICLEI. She's the Technology Consultant assigned to Hawai'i from ICLEI. She's here as an expert on the organization to present to us, provide comments, and answer questions Members may have. From County Departments, we've invited Makale'a Ane and Alex de Roode from the Office of Climate Change, Sustainability and Resilience, for any comments they may have on the matter since they are working directly with ICLEI on this issue. And if there are no objections, I'd like to designate Calyn, Makale'a and Alex as resources pursuant to Rule 18(A) of Rules of the Council.

COUNCILMEMBERS: No objections.

**COUNCILMEMBERS VOICED NO OBJECTIONS** (Excused: YS)

CHAIR KING: Great, thank you. All right, I'll go ahead and turn the screen over to Calyn. Aloha, Calyn. Thank you so much for being here, and you're welcome...

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

MS. HART: Hello.

CHAIR KING: You want to give a greeting, and then introduce yourself, and then you can share screen.

MS. HART (*PowerPoint Presentation*): Great. Thank you so much. So yes, my name is Calyn Hart. As mentioned, I am the Program Officer from ICLEI, USA, and I am a technical advisor for all of our Hawai'i ICLEI members. So today I will be going over...I can share my screen. Let me know if you can see this. So I will be going over the Race to Zero and ICLEI150. Also going over science-based targets, one of the necessary requirements to be in the Race to Zero, and some of our high impact action pathways. Lastly, I will be following up with the Circle Lab 4 Cities Pilot, which is the Circle City Scan Tool Pilot. And just as a little introduction to the Race to Zero, the Race to Zero is the global campaign to rally cities and rally leadership to help to get global emissions and global temperatures below 1.5 degrees Celsius. And as you can see at the bottom here, we have multiple different partners that are working throughout the country and throughout the globe on this Race to Zero. So if you see different Race to Zero projects coming from C40 or CDP, they're all the same thing, all working toward the Race to Zero, they just have different resources. And today I'm just going to be talking a little bit about ICLEI, and how we're helping with cities doing their Race to Zero. But just to start, this is...on the screen here are the milestones or the main pathways in order to get into the Race to Zero. Part of that is starting off with pledging to the Race to Zero, so pledging to reach carbon neutrality by 2050 and again, setting that 2030 science-based interim target. And then the next two steps are...revolve around a plan, or a measure, or a project that can help you reach that 2030 target, and eventually reach that 2050 target. So planning for that measure, and then proceeding by implementing that measure. And then the last thing is, of course, reporting the Race to Zero. Many cities in the U.S. are reporting through the CDP ICLEI platform, and reporting through that platform in order to record their greenhouse gas inventory and record their target, their 2030 interim target, and what kind of action plan measures they are planning and implementing in order to reach those goals. So as a part of ICLEI and ICLEI150, we are supporting our ICLEI members with technical support, kind of going beyond just making sure that cities and counties are implementing those goals and having the resources they need in order to implement those goals. And I did just want to briefly mention, the 150 in ICLEI150 is just our goal of getting 150 of our ICLEI members into the Race to Zero. So again, like I was saying, it all goes back to that global goal of the Race to Zero. And so I did want to point out, Maui County has already pledged to the Race to Zero, so they're already in the Race to Zero, we're just working now for the next steps to get started on this process. So the first step is obviously developing an inventory, setting that target, tackling that target, and then going over the high impact actions that Maui County can take to reach those goals. And a part of the ICLEI150 is we will be helping you with all of those, so helping you develop that science-based target, helping with the high impact actions and resources to reach those. But I did want to just mention that, as a part of our ICLEI150, the science-based target is the first thing that we will be helping with, and that is just to calculate a science-based target that will help you get started on the path to reaching carbon neutrality by 2050. And again, I know a lot of cities and counties throughout the country have different carbon neutrality goals. Some have earlier carbon neutrality, 2040, 2045, 2050, and



**September 15, 2021**

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that's completely fine, but you still will need that interim target of 2030 in order to be in the Race to Zero. And the science-based targets are important to have a short-term goal, so a short-term goal to make sure that we're getting started on the process to reaching that carbon neutrality goal. And what we have seen is that most other goals that cities and counties throughout the states have updated to are outdated, and they need to be updated with this science-based target to ensure that we're on track to reach global temperatures below 1.5 degrees Celsius. So our calculation for the science-based target is based on one of the other partners, the World Wildlife Fund, or WWF. They developed a methodology called the OPCC, the One Planet City Challenge. And using that methodology, we are calculating science-based targets based off of an inventory done between 2016 and 2019. So most cities I've seen we've calculated have a 2017 or 2018 inventory that we've calculated the science-based target for. And this science-based target...obviously the science-based target needs to be at least a 50 percent reduction from that baseline inventory, 2017 or 2018...it needs to be at least 50 percent. But with the OPCC methodology, it also adds on top of that a fair share of emissions because again, this is a global challenge. So we're looking at fair share and the amount of emissions that the U.S. in particular has emitted that is causing a lot of the global climate change issue. So with that, this OPCC challenge uses the cumulative development index to get the fair share of emissions for U.S. cities. So I just wanted to go...again, because we have calculated these science-based targets using that human development index, but also using the starting point from whatever a city or county's emissions are, what the emissions are in that 2018, and also forecasting out to their 2030 expected population. So with that, we're seeing a range of emissions of science-based targets for different cities. And this target is the per capita, so you will see a 62 to 63 percent reduction per capita, but for the absolute science-based target, that means for your overall emissions, it needs to be reduced. We've been seeing between 45 percent and 64 percent reduction for our cities. And again, once we get...I know Maui County is working on updating some greenhouse gas inventory. So once we get those inventories complete and into our clear path tool, we'll go ahead and calculate that science-based target. Moving on, next is the high impact actions. So once that inventory is completed and the science-based target is developed, we'll move into the actual high impact actions and what things need to be implemented in order to reduce emissions and reach those goals. And to reach these emission reductions, our main high impact actions include renewable energy, building electrification and efficiency, and electric vehicle transition. So reducing VMTs and getting more electric vehicle VMT, or vehicle miles traveled. And a lot of the supporting measures in order to reach a lot of those renewable energy goals and building electrification goals and electric vehicle adoption also include nature-based solutions, and circular economy solutions, and waste reduction solutions, and really being an equitable plan so that...so say for EV adoption, making sure that the EVs are available for every member of the community and not a burden on other folks in the community. So making sure that it's equitable, and all your constituents can receive an EV. So moving on, I just wanted to...as I mentioned, our high impact actions are around grid decarbonization, vehicle mile traveled reduction, vehicle electrification, and building efficiency and building electrification in new and existing buildings. And this...I'm not going to go into this, but with our high impact action modeling, we are going through, and once we have your inventory and your science-based target, we're looking at your expected population growth, what that is for population, residential population, commercial

**September 15, 2021**

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population, and looking at that population growth and determining if it is going to be high growth scenario, low growth scenario. And based on that, then we're going and looking at what the possible grid decarbonization scenarios can be possible for Maui County. Similar with VMT reduction, what the possible VMT reduction is for Maui County, whether that's 5 percent reduction, 10 percent, 20 percent, and most cities are looking at that 5 percent VMT reduction. And then moving on then with electric vehicles and an annual 3 percent growth in electric vehicle adoption or so forth. And then when we get into the building efficiency and electrification, looking at what would be the most appropriate amount of existing buildings that need to be electrified or more efficient, as well as looking at the appropriate amount of new buildings that would need to be electrified and more efficient in order to help you reach those goals. So some cities are looking at all new...so I'm just going to scroll here. This scenario 4 would be all new buildings would need to be...have a EUI, which is energy use intensity. It would have to have an energy use intensity of around 37 percent. That's standard for across the U.S., that's the base requirement. And so all new buildings will need to have that 37 percent EUI, or...and then on top of that, 5 percent of the existing buildings would have to also be modified to have more efficient lightbulbs, more efficient HVAC systems, and things like that. So at the end of this, once we kind of go in and model what works for Maui County after looking at, you know, how the grid is going to decarbonize by 2030; again, looking at what would work for how many electric vehicles Maui County would need in order to reach that target, how much VMT would need to be reduced. So this will all be put into a report, a High Impact Summary report, so that the County can look through that and start to determine what different measures they can implement in order to reach these different categories and reach these goals. Yes, and this is another part of the summary report showing if you...with all of those reductions, if you reach that 2030 interim target, or if you have more to go. Something that we have done and we're going to be continuing to do are high impact action workshops to kind of look at those different scenarios and what cities and counties can do in order to reach their 2030 goal. So we did a workshop on building decarbonization, grid decarbonization, and vehicle electrification, and we're going to be continuing these workshops through...throughout next year. And then on top of that, we're going to be having upcoming resources for guides that can also pull together the best practices for reaching these goals, and also working on pulling together resources specific for Hawai'i communities so that you all can determine what the best options are to reach your 2030 goals. And then I'm going to quickly go into the...just to switch gears here a bit into the Circle Lab 4 Cities Pilot, or also mentioned as the Circle City Scan Tool, the name changed to Circle Lab 4 Cities Pilot, and just an update. So Maui County is a part of this pilot. And so there are four communities that are going to be in this pilot. Maui County is one of them, alongside Cupertino, California; Ann Arbor, Michigan; and Denver, Colorado. So those four communities will be going through this pilot and determining the best...what your material flows are through the County, and what the best way is to change that from a linear structure into a circular structure. And the way we're going to be doing this is going through four different phases. So the first one, which we will be starting very soon here, is looking at socio-economic analysis, and then getting into the material flow analysis, and then later developing strategies that the County can develop pilot projects or infrastructure investments, what policies can be implemented to make a circular economy, and then developing that action plan to put it all together into an actionable document. And I wanted to end with a few

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

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updates because I have spoken before about this project. And so one of the updates is that the actual tool itself, which if you can see this screenshot here, was the original tool on the screen. That was the original tool. We got a lot of feedback that the tool was a little bit difficult to use, and like this graph on this screen, it's a little bit difficult to understand. And so our team is...our team in Germany is working to redo this tool and make it more user friendly and more understandable for cities to use. And so they are currently updating that tool, and the tool is going to be ready for U.S. communities by next year. So we're looking at January, February time is when the tool will be ready. But while we're waiting for this tool to be ready, we'll be starting in early November with workshops to kind of start with the Circle City action playbook, and going through and starting to do an initial assessment for the cities on what their socio-economic...what their socio-economic status is and starting there. And then in January or February of next year, we'll start to get to play around with the tool. I will say that the tool...I've seen the prototype for the new tool, it looks so much more easier for our communities to use. I'm really excited to use this and...with Maui County. So that is the end of my presentation, and please let me know if you have any questions or any comments, anything like that.

CHAIR KING: Okay. Thank you so much, Calyn. Can you stop the screen share so we can --

MS. HART: Yes.

CHAIR KING: -- have all the faces back on the screen. Thank you for that presentation. I'm really excited about your work on Maui County. And I'm going to go to our Office of Climate Change, but I want to check back in with the testifier who is having some problems. Are you there Lani...Lani Shinsato?

MS. SHINSATO: Good morning. Can you hear me?

CHAIR KING: Yes, we can hear you. We can't see you, but we can hear you this time.

MS. SHINSATO: Oh, wonderful. Wonderful. Thank you so much, Chair King and Members of the Committee. I apologize for my technical difficulties earlier. I am here to testify on CARE-42. I am Lani Shinsato, Director of Customer Energy Resources for Hawaiian Electric. Thank you for this opportunity. Joining me today is Matt McNeff, who is Hawaiian Electric's Director of Operations for Maui, Moloka'i and Lāna'i. And apologies on behalf of Mahina Martin, she had a conflict this morning, and so Matt and I are representing the company in her stead. We support the intent behind the proposed bill in mitigating climate change and increasing energy efficiency of private dwellings. Measures such of these really align with our company's overall goals to reach higher levels of renewable energy, and really doing our part to mitigate the impacts of climate change. Although we support the intent behind the bill, we do offer some comments on implementation of the bill's requirement. Achieving net zero on an individual dwelling basis actually has the potential to impede achievement of net zero as an island or at a state level. This is because a system that's designed to be net zero at a customer's home will most likely be dedicated to serving the customer's own energy needs. However, at a macro level, there may be times in a day when the utility will want to use the customer's excess billage generation, or flexible load. So for example,

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

through smart devices that manage a customer's air conditioner or water heater, in order to balance the electric grid, integrate higher amounts of renewable energy, and provide cost-effective, reliable service to all customers. In essence, this may impede a customer from participating in utility led programs like providing grid services for compensation to the utility for the benefit of all customers. The bill may also hamper customer choice in that the company is excited and about to launch a second expansive phase of community-based renewable energy, where we're calling it our shared solar program. The shared solar program allows customers who choose not to, or cannot put solar on their roof, to subscribe in a solar project on their island and enjoy the benefits of the credit on their electric bill. It's unclear whether customers may enroll in shared solar and still satisfy the requirements of the bill. The bill as presently drafted does not have a requirement that net zero be achieved through a renewable system, and this may lead to the unintended consequence of customers investing in less expensive fossil fuel generators to achieve the net bill requirement. An additional unintended consequence of the bill is that it may discourage the adoption of electric vehicles, which could have a bigger impact on reducing carbon emission in requiring a home to be net zero. In order to achieve an ERI score of zero, we anticipate customers who own such dwellings will need to build really large customer sited renewable energy systems. While this is in alignment with our goals, there may be situations in which the neighborhood is overly saturated with customer sited projects, and limitations may need to be put on the system in order to safely interconnect the system. So for this reason, we respectfully request that the bill require electric customers to conform to available customer sited programs and interconnection requirements for their particular island or circuit. Finally, because we anticipate that the bill will require customers...

CHAIR KING: Ms. Shinsato, can you wrap up your testimony?

MS. SHINSATO: I certainly can. This is the last point. Because we think that customers will have to build large systems that it will likely result in adding significant cost to the price of a home in Maui County. Thank you so much for this opportunity to testify.

CHAIR KING: Okay. We have one question from Member Paltin.

MS. SHINSATO: Yes.

COUNCILMEMBER PALTIN: Thank you, Chair. I was wondering, you know, just so we can get on with the ICLEI stuff, would it be possible to request Ms. Shinsato and Mr. McNeff to be a resource at the time when the bill comes up so that maybe they can participate in ways to address the issues that they've brought up?

CHAIR KING: Sure, we can do that.

MS. SHINSATO: Of course.

CHAIR KING: We have...you know, we've already looked at this, but we can ask them to hang on to...probably after the 10:30 break, but it could be earlier. So if you and Matt can hang on.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

MS. SHINSATO: Sure, we'd be happy to do that. Thank you.

CHAIR KING: Okay. If there's no objections.

COUNCILMEMBER PALTIN: We'll give them a call when we're ready if they have other things to do, or if they can just monitor, that would be awesome. Thank you so much.

CHAIR KING: I think they're just going to monitor, but yeah. Thank you, Member Paltin. Okay. If there are no other questions, we'll do one more call for testifiers. Going, going, gone. Okay, if there is no objections, we'll close testimony and receive written testimony into the record.

COUNCILMEMBERS: No objections.

**COUNCILMEMBERS VOICED NO OBJECTIONS**

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

CHAIR KING: Okay. Thank you, Members. And I think we have Member Sugimura here. Are you joining us, Member Sugimura?

COUNCILMEMBER SUGIMURA: Good morning.

CHAIR KING: Oh, okay. Good morning.

COUNCILMEMBER SUGIMURA: Thank you.

CHAIR KING: Your picture came on earlier and I was trying to talk to you, but you weren't responding, so I wasn't sure if you...

COUNCILMEMBER SUGIMURA: I had a...I was on an abandoned vehicle call with Lānaʻi and Molokaʻi airports. Thank you.

CHAIR KING: Oh, okay. Okay. Well, next we'll go to...I think Alex de Roode is here from the Mayor's Office, the Climate Change, Resilience and Sustainability Office [sic]. Alex, would you like to comment on the presentation that we just heard from Calyn before we go to questions?

MR. DE ROODE: Sure, Chair. Thank you. Thank you, Councilmembers. Yeah, the service that I was in support that ICLEI provides is very beneficial to our effort. We are underway with data collection for an updated greenhouse gas inventory, both at the community scale, which the Race to Zero focuses on, and at the County operations scale as well. So as we get that data compiled and the analysis completed, that will feed into ICLEI's Race to Zero platform. And I'm happy to hear that there are some improvements and updates happening. We do have a call actually scheduled with

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

Calyn and our contractor, Lotus Engineering and Sustainability, who is supporting our joint climate action and resilience plan efforts. So we have a call tomorrow where we're going to be making sure everybody is on the same page. And you know, in addition to your more standard greenhouse gas inventory and analysis, this ICLEI platform will provide those science-based targets, or help guide us to establish those science-based targets that Calyn was referring to. So I look forward to it and yeah, we'll keep Council updated on our progress on that front.

CHAIR KING: Okay, great. Thank you so much for those comments. I have one question before I turn it over to the Committee for questions. In looking at the baseline data, are we really adding aviation emissions?

MR. DE ROODE: That's something we need...actually we'll be bringing up tomorrow with ICLEI and Lotus Engineering and Sustainability on our call, to determine what will we include, what won't we include. I mean, we're trying to stick to a standard that is comparable to what the State is doing and what the other counties are doing. I don't believe aviation is currently included, but that's not to say that we couldn't...you know, one, I want to verify that to make sure that's not something that's either currently being done or planned to be done in the near future by the other municipalities, but we could also look to be at the forefront, you know, and push the envelope perhaps. So I'll certainly keep you all updated and, you know, any recommendations or input that the Councilmembers have is appreciated.

CHAIR KING: Yeah, I know that the...Dr. Tawn Keeney has been testifying before the State Climate Commission and the Honolulu Climate Commission. And so the Honolulu...my understanding is the Honolulu Climate Commission is looking at aviation emissions. We haven't....Members, we haven't included international emissions at all, and we only included one way on the mainland emissions. I think that's the departures, but not arrivals...or vice versa. So at the end of...that's my...and also, from the research I've done, that's the greatest amount of emissions that we actually...that accounts for Hawai'i's emission is aviation, so I just want to put that out there. So Members, hopefully you've been taking notes, and I'd like to see if anybody has got any questions. We'll just...we do have some time here, so we'll just go by raised hands if you'd like to...we'll start with Member Paltin, followed by Member Molina, and then Member Johnson.

COUNCILMEMBER PALTIN: Thank you, Chair. Just checking if we have a time frame on turns. Is it two minutes, three minutes?

CHAIR KING: I don't really have one but, you know, just be reasonable.

COUNCILMEMBER PALTIN: Okay. Thank you. Thank you, Chair. Thank you, Ms. Hart and Mr. de Roode. My first question was...and I'm not an expert by any means, but I've heard about the electric vehicle batteries, and that us being an island County, is there plans for disposable...disposal of the batteries at their end life for electric vehicles?

CHAIR KING: We'll go to...do you want Mr. de Roode to answer that?

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

COUNCILMEMBER PALTIN: I'll leave it to whoever thinks is most appropriate.

MR. DE ROODE: I can provide just a few comments, and if anyone else has some additional information, it's welcome. Certainly that's a concern, you know, whether it's lithium ion batteries that are in vehicles, electric vehicles, or that are serving as battery backup for PV systems. We have similar concerns with PV panels. So, you know, that's something that is going to be...continue to be a challenge. There are more and more facilities being established to recycle these materials. None in Hawai'i as far as I know, so that may be an opportunity, you know, for the private sector . . .(inaudible). . . if it is financially viable to do it here locally or at least have, you know, one central plant located on O'ahu that can do it for the State. As of right now, our main...the biggest momentum we have in the fleet vehicle transition to electric vehicles is going to be under our energy savings performance contracting initiative, and with that, the ownership of those vehicles is actually the energy service company, right. So we're basically using the vehicles and...almost like a lease. So as part of our contract, we do intend to put language in there that puts the burden on the provider of those vehicles to manage the waste streams responsibly. So...

COUNCILMEMBER PALTIN: Okay. Thank you so much for your attention to that. I just was wondering as well, under terms of equity that Ms. Hart was speaking about, you know, our...I know you've been getting the same complaints as I have about access to charging stations. And it seems as though, you know, rental cars and whatnot can use the County stations, but residents are not able to use like hotel charging stations or other stations, and I mean, it does seem a little bit like an equity issue. Any thoughts on those briefly?

MR. DE ROODE: So...

MS. HART: Yeah, I can...oh, sorry. Go ahead.

MR. DE ROODE: No, Calyn, please. I'll add a few comments afterwards, but go ahead.

MS. HART: Oh, no, I was just going to add that, you know, some strategies that I've seen other cities do is, you know, at...have some sort of incentive for cities or residents to get electric vehicle chargers installed into their home. Or we've seen other cities have electric charging vehicles that are open to the public at different community centers, and we also seen just if there are any parking on like sidewalks, along sidewalks we've seen electric vehicle chargers on the lawns of a sidewalk where any resident can come and just park on the sidewalk and charge their vehicle there. So there's different options, but that is definitely that we'd have to discuss a bit more with the County on what's feasible.

MR. DE ROODE: Chair, if I could just add a couple of comments to that. The...there is a Hawai'i energy rebate for electric vehicle charging. Even with that rebate, it can still be financially a stretch for many households. And then we also...you know, we have households where they're not homeowners, they're renters, and maybe the homeowner isn't on board with having an EV charging station, or they live in multifamily housing or condominiums. There are all kind of situations that can complicate, you know, an

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

individual actually installing their own EV charging station. So in our public EV charging stations, we are looking to distribute those as quickly as possible and, you know, make sure that every community has access to a functioning charging station, primarily at our community centers, and then a few other sites like the Maui County building in Wailuku and Ho'okele Service Center. So strategically kind of positioning them where, you know, people will have access within a reasonable . . . *(inaudible)*. . . and then trying to make those as affordable as possible. We'll be coming to Council soon here with a rates and fee proposal for public . . . *(inaudible)*. . . and so we'll have more information on that for your consideration. But it is an issue and it's...you know, the County is doing its part, but the State has a role it can play, and private sector as well. And so we're, you know, trying to reach across all those partners and do this together as a community. I will mention also that Hawaiian Electric has a program out right now that invites people to place on a map digitally online where they would like electric vehicle charging stations to be located. And so I think that's going to be going on...I believe maybe Matt or Lani can confirm, but I believe it's through the end of October, or sometime in October there's going to be kind of that open period for that data collection, and then that will help inform future siting of EV charging stations as well.

COUNCILMEMBER PALTIN: Thank you. My final question for Ms. Hart is just, you know, when you mentioned that 2030 interim date, it brought to mind...I just was at that World Conservation Congress where the 30 by 30 was a big issue, and I just was wondering if you were working towards any tie-ins with that. I know it's a nuanced pledge to conserve 30 percent of the planet by 2030, but is there any tie-ins with that interim date that you folks are working in and the 30 by 30 global goals?

MS. HART: Yeah, I think it's great that you brought that up. And yeah, so we have a nature and a biodiversity is one of our pathways, and that's actually something that we are building out. We're working a lot with our South Africa office, they are the biodiversity hub for all the ICLEI offices, and that's something that they are definitely working on. And we are also working to bring biodiversity more into the U.S. because it's not center stage right now for a lot of U.S. cities. So one thing that we...I...you know, we're working to start with bringing biodiversity and conservation more to the focus of cities, and we were planning something alongside the biodiversity COP...the COP15, but that...this got postponed to next year, unfortunately. So we are still planning to bring that more next year kind of into the fray with our ICLEI members. So we definitely have that on the radar, and we're definitely working very closely with our South Africa team, who also works closely with the folks...with COP. So yeah, we're definitely working on bringing more resources for communities next year.

COUNCILMEMBER PALTIN: Thank you so much. And just to put it on your radar, Hawai'i is like the endangered species capital of the nation, I believe. So maybe we can collaborate on that as well because, you know, climate change and everything, it's really kind of a human rights issue, as I learned over there in Marseille. But thank you so much, I want to yield to my colleagues.

CHAIR KING: Thank you, Member Paltin, and thanks for bringing up that because you asked one of my questions about the 30 by 30. And we are...you know, those of us on the



**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

Board of ICLEI were disappointed that we won't get to go to South Africa this year, so maybe next year. And next we'll go to Member Mike Molina, followed by Member Johnson.

COUNCILMEMBER MOLINA: Thank you very much, Madam Chair, and good morning, Ms. Hart and Mr. de Roode. And Ms. Hart, I appreciate you sharing with us the...I guess the pilot projects in four of those major cities. Denver, one of them, my youngest daughter lives out there. She works for Commerce City, I believe, as a city planner, so I'll let her know to keep an eye out for your pilot project. You know, with our island economy, have you had any other similar communities that have the same type of economy that have joined this campaign? Because I know we're sort of challenged here because...in reducing our carbon footprint because our economy is much more service based. And is there any type of incentives to promote to our community to, you know, do their part to reduce our carbon footprint? I guess...Mr. de Roode, you can also join in if you want to share your thoughts on that as well. So I'll ask Ms. Hart first, your thoughts?

MS. HART: Yeah, yeah. So when you say any other island communities joining the program, do you mean the Race to Zero, or the Circularity project?

COUNCILMEMBER MOLINA: Let's go to the Race to Zero.

MS. HART: Yeah. So there...it's a global initiative, so there are other communities that are just not in the U.S. But it just kicked off this year, so there's not too many that we are working with that are island communities. But for U.S. island communities, Maui County is the only one that is currently in the program. We do work with like Honolulu County and other counties with other...like consumption basin, inventorying and things like that, but they're just not a part of the Race to Zero. But as I mentioned, there's multiple different communities abroad that are a part of the Race to Zero. And...

CHAIR KING: We were hoping . . . *(inaudible)*. . . will be the example for other island communities when we get this...the model done.

MS. HART: Yes, yes, definitely. And as far as getting community members to do their part, I think that a part of our high impact actions is definitely community outreach and community engagement, and a lot of advocacy as well. So I think that through developing climate action plans and conducting this outreach is a way to kind of educate some community members, or get other community members that are really interested in this topic, to get them on board. So that's...again, that's part of the...part of the outreach that can be done. And I mentioned that there are some webinars that we have done previously that we've gone over for high impact actions, and definitely more to come. And we're also starting to do high impact action webinars specific to different regions, and so this is something that we can try to do for Hawai'i and see if we can partner with one of our other ICLEI offices that have other island communities partnering for the Race to Zero. So...yeah. I don't know if Alex wanted to add anything.

CHAIR KING: Does that answer your question, Councilmember Molina?

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

COUNCILMEMBER MOLINA: Yeah. If maybe Mr. de Roode has any thoughts he'd like to add to what Ms. Hart already mentioned?

CHAIR KING: Alex?

MR. DE ROODE: Sure, yeah. Thanks for the questions, Councilmember Molina. You know, I think all islands are challenged with this because we are more isolated, need to import more than most places. And particularly, isolated islands like ourselves that are even further away from, you know, where a lot of the manufacturing happens and distribution of goods happens. So it's certainly a challenge. I do think this ties in to the circular economy initiative though, in that the more we can be producing here locally...producing and consuming locally, the more carbon reduction we're going to see from that consumption. So I think a combination of that, and also carbon sequestration efforts, right. So as we're able to increase native forest habitat, or different types of reforestation projects, or even an agriculture increased carbon sequestration in our soils, we'll be able to kind of offset some of those emissions that we're sometimes forced to, you know, take on because of our need to import. So I think it's a combination of...you know, I think looking at it as a State as well, where we're not going to try to make everything on every island, but different islands can start to specialize in...you know, I mean, Big Island is more on the forestry and ranching side of things and, you know, maybe Moloka'i goes high tech, I don't know. But there...you know, just looking at those opportunities and working together as a State to meet each other's needs would be, I think, a good move.

COUNCILMEMBER MOLINA: Okay, great. Well, thank you for both of your thoughts on this, and I appreciate both of you doing your part to do outreach, especially in the schools. I moonlight as a substitute teacher for the State of Hawai'i, and I work primarily with middle schoolers. And it's amazing how these 11 and 12 year olds, how much interest they have in climatology and the awareness that they have that they want to do, you know, their part for our island community. So anything you can do to continue that outreach, especially to our next generations, is really going to be beneficial and help reduce our carbon footprint over the long term. So thank you very much. Thank you, Chair.

CHAIR KING: Thank you, Member Molina. And, you know, I do have a video that one of my Staff members, Alex [sic] Beers, worked with the youth on, on climate change. And so I'm happy to send that to you...to both of you, Alex, and I'll share it with...I'll ask Alex [sic] to share it with the CARE Committee because they've done their research and, you know, they're not happy. We've got to take action. So that's what we are here to do today. So thank you for always bringing up the youth, I really appreciate that connection there. And next we'll go to Member Johnson.

COUNCILMEMBER JOHNSON: Thank you, Chair. Thank you, Ms. Hart and Mr. de Roode, for your guys' conversation, it's really important. So my question is in regards to the circular lab for cities, I don't know if I'm saying that correctly. But can you explain how Maui was chosen? And I'll just list down a couple of my questions in regards to that. Will we be able to get funding? Is there technical support, legislative recommendations? And will this Committee be the contact point with ICLEI, or how

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

are you guys going to go about that? So those are my questions for that.

CHAIR KING: I can actually answer that for you, Councilmember Johnson.

COUNCILMEMBER JOHNSON: Oh, okay. Great.

CHAIR KING: Because I'm on the Board of ICLEI USA, I requested to have Maui be one of the pilot projects, and so it was accepted.

COUNCILMEMBER JOHNSON: Wonderful.

CHAIR KING: And it doesn't come at any cost to us. The consultant and the use of the tools are part of the pilot project. And that's why it was so valuable to be part of these first four or five that they've chosen, because we're going to be developing a model that other communities can use, and it will cost them. They will either have to join ICLEI if they are not already members, and then pay for whatever services are not involved in those...in that membership, or they will have to just pay for the services outright. So for this pilot project, there should be no cost to the County.

COUNCILMEMBER JOHNSON: Well, thank you for championing that for us because, you know, it's really important...we're one of four, so that's amazing. Okay. So that's that section of my questions. I do want to ask...this is kind of a big picture kind of question, like...so I'm sure many of us has been seeing the amount of people traveling to Hawai'i now is really small, like all the planes are empty. So how has COVID affected the carbon footprint that we're...you know, we're experiencing? We're trying to keep it low, and has COVID been kind of a blessing in disguise? I don't know, that's why I'm asking. Like can you speak to how COVID has affected the...you know, the overall carbon emissions?

MS. HART: Yeah. So this is something that we looked at starting at the beginning...well, more like in the middle of 2020. But overall emissions have definitely reduced a little bit due to, you know, people not driving places, people not flying anywhere. So your on-road transportation and your aviation, those emissions were definitely reduced, as well as a lot of cities have looked at like their commercial energy usage because, you know, folks were not going into the office anymore to work. So those were the main sectors that...where emissions were definitely reduced. But now that folks are starting to travel again, and go drive to work and everything, the emissions are kind of increasing again. So it's more of kind of like a little blip in the emissions. So normally, when we are working with communities and they are doing inventories--and they do a 2020 inventory mainly just to see what occurred, like how the emissions dropped when folks stopped going to work--but we don't necessarily recommend them using like a 2020 inventory for baselining for any actions that they're going to implement because it's not representative of what's actually going on. But I will say that some communities kind of turn it around as a positive for them to, you know, see what can be possible. So when they look at...especially like LGO. And so local government, the actual local government's emissions, their operation emissions, looking at employee commute per se, that drastically reduced due to COVID because people weren't going into the office. And so now, communities are looking at that as, like hey, what kind of teleworking

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

incentives and what kind of teleworking opportunities can we offer in order to keep this employee commute down. But also, we saw from the COVID pandemic that communities were still very active and working productively. So we've seen...it's more so communities is using it as a means to see what can happen, more so than basing anything off of that.

COUNCILMEMBER JOHNSON: So I would hope that it would be a teachable moment. So I just...I don't know, maybe data gathering and the fact that I would hope we just don't go back to 2019 like, you know, business as usual after we go through all of this. So thank you, Ms. Hart. Thank you for answering my questions. Thank you, Chair. I have no further questions.

CHAIR KING: Thank you, Member Johnson. It just occurred to me when you were speaking that maybe we should do an inventory of how much greenhouse gas emission we're saving, the Council is saving, by not having us at the County building every day. I'd bet that's a pretty good number there. And next we'll go to our Committee Vice-Chair Shane Sinenci.

VICE-CHAIR SINENCI: Mahalo, Chair, and aloha, Ms. Hart. Thanks for joining us today. I just had a question about...I was curious when you spoke about EV and electrification. I was just wondering, are there incentives either at the national level or for car industries to produce more electric vehicles?

MS. HART: There are...I wouldn't say at the national level, but I know that there are...they are working on getting more incentives and different things like the infrastructure bill that is definitely still kind of up in the air. But they are...all I can say is that they are definitely working at the national level, it's just not really set in stone. More so is seeing at the State level or at the utility level where rebates or things like that have been given. So that's currently what they have...what I've seen.

VICE-CHAIR SINENCI: I guess coming from an island community...and Member Sugimura mentioned that she was on a meeting earlier about abandoned vehicles. We have lots of them. What do we do with our abandoned vehicles that are all shipped here? And I know that Joey McDonald down at near Kanaha, he's...he can actually, I guess, convert some of the older fossil fuel vehicles to electric. So is there that type of technology getting out there yet?

MS. HART: It's interesting you mentioned that. I have definitely seen that. It's not on a large scale, but I have definitely seen folks that are going in and taking old ICE combustion vehicles and converting them to electric. But yeah, I wouldn't say that many companies are doing that, or that it's really wide scale. It's they're mainly looking at producing new electric vehicles and providing that which...you know, production of vehicles is also a large part of emissions as well, but they're mainly looking at the reduction in...or the avoided emissions in using electric vehicles rather than combustion vehicles.

VICE-CHAIR SINENCI: Okay, great. The pilot program excites me. I think when it comes to abandoned vehicles, that's one of our main problems on the island is trying to get rid of them, or how do we...you know, all the old cars. I would like to look into more

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

scrapping or some type of scrap metal where if there are industries that would take scrap metal, or if there are industries that we could, you know, start. I know we would have to go through Department of Health to get all of those pieces of the vehicle out before we can start scrapping them. But I'm just looking forward to more technologies in that field. Thank you.

CHAIR KING: Thank you, Committee Vice-Chair Sinenci. And you know, just to your point, and to Member Paltin's point earlier, you know, when we do the emissions inventory, we should make sure that we're including whatever emissions we're causing by shipping batteries off island or shipping cars off island to replace them with other cars. And that's the part of the aviation that...we can't ignore that because, you know, otherwise we're just trading one harm for another. So that's...

VICE-CHAIR SINENCI: Thank you, Chair.

CHAIR KING: Yeah, that's an important point.

VICE-CHAIR SINENCI: Also, as an island community, those are...we have some significantly different challenges from the other three counties, so I think those are one of them. Thank you.

CHAIR KING: Thank you. Okay. Any other questions, either Chair Lee or Member Sugimura? Chair Lee.

COUNCILMEMBER LEE: I just have a quick question for Alex. You mentioned earlier about disposal of old solar panels. Is that a problem?

MR. DE ROODE: Well, at the moment it's not too much of a problem because a lot of our projects are still active. We haven't reached the end of life...of the useful life of those panels, but that is certainly something that in the future will be, you know, important for us to manage. I know that at the utility scale, the developers who develop these projects are responsible for responsible disposal and hopefully, you know, recycling to the extent possible of those panels. So for those large utility scale projects, the onus is on them to take care of that. And then, you know, on the individual homeowner's side, or commercial business side, even though that's a smaller scale, that is not something that has a formal program in place to address. So I think as a community as we see more aging systems . . . *(inaudible)* . . .

COUNCILMEMBER JOHNSON: Thank you. For Ms. Hart, you work with people all over the world. So is there somebody concentrating, focusing on the disposal end? You know, you seem to have people, you know, creating new technologies and implementing new technologies, but then when they reach economic obsolescence, is somebody taking care of that part of it, the circular economy?

MS. HART: Yeah. So that's kind of what we're hoping to discover more specifically for Maui, or for Hawai'i communities especially, but for the pilot for Maui. But that's a significant problem really in most places that, you know, the disposal of these things is not always easy, especially if there is something that cannot be recycled and made into something

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

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new or used for a community. So that is something that will be delved into in this pilot, to look at how things like that can be recycled, and I think that...yeah. It'll definitely be great to have an island community in this pilot to really look at how that works for communities that are apart from mainland.

COUNCILMEMBER LEE: Right. And it could possibly be a new industry for business people here on Maui.

MS. HART: Exactly, exactly. It's...yeah. Sometimes it just comes down to like if there's a recycling facility placed there like on Maui, how...what the emissions from that facility may be and what...how...if it's detrimental to public health. That's kind of where things get a little bit murky is trying to see if those type of facilities can be built in an area. So...but yeah, definitely things that can be discovered in the pilot program.

COUNCILMEMBER LEE: Thank you. Thank you, Chair.

CHAIR KING: Thank you for the question. Member Sugimura, since we're actually touching upon something from your last Committee when we talk about, you know, waste to energy and potential emissions, do you have any questions?

COUNCILMEMBER SUGIMURA: No. Actually, I'm sorry, I missed Calyn's presentation, but one question that I had is I know this is a Maui County pilot project, and is there any thoughts within the organization to possibly look at also including O'ahu, which is our bigger population base. They have bigger impacts than we do. So I just wondered, are you...is it going to be far reaching?

MS. HART: So this pilot is looking at specifically Maui County and...you know, if there are things that are being shipped outside of Maui County and being brought in, that can be looked at, but we won't have a specific focus on O'ahu.

COUNCILMEMBER SUGIMURA: So we're the only lucky one. I just wondered...

MS. HART: Yeah, yeah. We got Maui County, and then we tried...we had to try to get cities from other states in the pilot as well to kind of spread it across. So...but, yeah. Maui will be the first one, and definitely something that can be distributed once we get through the first pilot.

COUNCILMEMBER SUGIMURA: I don't know....that'll be a good Phase II, I think, because we're a mini version of what's happening on O'ahu, and I think there are huge impacts. And then Alex, so I look forward to hearing more about your energy conversion, you know, you spoke about that for looking at being resourceful for County facilities. So I don't know if he wants to say something about that, but I think this all kind of ties in with your efforts.

MR. DE ROODE: Sure. Yeah, the energy savings performance contracting effort. Where we're at with that right now is...the intent is to get an RFP out within the next month here to bring on an energy services company, get an investment grade audit conducted on County facilities, and then, you know, from there, if it looks attractive for the County-

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

-which I'm assuming it will, you know, you just can't know until you get the final investment grade audit completed--then we would enter into a contract with one or possibly two energy services companies. And we would be looking at not only the energy efficiency of County facilities, but also renewable energy, energy storage, electrification of transportation. So that's going to be a pretty comprehensive package. We will be...you know, again, as I mentioned, including in the contract language that they will be responsible for disposal, hopefully recycling, or repurposing. I mean, one thing...you know, going back to Member Lee's question about solar panels...solar panels, typically they have warranty for 20 to 25 years from the manufacturer. And once you reach that 20 to 25-year threshold, the panel can still produce 80 percent of its original nameplate production. So that means it still has a lot of life in it, it's just not optimal. So it can then be repurposed, especially, you know, if we have LMI households that can't afford panels, but now, you know, maybe they're no longer good for the County project, but hey, someone else can use them. Same thing with batteries, right. They have a degradation rate, but they can still be used for much...you know, beyond the warranty period. So something to consider.

COUNCILMEMBER SUGIMURA: Yeah. Exciting times ahead. And thank you very much, Kelly, for doing this...creating this opportunity, and I look forward to see how we can be better. Thanks.

CHAIR KING: Yeah. Well, we had a choice, so I chose Maui over O'ahu. Chair Lee. Oh, you're muted.

COUNCILMEMBER LEE: I don't have a question, but in response to Member Molina's question about incentives to the public, it just so happens I have an appointment at 12:00 today for someone to come over with Hawai'i Energy Service. It's called Pono Home. And they come and they assess, you know, your place and help you to be more efficient and live greener. So...and it's a free service, Mr. Molina. So as we move forward with our project and get involved with civic engagement, that's a way that we can get the public in general involved because it's going to save them money, and it's going to help save our environment as well. So thank you, Chair.

CHAIR KING: Good for you. Gold star for you, Chair.

COUNCILMEMBER LEE: Thanks.

CHAIR KING: Member Molina.

COUNCILMEMBER MOLINA: Thank you, Madam Chair. Well, I can't top that from what Chair Lee has, it's a real life example. Thank you for sharing that. Just a quick question for Ms. Hart related to a question I had asked back...of you back in March of this year. It was related to the Circle City Scan Tool and its ability to measure the service industries emission and carbon footprint. At the time, I didn't have that information. Do you have any updates on that, as this tool's ability to measure our service industries carbon footprint?

MS. HART: So the Circle City Scan Tool will not look at emissions, it's more looking at material

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

flows. Now, what we can do, and I'm hoping to speak with folks from the County, Alex and the consultants tomorrow, is a consumption based inventory is kind of what we would look at for looking at the emissions. But the Circle City Scan Tool doesn't look at emissions, just materials.

COUNCILMEMBER MOLINA: Okay. Thank you for that. Thank you, Madam Chair.

CHAIR KING: Okay. Thank you. All right. Any further questions from the Committee? If not, I really want to...before you folks go, I want to see if...we have Howard Wiig from our State Energy Office, and I just wanted to check in with him. He's actually here for CARE-42, but I just wanted to check in with him to see if he had any comments on the presentation or the pilot project. Are you still here, Howard?

MR. WIIG: Yes, I am. Am I coming through?

CHAIR KING: You are coming through. Do you have any brief comments on any of the discussion we've had this morning?

MR. WIIG: Yeah, very inspiring. You have a worldwide initiative, and little old Maui is being part of that worldwide initiative, and it's really, really, really broad. But just to zero in, we don't have official testimony on the CARE-42 yet, but just on a broader scale, I participate in the creation of the energy codes nationwide. And the codes are created every...recreated every three years by the ICC, the International Code Council. And the ICC has as goal of by 2030, all homes, new homes, shall be net zero energy. So the CARE-42 is the harbinger, a leading of the way that the rest of the nation will be following. And I hope to be able to speak officially at the whole Council on this Friday. Thank you.

CHAIR KING: Okay, great. Thank you so much. And I forgot to designate Mr. Wiig, so if there's no objections we'll designate Mr. Wiig as a resource person. He'll be back when we get to CARE-42.

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

CHAIR KING: But I just wanted to give him a chance to comment since he's the energy analyst. And I did see a question from Member Paltin in the chat. Chair Lee, if you could share the contact information for the group that's doing your assessment, that she's interested in that. So a couple of things before our resource people for our first two items leave, I wanted to remind folks if you didn't know or just announced that the NACo conference next year is going to be in Denver. So maybe there would be an opportunity to do some kind of a presentation on behalf of Maui County as to where we're at with the...you know, joint presentation with the City of Denver as to where we're at with this pilot project and where we're at with the modeling and the goal for 30 by 30. I just want to put that. And also to let folks know that the Hawai'i State Bar Association is having a presentation on the circular economy. Calyn will be presenting at that meeting next month, along with Dr. Kamana Beamer from U.H. Manoa who, you know, basically has been working on the circular economy for a year and a half with his project. So that's on October 15th, if you're interested. It does cost, but...I



**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

found out about it through David Raatz, and it costs, I think, \$130 for half a day, which will include the presentation. And if you're interested in the full day, I think it's \$150. So it's not cheap, but maybe compared to lawyer's fees, they think it's cheap since lawyers charge about \$350 an hour. Anyway, I wanted to thank you so much, Calyn, for your presentation and for continuing to help our little County here. And thank you so much, Alex, for your participation in these really important...I mean, we are...I think we are going to be a beacon for the rest of the Country, and we're going to be a model hopefully for other national island nations...other...hopefully we're all concerned about this, because we're the first kind of...we're the most at risk with climate change. And with that, if there are other...oh, comment, Member Sugimura? You're muted. You need to unmute yourself.

COUNCILMEMBER SUGIMURA: We're utilizing our chat, but Mr. McNeff answered Mr. de Roode's statement about Hawaiian Electric. He says Hawaiian Electric is conducting the EV location survey until October the 1st, 2021, and he gave the website. So I want to share that. Yeah.

CHAIR KING: Okay, great. Thank you for bringing that up. I didn't see that in the chat. It's hard when you're chairing a meeting to keep checking chat.

COUNCILMEMBER SUGIMURA: Yeah, I know.

CHAIR KING: I appreciate you bringing that up. So if there's no other comments, then we'll thank our presenter, Calyn Hart, and thank you, Alex de Roode. Hopefully you'll be back after the break. We're going to take a 10-minute...or maybe 10, 12, 13-minute break, and then we'll come back and we'll address CARE-42, and we will have Mr. Wiig on as a resource for that as well. So right now we are in recess until 10:40. . . .(gavel).  
..

**RECESS: 10:28 a.m.**

**RECONVENE: 10:41 a.m.**

CHAIR KING: . . . (gavel) . . . Okay. Will the Climate Action, Resilience, and Environment Committee please return to order. It is 10:41, and we are moving right along. Oh, I forgot to defer the last two items. So if there are no objections, we'll defer those two items, and we'll just bring them back for updates periodically.

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

**ACTION: DEFER.**

**CARE-42: REQUIRING LARGE, NEW HOMES TO BE ZERO NET ENERGY HOMES**  
(CC 20-570)

CHAIR KING: Thank you, Members. So we're on to CARE-42, Requiring Large, New Homes to be Net Zero [sic] Energy Homes. And Members, today we have before us County

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

Communication 20-570 from me, transmitting a proposed to require large, new homes to be zero net energy homes. We also have correspondence dated September 7, 2021, from the Department of the Corporation Counsel, transmitting a revised proposed bill entitled, "A BILL FOR AN ORDINANCE AMENDING SECTION 16.16B.R401.2, MAUI COUNTY CODE, RELATING TO ENERGY CODE COMPLIANCE FOR LARGE RESIDENTIAL BUILDINGS." The revised bill would require new one or two-family residential buildings with 5,000 square feet or more of conditioned floor area to be verified zero net energy homes, incorporating technical and nonsubstantive revisions. On August 17, 2020, the Council's Climate Action and Resilience Committee learned how climate change experts and leaders from across the country were taking action to combat climate change. One year later, on August 17, 2021, we had an excellent discussion with our resources and departments, resulting in the revised proposed bill we are discussing today. We also have with us John Bendon, Founder, Green Building Hawai'i; David Sellers, Principal, Hawai'i Off Grid Architecture & Engineering; Darla Palmer-Ellingson, Steering Committee Director, Climate Action Advisory Committee; Howard Wiig, Energy Analyst from the Department of Business, Economic Development, and Tourism, State of Hawai'i; and we have Matt McNeff from the electric company, from Hawaiian Electric Company. Mahina Martin was scheduled, but she had...something called her away. So I'm not sure, I don't have your title down, Matt, I'm sorry, but you can introduce yourself when we call on you. So we also have, from the Administration, Alex de Roode, and we've invited Makale'a Ane. Makale'a, are you on? You can just pop up if you're on. I'm not sure if she's here. We hadn't gotten confirmation from her, from the Mayor's Office of Climate Action, Sustainability and Resiliency. We should have Rowena Dagdag-Andaya, who is the Director of Department of Public Works. Are you here, Rowena?

MS. DAGDAG-ANDAYA: Yes, Chair. I'm here.

CHAIR KING: Okay, great. Thank you. And then Keola Whittaker, Deputy Corporation Counsel, who has been advising us on this bill, and actually signed the bill, to answer your questions. So with the body's approval, if there are no objections, I would like to designate John Bendon, David Sellers, Darla Palmer-Ellingson, Howard Wiig, Mahina Martin...or I'm sorry, Matt McNeff, and Rowena Dagdag-Andaya as resource persons pursuant to Rule 18(A) of the Rules of the Council.

COUNCILMEMBERS: No objections.

**COUNCILMEMBERS VOICED NO OBJECTIONS.**

COUNCILMEMBER SUGIMURA: No objections. And Chair, didn't we have a Lani from Hawaiian Electric also who was testifying?

CHAIR KING: It could be either Lani or Matt McNeff. They're representing...

COUNCILMEMBER SUGIMURA: Okay, approved. I think they were standing by, so approved.

CHAIR KING: Okay. So Members, once...we're going to go through the different resource persons, and we'll...once they've had a chance to share their comments with us, I'll

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

open up the floor to Members for any questions you may have in three-minute rounds. And if we have more pending questions, we'll go back. After we hear from our resources and Administration officials, I can ask Staff to display the bill so that the body can do a line by line reading if desired. It's a pretty short section of the bill so it's...you know, it's about half a page, it won't take us a long time to go through it. And we have our Corp. Counsel, Keola Whittaker here to answer any questions...legal questions if you have on the bill. So I'm going to go ahead and just call on our resource persons in the order that I designate...that we designated them if that's okay with Members. And we'll start with...is John Bendon here, Nicole? I know we were going to call on him when we got closer.

MS. SIEGEL: Yes, Chair.

MR. BENDON: Yeah, I'm on the call.

CHAIR KING: Okay. We'll start with you, John. I know you're really busy, so I appreciate you being here. And I'd like for you to go ahead and give any comments you have about the bill. We updated the bill to add the word verify per your suggestion.

MR. BENDON: Yeah, sure. So I think, you know, my comments will be mostly related to helping folks understand, you know, any of the technical nuances related to what this actually means in getting something like this done here in Hawai'i. So our firm, Green Building Hawai'i, which is a division of Energy Logic out of Colorado, does this work across the State, basically doing verified performance testing. So this bill...originally, I think parts of it came from concepts of municipalities like Boulder, Colorado that have ERIs listed as required parts of getting a building permit. And in Colorado, where the systems are more advanced and they've had, you know, concept of ERIs and energy codes in place longer than Hawai'i has, they've moved, you know, well beyond just these very large houses down to basically all houses needing to have, you know, some level of compliance. And so, you know, normal houses have to kind of meet this net zero goal. As we've heard from Howard Wiig as, you know, the IECC keeps progressing, and as the State adopts new codes and the County, you know, amends those codes, one of the things that we do is help architects, engineers, contractors understand what those codes are, and then do the actual verification piece, which is the performance testing that's required by these codes. So in City and County of Honolulu, all over O'ahu, the energy code is required to be verified by a rater, where we get out and do blower door testing. So we're working with all the major home builders over there, and we do inspections and building performance testing on that. That's really what this verified ERI is talking about, is that you're doing energy modeling of the house, and then you have a third-party come in and take some of the responsibilities and onus off of County inspectors to go and verify that the energy modeling is correct, the building is, you know, has all the stuff in it the energy model said, that it's meeting certain performance standards, and you're doing building performance tests that are called out in the IECC Energy Code, and then providing a report that then building inspectors, County Departments can sign off on. It's a regulated industry that is overseen by the residential energy services network, and it's something that's used really across the country for helping, you know, verify energy codes. So that's the process.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

CHAIR KING: Okay. And then because you brought up the IECC, maybe next I'd like to go our Corp. Counsel, Keola Whittaker, because we did look at the specific language that you provided, John, about those types of verifications, but...and we also looked at adding something that the Hawaiian Electric Company suggested about, you know, allowing...specifically allowing for community renewable energy projects to be linked in. But we...there's some issue with where we're at with the IECC because we haven't approved the 2018 version yet. So I wanted to bring Keola in...maybe you can explain, you know, that this is intended to be a bill to get this going, and then we can...after we approve those changes, then we can add some of the additional language.

MR. WHITTAKER: Sure. Thank you, Chair. So if it's okay with you, I'd like to briefly describe the legal framework we're in --

CHAIR KING: Sure.

MR. WHITTAKER: -- so when I mention certain terms, all the Members are on the same page. Okay. So the process of Hawai'i Building and Energy Code approval begins at the State Building Code Council, or SBCC. And so after amendments to the model codes are approved by the SBCC, it falls then on the counties to adopt it as is, or make County amendments. And we have two years after the SBCC approves their own adoption to do the County amendments. And if the County doesn't amend or adopt within two years, the Hawai'i State Building Code becomes the interim County Building Code. And those tend to be pretty stringent, so there's an incentive to adopt amendments. So the SBCC adopted the 2015 Energy Code in March 2017. So the counties had until March of 2019 to adopt it with amendments, which is what we did. And the Hawai'i State Energy Code Amendments to the 2018 Energy Code was adopted on December 15th, 2020. So we have no later than December 15th, 2022 to amend and adopt the 2018 Energy Code in compliance with State law. And I believe this...that part of the process is mentioned in the most recent letter from the Mayor in Granicus. So it's our opinion that the Council has the power to amend the energy codes, whether it's the 2015 and then later on, when we look at the 2018 Code, to adopt County amendments. So this amendment is fine from a legal perspective, but there are limits to my knowledge in DPW, and the energy expert resource people are probably best to respond to questions about implementation. So the degree you see behind me is in law and not engineering, so I have no problem deferring to them on what it means from a practical perspective. But now that we understand the legal framework and what our powers are with regards to the energy code, let me describe just how they're organized to understand what this amendment is and where it's going. So the energy code is divided into commercial building requirements, and those codes start with a "C"; and the residential building requirements, and those codes start with an "R". So here's where it gets a bit technical. So this bill amends R401.2 in the Energy Code, and this is the residential portion because it has an "R", and that sets forth certain energy requirements, so it's fine to put it there. The details on what the ERI or Energy Rating Index is and how one can meet those requirements are set forth in a different section, and that's R406, which you see a cross-reference. You won't find that in our ordinances because we didn't amend R406, but it's in the Energy Code, which is quite big, and DPW has a copy of that. So Boulder, which has a net zero policy, made more detailed changes to the ERI compliance section in Section R406. So my understanding is that

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

the intent of this bill is to put stringent net zero requirements on large, expensive single-family or two-family homes, since presumably anyone constructing a home of that size would have the means to add renewable energy systems to the home itself. So it's a bit of an experiment before amending the 2018 Code, where we can get into more detail. So when we do the 2018 Code requirements, it would be possible to include more detailed net zero requirements, working with various departments and State coders like HECO. So for example, Boulder's net zero amendments, which is to the 2018 Code, includes a sliding scale depending on the size of the building, so it would be possible to do that. Also within there, and this is where we get to HECO's comments, within what Boulder did, they required that renewable energy systems used for compliance with the ERI be permanently installed on the property of the building, and they also allow for offsite renewable energy be used to meet the ERI requirements. And by the way, they have another possible way of meeting net zero within their code, where it's technically infeasible to put renewable sources on the home and offsite subscriptions aren't available, and the administrator there has the authority to approve a contribution to the city's energy impact offset fund based on the value set forth in that ordinance. So in terms of...to get to your specific question about verification, within R406--which again, you won't find in our ordinances, but it's in the energy code--it indicates that...what verification means, and it says that verification in compliance with Section R406 be completed by an approved third party. So I presume that DPW would have the power to approve a third party to indicate compliance with the energy...with the energy code.

CHAIR KING: Okay, great. You know, at this point, I'm going to just see if anybody has got any questions about the actual bill since we have Keola with us...while we've got this on our mind before we go to our other commenters. Committee Members...is that your hand, Mr. Johnson? Okay. Councilmember Johnson.

COUNCILMEMBER JOHNSON: Chair, I looked over the previous bill and the present bill, and I didn't really hear the explanation on why we did it for only one and two bedrooms. Is that legal wise or can you explain...go ahead.

CHAIR KING: Go ahead.

MR. WHITTAKER: Councilmember Johnson, thank you. So it's not from a legal perspective. So you can...you have the power to amend the energy code as you wish. I think it was more from a policy perspective. You know, something that's in the Mayor's letter, for example, is a concern about, you know, multifamily, multigenerational homes or, you know, apartment buildings, for example, that are a large square footage that may have trouble meeting this because they don't have the capacity to put renewable resources on the building itself.

COUNCILMEMBER JOHNSON: So this says there's a 5,000 square house...square foot house with only one bedroom. I can't imagine that ever being a thing. Am I...are there houses like that out there that are 5,000 square feet...

CHAIR KING: Well, it doesn't refer to bedrooms, it refers to one or two family.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

COUNCILMEMBER JOHNSON: Oh, I'm sorry. I think I...okay. My mistake then. All right. So it's family...okay. Got it. All right, thank you so much. I have no further questions.

CHAIR KING: Okay. Member Molina.

COUNCILMEMBER MOLINA: Thank you, Chair. Just from a procedure standpoint, is it your intent to just try to move the bill out without possibly incorporating any of the suggestions from HECO and Public Works, or will we be looking at a future meeting and then try to, I guess, massage the bill to address some of the concerns that have been expressed by HECO and Public Works at this point?

CHAIR KING: Thank you for the question. You know, when we looked at possible changes that were suggested, they are...they...what I was advised by Corp. Counsel is that we would first need to amend the IECC 2018, and we haven't gotten there yet. I've got the agenda for Friday to be referred to this Committee. It was previously...it was a previous version that when we did the changes, we did it through the Environment Committee. So our Vice-Chair, Councilmember Sinenci, shepherded that through his Committee in a previous term if you recall, we made some changes to the County changes. And so now we've got the 2018 version, so we need to make those changes before we can add them to this part of the bill. So this is a way of pushing us out, the...you know, the concept out. And then we're going to make...as we make those changes to the 2018 IECC, then we can add to our energy code. So is that a good...is that the correct explanation, Keola?

MR. WHITTAKER: Thank you, Chair King. So we would have to make quite a few amendments to Section R406. And so our recommendation, because that would take, you know, quite a bit of time and analysis since that hasn't been amended in our code is to, you know, do it in the 2018 amendments because we're going to have to do that before the end of 2022 anyway. So that would be a great time to kind of get into the details and get all the stakeholders involved.

COUNCILMEMBER MOLINA: Okay. Thank you, Madam Chair. So basically it shows as still a work in progress, yeah?

CHAIR KING: Well, it's probably always going to be a work in progress but, you know, we have to put the first foot in front of the other. And I think it was mentioned in our previous meeting when we discussed this that we are probably talking about maybe a maximum of a dozen homes per year, something like that, that are this size or bigger. We're not...it's not a huge number but, you know, we have to start somewhere. So that was the idea behind this, but you know, really good question. That's why I was really glad to...you know, because I've been trying to run everything through Corp. Counsel to see if we can add these things, and it just...it just doesn't make sense to add them at this point. So Member Sugimura, followed by Member Paltin.

COUNCILMEMBER SUGIMURA: Yeah, thank you. I really appreciate Corp. Counsel's knowledge about this issue, and I just want to make sure that...so what I heard you just say that it's okay for us to pass something like this and then the updates that you were talking about, which would probably include the sliding scales concept that you

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

were saying, and that can be done later, and it would not impact decisions today that we are making?

MR. WHITTAKER: Thank you for that question, Member Sugimura. So this amendment is to what we've already adopted, which is the 2015 Code, and we see nothing that would prevent, you know, further amendments. We adopted amendments previously, and we can amend it further. Then by the end of 2022, you know, this kind of gets scrapped, we adopt the 2018 Code, and make amendments to that. So doing this amendment would not prevent us from adopting and amending the 2018 Code.

COUNCILMEMBER SUGIMURA: Okay. And it would allow Public Works then to put out a RFP or hire John Bendon and his organization, and they would be able to function with these amendments, or until we get to the 2018 amendments, and that would not hinder this decision today then.

MR. WHITTAKER: Yes, that's my understanding. I asked DPW...you know, I showed them this wording and asked if...you know, if they could implement it as is. And they indicated they could although, you know, Rowena should confirm that, but that's my understanding.

COUNCILMEMBER SUGIMURA: Thank you very much. Thank you, Chair.

CHAIR KING: Okay. Thank you, Member Sugimura. Member Paltin, you have a question about the bill?

COUNCILMEMBER PALTIN: Yeah. And I'm not sure if this is addressing what the MECO folks had to say, but I was wondering if we could put in, must achieve a minimum of a verified maximum energy rating index score of zero, because they kind of mentioned, you know, like not tying in and like that kind of stuff, you know, for one...and looking at the bigger picture. If one house is net zero, that doesn't mean that all the houses are net zero. And so if a house could possibly generate more than their needs and then maybe tie in and supply it...and I don't know if they earn money for that extra energy that they're generating. It just seems like, you know, if people have the capacity to go beyond net zero, why wouldn't we...like, you know, we don't plan for as many houses are needed now. People are saying like there's going to be a greater need in the future. So if it can be more than zero, which I don't know if that's considered a negative number or what, would that be possible that like the minimum is zero?

CHAIR KING: You mean instead of saying that the maximum...because the...right now it says the verified maximum energy rating index ERI score of zero because that is the maximum. So we're asking them to...

COUNCILMEMBER PALTIN: Okay. I'm not sure about the wording, but the concept is...

CHAIR KING: You know, that might be a question for one of our other...you know, maybe for Mr. Bendon or somebody who actually does that verification?

MR. BENDON: Chair, I'd be happy to answer that.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

CHAIR KING: I'm not sure. I think it's a policy question than a question about this particular bill. You want to see if Mr. Bendon can answer that?

COUNCILMEMBER PALTIN: Okay.

CHAIR KING: I think I get your concept. You are talking about whether we go beyond zero and actually go negative so that some of that energy goes back to the grid. So maybe...do you want to speak to that, John?

MR. BENDON: Sure. So the ERI score will...it can go into the negative. So you can project, you know, kind of the other way if you are projecting that you're going to produce more energy. One of the nuances with the ERI is that by stipulating an ERI score of zero, it doesn't actually mean that the house for sure is going to even perform at net zero as it's...once it's built because it's based on projected uses and projected setpoints, and everybody uses their house differently. You know, if they get an electric vehicle then their load might go up, or if you have an electric vehicle and, you know, drive a lot further than somebody else, then their load profile will be different. So it's a tool in the toolbox to try to...the ERI...to try to gauge, you know, the house that's built compared to another, you know, code house that meets these specific requirements. And if somebody does better than that and has a...you know, an incentive or reason to do more, then that ERI would go below that zero.

COUNCILMEMBER PALTIN: And so just to follow up on that, it wasn't built into the rating index process to generate more than you need or that whole concept. I mean, it's estimates, but there wasn't a concrete rating for generating more than you need in knowing that not everybody is going to be able to hit these goals, and looking at the big picture of maybe not just doing your part, but doing as much as you are able to in terms of...I don't know what to call it, but the net zero concept.

MR. BENDON: Yeah. Well, it is all built into the rating. So if you do more, like if you have, you know, 20 percent more export than zero, then theoretically, you know, your score might be a negative 20 as opposed to a zero or 20 on that. But because you're comparing a house that is...has essentially model occupancy--because everybody lives in their house differently--to a code house, it's really...you know, it's the best kind of tool that you have to make these projections and comparisons when you're, you know, providing basically ratings for houses that are brand new built and haven't been constructed yet. So, you know, if the goal is to like require people to produce more energy than potentially net zero, you could say, you know, an ERI of negative 20 or something. But I don't think ultimately that really gets you to where you need to be. I think there's other, you know, probably incentive mechanisms or things that could happen, you know, kind of in conjunction with this or outside this particular bill.

COUNCILMEMBER PALTIN: Okay. I guess for legislation purposes, the question would be could we say a verified maximum ERI score of at least zero, or at most zero, instead of zero so that we're aiming for higher, but that's the floor rather than the target.

CHAIR KING: I guess we're asking Corp. Counsel.



**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

MR. WHITTAKER: Thank you, Chair. So the way it's currently worded I believe achieves your policy...the policy goal that you have, Member Paltin. So if a home achieves an ERI rating of let's say a negative 20, then they would achieve that net zero score, right. They're just going beyond net zero. So for example, in Boulder's amendments, you know, smaller homes have an energy rating index of 50, and then bigger homes have a energy rating index of zero...so the bigger the number, the worse it is. So if a home achieves negative 20, then they do achieve the maximum ERI of zero. I hope that makes sense. So what I'm saying is the way it's worded, does achieve the goal that I think you have.

CHAIR KING: So probably what we have to do if we want people to go there is give them an incentive. And I think one of the issues is that they don't get an incentive for going to negative 20, because they don't get paid for that extra electricity. And maybe that's a...maybe that's a good time to bring in Hawaiian Electric Company to find out, you know, are they planning to do that eventually, to actually pay people to go beyond zero to feed electricity back into the grid. So maybe Matt McNeff, if you're here, do you want to speak to that issue, or Lani?

MR. MCNEFF: Yeah. Thank you, Chair King. Lani, go ahead, I'll let you answer.

CHAIR KING: Okay.

MS. SHINSATO: Hi, everyone. Can you hear me?

CHAIR KING: Yeah, we can hear you.

MS. SHINSATO: Chair, thank you. Thank you for the question. We actually do have programs already in place that do compensate customers for the energy that they export back to the grid. And so I'm thinking that if this type of customer were to sign up for one of our available exporting programs, then they would get compensated at that applicable rate for excess export back to the grid.

CHAIR KING: Okay, so you actually will send folks a check? Because I know we've been...we've been, you know, negative sometimes, but we've never gotten a check from the electric company.

MS. SHINSATO: It doesn't come in the form of a check. What happens is there is an offset to your bill. So you see it as a credit on your bill. Your bill gets lower.

CHAIR KING: Right. If you're zeroed out for the whole year and you actually are feeding more back in, there's no compensation for that.

MS. SHINSATO: Currently there is no compensation for that. That's correct, Chair. Yeah.

CHAIR KING: So any other questions right now? I want to kind of go through and get comments from some of our other resource people too. And the next one I'd like to go to, because I know he's calling in from the State, is our State Energy Office

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

representative, our energy analyst, Howard Wiig. Howard, do you have any comments you'd like to make at this point on the bill? I mean, I know you made some earlier, but I'd like to hear them again.

MR. WIIG: Sure, yeah. Again, we haven't formalized our testimony, but hopefully we will have that available at Friday's full Council meeting. I can say generally, as I did before, that the ICC, the International Codes Council, is the one who updates codes every three years. And regarding the energy code, the original goal is that all new homes by 2030 shall be zero net energy. So this bill is a bill weather. This is pointing the way, along with Boulder, Colorado and other entities. And of course, it would contribute to Hawai'i's goal of 100 percent clean energy by 2045. And we have a logistical comment for you. Right now, this bill is being placed in R401.2, and Honolulu is looking at a similar provision, and they have placed it in R404. We would suggest R404.2, and that's backed up by similar structure by the NBI, the New Buildings Institute, which is a nationwide think tank, and they have a similar provision also placed in R404. So you might have Corp. Counsel look at that. Thank you.

CHAIR KING: Okay, great. Thank you. Do you have anything...any comments on that, Keola?

MR. WHITTAKER: Thank you, Chair. I'm flipping through the ordinances now to look at what R404 is, but I appreciate that, and we'll take a look to see where we can place this which would make the most sense.

CHAIR KING: Okay.

MR. WIIG: Yeah, it's titled Electrical Power and Lighting Systems.

CHAIR KING: Okay. So...but this is supposed to be on just electrical power, but you said they're still putting it in R404.2?

MR. WIIG: That's correct, yeah.

CHAIR KING: Okay. Okay, we'll let Keola work on that for a little bit. And then if he can't...any other comments?

MR. WIIG: Yeah, the NBI titles it Renewable Energy Infrastructure, and they have added to it the 404 title that way.

CHAIR KING: Okay. Okay, well, thanks for that comment. It's nice to know that we're aligned with where the State is going, and can be actually leading the way. And thank you so much for being here, Howard. I really appreciate it. You've been around a long time in the energy world and, you know, I really have a lot of respect for your work. Okay, I want to get comments next from David Sellers, who we asked to be a resource. And any comments on what has been said so far and the actual bill as it's been revised?

MR. SELLERS: Sure. Thank you, Chair. I think from my perspective, the best kind of information I can provide is more on a practicality and an in practice standpoint. So we specialize in architectural engineering for sustainable housing. Hawai'i Off Grid is

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

our company's name. What we see when we either do a PV system or we design a house to be off grid or net zero is that, you know, there are incentives in place already. When people have solar panels on their roof, it's typically because they don't want an electric bill, so they want to be net zero. We have kind of come up this new term net zero, and it really helps define what you're doing, but in reality, we have people all across Maui County that are net zero. Many of you probably on the call are actually net zero as well. And it basically means over the course of a year, you produce more energy than you actually consume. So speaking to Councilperson Paltin's comments, you know, that making more energy than you use and having that negative score, that happens all the time. And that's kind of what we want to do because it gives us a little buffer between what you actually use maybe today and what you're going to use tomorrow, and maybe one day has to offset the other. And I think that it benefits the utility as well because the current consumer grid supply programs, you have to sell back more power if you want to get that power back one for one. So usually it's about three times as much that you give back and you...you know, you get a third of that back so that you can offset your energy bill. And, you know, the worries that, you know, having a home that's net zero wouldn't contribute to the grid in practice isn't economically feasible. To be fully off grid is another cost that most people don't want to undertake. Also, on the incentive side, why people actually do install solar is for economics. Internal combustion engine generators are not applicable to the energy tax incentive, the ITC tax credit. So you are not going to see people installing generators in order to hit the ERI score, that wouldn't be something that's possible. So what you're more going to see is people contributing more power back to the grid to make sure that they're covering their usage. When we talk about a 5,000 square foot home, that is a large home. We have one house right now that's larger than that that we're working on out of about a dozen that are currently in design. What I will say is that people that have the wherewithal, the means, to build a house like that, there's a couple of things I think are intriguing about this bill and how it applies to our County. Those...majority of the time, what we see in practice, those people don't live here full-time. This is a second, third, fourth, fifth home for them. Having them be net zero and meet their energy needs when they are habiting the house, so using the appliances, basically means that most of the time it's generating power for the grid and helping our community to achieve sustainability. The other thing is when we apply an energy system to a new home, much like air conditioning back in the 1940s and 50s, now we roll the cost of that energy system in to the cost of the home, so it gets amortized into the mortgage. So it's not more of a...it's not a heavy lift as if you were going to, say, buy it outright for a house that you already own or have a mortgage on already. So the financial implications are really only positive when you look at the fact that you are going to have no electric bill, and you're going to pay an interconnection agreement, which should help maintain the grid, and then the owners, lots of times now, we see electric vehicles. Like every house that we have in design has an electric vehicle or two as a component to that house. So we're planning for that. So it's not that we're going to be surprised that there is going to be a Tesla for sale next year and we didn't size the PV system correctly this year. We're already anticipating that, so I don't think that there is any issue there. So from a practicality standpoint, this is already happening. I think that this is just a good way to make sure that we're making that step. If you look at it per capita, Hawai'i has the most solar panels per capita. In fact, we were just on a call this morning with a manufacturer in Germany that incorporates photovoltaics into glass

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

windows. And they gave a statistic of, you know, how many solar panels or solar PV in the United States, and they list it by state, and I didn't see Hawai'i there. And I said, could you please relook at that and look at per capita because we're number one. So I think from a practicality standpoint, it's already happening, and this is just a great way to keep that going.

CHAIR KING: Okay, great. Thank you so much for those comments. I'd like to bring on the Office of...or Department of Public Works next and see if...Rowena, do you have anything to add, you're welcome to comment at this time. You don't have to, but I'm going to give you the opportunity.

MS. DAGDAG-ANDAYA: No, sure. And thank you, Chair, and thank you, Members, for allowing us to review this proposed amendment to the energy code. Our Staff did work with Keola regarding some of the changes to be made. One of the questions that came up was regarding the word verification, I think we discussed that a little bit with the other...the other experts on the call this morning. And so what I'll do is basically give information regarding our process and how we would implement this new requirement. And with...in order to comply with the energy code, we use this certification system. We have...we require plans to be stamped with a block on the plans. The registered design professional would provide a statement certifying that the project is substantially in conformance with the code. The applicants are notified of this requirement during the building permit stage. And once the building permit is issued, the project is in construction, building inspectors are involved. The building inspector will then work with the applicant in obtaining the third-party verification report prior to the final inspection. So this is in...this is consistent with the other testifiers this morning, I think John Bendon was one of them who had mentioned that. Keola had also mentioned something similar as well. The Staff didn't have any other concerns with respect to implementation or any of the other language provided in the amendment. but we'll continue to work with Keola and perhaps with other design professionals if there needs to be any amendments to the ordinance or changes that need to be made in terms of implementation. And then I did hear Howard's suggestion about, you know, perhaps considering this in Section 404. I hadn't had that discussion with Staff, and they didn't indicate that in their comments to me as well. So, you know, perhaps that's something that we should also consider. But I did want to, you know, express, you know, my Department's thoughts with the bill, and that we didn't really have any concerns but, you know, it is...we're able to implement this. So thank you.

CHAIR KING: Okay, great. Thank you so much for your comments. And then, of course, in the bill, it says this ordinance takes effect on January 1st, 2022, so we have a little time to...hopefully we'll get this passed out and we can just incorporate it. But yeah, we're...I think Keola's looking at that right now. The idea of putting it in R404, that's the first time I've heard that too, so we'll let Keola kind of work that part out. And then next, I'd like to go to Alex de Roode, if you're still on, if you have any comments, feel free to comment at this time from the Mayor's Office of Climate Action.

MR. DE ROODE: Thank you, Chair. Yeah, a few comments. One is that...and I'm not sure if DPW has a specific definition for this, but the reference to one or two-family home. How is that defined? Is that an attached ohana would be considered a two-family home.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

Is it, you know, by last name, or how do we know what a one or two-family home is versus a, you know, a home with one family with a lot of people in it? And that kind of ties in to also the Mayor's concern around impacts...potential impacts of multigenerational homes. So if, you know, we were to define that, how does that compare to one or two-family homes? I think some clarification there would be helpful. And I have a few other comments, so I can either wait and have a conversation about this point first, or would you like to hear the other ones?

CHAIR KING: Well, it looks like David Sellers might have a response to that question. And that was actually in response to the Mayor's comments because I think his concern was that we didn't want this to apply to a whole apartment complex, you know, which would be really difficult for them to do. But did you have a comment on that, David?

MR. SELLERS: Sure, yeah, just to clarify. We have a clear definition provided by the IBC, the International Building Code, that we follow as to what a single family or two-family home is. And those would be homes that fall under the IRC, the International Residential Code, and they're clearly defined by the building code. So that should already be taken care of.

MR. DE ROODE: Okay, good. So if you have a clear definition and, you know, we all recognize that definition is how we're referring to it in this bill, then at least we have clarity on that. I think to address the Administration's concern around multigenerational homes, it would be good to try to at least monitor potential impact. So once this is implemented, be able to kind of characterize the various homes that are...that fall under this requirement, and just get a better...you know, a little more granular information about how it's being used. Is it...I mean, is it like David was describing where it's their second, third, fourth, fifth home and they only live here part-time, or is it a multigenerational home? And if so, is there any way that we can, you know, limit or eventually eliminate impacts to those households.

CHAIR KING: Well, and this is...remember, this is for new homes too, so it's not for any existing homes. And I don't know if you've been seeing any new homes that are 5,000 square feet or larger that are being built for multigenerational, like three families or more, David?

MR. DE ROODE: Yeah, I understand it would be a small subset, so it's just to get a sense. I don't have the data on that, but I'd...you know, we...I think...I can't remember who mentioned that it was looking like it would be 12 homes a year on average so, you know, a very small number. But being able to, you know, have more data on what the makeup of what those households are, I think would be helpful just for our own purposes monitoring as we go along.

CHAIR KING: Okay.

MR. SELLERS: Yeah. And one thing I'd like to add to that and maybe clarify would be an analogy similar to air conditioning, as I've mentioned before. If...for a new home, if we're looking at a multigenerational home, what we typically see from an electrical usage standpoint is a lot of electrical usage because of the number of occupants that

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

typically live in those homes. So when we look at a practical...from a practical standpoint, if the solar panels, the energy system, is amortized into the mortgage, we know that we can provide electricity cheaper than the utility through a renewable energy system installed on a residence. So when we look at a multigenerational home, lots of times, you know, one of the reasons that we have multigenerational homes is because of the housing issues that we have, cost of housing, the availability of housing. You know, there's housing available if you have enough money, of course. So if we can lower the operating costs of the house, and essentially put a smaller amount into the mortgage and you own that means of production of your electricity, you're actually benefitting that particular demographic of home that we would be talking about. So I think that it has a positive impact. And again, we're talking about a newer home or a new home, not retrofitting older homes.

MR. DE ROODE: Chair, I do have a few additional comments, but I'd like to give you more...you know, any more time you'd like on this item.

CHAIR KING: Well, I did want to move into, you know, getting a motion on the floor, then if folks have questions that they want...I see a couple of questions. So are you okay with taking a couple of questions, Alex...at this point?

MR. DE ROODE: Sure.

CHAIR KING: Okay. I think Member Johnson...Member Sugimura, and then I think that Member Johnson...no, you didn't have your hand up? Okay, I'm trying remember who. I think Member Sugimura.

COUNCILMEMBER SUGIMURA: Yeah, thank you. So I'm glad to hear Alex speaking about this, because I got a...somebody is listening in, and they have a question. So...and what you're saying is kind of similar to the question from, you know, the viewer in that I know, David, you're talking about 12 homes you're taking care of or whatever your...and fabulous...but this person is wondering about duplexes that are 5,000 square feet, but they're duplexes, and we don't want to add more costs onto that. So I wonder if there can be some definition or clarity so that...at first, when I did hear or read about it...I mean, read this, I thought yeah, 5,000 square feet, big home, big energy use. But if you're talking about, you know, a multifamily or duplexes, then I wonder what the impact of that is also. So I'm kind of in line with your questions, Alex, if you have any...anything you can do to clarify it.

CHAIR KING: Okay. It sounds like you want a response from David.

MR. DE ROODE: If I could just have one . . . *(inaudible)* . . . point.

COUNCILMEMBER SUGIMURA: Alex or David. I mean, I think Alex is talking about it, so I would like to hear what Alex has to say because I think he's familiar with...you know, with that.

MR. DE ROODE: Yeah, and I'm sure David would have some good input as well. The...another detail here in the bill currently is that it calls out new one or two-family homes with

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

5,000 square foot or more of conditioned space, right, specifically conditioned space. And that has a higher energy use intensity typically, right, because we're air conditioning as compared to a naturally ventilated home. So just to call out that, you know, if we had a house that was 4,999 square feet of conditioned space, and the rest of the home was nonconditioned, the whole home could be more than 5,000 square feet, but would have, you know, maybe a garage, a nonconditioned, it would not be subject to this requirement, as far as I understand it.

CHAIR KING: Yeah. And we looked at the definitions and, you know, we had a discussion with that, and I think we landed on with Keola and some other folks involved...I'm sure Public Works was there, but we landed on that conditioned...the conditioned...the word conditioned floor area as an industry term. But yeah, there's always going to be people who can game the system by going one square foot smaller. But when we...you know, when we had the conversation with Colorado, they said one of our original goals when we put this in is we didn't want 5,000 square foot homes. So this forced all the people who didn't want to do this to go smaller than that. And they said that was part of their goal, is to get these smaller homes. So, you know, we may have people that are doing that, but there has to be a number. If you put 4,900, you know, 99 square feet, someone is going to go 4,998. So at some point, you just got to define what you're looking for, and deal with some of the...you know, the encroachments. But the goal of what Boulder did was eventually they went into the tiered, you know, so that you have requirements if you're at 1,500 square feet and then 3,000 and then 5,000, but they did this step first, the 5,000 square feet. So that's...you know, that may be where we want to go with when we start looking at 2018.

COUNCILMEMBER SUGIMURA: Chair, I mean, I hear what you're...yeah, I hear what you're saying. But what the question is from a person listening in is, what about duplexes, right? Not one big 5,000 square foot house that two families are occupying but, you know, subdivisions that come out for affordable housing, but they are at 5,000 square feet for a duplex. So they're wondering what about that kind of situation.

CHAIR KING: So I mean, I don't know about...who is going to build the duplex that's affordable that's 2,500 square feet per side, but we can have maybe...Keola, you want to speak to that?

MR. WHITTAKER: Thank you, Chair. I just wanted to point out, Member Sugimura, that Rowena put into chat the definition of what a two-family dwelling is, so a duplex would be included. I don't think there's a lot of areas within the County that are zoned for duplexes, so I'm not sure this would apply to quite a few. But just to let you know that two-family dwelling would be inclusive of that. And there was a question from Member Sinenci of that would include ohanas, I assume that too falls within that definition. It would...you know, you could also amend it so that it only says single-family dwelling if that is the policy intent.

MR. WIIG: Madam Chair, this is Howard Wiig.

CHAIR KING: Yes, Howard.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

MR. WIIG: The IECC defines residential buildings for this code includes detached one and two-family dwellings, the key word being there detached. So that would exclude duplexes from that. Thank you.

CHAIR KING: Okay.

MS. DAGDAG-ANDAYA: Chair?

CHAIR KING: Director Dagdag-Andaya.

MS. DAGDAG-ANDAYA: This point...you know, this actually came up as a discussion with Staff, and it was our understanding that it would include duplexes as well. So perhaps that's something that we should continue to...

CHAIR KING: Well, you know, we could put the word one or two-family residential buildings, and then put the word detached in there somewhere if that's what the State is using. How is the State wording that, Howard?

MR. WIIG: Exactly as I read, and that's from the National IECC.

CHAIR KING: Oh, okay. Okay. Can you read that wording again?

MR. WIIG: Yeah.

CHAIR KING: Personally I'm not that worried about it because I think as long as a building of 5,000 square foot duplex...2,500 square feet is a lot, you know, you're probably not going to find any affordable duplexes that are going to be 5,000 square feet or larger. But go ahead, Howard.

MR. WIIG: Yeah. So this is under definitions in the residential section, and it reads: "Residential buildings for this Code includes detached one and two-family dwellings."

CHAIR KING: Okay. So if we...

MR. WIIG: The key word being there detached. It would not include duplexes.

CHAIR KING: Okay. So thank you for that. Members, see, I think...I'm going to ask Darla if she has any comments because I did tell her earlier when she was going to testify that I'd bring her on if she wants. Do you have any comments or anything new to add, Darla, to the discussion?

MS. PALMER-ELLINGSON: Sure. Thank you, Chair. I've actually been deleting a lot of my comments as others have addressed them, so I did just want to address one of the current topics we were talking about, about a potential hardship for multigenerational families and that...you know, just a clarification that it's for structures of over 5,000 square feet of conditioned floor space. So that doesn't mean the ohana. If the ohana is smaller, any outdoor space, garages, all of that. So it's actually very generous to be able to achieve that ERI score of zero. And CARE-42 applies to one very small piece of



**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

---

the market and just, you know, estimated less than a dozen very large homes that would be affected. And this is a really good jumping-in point for the IECC 2018 and homes being net zero by 2030. So we did review MECO's testimony submission, and CAAC has made some good relationship inroads with MECO, and we look forward to turning their concerns around into opportunities and make positive changes. But I did want to address a few points, and some of them have been addressed, and I've kind of deleted a lot of them. This measure does not impede Maui or State efforts for all structures to be net zero. I think David Sellers explained that very well. But hopefully it will create a situation where we do work with MECO more closely to improve how we connect into the grid, and also the permitting process. It's going to be a great opportunity for people working in the Planning Department and inspectors to kind of get their feet wet with some of this. The utilities argument that homes may be in the neighborhood oversaturated with renewable systems. Again, remember this is just a small sampling, a handful of homes, and that's not really a thing. But, you know, looking ahead, when we get to widespread homes with renewable energy, if the grid is not ready for that, that's again something that we really need to be working with the utility on to address more diligently in a shorter time frame. And also, this bill does not prevent EV charging, so, you know, we can discuss that further. But I did also reach out to some people, a couple of Councilmembers had asked, you know, if we had been talking to the construction trades and to RAM. And so I did get feedback from Joshua Berlien, Chair of the Trade Union Committee for the Chamber of Commerce. His main concern is that CARE-42 be for new permits filed after an effective date so it doesn't affect any permits already in process. Overall he doesn't see this bill really having an impact on professionals, such as architects and engineers, as they should be able to interpret the changes. Nor will it impact builders, as they are following the professionals' plans. However, it will have an impact on County plan reviewers, and attention and training should be focused there. There's already an extended permitting process, and any further delay would be a hardship. And we've had quite a bit of discussion on that point as far as the process efficiency and, you know, as a side note, I was a County Property Tax appraiser in another community, so it's interesting to look at some of these roadblocks. So in addition to CARE-42, Mr. Berlien would also like the County Council to examine what happened to the MAPPS project, and to automate the planning and permitting process and eliminate the outdated system that's currently in place. Apparently there has been \$6 million spent, and there's no updates as far as, you know, the trades and the unions. They don't know where that process sits right now, so hopefully that can be addressed separately. And then finally, I reached out to Amy Johnson, who is the Executive Director of the Realtors Association of Maui, and she provided a statement that CARE-42 is not an issue RAM has discussed at a Committee or a Board of Directors level. We are concerned about the effect of climate change, and are in support of exploring ideas that could result in a zero ERI. And then as a side note, the CAAC Committee does have one of the top RAM managers on our Committee as well. So, you know, we're trying to really reach out and be inclusive and get feedback. And that's all I have.

CHAIR KING: All right. Great. Thank you for that report. You have another comment, David?

MR. SELLERS: I think one thing I can provide is just how actually easy it is to be net zero. I want to reiterate that, and to do that. Currently in Hawai'i, an average house uses 515

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

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kilowatt hours per month, that would be 17 kilowatt hours a day. If we look at that at four hours of peak sun, that would mean a photovoltaic system of about 4.3 kilowatts. At today's efficiency of solar panels, we're looking at 214 square feet of south-facing roof. It's really, really easy. Really, really easy. So, you know, when we're looking at an EV charge...you know, EV chargers and meeting that demand, we typically have plenty of roof space in a conventional designed home to accommodate the electricity use for the house and for the electric cars. Now, when we look at designing sustainably, and we look at first, not thinking about the house actively producing energy, but actually not consuming electricity as much, so we pay attention to where the roof is, where the window openings are, these types of things. But that also lends itself really in a good way to positioning the roof, the house, to solar exposure on the roof and not into the house. So easy to put solar panels where we're trying to block the sun from getting inside. So again, it's really easy, 200 to 300 square feet on the roof, and we've got it done. So really, really simple to do.

CHAIR KING: Thank you for that input. And also, I just got a text from...you know, we are looking at an affordable housing project in Kihei called Hale Kaiola, which has been approved by this Council, they are all duplexes. So a floor plan is 1,164 square feet. So you're not going to see affordable housing duplexes at 5,000 square feet and above, I think. I hope this ordinance won't affect them. But Members, I want to thank everybody for their input and Members for their questions. At this point I'd like to make a recommendation, if Members are ready for that? I'd like to entertain a motion to recommend passage on first reading of the proposed bill entitled, "A BILL FOR AN ORDINANCE AMENDING SECTION 16.16B.R401.2, MAUI COUNTY CODE, RELATING TO ENERGY CODE COMPLIANCE FOR LARGE RESIDENTIAL BUILDINGS", allowing Staff to make any nonsubstantive changes and the filing of County Communication 20-570.

COUNCILMEMBER PALTIN: I just had a question before the motion.

CHAIR KING: Oh, okay. Member Paltin.

COUNCILMEMBER PALTIN: I just wanted to follow up from the last meeting when you were saying that you were going to outreach to like members of the building community. And I guess, according to Ms. Darla's addition about...I guess since it affects mainly architects and engineers, just follow up on where we are on that process.

CHAIR KING: Well, we did...we do have an architect, and we did reach out through Darla to the...you know, I had asked her to reach out to the main people that she reached out to, and we heard their comments on that. It's large enough, in effect...you know, the dozen or so homes...large homes that we have per year won't largely affect them. I'm not sure who else...and we also got Jason Economou, who is on the CAAC, who is part of that Steering Committee. So I'm not sure if...

COUNCILMEMBER PALTIN: I think . . . *(inaudible)* . . . maybe the Carpenter's Union, some of the other trades or anything...they didn't give any written comments or testimony?

CHAIR KING: We don't have any written testimony from any of the unions.

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

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COUNCILMEMBER PALTIN: Of the ones that you reached out to, they didn't provide any feedback or anything?

CHAIR KING: Well, we did get some feedback...I asked Darla to reach out, and she did...you want to comment on that further, Darla?

MS. PALMER-ELLINGSON: Josh basically said...I specifically asked if he could, you know, connect me up with the head of the Carpenter's Union and...or any other significant trades. And he said that he didn't really think it was necessary because they are going to follow the architects' and engineers' direction, they're following plans. So...and also, Mr. Berlien is a large contractor himself. And David Sellers is an architect, he's been very generous with his time and participating with CAAC. And then also, John Bendon, who works with basically, you know, architects, engineers, and homeowners and everyone else. So, you know, it hasn't been an extensive outreach, but I think we are trying to, you know, really tap the market and get input.

COUNCILMEMBER PALTIN: And so just wanted to follow up, did you get that in writing from Josh Berlien?

MS. PALMER-ELLINGSON: No, I...it was a telephone call. And I record my calls so I have a transcript. It helps me remember.

COUNCILMEMBER PALTIN: Okay. Awesome, thanks. I just...covering our bases. Like that is good, you know, if people say, then we always use like the building industry of something, so at least we can say we reached out, and that was the feedback we got.

MS. PALMER-ELLINGSON: Yeah, he's the head of the Chamber Building Permits.

COUNCILMEMBER PALTIN: Like construction industry of Maui or something.

MS. PALMER-ELLINGSON: Yeah, it's the Trade Union Committee for the Chamber of Commerce, and a contractor.

COUNCILMEMBER PALTIN: Okay, yeah. If we got that feedback from him and it's documented, that's great. Thank you.

MS. PALMER-ELLINGSON: Thank you.

CHAIR KING: It's always good to record those phone calls. Before I take any more comments, let's go ahead and get a motion on the floor, if we can.

COUNCILMEMBER JOHNSON: So moved.

VICE-CHAIR SINENCI: Second.

CHAIR KING: Okay, moved by Member Johnson, seconded by Committee Vice-Chair Sinenci. So we have a motion on the floor. I'm going to go back to Keola at this point just to see

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

if there's any thoughts on putting this under R404.2. Did you...or should we just leave it where it's at?

MR. WHITTAKER: I think it can be left where it's at based on Rowena saying that DPW would know how to implement this. There are multiple places I think it could go. It could also go into R406. I'd have to see, you know, what Honolulu did in R404 to say whether or not that's the best place, but looking at R404 as is, it doesn't make intuitive sense that it has to go there.

CHAIR KING: Okay. So we'll leave it where it's at for now. If anything comes up between now and first reading, we can look at making that change, but...since we've got comments from Department of Public Works based on where it's at right now. So any further discussion, Chair Lee? You're muted. Oh, did you have comments?

COUNCILMEMBER LEE: I have to leave at...I have to leave at 12:00.

CHAIR KING: Oh, okay. Yeah, that's why I was trying to get to the vote before you leave. Member Sugimura...

COUNCILMEMBER SUGIMURA: I'd like to amend...I wanted to amend it so that it would say that one family residence over 5,000 square feet based upon the Department communication. So that would be my amendment. Instead of...it would be instead of new one or two-family residences, residential buildings with 5,000 square feet. So I want to change that to be one family residence over 5,000 square feet just for clarity because of that duplex conversation. And that's my motion.

CHAIR KING: Is there a second? No second, so the motion dies. Back to the main motion. Committee Vice-Chair Sinenci.

VICE-CHAIR SINENCI: Yeah, I think we wanted to address the detached instead. I mean, that also addresses Member Sugimura's on the...I mean, the duplexes. I think duplexes are in one...two different units in one unit, so I know we mentioned about including the word detached as...

CHAIR KING: Well, we talked about that before we learned that there's already a definition in the Code for what a residential building is. So since there's already a definition, I think if...

VICE-CHAIR SINENCI: Okay.

COUNCILMEMBER SUGIMURA: Oh.

CHAIR KING: I think both Mr. Wiig and David Sellers spoke to that. I was hoping to see if someone put it in the chat.

VICE-CHAIR SINENCI: Okay. Thank you.

CHAIR KING: But basically what we're looking at is 5,000 feet...square feet or more of

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
**Council of the County of Maui**

**September 15, 2021**

---

conditioned floor area.

COUNCILMEMBER SUGIMURA: Chair?

CHAIR KING: Member Sugimura.

COUNCILMEMBER SUGIMURA: Just for clarification then, the concern about the duplex discussion, according to what the Department is saying--or I don't know who was saying--who was saying that, maybe that it's not necessary to clarify that because the Department would not look at a duplex situation under these rules anyway, correct?

CHAIR KING: I don't know. Who are you saying said that?

COUNCILMEMBER SUGIMURA: Did the Department say that?

CHAIR KING: Did you say that, Rowena?

MS. DAGDAG-ANDAYA: No. No, I didn't say that.

CHAIR KING: You don't remember saying that.

MS. DAGDAG-ANDAYA: I don't recall saying that.

COUNCILMEMBER SUGIMURA: So if a project came forward that had a duplex then, and if it was 5,000 square feet or more, then they would be subject to these...this change.

MS. DAGDAG-ANDAYA: That's our understanding.

CHAIR KING: Yeah.

MS. DAGDAG-ANDAYA: Anything 5,000 square feet or more.

CHAIR KING: Yeah. . . .*(inaudible)*. . .

COUNCILMEMBER SUGIMURA: Okay.

MS. DAGDAG-ANDAYA: But I just...

CHAIR KING: Oh...

MS. DAGDAG-ANDAYA: Yeah. No, it's okay.

CHAIR KING: Chair Lee. Are you voting? Can you...

COUNCILMEMBER LEE: I just wanted to say that I feel that this provision doesn't apply to duplexes. I'm satisfied that it doesn't apply to duplexes, number one.

CHAIR KING: Well, the Director said...

**Council of the County of Maui**

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

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Environment Committee

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Transcribed by: Terianne Arreola

**CLIMATE ACTION, RESILIENCE, AND ENVIRONMENT COMMITTEE MINUTES**  
Council of the County of Maui

**September 15, 2021**

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CERTIFICATION

I, Terianne Arreola, hereby certify that pages 1 through 47 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 7th day of October 2021, in Wailuku, Hawai'i



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Terianne Arreola