

INFRASTRUCTURE MANAGEMENT COMMITTEE

Council of the County of Maui

MINUTES

August 17, 2009

Council Chamber, 8th Floor

CONVENE: 9:00 a.m.

PRESENT: VOTING MEMBERS:

Councilmember Bill Kauakea Medeiros, Chair

Councilmember Gladys C. Baisa

Councilmember Sol P. Kaho'ohalahala

Councilmember Michael J. Molina

Councilmember Michael P. Victorino

NON-VOTING MEMBERS:

Councilmember Wayne K. Nishiki

EXCUSED: Councilmember Joseph Pontanilla, Vice-Chair
Councilmember Danny A. Mateo

STAFF: Michael J. Geers, Legislative Analyst
Camille Sakamoto, Committee Secretary

Leinaala Kihm, Executive Assistant to Councilmember Bill Kauakea Medeiros

ADMIN.: Milton M. Arakawa, Director, Department of Public Works
David A. Galazin, Deputy Corporation Counsel, Department of the Corporation
Counsel

Seated in the gallery:

Ralph Nagamine, Administrator, Development Services Administration
(DSA), Department of Public Works (Item No. 20)

Glenn Ueno, Assistant Engineering Program Manager, Development
Services Administration Division (DSA), Department of Public Works
(Item No. 20)

Victor Reyes, Economic Development Specialist, Office of Economic
Development, Office of the Mayor (Item No. 20)

OTHERS: Item 20: Jonathan Starr
Rob Hoonan
Russ Saito, Comptroller, State Department of Accounting and
General Services
Howard Wiig, Energy Analyst, State Department of Business,
Economic Development, and Tourism
Two (2) additional unidentified attendees

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

CHAIR MEDEIROS: ...*(gavel)*... Aloha and good morning, everyone, Members, Administration representatives, Committee Staff, and those in the gallery, and those watching this meeting on *Akaku Community Television*. We do have a quorum present, and so the Infrastructure Management Committee meeting will come to order. Today is August 17th, 2009, and it is now 9:01 a.m. I am the Committee Chair, I am Councilmember Bill Medeiros. And at this time, I'd like to introduce the Members of this Committee. We have Ms. Gladys Baisa. Good morning, Gladys.

COUNCILMEMBER BAISA: Good morning, Chair.

CHAIR MEDEIROS: We have the Council Vice-Chair, Mr. Mike Molina.

COUNCILMEMBER MOLINA: Good morning, Chair.

CHAIR MEDEIROS: Good morning, Mike. We have Mr. and Councilmember Sol Kaho'ohalahala.

COUNCILMEMBER KAHO'OHALAHALA: Good morning.

CHAIR MEDEIROS: Good morning. We have Member, Committee Member Mike Victorino.

COUNCILMEMBER VICTORINO: Aloha, Chair.

CHAIR MEDEIROS: And excused from the Committee is Member Pontanilla and Member Mateo. With us this morning, we have a Non-Voting Committee Member, and we welcome him--good morning, Mr. Wayne Nishiki.

COUNCILMEMBER NISHIKI: Morning.

CHAIR MEDEIROS: At this time, I'd like to introduce the representatives from the Administration. This morning we have representing the Department of Corporation Counsel, we have Deputy Corporation Counsel David Galazin. Good morning, David.

MR. GALAZIN: Good morning, Chair.

CHAIR MEDEIROS: Representing the, the Department of Public Works, we have the Director, Mr. Milton Arakawa, who will oversee both items on our agenda this morning. IM-22 and IM-20. Good morning, Milton.

MR. ARAKAWA: Morning.

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CHAIR MEDEIROS: To my left is my Committee Staff, we have Ms. Camille Sakamoto, Committee Secretary. Good morning, Camille.

MS. SAKAMOTO: Good morning, Mr. Chair.

CHAIR MEDEIROS: And then towards the back, we have Mr. Mike Geers, our Legislative Analyst. Good morning, Mike.

MR. GEERS: Morning

CHAIR MEDEIROS: Today, Members, we have two items on our agenda. We have IM-22, which is Accepting Dedication of Road Widening Lot for Harriman Subdivision, Kauhikoa Road in Haiku. The second item we have is IM-20, which is the 2006 International Energy Conservation Code®. At this time, the Chair will allow public testimony, and before we call on those that have signed up for public testimony, we want to set the ground rules at this time. Those wishing to testify should sign up at the Secretary's desk to my immediate left, and testimony shall be limited to three minutes. The lighting system...Mr. Geers, are you gonna operate the lighting system? Okay. The lighting system you see on the podium will start with green, and when it goes yellow, you have 30 seconds left. When it turns red, you are to conclude--in one sentence--your testimony. Testifiers are requested to state their names and any organization they may be representing. May I please, at this time, request that everyone in the Chambers, including our Members and our Administration representatives, to please disable your cell phones, put them on silent mode or on viber mode so that it does not interrupt the proceedings of this meeting, or any pagers that you may have. The Chair would appreciate that, and may I also say that if there's anyone in the gallery that has not signed up for testimony that would like to sign up, then you would come down to my immediate left to the Committee Secretary, and sign up there. So at this time, Ms. Camille, we have anyone else signed up?

MS. SAKAMOTO: Yes.

CHAIR MEDEIROS: Okay. At this time, we're gonna, I'm gonna open the testimony, public testimony, and first to testify will be Mr. Jonathan Starr, who will be testifying on IM-20, the Energy Conservation Code®. Mr. Starr, if you'd come up and introduce yourself and any group that you may be representing? Good morning.

...BEGIN PUBLIC TESTIMONY...

MR. STARR: Good morning, Mr. Chair. Good morning, Committee Members. Thank you for hearing this important item. My name is Jonathan Starr. I'm here both on my own behalf and also representing the Maui County Energy Alliance Working Group IV, along with able chair Rob Hoonan, who'll you'll be hearing from soon. This is a wonderful group that is made up of all different sides of our community, from Maui Electric Company to the Water Department, to Rob's at Grand Wailea, to, to people who've been

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involved with energy. And we were tasked with the Mayor, by the Mayor to find ways that we can conserve, be more efficient in terms of our energy needs, first for the County facilities, and then that was expanded to looking at ways that the entire County of Maui can be more energy efficient. And in our, our, our search and research, we came upon a number of points that could be done almost immediately with virtually no cost and a very large payback. And at the top of the list was to update, update the County's Energy Code. And originally, this is something that we were looking at how do you do it because we were ten years behind the rest of the country. We were building projects on Maui, both governmentally and private, that were using a lot more energy than they needed to and were costing the people who are paying the electric bills, both the County and residents, a lot more money than they needed to pay. So, you know, we were looking at suggesting that we hire consultants, The Rocky Mountain Institute, different people to come in and figure out how to do the update because the national code gets updated every three years. We were still operating off national codes ten years old, where the 2006 national code was in place, the IECC Code, and so we were looking at ways to do it. Fortunately, in the meantime, State DBEDT, working with the Federal government, started very actively working to update the Code on a State level. And they passed and we'll be--I'm sure we'll be hearing about this later--a Statewide update to the 2006, which all State projects will be in compliance; and it also mandated eventual compliance for the counties. And so far, the Big Island has taken advantage of that opportunity. The 2009 national code just came out and I'm sure that the State will be doing the State update to 2009 in one or two years, at which time it will be suitable for us to do it. It really helps us if the State is on top of it 'cause they can do the training, they can do the hard work. This will be helpful, this will save a lot of money and a lot of precious resources; and it's an excellent piece of work. I ask you to please pass it in the current form and we'll be able to update to 2009 when the time comes for that. Thank you very much.

CHAIR MEDEIROS: Thank you, Mr. Starr, for your testimony this morning, for being here, and before you leave, Members, do you have any questions for the testifier this morning? Okay. Seeing none, thank you, Mr. Starr. Next, we'd like to call up to testify Mr. Rob Hoonan, please. And Mr. Hoonan will also be testifying on IM-20, the Energy Code. Good morning.

MR. HOONAN: Good morning, Council Chair, Council Members. It's my privilege to be here to urge the passing of this Energy Code upgrade. We have...it's been my privilege to have been the Chairman of the Energy Efficiency and Conservation in County Facilities, Work Group Number IV of the Maui Energy Alliance Group, working with gentlemen like Jonathan and many capable people from a cross-section of the County to look at possible energy efficiency through many different ways. But one of the highest priorities that we thought was low-hanging fruit, so to speak--it's the mango we can pick--is Code upgrades. Basic Code right now are, is based on the ASHRAE Standard 90.1-1999. 2006...the State Building Code Council has been working hard on this and has Hawaiian-ized it, so to speak, to put elements in there that are applicable to Hawaii. This is important. We don't have too much snow load on our, our County here, but they've

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pretty much gone through this and it's a very good thing that would give us energy efficiency in future construction. This is something that we need to do obviously for all the right reasons to try to adjust and mitigate our use of fossil fuel and, and be a more sustainable County. So basically that's something I'll piggyback with Jonathan. That this is a very, very important step for us. We also would like to recommend that in the future as new IECC Codes come through, that every three years we follow the State's lead and adopt those newest codes so that we don't lag behind from a energy efficiency standpoint across the nation. Thank you.

CHAIR MEDEIROS: Thank you, Mr. Hoonan, for your testimony and for your presence this morning. Members, any questions for Mr. Hoonan this morning? Okay. Seeing none, thank you once again.

MR. HOONAN: Mahalo.

CHAIR MEDEIROS: And, and the Chair would like to state that, you know, we appreciate the work of the Energy Efficiency and Conservation Group IV that were present here this morning. Mr. Hoonan is the Chair, Mr. Starr is the Vice-Chair. Thank you for your work. Looking at the list of your, your Working Group, that's quite a representation of the community, very distinguished people. So we, we thank you for the work that you have done so far. At this time, Members, the Chair will ask anyone in the gallery that hasn't signed up that would like to give testimony this morning, you're welcome to come forward to the podium and testify at this time. Okay. Seeing none coming forward, Members, without objections, the Chair will close public testimony at this time.

COUNCIL MEMBERS: No objections.

CHAIR MEDEIROS: Thank you, Members. So ordered.

...END OF PUBLIC TESTIMONY...

ITEM NO. 22: ACCEPTING DEDICATION OF ROAD WIDENING LOT FOR HARRIMAN SUBDIVISION (KAUHIKOA ROAD, HAIKU)
(C.C. No. 09-206)

CHAIR MEDEIROS: We will now proceed to the first item. . .on our agenda, which is Item No. IM-22. And IM-22 as described on our agenda this morning is Accepting Dedication of Road Widening Lot for Harriman Subdivision, Kauhikoa Road, Haiku. The Committee is in receipt of County Communication No. 09-206, from the Director of Public Works, transmitting a proposed resolution entitled ACCEPTING DEDICATION OF A ROAD WIDENING LOT FOR THE HARRIMAN SUBDIVISION, PURSUANT TO SECTION 3.44.015, MAUI COUNTY CODE. The purpose of the proposed resolution is to accept the dedication of Road Widening Lot 4, along Kauhikoa Road, Haiku, consisting of approximately .085 acres, affecting TMK: (2) 2-7-02:056. At this

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time, the Chair will call upon the Director of Public Works, Mr. Milton Arakawa, to provide an overview of this item. Director Arakawa?

MR. ARAKAWA: Thank you, Mr. Chair. As you noted, this item pertains to a proposed dedication of a roadway lot for the Harriman Subdivision along Kauhikoa Road in Haiku. The subdivision was granted final approval on June 29, 2009, and the improvements are complete and were approved by the Department of Public Works on December 18, 2008, and the Department of Water Supply on June 29, 2009. The roadway lot itself is four feet in width and comprises .085 acre in area. The Department of Public Works has reviewed the Warranty Deed and found it to be satisfactory; and the document has also been reviewed by the Department of Corporation Counsel. A resolution entitled ACCEPTING DEDICATION OF A ROADWAY [sic] LOT FOR THE HARRIMAN SUBDIVISION, PURSUANT TO SECTION 3.44.015, MAUI COUNTY CODE has been drafted, and the Committee's review and consideration of the proposed resolution is respectfully requested.

CHAIR MEDEIROS: Mahalo, Director Arakawa. Members, the Chair will now open the floor for discussion and questions. Any questions, Members, or discussion?

...Okay. Seeing none, the Chair would like to. . .make his recommendation.

COUNCILMEMBER VICTORINO: Recommendation?

COUNCILMEMBER BAISA: Recommendation?

CHAIR MEDEIROS: Thank you, Members. The Chair will entertain a motion to recommend adoption of the proposed, the proposed resolution and the filing of the communication.

COUNCILMEMBER VICTORINO: So moved.

COUNCILMEMBER BAISA: Second.

CHAIR MEDEIROS: It's been moved by Member Victorino and seconded by Member Baisa. Discussions, Members, any more discussion? Seeing none, at this time the Chair will call for the question. All those in favor of the motion, say "aye".

COUNCIL MEMBERS: Aye.

CHAIR MEDEIROS: All those in opposition of the motion, say "no". Okay. The motion then passes with five "ayes"; zero "noes"; and two "excused", Members Pontanilla and Mateo. So thank you, Members, for that item.

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VOTE: AYES: Councilmembers Baisa, Kaho‘ohalahala, Molina, Victorino, and Chair Medeiros.

NOES: None.

ABSTAIN: None.

ABSENT: None.

EXC.: Councilmember Mateo and Vice-Chair Pontanilla.

MOTION CARRIED.

ACTION: Recommending ADOPTION of resolution and FILING of communication.

ITEM NO. 20: 2006 INTERNATIONAL ENERGY CONSERVATION CODE®

CHAIR MEDEIROS: We will now proceed to the second item on our agenda, which is Item No. IM-20. And our second item as described on our agenda is the 2006 International Energy Conservation Code®. The Committee is in receipt of County Communication No. 09-196, from the Director of Public Works, transmitting a proposed bill entitled A BILL FOR AN ORDINANCE REPEALING CHAPTER 16.16, MAUI COUNTY CODE, AND ESTABLISHING A NEW CHAPTER 16.16A, MAUI COUNTY CODE, PERTAINING TO THE ENERGY CODE. The purpose of the proposed bill is to amend the Maui County Code by repealing Chapter 16.16 and adding a new Chapter 16.16A, which incorporates the 2006 International Energy Conservation Code and amendments recommended by the State Building Code Council. At this time, Members, the Chair will once again call on Mr. Milton Arakawa, Director of Public Works, to give us an overview of this item. Director Arakawa?

MR. ARAKAWA: Thank you, Mr. Chair. As you’ve noted, this item pertains to the proposed repeal of the existing Energy Code and the establishment of a new chapter pertaining to the Energy Code. The purpose of the bill is to adopt the 2006 International Energy Conservation Code®, including amendments which were recommended by the State Building Code Council. This morning, we have two presenters to the Committee. Mr. Russell Saito, State Comptroller from the Department of Accounting and General Services, will do the first presentation. Mr. Saito is also the Chair of the State Building Code Council which has been working on updates to a number of codes, including energy, building, plumbing, electrical, and fire codes so that there is general uniformity among these codes on a Statewide basis. All of these code updates will eventually need to be transmitted to the County Council, and the Energy Code is the first to be submitted to the County Council for its review and action. The second presenter this morning is Howard Wiig. Mr. Wiig is from the Department of Business, Economic Development, and Tourism. He has been intimately involved in the review of the International Energy

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Conservation Code® and will be discussing the proposed Energy Code amendments before you this morning. So at this point, Mr. Chairman, I'd like to ask for a brief recess to set up for Mr. Saito, who has a PowerPoint presentation for the Committee.

CHAIR MEDEIROS: Okay. Mahalo, Director Arakawa. And before we take our brief recess, the procedure that we'll follow this morning...well, we'll have Mr. Saito do the PowerPoint presentation. Following that presentation, we will raise the screen and then we'll call Mr. Wiig down to the podium, and he'll give an oral presentation on the same item. So, Members, without objections, we'll take a short recess to set up the Chambers for the PowerPoint presentation.

COUNCIL MEMBERS: No objections.

CHAIR MEDEIROS: Okay. No objections? Thank you. We are now in recess. . . .(gavel) . . .

RECESS: 9:21 a.m.

RECONVENE: 9:25 a.m.

CHAIR MEDEIROS: . . .(gavel) . . . The Infrastructure Management Committee meeting is now reconvened. At this time, we're gonna invite Mr. Saito from the Department, State Department of Accounting and General Services to give us a PowerPoint presentation on the 2006 Energy, International Energy Conservation Code®. Mr. Saito, if you'd please?

MR. SAITO: Aloha, everyone.

COUNCIL MEMBERS: Aloha.

CHAIR MEDEIROS: Aloha.

MR. SAITO: My name is Russ Saito. And just for the record, it's Russ Saito, that's my given name--not Russell. So you don't have to say Russell to be formal to me.

CHAIR MEDEIROS: . . .(chuckle) . . .

MR. SAITO: What we wanted to do is give you a lead in...actually into the International Energy Conservation Code® by describing the process by which all such codes are adopted as State building codes and subsequently given to the counties for adoption as county codes.

So the background is that in 2005, there was a task force put together; the resolution requiring that a task force recommend a Statewide Building Code. The task force recommendations were submitted to the 2006 Legislature and were inserted into bills. The bills were killed in Conference. And so the next year, we submitted two versions of House and Senate bills into the 2007 Legislature; and Senate Bill 975 was enrolled to the Governor and became Act 82 (2007) Legislative Session. Okay. The features of Act 282

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[sic] was that it would create a State Building Code Council; it would fund an Director position and Assistant; it preserved responsibilities for administration, permitting, enforcement and inspection; and it prohibits conflict with Chapter 464. In other words, the State would not override the county responsibilities and authority. It permits county amendments without State Building Code Council approval--again, further enhancement of the fact that there was no imposition on, on home rule.

The State Building Code Council, by law, is attached to Department of Accounting and General Services; it has nine voting members and one non-voting member. The Chair is elected annually; it appoints an executive director and an executive assistant; it forms technical committees; it consults with the industry and associations; and it adopts the State model building codes. And what we need to emphasize here is that this is a *State* Model Building Code. It's applicable to State agencies. That does not displace the responsibility of the counties to adopt their own versions of the code. The other feature here is that in the past, the State didn't, in some cases, did not comply with county codes. What this thing does is that by making it a State Building Code, the State needs to follow the Code; and subsequently, the counties would follow them as well, and the administration of the codes, for the most part, would be by the counties.

Okay, the membership of the Council. By law, each of the four counties is represented by a building official; that building official is selected by the Mayor. The State Fire Council selects a member; the Department of Health selects a member; the Department of Labor and Industrial Relations selects a member; the Structural Engineers Association of Hawaii selects a member; and the American Institute of Architects, Hawaii Chapter, also submits a member; and the Comptroller is a member by law. The Comptroller is also the non-voting member, and that's the reason why they probably selected him chair on this committee . . . (laughter) . . .

COUNCILMEMBER VICTORINO: . . . (laughter) . . .

MR. SAITO: What the law specified when it came out, what Act 82 specified is that there shall be--and this was "shall"--be four codes: one is the State Fire Code, one is the Uniform Plumbing Code, one is an International Building Code, and one was the Hurricane Resistant Criteria. These were *mandated* by the Legislature and those specific codes were the codes that were to be adopted. But the State Building Code Council was given the responsibility to look at *all* of the codes that affect construction. And so they were asked to look at the residential--you can read it--residential code; an existing building code; electrical; floods and tsunami; energy; boilers and pressure vessels; elevators, escalators, rides/trains; toilet, food establishment; onsite wastewater systems; mechanical, AC, ventilation; residential safe room; and LEED/green building type of requirements. What this really emphasizes is that when we say "State Building Code", what we really mean is the *suite* of codes that are necessary to construct buildings.

Okay. The implementation timelines that are given to the State Building Code Council. It is to adopt new State model building codes within 18 months of new

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national/international model building codes. I think a previous testifier mentioned that these codes come up every three years or so. So what you probably will see later on is that we're kind of three years late, but it was because we had a late start as a Council. So the 2009 codes are already out. We've got 18 months to incorporate those codes. And the State Building Construction, once the Model Building Code is established--State building construction now--will be in compliance within one year. The counties may amend and adopt those, the State Building Code within two years. It can be anytime within the two years. If that is not done, then the State Model Building Code will become the county code.

The implementation steps. This is...you, you're probably very familiar with this, more familiar than I am. Well, we petition for a rule change. There's a review and unanimous approval by the subcommittee of four county building officials. This is a very important step and, again, preserve the home rule issue. No code shall be adopted or even proposed to the State Building Code Council unless all four building officials unanimously agree on a code and amendments. And then it goes up to the Council, the Council's full approval, approval by the full Council, and then we go into the rulemaking process. The rules, draft rules, get reviewed by the Attorney General's Office. It also gets reviewed by Budget and Finance and a few others, but the main ones are the Attorney General and the Small Business Regulatory Review Board. The Small Business Regulatory Review Board looks at the code change primarily for its effect on small businesses. If there's gonna be a negative effect on small businesses, they would suggest changes to the code so that the effect on small business is mitigated. Okay. Once it goes through that process, then it gets...we, we seek the Governor's approval to go to public hearings on the code; conduct the public hearings, and then subject to our assessment and consideration of the testimony at the public hearings, we either approve the codes as is or we further amend them.

Okay. Here are the codes that are ready for hearings. We have the State Building Code, based on the 2006 International Building Code, that's ready to go. We have the State Electric Code that is based on the 2008 National Electric Code, that's ready to go. We have the State Energy Conservation Code, which Howard will talk to you about, based on the 2006 International Energy Conservation Code®. You'll find out from Howard that our Code is *better* than the 2006 by a considerable amount. We have the State Plumbing Code--which is specified by the Legislature--2006 Uniform Plumbing Code; and the State Fire Code, based on the 2006 National Fire Code. And I have, I have put down there the address that you can get it at. The easy way to remember is that these agencies that are attached to DAGS all have links on the DAGS' website. So you just go to hawaii.gov/dags, you can get access to any of these emergencies. In this case it's just a slash building code council.

Okay. I wanted to talk about, even though this is not pure energy, the, the advantages of the codes that we are proposing. One is it adopts the International Code Council Building Code which is a Model Building Code that is now adopted by *all* 50 states. It provides for more flexibility in designs of buildings. The codes generate...allow greater...in

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essence, the code allows you to meet the requirements cheaper; and it also allows for greater safety by incorporating structural requirements pertaining, the latest structural requirements pertaining to wind and seismic design. In Hawaii, the greatest concern that we have is the ability of our structures to withstand hurricane force winds. And so the code moves us towards strengthening of our structures.

...It also enables all four counties to use the *same* edition of the building code. Now every county will have amendments specific to the county, but the code in general, you know, 90-plus percent, way over that, will be a uniform code. It'll affect all codes involved with building construction. You know, if it's related to building construction, there'll be a code associated with it. It enables the fire and energy codes to be the *same* edition as the Building Code.

...And it enables design professionals to have to need to know only one code Statewide.

Some more advantages, it...this is mostly the Fire Code part of it where we don't, the separation requirements and so forth are simplified.

And then relative to the 2006 amendments; as I said earlier, we take these national and international standards and we amend them to be Hawaii specific. So in this case, because we have this issue with rain, we're trying to make sure that the new 100-year, 1-hour Rainfall Map for design of building roof drainage is incorporated into the Code. You don't want to be creating problems and damages because your roof can't handle the rate of rainfall. It also allows for termite treatment standards for lumber and foundations appropriate for Hawaii. As you know, Hawaii probably has an ideal climate and conditions for termites, so we want to make sure that it addresses what's required in Hawaii.

Okay. It also creates an Appendix U, which is the Hawaii Hurricane Sheltering Provisions for New Construction. This was a spinoff of a 2007 study that was done also as a result of a task force where we looked at the hurricane standards and the . . .(*change tape, start 1B*). . . it looked at all of the, the shelters, the buildings that are design shelters and it created some very stringent design criteria for them. The other thing that it recognizes--that we can't build enough shelters for everybody in the State. So rather than try to focus more attention there, we will design our shelters well, but we also recognize that we need to have closer access for our residents. So part of the requirement is there's incorporate a design for a Residential Safe Room. In other words, if you build such a room in your home and a hurricane comes your way, you go into the safe room and ride the hurricane out that way. It also created the High Occupancy Building - Design Criteria for Enhanced Hurricane Protection.

And it also, it creates Wind Loads specific to the island. We've actually done speed maps, wind speed maps, et cetera. As you know, the wind, the wind can actually accelerate depending on the terrain. And so depending on what part of the terrain you've,

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your structure happens to reside in, the design criteria will be slightly different. It also incorporates protection against windborne debris.

Okay, and I've got a map of Maui, and this is probably too technical for you guys, but the design people can look at maps like this and determine how to design the homes and buildings specifically in those areas.

Okay. So that's the end of my presentation, and I'll take any questions that you might have or you can wait until Howard gets done with his specific presentation on the actual Energy Conservation Code. Mahalo.

CHAIR MEDEIROS: Okay. Mahalo, Mr. Saito, for that presentation and information. At this time, so we don't interrupt the flow of things, we're gonna hold the questions to, until Mr. Wiig is done. So at this time, we're gonna call Mr. Wiig up to the podium. Mr. Wiig is the State Department of Business, Economic and Development, and Tourism with the State. Mr. Wiig? Good morning.

UNIDENTIFIED SPEAKER: Morning.

MR. WIIG: Good morning, Mr. Chair, Committee Members. Thank you so much for hearing this very, very important bill. I'd like to...well, formally introduce myself, Howard Wiig, Energy Analyst, DBEDT. I'd like to tell you three things, how the IECC 2006 was created, why it's essential, and where do we go from here. As Russ mentioned, there was a Committee formed, the IECC 2006 Subcommittee, I chaired that, and I brought in members of not just the governmental section, but the private sector also: architects, engineers, and so forth, builders, contractors. Anybody who wanted to join the Committee was welcomed to do so. We had ten meetings, five face-to-face meetings in a boardroom, and five internet or e-mail type meetings. And it was very much a consensus type of Code. We rejected a lot of proposed measures because somebody didn't agree with them. And every one of the measures that we looked at to Hawaiian-ize the Code, we took into consideration the cost factor also. In many cases the Hawaiian-ization actually reduces the cost of construction because a lot of the mainland requirements just didn't make sense for us. And if you want to...me to go into detail on that, I'd certainly be glad to. Why is it essential? You have in your packet a nice title, "Oh, Those Sexy Building Codes", by an architect named Edward Mazria, and he is testifying here before the Senate Committee on the Waxman-Markey climate bill. I'll quote very briefly what he says: *No matter what else is compromised in this bill or changed in the climate bill, the energy code section must not be changed or weakened. Why? Because all other energy emission reduction approaches pale in comparison to what the energy code will accomplish. Without it, we simply cannot meet the greenhouse gas emission reduction targets called for in this bill. We won't even come close.*

Energy codes are the cheapest, quickest, easiest way of reducing--in this case, in Hawaii--our dependence on foreign oil, keeping our dollars at home instead of sending them off to oil exporters and allowing people to spend money on things other than their

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utility bills. Also, we have President Obama's stimulus funds. There's one provision in there that says in order to be eligible for the funds, the State must adopt IECC 2009 and ASHRAE 2007. And what we've done with 2006, as Mr. Saito mentioned, is in the process of Hawaiian-izing the bill we went probably 15 percent better than the mainland version of 2006. Every amendment we made rendered these buildings more efficient--this is both residential and commercial--again, very little, if any, additional cost. Where do we go from here? We've already formed the IECC 2009 Committee. There are two Maui members already, Ralph Nagamine and an architect named Gene Young. Mr. Hoonan has indicated his interest in participating on the Committee via phone. And we are looking, it's my personal goal, to render the 2009 Code 15 percent more efficient than the mainland version, again, all in cost-effective means. And then the ICC is already looking at IECC 2012, and I sit on the National IECC Committee. We'll be convening in Baltimore in late October and looking at measures that go even beyond the 2009 Code, again, all in a cost-effective manner. This will put Hawaii in the lead. As Mr. Saito was mentioning and the other testifiers did also, Hawaii was a laggard in codes for a while, not, not much, just sort of in the middle of the pack and maybe a little bit in back of the middle of the pack. This is going to leapfrog us into the front strata of states, such as California, Oregon, Washington, and some of the New England states. We'll be right up there with the front runners. So that concludes my very brief overview. I'd be delighted to answer any questions.

CHAIR MEDEIROS: Okay. Thank you very much, Mr. Wiig, for that presentation. I appreciate the information. We're gonna hold the questions and we're gonna take a short recess. We're gonna put up the screen and then I'll allow the Members to ask questions. So if you would like to remain there or if you like to be seated and we'll recall you, as the Members see, need to ask certain individuals. So, Members, at this time, we'll take a short recess to get the Chambers ready to convene our meeting. So this Committee is now in recess. . . .*(gavel)*. . .

RECESS: 9:46 a.m.

RECONVENE: 9:48 a.m.

CHAIR MEDEIROS: . . .*(gavel)*. . . Okay. The meeting of the Infrastructure Management Committee is now reconvened after the, the recess. Thank you, Members. And at this time, I don't know how we can do it, if we can do it, but I was thinking that it would be good to have Mr. Saito and Mr. Hoonan down here so that they both can be asked questions by the Members. Without objections, Members, we're gonna bring them down.

COUNCILMEMBER VICTORINO: No objections.

COUNCILMEMBER BAISA: No objections.

COUNCILMEMBER VICTORINO: No objection . . .*(inaudible)*. . .

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CHAIR MEDEIROS: Okay. Mr. Saito and Mr. Hoonan?

COUNCILMEMBER KAHO‘OHALAHALA: Mr. Wiig.

CHAIR MEDEIROS: Not “Mr. Hoonan”. I’m sorry. Mr. Wiig, would you join us here, please?

COUNCIL MEMBERS: . . .(*chuckle*). . .

CHAIR MEDEIROS: Sorry, I called. . . .(*chuckle*). . .

MR. WIIG, FROM THE AUDIENCE: . . .(*inaudible*). . .

CHAIR MEDEIROS: And while they’re coming down to join us, we’ll ask the Director of Public Works to stay close. And there are some other members in our audience that are with the Administration that we would like to introduce. We have, from the Mayor’s Office joining us this morning, Mr. Victor Reyes, who is our Energy Commissioner. Mr. Reyes, thank you for being here. And also from our Development Services Administration, which we call DSA, and which was formerly LUCA, which was the Land Use and Codes Administration, we have the Administrator here this morning with us, Mr. Ralph Nagamine. Ralph? And I think we have introduced everyone. So at this time, Members, the Chair will open the floor for questions. Member Baisa?

COUNCILMEMBER BAISA: Good morning, Chair, and thank you very much for the opportunity to ask a question. I, my question is for Mr. Wiig. I heard you in your presentation--I hope I heard correctly--say something about a requirement to adopt a two, 2007 Code in order to be eligible for stimulus monies. Was that correct?

MR. WIIG: That is correct, yes.

COUNCILMEMBER BAISA: And I kind of looked at the dates that were shown to us and we seem to be behind. Is that a problem for us?

MR. WIIG: No. I was recently at the National Building Code Conference in Portland, Oregon, that’s an amalgamation of all State Energy Officers from around the nation and there were also the National Research Laboratories who specialize in energy efficiency, and the U.S. Department of Energy. And this type of question was put to the U.S. Department of Energy people repeatedly, and this included a deputy under secretary. So it was a high level delegation. And they said we realize that we’re moving very, very rapidly in requiring these codes; what we expect from the states is that you put forth your best effort; we have no intention of going in and yanking back the money from you; we’re not policemen, we are your supporters; tell us what you can, we can do to help you push your codes even further. So in fact, I have asked the National Labs some very specific questions in Hawaiian-izing. So they are totally in support of us doing the best we can do as quickly as we can do it. And they’re very familiar with what we’re doing and *emphatically* supportive of it.

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COUNCILMEMBER BAISA: Thank you very much 'cause, you know, that's really important to us. We need all the help . . .*(laughter)*. . . from the Federal government that we can get right now. Things are tough. The other question that caught my attention during the presentation, and I was happy to hear you discuss it, Mr. Saito, was about considering the impact on small business. You know, oftentimes, we're passing laws and codes and, you know, in our zeal to do what is right, all of us are so concerned about the cost of energy and saving oil and, you know, all this wonderful green stuff that we all want to do that we know is really imperative, we've got to do it. We have to pay attention to the impact of cost because we're suffering here with the cost of housing and nobody can afford to buy anything or build anything 'cause it costs so much. So I was happy, also to hear Mr. Wiig refer to cost effectiveness. So any clue in what we're adopting, what we're about to adopt, as to the financial impacts is really important for us. You know, it's, it's wonderful, it's motherhood and apple pie, but the devil is always in the details. When I decide that I want to build something or someone else decides they want to, what are they gonna face in terms of cost?

MR. SAITO: I think the answer is very hard. I think when we say that we're trying to reduce the cost and when it goes through the Small Business Regulatory Review Board, all of these are health- and safety-related. And so the idea is that we will do that as economically as we can. Now, to compare a new building code design home to single-wall construction without hurricane clips, et cetera, from the 1940s, there would be no comparison. I mean it's just, it's...so that's not a fair comparison. It's just that to protect the health and safety of, of our residents, we would design the code to be as cost effective as possible. And in some cases as I said in the, in the presentation, it's actually cheaper to do it following the code than if you didn't follow the code.

COUNCILMEMBER BAISA: And that's wonderful, and I just want to make sure that and emphasize that you have taken that into consideration. It's really important when we adopt building codes.

MR. SAITO: Yeah. The Small Business Regulatory Review Board doesn't look at it from the residents' point of view, but it look, it looks at it relative to the impact on small businesses. So--

COUNCILMEMBER BAISA: Right.

MR. SAITO: --if it's going to adversely impact small businesses--

COUNCILMEMBER BAISA: It's gonna affect residents.

MR. SAITO: --it could--

COUNCILMEMBER BAISA: . . .*(laughter)*. . .

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MR. SAITO: Right.

COUNCILMEMBER BAISA: You know, I thought we're all, we're all the same people. So thank you very much. Chair, thank you for the opportunity.

CHAIR MEDEIROS: Mahalo, Member Baisa. And Mr. Saito and Mr. Wiig, yeah, if you could speak more directly into the mike so our recorders can pick it up, it would be appreciated. Members...Council Vice-Chair, Mr. Molina--

COUNCILMEMBER MOLINA: Yeah--

CHAIR MEDEIROS: --questions?

COUNCILMEMBER MOLINA: Thank you, Mr. Chairman. Good morning, gentlemen. You know, I found it interesting, Mr. Chairman, that we, we didn't have anybody here from the building industry per se because since, you know, looking at the, at the Code and all of the amendments being considered, and, you know, dovetailing off Member Baisa's issue of the cost factor, I just found it interesting that there's nobody here from that segment of our community to give their opinions on, on these amendments. But if maybe Mr. Saito and Mr. Wiig could comment in terms of how did this fly with the, you know, the building community?

COUNCILMEMBER BAISA: Good question.

MR. SAITO: That I can address directly.

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: We are going to go to hearing on the State Building Code--

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: --next month, and we expect to have a lot of public testimony then. But in addition, as I said in the formation of the Council, we consult with industry groups all the time. People have been in the meeting, in the Council meetings raising all the questions that they've had. We really haven't had almost--I can't recall any pushback on the Energy Code, everybody seems to be behind the Energy Code. Relative to the hurricane, the strengthening of the structures, there is the concern about cost, but I don't think anybody disagrees with the need to have more of 'em. And I think when you had the hurricane that just kinda fizzled out before it got here...

COUNCILMEMBER MOLINA: Uh-huh.

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MR. SAITO: ...when you have that threat over your head, I think it just gives us additional incentive. The people that are involved, the construction industry, I can tell you, very definitely, they attend the meetings when they have concerns.

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: And then they would have a chance anyway in September at the public hearings. And we're gonna have the public hearings on Oahu plus with video connections to all of the neighbor islands.

COUNCILMEMBER MOLINA: Okay. And so a lot of these amendments were probably initiated or were suggested by those in the building industry. Am, am I correct in saying that?

MR. SAITO: Right. And, and you, you recall we had the American Institute of Architects--

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: --representative? They're the ones that designs all the building for the building industry. So they're in consultation with the industry as well.

COUNCILMEMBER MOLINA: Okay. Alright, thank you. I'll have a couple more questions later, Mr. Chair. But, you know, just looking at the Code, you know, and being a layperson, it takes awhile to digest the, some of the definitions and everything else, but it seems quite comprehensive. So, thank you.

CHAIR MEDEIROS: Thank you.

MR. WIIG: I can, I can...

CHAIR MEDEIROS: Mr. Wiig, you want to add some comments?

MR. WIIG: Yeah. A very, very--

CHAIR MEDEIROS: Mr. Wiig?

MR. WIIG: --specific example. What my experience shows that the main concern is always with the cost of single-family residences. And what the Energy Code does is...well, we eliminated a whole lot of mainland requirements. So the main, compared to the mainland code, the cost actually goes down, and we took out the requirement for the roof which is something called R-30, which is a whole lot of fiberglass up in the roof; and we substituted the existing Residential Energy Code which emphasizes radiant barriers, which are reflective materials, cool roofs, and ventilating the heat out of the attic so that the cost of compliance there goes way down compared to the mainland. Where cost is going to be added is we require R-11 in the walls where there was no wall insulation

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requirement before, and that may add to a 2,000 square foot home maybe 800 to \$1,000. And we require high-performance windows, windows that bounce the heat back when the sun strikes them directly to keep the home cool again. I've been assured by the window representatives that there is no additional cost for that. The offsetting cost to making this home very tight is the fact that you can reduce the size of your air conditioning system. The traditional rule of thumb for a 2,000 square foot home has been 5 tons; 2,000 feet, 5 tons, end of story. When the home is tight, built according to the Code, you can reduce that to 3 tons, and there's a whole lot of advantages besides energy and initial cost reduction to having 3 tons.

COUNCILMEMBER VICTORINO: Mr. Chair?

CHAIR MEDEIROS: Thank you for those added comments. Mr. Molina, are you complete with--

COUNCILMEMBER MOLINA: Yeah.

CHAIR MEDEIROS: --your questions for now?

COUNCILMEMBER MOLINA: I'll yield the floor for now.

CHAIR MEDEIROS: Yeah. And, and--

COUNCILMEMBER MOLINA: I'll have some questions later.

CHAIR MEDEIROS: --before I call on the next Member for questions, you know, I'm looking at the make-up of the different working groups, and there's a really good cross-section. For instance, the Working Group IV, which we had Mr. Hoonan and Mr. Starr here, there are resort representatives, County department representatives, educational representatives. We have property owners, we have technology, energy industries, we have nonprofits, we have consultants, contractors, even, you know, medical facilities. So it's, it's quite extensive the members on the working groups that would bring that to their meetings about that. So, but thank you for that question. Mr. Victorino?

COUNCILMEMBER VICTORINO: Thank you, Chair, thank you very much. And...my question--well, it's twofold--number one, I was glad to see we have Hawaiian-ized these amendments because that was one of the biggest concerns many builders have--is our outdated codes sometimes made us do things that someone in the mainland needed, we never needed. I'm glad to see the hurricane clips and some of these things are becoming more and more of an issue that have to be done. People don't understand that by what you're doing here with ventilation, radiant barriers, and all of these other things that in the *overall* scheme of things, you may pay upfront a little bit more, but when you look at the long term, the savings on energy, the savings in your pocketbook everyday or every month I should say, should be substantial enough that in a 10-year period, 10-, 12-year period out, you would have saved, Mr. Chair, saved big money, yeah, and I think that,

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that's what, that's what I, I am very happy to see. The question I had with the roof heating gain factor...and I don't want to get real *technical* in that area because, you know, you get those guys who are the experts in that area. But I've been curious because newer homes that are being built in Hawaii today and across the nation are open pitch or open ceiling, right. They're, they're not putting the traditional ceiling, and part of that is the space issue, and the other part is heating and retention of heating in colder areas and keeping it cooler in warmer areas. So my question is, does this exceeding .05--and again, I don't want to get real technical--does this achieve what we need here in Hawaii especially because we are warm most of the year? I mean we don't have...our cold in the mainland is a heat wave, you know, and that's what we consider cold over here. So does this address that issue, because I think that was one of the biggest concerns that was being brought up by the building industry?

MR. WIIG: Yes, it does. The, we had a consultant on board many years ago, a mechanical engineer, who did a very, very detailed study of Hawaii's climate, and concluded that R-19 or R-20. . .that .05 has an inverse number and that boils down to R-20--

COUNCILMEMBER VICTORINO: Uh-huh.

MR. WIIG: --was all that Hawaii needs. Because traditionally on the hottest August day, we've come up to about 90 degrees. It's with global warming maybe we had a couple of 92 degree days recently. But given the low Delta T--Delta T refers to the difference in outdoor temperature and indoor temperature--we are maybe 88 outdoors and 75 indoors. That's only a 13 degree difference that R-20 or R-19 work very, very sufficiently. So we amended the Code to require only that, and we did studies on what sort of reflectivity was needed to achieve equivalent of R-19. So that, that's the basis of the...

COUNCILMEMBER VICTORINO: And the other thing I found very interesting in, in the area that you were talking about just moments ago, was the reflective glass, and that lack of or the ability to reflect the heat instead of absorbing heat, which you and I both know, makes a lot of...whether it's a car, a house, or whatever very hot if it sits there all day no matter what kinds of trade winds you have. So in this area is, are we also going to move in the area of, of--I forget the term they used--not only glazing, but that there's a new type of glass coming out, and I, I cannot remember the term. I just, I just saw it and I was reading about it, and it's supposed to not only reflect, but also protract, and you can actually put means of getting photovoltaic or getting energy right off of this type of glass.

MR. WIIG: Uh-huh.

COUNCILMEMBER VICTORINO: Will that--and again, I know that's futuristic, but that's not too far down the road and, again, every time we make a change in our codes, these are the things I'd like to see, if not "mandatory", at least "optional" so people have choices upfront. So do you look for those, those options, too that not only make it mandatory but optional for them to do things even in an advanced stage?

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MR. WIIG: A code doesn't cover options, it says thou shalt do this and that.

COUNCILMEMBER VICTORINO: Okay.

MR. WIIG: But another component of the energy division is educational, and we do keep up with all the latest advances in technology. Just to give a really startling example, the other day, a fellow visited Ted Peck, my new boss and myself, and said that while the standard cost of PVs, photovoltaic, is about \$8 a watt, he could bring it in for \$2.50 a watt. We've yet to see that--

COUNCILMEMBER VICTORINO: . . .*(laughter)*. . .

MR. WIIG: --that's, that's what he's claiming. And another step beyond that--oh, and you can put that on your roof and make that your roofing material. It protects from the rain, from the elements, and produces electricity as well. So we are always looking at that and lighting efficiencies. And this business of being able to produce electricity on, in your window, that is really futuristic, but we certainly keep up with that.

COUNCILMEMBER VICTORINO: Well, thank you. Thank you, Mr. Chair, I appreciate it. Thank you guys for all your hard work.

CHAIR MEDEIROS: Thank you, Mr. Victorino. Any further questions? Mr. Kaho'ohalahala?

COUNCILMEMBER KAHO'OHALAHALA: Yes. Thank you, Chair. Well, Mr. Saito, nice to see you here, yeah, and aloha, Mr. Weiss [*sic*]. My first question to Mr. Saito is according to your presentation, you said Act 32 [*sic*], which was passed and creates the State Building Codes Council, and in that it says that it funds the executive director and an assistant. So let's talk a little bit about the current fiscal situation with the State and how does that impact on this Council?

CHAIR MEDEIROS: Mr. Saito?

MR. SAITO: Yeah. The, the law does create a method for funding the executive director. We have never had the money released because we did it without the executive director, and it was because of the budget constraints even back then. So we are currently operating without a bud...an executive director. My staff is performing that function.

COUNCILMEMBER KAHO'OHALAHALA: Okay. And you're serving as the Chair for the, the--

MR. SAITO: I'm serving as the Chair.

COUNCILMEMBER KAHO'OHALAHALA: --Council? Okay. That's efficient, isn't it?

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MR. SAITO: And by the way, I'm glad to see you here, a different, different venue, but nice to see you again.

COUNCIL MEMBERS: . . . *(chuckle)* . . .

COUNCILMEMBER KAHO'OHALAHALA: Same cause, yeah. You know, it's funny that you were talking about looking at the new building codes, and I thought that your design almost described the Hawaiian...the grass shack, you know, for efficient, energy efficient use, hurricane proof, and perhaps we're, we're reverting back to--

MR. SAITO: I think, I think there's--

COUNCILMEMBER KAHO'OHALAHALA: --some . . . *(inaudible)* . . .

MR. SAITO: --a lot to learn from some of the Native Hawaiian architecture.

COUNCILMEMBER KAHO'OHALAHALA: Yeah. The other question I have has to do with...Member Baisa asked about the stimulus funds, and you said that we were not necessarily going to be impacted, but my question has to do with what does the stimulus dollars actually fund?

MR. SAITO: If you're talking...I, I can address the CIP stuff, we haven't seen a whole lot there. On the energy side, the program side, I think you guys have quite a, have quite a few dollars there.

MR. WIIG: Yeah. We have up to \$25 million to spend Statewide. I can address just one component of that, it's called weatherization and there's 4.1 million for that, and that addresses low-income housing, and we're working very closely with the Department of Labor and Industrial Relations. They're taking the lead on this, and we're deciding what the best energy efficiency measures for these low-income structures is. We talked about photovoltaics, but they're still not cost effective. So we're looking at solar water heating, energy-efficient lighting, low-flow shower heads. You've heard about the cash for clunkers car bill. We're looking at the equivalent of that for refrigerators. It turns out that a refrigerator that's more than 20 years old, consumes four times as much electricity as does a brand new Energy Star refrigerator, even though it has all the new bells and whistles on it. So we're looking at getting rid of the old clunker refrigerators and putting new ones in. That, that's just an example of what we're doing with stimulus funds.

MR. SAITO: I can add from...so like the Department of Business, Economic Development, and Tourism is, has the lead for all energy matters, and that's the reason why Howard's boss plays a big role in that thing. What we're doing, this is specifically DAGS' project. We have ten buildings in the capital district on Oahu, and we, we consume *a lot* of electricity there. So we're about to go into what is called an energy savings performance contract where theoretically we just keep paying what we pay for electricity, we create a contract, with the contractor to come in and put in all kinds of energy savings capital

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improvements, and they can recover the cost of the capital improvements plus also make a profit by the energy savings that we have. So we're about ready to, to start that contract. The only hang-up is because of the budget constraints, our electric, our electricity budget is less than it's costing us for electricity. So we're going to get some money from that fund that they're talking about to pay for the capital cost upfront, and but we're still gonna end up realizing enough savings in total that we can actually fund a \$35 million Capital Improvement Project to result in about a 30 percent energy savings across those ten buildings. So again it's, there's a whole lot of different options that, that you just have to use the funds consistent with, with what the law, the ARRA laws...kind of lays out.

COUNCILMEMBER KAHO'OHALAHALA: And, and just one more question, Chair. Now having described what you just have for both of you, how does that now trickle down to our County? How are we to access those funds that you were talking about?

MR. WIIG: Go ahead.

MR. SAITO: We're trying to do the same thing with all different counties relative to, not the stimulus, the AR...ARRA funds. But this afternoon I'll be meeting with the building people here. We have a multi-billion dollar CIP stimulus package that we're trying to roll out, and we're trying to push it out to all of the counties because that's gonna create . . .(change tape, start 2A). . . to the extent that they affect energy or anything along those lines, will be incorporated with those projects. Right now, we haven't started the, the study for the neighbor islands yet, but we're gonna, that's gonna, for DAGS, that will be phase two.

COUNCILMEMBER KAHO'OHALAHALA: Okay. Thank you, Chair.

CHAIR MEDEIROS: Mahalo, Mr. Kaho'ohalahala. Mr. Nishiki, before I, I recognize you, I just want to say that, you know, we do have Mr. Reyes here who is the Energy Commissioner for the County; and if any Members have specific questions for him regarding our County, whether it's stimulus funds as it applies to energy, we can call him up and that's, that's, you know, something that you can consider if you want to ask them or even the Chair and Co-Chair of the Working Group as they deliberated on this item. Mr. Nishiki?

COUNCILMEMBER NISHIKI: Yeah, thank you. Mr. White [sic], some clarification in regards to your statement in regards to photovoltaic, in which you said that this technology, I guess, hasn't been proved to be cost efficient. Now, is that amongst affordable housing? We see on Lanai a big project there done for the . . .the hotel. I see in many instances big commercial buildings, businesses created photo, by photovoltaic. Can you clarify what you mean by "not being cost effective"? Is that in the affordable housing area and, I guess, the next question would be why? I, I, I'm digging for reasons.

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MR. WIIG: Sure, be glad to answer that. What we look for is the payback time of any measure that we're considering. Councilman Victorino referred to payback time of, I believe, it was 10 or 12 years. What we are looking for with efficiency measures is more like one to three years. Those are the low-hanging fruit. You can spend say \$100,000 on a given measure at the Grand Wailea, and save \$33,000 a year. There you have a three-year payback time. The photovoltaics would have a payback time...I'm guessing that Maui is paying residentially maybe 30 cents a kilowatt hour, 28 cents, something like that. Your payback time for photovoltaics would be more in the area of 9 to 11 years. So what we are after first, knowing that we all have limited amounts of capital, is what we call the low-hanging fruit or actually the U.S. Department of Energy Director, Steven Chu, refers to fruit lying on the ground, the really, really obvious stuff. We look for the low-hanging fruit first to get the most bang for our buck, and then move up the hierarchy to slower and slower payback times. And photovoltaics have, and when you're looking at all the measures across the board, photovoltaics have some of the slowest payback time.

COUNCILMEMBER NISHIKI: Wow. Thank you.

MR. SAITO: Can I, can I add to that?

COUNCILMEMBER NISHIKI: Yeah. I'm just curious, why is it that--

MR. SAITO: Well, there are two parts of it. For the, for the residents I think it's just a personal decision--I'm gonna invest so many dollars and I'm gonna get by net metering or something; I'm gonna get the savings back in so many years. The, the long payback is usually with the *larger* projects because there the energy drain is quite large. And right now, there's two parts to photovoltaic, right. It provides you with electricity when the sun is out. But if you have operations that need to continue in, into the evening hours when the sun is not out, you, you still need to have electricity for, for that part of it. So when you have that situation, it's an industrial kind of an operation, you can save money by kind of spinning off some excess electricity during the day or when you're not, not doing it, but you can't, you still need to drain the, the electricity or you gotta to storage technology. You need to now have not just the generation while the sun is out, but you gotta store some of the excess energy that you created in, into batteries and so forth so that when the sun goes down, you can continue to have electricity; but that requires additional capital investment. So for a lot of the, you know, the big installations, the payback is actually 20 years. So, so that's the kind of thing that you would say, okay, we will do it because we can still get payback, but given all the other investments you can make with shorter paybacks, you would do the shorter payback investments first. And if you still got enough money, then you might go to the longer payback. So I think that's the reason why, industrially, photovoltaics haven't taken off as fast as it might otherwise have done.

COUNCILMEMBER NISHIKI: So even at that point, no one can use or is there any credits being given for this area?

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MR. WIIG: Yes, there is a 30 percent Federal tax credit and a 35 percent State tax credit. So that reduces your payback time significantly.

COUNCILMEMBER NISHIKI: But even with that, the figures that you gentlemen have given me, are what is accurate?

MR. WIIG: Yes. Yeah, without the tax credits, it would be a really long payback time.

COUNCILMEMBER NISHIKI: ...Thank you.

CHAIR MEDEIROS: Okay. Mahalo, Mr. Nishiki. And before any more questions, I just want to say that we call Mr. Wiig by his name and not "White" or "Weiss".

MR. WIIG: ...*(laughter)*...

CHAIR MEDEIROS: It's W-I-I-G, Mr. Wiig. Okay? ...*(laughter)*...

COUNCIL MEMBERS: ...*(chuckle)*...

COUNCILMEMBER NISHIKI: Oh. I said White.

CHAIR MEDEIROS: Council ...*(laughter)*... Vice-Chair Molina?

COUNCILMEMBER MOLINA: Yeah. Thank you very much, Mr. Chairman. I guess a question for Mr. Saito on the presentation with regards to the IBC 2006 amendments. One of 'em I found somewhat interesting, and I'll read it as it's presented here, termite treatment standards for lumber and foundations appropriate for Hawaii rather than mainland conditions. Mr. Saito, can you elaborate, I guess, how this relates to energy conservation and, again, cost to the consumers? I mean, I can see, you know, a need for this because, you know, the upfront cost to pay for the lumber, it's, it's obviously gonna cost more should this Code be passed as is, and, you know, we all know how much fun we had with the Formosan termites and other things out there that can do a lot of serious damage to our, our homes. Could you further expound on this?

MR. SAITO: Actually, what I did was I gave you an overview and what I tried to emphasize is that what we call the State Building Code is really a suite of codes. And the suite of codes that we're going forward with, I mentioned, the Energy Conservation Code is one of 'em, but the Building Code is another one of 'em, and that modification was on the Building Code. So that's, that's how it fits it in there. Howard talked about the Energy Code, specifically Conservation Code. All of the rest of the things that we're going to public hearing on are *not* the Energy Code, but the other related codes in the suite of codes.

COUNCILMEMBER MOLINA: For something like this, this will go to...this amendment will go for public hearing as well?

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MR. SAITO: We're going to go to public hearing on all those codes that I, that I have listed--

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: --in September, and the Fire Council is going on in the same timeframe because they're, they're also chartered by law. They will, they will have their hearing about a day after we have our hearings.

COUNCILMEMBER MOLINA: Okay. I think you've, that you'll probably get some interesting comments on this, this termite issue. And one more question, Mr. Chair, on the advantages of the new State Building Code for Mr. Saito. The ICC codes generally allow greater areas and heights of buildings, larger, taller buildings using wood and light gate steel would result in less costly buildings. You know, here in Maui County, we have our issues with building heights, and I'm just curious to see, I guess, how this, you know, how this issue was dealt with in terms of the, I guess, you know...would it, how would it impact the County building height, current height regulations?

MR. SAITO: Yeah. It wouldn't impact it because whatever the County requirements are by law, we would not violate. We would, the Building Code applies within, within the confines of the law. So if you have a building height, we're not gonna build a building that's bigger than that because the, the Building Code allows it.

COUNCILMEMBER MOLINA: Uh-huh. Okay, 'cause as I was reading it, you know, the Code, generally encourages a greater building--

MR. SAITO: No--

COUNCILMEMBER MOLINA: --so I was just...

MR. SAITO: --it's just in general--

COUNCILMEMBER MOLINA: In general.

MR. SAITO: --we can, we can put more space--

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: --within, within the building--

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: --given the same kind of materials.

COUNCILMEMBER MOLINA: I see.

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MR. SAITO: But if you read the next advantage--

COUNCILMEMBER MOLINA: Uh-huh.

MR. SAITO: --we're also designing it with stricter requirements as far as structural is concerned. So it's, it's more space, but it's safer.

COUNCILMEMBER MOLINA: Uh-huh. Okay. Thank you. Thank you, Chair.

CHAIR MEDEIROS: Mahalo, Mr. Molina. Ms. Baisa?

COUNCILMEMBER BAISA: Thank you very much, Chair. I think this is leading us to a very important point here, and I heard it earlier, and it was said that the Code that we would adopt would not supersede County law. And I think that's really important because of this, which you mentioned, home rule and, you know, there may be things that will be specific to Maui County. So I think there's, we can have a comfort level if that is the case.

MR. SAITO: And, and that is actually built into the law because the Code that we're hearing is, is the *State* Building Code, it's the Code that the *State* construction needs to comply with. Only after it goes through the councils and through the county ordinances, does it become a *county* code. And as I said in my presentation, the county may amend the State Building Code without going back to the State Building Code Council for their approval. But because of the very important step that *no* amendments even for the State Building Code gets put into play without *unanimous* approval of the four county building officials, it's *not likely* that they're gonna put into the Code anything that is going to be at odds with what the county wants to have.

COUNCILMEMBER BAISA: Thank you very much. I think that's a very important point and bears repeating. Thank you, Chair.

CHAIR MEDEIROS: Mahalo, Ms. Baisa. Members, any other questions? Mr. Kaho'ohalahala?

COUNCILMEMBER KAHO'OHALAHALA: Thank you, Chair. And then, Mr. Saito, just to...get more further clarification, in your presentation on the implementation steps, which you were just going over here, you're saying that there needs to be unanimous approval by the four county building officials, and then approval by the full council. You are referring to the county councils?

MR. SAITO: No, this is, this is the law, this is the steps for the State Building Code--

COUNCILMEMBER KAHO'OHALAHALA: Okay. So when you're referring to...

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MR. SAITO: --. . .(*inaudible*). . . it would be the State Building Code Council.

COUNCILMEMBER KAHO'OHALAHALA: Okay, that was my clarification.

MR. SAITO: Right.

COUNCILMEMBER KAHO'OHALAHALA: Therefore, when it gets to the level at which the counties will review it, then we would be allowed to amend or create within the County itself a further refinement of, of what is passed by the State?

MR. SAITO: Right.

COUNCILMEMBER KAHO'OHALAHALA: Okay. So your process requires it to go before your, your small business--no, your SBC Council? I'm, I'm getting confused with the term council here.

MR. SAITO: Yeah, okay.

COUNCILMEMBER KAHO'OHALAHALA: I'm trying, trying to make sure I understand it.

MR. SAITO: Yeah.

COUNCILMEMBER KAHO'OHALAHALA: So you go for a rule change, you have unanimous agreement by the counties, building officials, your, your SBC Council will now approve it?

MR. SAITO: We approve through as draft rules and then we send a letter to the Governor saying we would like to go to public hearing on these rules.

COUNCILMEMBER KAHO'OHALAHALA: Does your Council have the ability to make changes at that point?

MR. SAITO: We can, we can make changes to the rules, but we will have...because it comes through to the county building officials, they're gonna be just minor, you know, mechanical kind of changes.

COUNCILMEMBER KAHO'OHALAHALA: Okay. And then once it's approved, then through a public hearing and the Governor's approval, then it, it's something that we would review at the . . .(*inaudible*). . .

MR. SAITO: No, after, after we approved it as...and it becomes the State Building Code, that entire Code, the counties now have two years to either amend that code--

COUNCILMEMBER KAHO'OHALAHALA: Two years--

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MR. SAITO: Two years, right.

COUNCILMEMBER KAHO'OHALAHALA: --from the date of passage?

MR. SAITO: From the day it becomes the State Building Code.

COUNCILMEMBER KAHO'OHALAHALA: State Building Code, okay. So that's something then, Chair, we should be very mindful of if there's any chance that we would wanna revisit those codes and, and make our own amendments to those codes. Okay.

CHAIR MEDEIROS: Okay. Yeah.

COUNCILMEMBER KAHO'OHALAHALA: Or...yeah, yeah.

CHAIR MEDEIROS: Good point. Thank you, Mr. Kaho'ohalahala.

MR. SAITO: By the way, those, those are just, you know, the, the, the statutory requirements. In the case of the Energy Conversation Code, I think the counties are gonna end up before the State . . . *(laughter)*. . . 'Cause the Code that you have is exactly the Code that we're proposing, that we're hearing.

COUNCILMEMBER KAHO'OHALAHALA: Oh.

MR. SAITO: And so if you approve it--it says within two years, right--you guys actually were zero...you guys actually, I think, are gonna end up leading the State in the Energy Conservation Code.

COUNCILMEMBER KAHO'OHALAHALA: Very good. Thank you, Chair.

CHAIR MEDEIROS: Thank you, Mr. Kaho'ohalahala. Yes, Mr. Galazin?

MR. GALAZIN: Yeah. Thank you, Chair. Perhaps I could just elaborate a little bit and kind of further clarify. What the State law is requiring is that there's this framework that's established which is this Statewide Code; and in this case, what you have before you on today's agenda is the one that's specifically been modified with the Maui County revisions to it. So if we were to do nothing as a County two years after passage of the State framework, that would become law until we did something. But we are free to use...because the general framework's already been established, it's gonna go out for rulemaking, there may be revisions, but that does not preclude us from acting on this right now because we already have the framework in place. We already have the specific Maui County revisions that have been submitted by the Department. So basically, we are ready to go on this if it's, you know, the will of the Committee to move this forward.

CHAIR MEDEIROS: Okay. Mahalo, Mr. Galazin. Members, any further questions or discussion? Okay, before the Chair asks for my recommendation, I just want to point out

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some information for your consideration that--and it's been explained by our people on the panel, that this Code would regulate design and construction of buildings for the efficient use of energy. This Code would apply to residential *and* commercial buildings. And with a few exceptions, this Code would not require the removal, alteration or abandonment of, or prevent the continued use and maintenance of an existing building or building system lawfully in existence at the time of the adoption. So if there's any clarification to be made on those statements, are those accurate statements? Thank you very much. So, you know, it's the intent of the Chair, with the support of the Members here, our Committee Members, that if we can move this out of Committee and have it go to the full Council for the nine Members there to deliberate on; and with success if we can move this out of Council, depending on the Council Chair's schedule, this would be something that if we, it was passed by this Committee and the Council, that it be prepared and ready to be offered at the Mayor's Energy Expo in September 9th, 10th and 11th at Wailea. And with, with that, at this time, the Chair will entertain a motion to recommend passage of the proposed bill and the filing of the communication.

COUNCILMEMBER VICTORINO: So moved.

CHAIR MEDEIROS: It's been moved by Member Victorino.

COUNCILMEMBER KAHO'OHALAHALA: Second.

CHAIR MEDEIROS: And seconded by Member Kaho'ohalahala. Any further discussion, Members? Seeing none, the Chair will call for the question. All those in favor of the motion, say "aye".

COUNCIL MEMBERS: Aye.

CHAIR MEDEIROS: All those opposed, say "no".

...So at this time, the motion passes. We have five "ayes"; zero "noes"; two "excused", Members Pontanilla and Mateo.

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VOTE: AYES: Councilmembers Baisa, Kaho'ohalahala, Molina, Victorino, and Chair Medeiros.

NOES: None.

ABSTAIN: None.

ABSENT: None.

EXC.: Councilmember Mateo and Vice-Chair Pontanilla.

MOTION CARRIED.

ACTION: Recommending FIRST READING of bill and FILING of communication.

CHAIR MEDEIROS: Members, I thank you for your attendance this meeting and the very good deliberation on this. Before I close the meeting, I want to thank Mr. Saito and Mr. Wiig for travelling here from Oahu to present us with this information and be a part of this. And I would just ask them if they have plans to attend our Mayor's 2009 Energy Expo in Wailea in September because I think you could offer a lot at, at that Energy Expo. But we also wanted to thank Mr. Starr and Mr. Hoonan from the Working Group and Mr. Victor Reyes for being here, along with Mr. and Director Arakawa and Mr. Ralph Nagamine that was also here. I appreciate your folks attendance. Thank you, Members. Thank you, Administration representative, Mr. Galazin from the Corporation Counsel. And thank you to my Committee Staff, Ms. Camille Sakamoto and Mr. Michael Geers. So without any further announcements, if any...seeing none, the Infrastructure Management Committee meeting of August 17th, 2009, at 10:34, I'm sorry, at 10:29...*(laughter)*... is now adjourned. ...*(gavel)*...

ADJOURN: 10:31 a.m.

APPROVED:



BILL KAUAKEA MEDEIROS, Chair
Infrastructure Management Committee

im:min:090817

Transcribed by: Sandra J. Roman

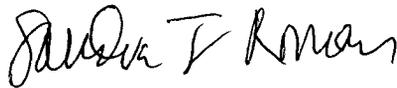
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CERTIFICATE

I, Sandra J. Roman, hereby certify that 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 this 10th day of September 2009, in Wailuku, Hawaii.



SANDRA J. ROMAN