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In the matter of:

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STAFF WORKSHOP

REMOTE VIA ZOOM

WEDNESDAY, SEPTEMBER 15, 2021

10:00 A.M.

Reported by:

Martha Nelson

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P R O C E E D I N G S

10:00 A.M.

WEDNESDAY, SEPTEMBER 15, 2021

MS. CARRILLO: My name is Deana Carrillo and I'm a new Office Manager here at the California Energy Commission. And it's my pleasure to welcome you to our public workshop for the Building Initiative for Low-Emission Development Program, commonly known as BUILD. The program will provide technical assistance and incentives to encourage new all-electric low-income housing and gas corporations.

I'm also joined by several team members today who will be introduced along the way. We're excited to here today to outline Staff's preliminary design for the BUILD Program. It's been several months since the last public workshop on BUILD. And during that time the Energy Commission and PUC staff have been conducting research analysis to identify how best to meet some of the program's statutory requirements and soliciting additional stakeholder feedback. We're looking forward to getting your input to inform the future program guidelines with a goal to launch the pilot shortly thereafter.

The proposal was provided to the docket yesterday. It was also distributed this morning but, just to confirm, is a public document on the document -- or on the docket. And this slide will be posted after the workshop. We are asking for public comments at the end of this month, September 30th.

Next slide please. Great. Thank you.

And before we launch into the agenda, I'd like to recognize Commissioner McAllister to kick us off for some opening remarks.

Thank you for joining us today, Commissioner McAllister.

COMMISSIONER MCALLISTER: Well, you bet. Of course. I'm very excited to be here today and to have the workshop happening. Thank you, Deana and the whole team, for, really, just an amazing amount of work and diligence and process management, really, to get us to where we are. I'm really excited to have you present the program plan here.

And I'm looking, just as Deana was kicking things off, I was looking at the participants who are still filtering, actually, so we're up to 40-plus, which is great, so thank you all for being here. And in that list are a whole bunch of familiar names to me and, I'm sure, to most of the Commission staff on this team. So it's really great to have input from knowledgeable stakeholders at the utilities, and the advocacy groups, and just all of the expert participants in the affordable multifamily arena. So thank you all for what you have done to help us frame and develop this program up until now, which has been significant, and what you -- what we are confident and hoping that you will continue to do to contribute to its implementation and really make it a success.

Affordable multifamily housing is one of the key pillars of California's decarbonization journey. And it is a key pillar, not in small measure because it is just completely relevant and essential that we find solutions in this space and we really focus on it for reasons of equity. You know, I read report recently that, you know, California, despite being the fifth largest economy and having sort of, you know, among the highest average incomes in the nation also has some of the most inequitable income levels and has among the nation's highest poverty rates among states. And that's partly because of, well, a number of different reasons.

But you know, housing is a central part of that conundrum. And you know, in a way, we're sort of victims of our success in that our economy has grown so quickly and it's uneven enough that it is running the risk of leaving significant portions of our society behind.

And so this program, I think, is a really important initiative to help develop and attend to our multifamily affordable housing stock in ways that ensure that equity is -- that the equity goals that we have alongside of our energy transition goals, and electric and gas sector, their decarbonization, and our just energy goals, generally, is a core part of that evolution. And so this program, I think, is a great platform for attending to our multifamily affordable housing sector. And, potentially, many of you, probably, are following the conversation at the federal level, but the infrastructure bill and the reconciliation conversations, they are advancing, and it looks like something important will happen in the relatively new future. And you know, this program is, potentially, a pipeline for additional federal resources to do more and better, more, better and quicker in this sector.

So this, for many reasons, actually, this program is a key element of our clean energy transition, our equitable clean energy transition, and so I'm super excited about it. It's just -- I think there's a lot of urgency here, obviously with climate change generally but, in particular, in this sector. And we have a lot of tools in our toolbox now, thankfully, including this program and all of you on the call today.

So I wanted to just provide a little bit of context and some, I think, optimism that we're starting to really move forward in this arena, and to Deana and the whole team behind this program.

And I would be remiss if I didn't, you know, thank our partners over at the California Public Utilities Commission. We've been working super closely with them and they've -- from a Commissioner level and all the way through the staffs, the various staff members that are involved in both Commissions coordinating extremely well and, really, under a common vision across our two Commissions, so that's very appreciated and will continue to be the case through implementation.

So I would invite everyone to submit comments that has some suggestions for the program, and certainly through the course of today, and then written in a couple of weeks, as Deana said, the end of the month, really, just to help us make this program be all it can be. And I am, again, really optimistic that, with success in this program, it will lead to new and better things, even new and larger things, to channel additional resources and to really help this marketplace evolve in earnest.

So with that, I'll pass it back to Deana. Thank you, again, Deana. Really looking forward to the day. And, please, everyone participate as much as you're able. The conversation is extremely important. And I always say this, but it continues to be true, that our process is our biggest strength. And when we listen to the marketplace, when we really work together to iron out any challenges, just to understand them and to deal with them, that's how we get to better results. And so that's the spirit in which the Commission operates across the Board and, certainly, with this program as well.

So we have a great time on it and we're looking forward to collaborating with all of you. So thanks very much for being here again.

And then back to you, Deana.

MS. CARRILLO: Great. Thank you so much, Commissioner McAllister. We appreciate those comments. I think they're very important to keep in mind for today. And we appreciate you taking the time out of your day to join us while you can. Great.

Well, let's run through the agenda. This slide outlines our agenda today. First, we'll provide a brief overview of the program for those new to the conversation or need a little refresher. And then we'll discuss the proposed eligibility requirements, the methodologies to meet the statutory requirements under the program, the participation process describing how developers can receive incentives, the incentive structure, technical assistance, and evaluation metrics.

Next slide please.

Before we get started we have some virtual housekeeping. As you probably saw when you logged on, this webinar is being conducted remotely and is being recorded. We have a lot of content to review today. And we understand that that proposal was sent out last night. We will stop for comments and questions after each section. And we'll also have a public comment period at the end.

There will be three ways to comment today. You can use your raise-hand feature in Zoom, or if you're just over the telephone, you can dial star nine to raise your hand, and then star six to mute or un-mute your phone, or you can type your question in the Q&A window. If your question will be addressed in a future section, we may hold it off until then. And then we'll also be posting, essentially, Q&As at the end and/or after the workshop.

We expect this morning's session to run for approximately one-and-a-half to two hours, so we will have time to go over as many questions as we can. And we're asking for public comments to be submitted through our e-commenting system on the docket, noted here. And if you haven't already, please subscribe to the BUILD listserv.

Great. Next slide.

And with that, let's get started.

Next slide.

The BUILD Program was authorized by SB 1477 in 2018, authored by Senator Stern, which authorized two building decarbonization programs to encourage the development and deployment of net-zero-emission building technologies. The first was BUILD. The second is the Technology and Equipment for Clean Heating Initiative, or TECH. BUILD is for new residential buildings that provides incentives and technical assistance to support the adoption of advanced building design and net-zero-emission technologies in new low-income residential housing.

In January 2019 the PUC instituted a new rulemaking on building decarbonization. And under this proceeding the PUC adopted Decision 20-03-027 in March of 2020 which established the framework and requirements for both programs authorized by the legislation. And through this process the Energy Commission was named as the administrator of the BUILD Program. And the program was further targeted to all-electric low-income residential housing, both multifamily and single-family.

Next slide please.

The program has $60 million in funding for incentives, which must be allocated according to the cap and trade allowance of each gas corporation. The CEC has also targeted a significant portion of funding to technical assistance, approximately $6 million over the next four to six years. We believe that technical assistance will be a key to broader market adoption by walking housing and developers through the various challenges of adopting new technologies and building approaches. We'll talk more about this later in the presentation.

Next slide please.

And as I noted earlier, this program is a collaboration effort in coordination with the PUC. I was remiss for not thanking them myself, so thank you to our staff over there who has been collaborating with us. And I've already spoken about how we got to today, so we are here.

And from here, Staff is taking feedback on the preliminary program design. This will inform our guidelines which will be provided to the public again for additional input. These guidelines will ultimately be approved by the CEC to submit to the PUC in accordance with the PUC Resolution E5116 (phonetic) issued this past April. And concurrently, the Energy Commission issued a Competitive Solicitation for our Technical Assistance Provider, or TAP. We're working to have that team quickly onboard with a goal of quickly launching the technical assistance by the end of this quarter which we will, as I've mentioned, review a little later.

Next slide please.

I'd like to take a minute to broadly share our program design goals. And as Commissioner McAllister said, the programs can only be as strong as the public input we receive. And so these design goals really come from the stakeholders in listening and hearing from them.

And our feedback from low-income developers and stakeholders, we learned that financing low-income residential housing is complex, can take a long time, involves numerous layers of various financing sources that are often competitive. We learned that there's often a perceived risk of the unknown for developers that are balancing existing complexity in the scarcity of adequate funding with new building designs and technologies, and that there's a real interest in moving to net-zero-emission technologies and providing those clean energy homes to our most vulnerable Californians.

So we've designed this program to address those challenges. We're providing technical assistance early in a project design phase, supporting developers' soft costs and absorbing some of that perceived risk, and designing the participation process to work to balance surety with flexibility and patience to support those longer development timetables.

And the process should accommodate the various financing and incentive programs in the industry, TCAC, HCD. Our goal is to not make it harder to navigate those traditional funding sources for construction and long-term financing.

And we've also worked to leverage existing building processes to streamline the experience for the developers and the users.

And we'll be coordinating with TECH to ensure support for education to contractors and subcontractors to address that learning and workforce gap related to these new technologies that are still being felt across the state.

Next slide.

So with that, we're going to get into one of our first four sections, Eligibility Requirements.

The technical assistance and incentives are available to any public, nonprofit, or private developers with at least five years of experience of deed-restricted low-income housing development. Again, that's not experience in developing all-electric buildings but five years of experience in deed-restricted low-income housing.

The housing development must be all electric, not mixed fuel, and demonstrate modeled resident utility cost savings, which we'll dive into in a few slides.

It's available to new residential buildings in these specific gas territories, including tribal areas.

Next slide.

And it's hard to talk about what's eligible without talking about what's not. Before we move forward, I just want to bring up this issue to provide some clarity. Specifically, this program is not for market rate residential buildings. The Energy Commission did receive some additional funding in this last budget to focus on market rate housing and electrification. That funding is going directly to the Energy Commission and isn't a part of this program, though we will be launching its development later this year.

We're also not including mobile and manufactured homes at this time. They don't fall under Title 24 Energy Code, which is what we're relaying on as the program launches, but we'll be looking to expand that, potentially, as we look at expansion.

And of course, buildings without residents, or nonresidential buildings.

Thanks. Okay.

Specific to the income restriction, as I noted above, the PUC decision focused the program to deed-restricted low-income residential housing. This table shows the four types of eligible categories of income limits established in the statute.

For those that fall under type one and

type two, CEC Staff are proposing that we rely on the income limits established by the low-income housing funding source for the project. This will provide flexibility to easily align with the various affordability standards, whether it's at the Tax Credit Allocation Committee, Department of Housing and Community Development, or the Federal Department of Housing and Urban Development, or the local affordable housing agencies. We're looking to really make this simple for the user and for those income limits to be established by the affordable housing experts under the eligibility pathways of type one and type two.

Next slide.

And this slide depicts the gas utility areas where projects will be located.

And next slide.

In addition, the receipt of both incentives and technical assistance under the program will contribute to an entity's application of public work requirements, including prevailing wage, pursuant to Labor Code 1720.

And next slide.

And so from here, this brings us to our first section of questions and comments, any questions on project eligibility. If you have them now, you can raise your hand per the feature in Zoom, you can chat it in the Q&A window, or if you're on the telephone, you can dial star nine to raise your hand, and then star six to mute and un-mute your phones.

Any questions on this section? Well, I see one from a Mr. James.

MS. REMY-OBAD: Yes.

MS. CARRILLO: Oh, go ahead, Camille.

MS. REMY-OBAD: Sorry. Yes. So John James has a question.

"Why limit the program to developers with five years of experience in low-income? This seems to be a hurdle and limits creating more builders, both large and small, to be involved in this specialized type of development for years to come."

MS. CARRILLO: Yeah. That's a really good question, John.

One of the issues that the Energy

Commission was balancing is that we've provided a pretty flexible program of at least two years for just a project reservation process. And we only have so many public funds. And so because of the complexity to do affordable low-income deed-restricted housing to begin with, we thought it was a prudent use of sources so that we don't kind of -- what is the word? -- so we don't have reservations that don't -- that are more likely to move forward is what we're looking for, is projects that are more likely to move forward.

But we appreciate that comment. And if you don't think that that's the right balance of those, please make that in your public comments. We look forward to looking at them as we consider the program and design.

MS. REMY-OBAD: All righty. We also have a comment from Anne Esmeiser (phonetic). It says/she asks, "Would an adaptive reuse project that creates --

MS. CARRILLO: The quick answer to that --

MS. REMY-OBAD: -- "new housing be eligible?"

MS. CARRILLO: -- is, yes. And I am

going to ask Adriana to put in the definition of what new housing is into the chat, and we'll make sure that we get that in the program guidelines, as well. Substantially, a substantial rehab or a shift of use, say from a loft or a factory to lofts, would also be considered new housing.

Okay, well, that's it for now, I know we'll have more later, we'll jump into the next section. And again, I do want to encourage everyone to provide written comments. This is a preliminary program designed for feedback. And so those comments now are going to be very, very helpful.

Okay, so this next section is going to review the methodologies to comply with the statutory requirements. And what the -- and the methodology under which the CEC is proposing to adopt them. Excuse me. The authorizing statute requires that incentives be based on their reduction of greenhouse gas emissions in comparison that would have otherwise be expected from current building standards. So this is a building-to-building comparison.

Next slide.

In this additional requirement the

statute also requires that projects under the program do not result in higher utility bills for their low-income residents. Note that this is also a building-to-building comparison, not a review of specific residents' actual costs.

So let's take a step back from that statutory requirement for a moment and look at what we expect residents to experience under the program.

CEC's analysis of utility costs show that low-income residents save 68 percent, or nearly $600 on average, of their annual energy costs when they move from an existing building into a new BUILD-compliant building.

In this graph, we've illustrated actual and projected average utility costs for low-income residents by climate zones. The orange bar is the average utility bills for CARE customers today in our existing buildings. The purple bar represents the most common modeled costs, a new mixed-fuel prescriptive code compliant building. And the green bar represents the anticipated model's resident utility cost for a BUILD-compliant home. Under the program, the modeled resident utility cost threshold will be five percent lower than the standard which will further safeguard and protect our most vulnerable residents.

Next slide please.

In addition, Californians and BUILD residents will also save on other costs that aren't reflected in the earlier slide or in the Energy Commission's model. For example, they'll have increased energy efficiency savings over the lifetime of the equipment in buildings by lowering a building's greenhouse gas emissions and helping to reduce the risks to residents from loss of power. The program offers incentives for other equipment, such as storage, which can provide comfort and peace of mind for our most vulnerable populations. And load flexibility reduces the cost and demand on the grid. Improved air quality. And lower healthcare costs.

Next slide please.

Okay, so we're going to dig into the statutory requirements again, and the building-to-building analysis, and our methodology.

The CEC has adopted robust methodologies that establish a new mixed-fuel prescriptive building as the baseline to be compared to an applicant's all-electric residential building model. CBECC is a free energy analysis computer program developed by the CEC for demonstrating compliance with the Energy Code. CBECC takes inputs on building envelope and mechanical system design and calculates energy usage of the building.

CBECC outputs hourly energy use profiles which are then estimated -- which are the estimated therms in kilowatt hours used by the designed building each hour of a calendar year. By applying the estimated therms used by the building to natural gas utility rates the natural gas bill can be calculated. Likewise, by applying the kilowatt hours to electricity utility rates, the electric bill can be calculated. The total of these bill calculations equate to the modeled resident utility costs.

In addition, we take the same hourly energy use and multiple by the CO2 emission factor to calculate the incentive value.

Next, please.

So we're going to spend some time on the methodology because we know stakeholders will have questions, so let's dive into a few more details.

The CEC has evaluated current low-income resident utility rates for the largest utilities, or the CARE rates. We're assuming time-of-use rates given their broad uptake. And we are requiring savings in year one, not over the lifetime of the equipment, to better acknowledge short lengths of occupancy in some of these housing sectors. And as I mentioned before, we're establishing a five percent savings over expected bill neutrality to better ensure resiliency in the model.

And specific to greenhouse gas emissions, Staff is proposing a calculation of $150 per metric ton of GHG. This value is derived from the utility costs identified in the PUC's Integrated Resource Plan. It does not include societal costs or other costs. So given these methodologies and our approach, the calculation will vary by building design, and by the climate zone, and the rates of the utility combination served by the project. And we will demonstrate that in more detail in a few slides.

Next slide please.

So digging down one layer deeper, as I mentioned before, we're assuming time-of-use rates when we look at rates. We're assuming that occupants do not exceed the baseline allowance and that the California Climate Credit is not applied.

On the building energy use, right now you'll see us demonstrate some models. And the central water and heating and laundry is currently included in the resident utility cost savings. We understand that that split isn't always typical between the resident and the owner, and so we're going to continue to look at that.

And I'd also like to talk about limitations. While the model is robust and provides appropriate protection for our most vulnerable Californians, by its very nature, it's a model. It is only demonstrative and doesn't reflect the varied residents actual experience.

Next slide.

And under this approach, and given today's current low price of natural gas, many developers will need to choose a combination of increased efficiency measures and PV beyond code to meet the statutory requirement for modeled utility cost savings, resident cost savings. In CEC’s analysis of utility costs, Staff found that several utility territories in climate zones will benefit from PV to meet this requirement. In some circumstances -- in most circumstances residents must be the first beneficiary of the PV benefit to meet the established standard.

That said, understanding that the availability of virtual net metering, or VNEM, is not universal and is under deliberation. We’re seeking input from stakeholders on whether this gap could potentially be addressed administratively between the developers or owners and residents?

Next slide please.

So here are some key elements where we’re seeking feedback.

Given the likely need for increased efficiency and PV in many climate zones to meet the statutory required modeled resident utility costs, how can developers demonstrate the PV benefit is provided to the resident? In areas where VNEM is unavailable, how would this PV allocation or need affect you? And is it feasible for owners to address this modeled resident utility cost for the residents directly? What could that look like? And lastly, is $150 per metric ton for GHG emissions appropriate? Are there other estimates or projections that we should look at and use for the price of carbon?

So some of those are the key questions and feedback -- where we're seeking feedback, but we also know that you'll have other questions and comments, so I think that is our next slide. There we go.

We've paused for a minute for questions and comments on this section, compliance with this program's statutory requirements.

Again, if you're on the phone, you can dial nine to raise your hand -- or that would be star nine to raise your hand, and star six to mute and un-mute your phone. Any questions on these methodologies? You can just put those in the Q&A chat.

MS. REMY-OBAD: I'm not seeing any at this time.

MS. CARRILLO: Okay.

MS. REMY-OBAD: Oh, wait, I'm sorry, please. John James.

"The PV value has to be passed on to the resident. It should be tracked through the house panel, not per unit, or it will be extensive electrical equipment."

MS. CARRILLO: Thank you, Mr. James --

MS. REMY-OBAD: I think this is more --

MS. CARRILLO: -- for that consideration. It would be great if you could put some additional background and context for that question. It also sounds like you're referring to a single-family home and, perhaps, not multifamily. So some additional clarity on that would be helpful in your written comments. Okay.

I'm going to assume that folks may have additional questions as they review those methodologies.

And at this point, we're going to move on to the next section, and I'm going to introduce my colleague, Erica Chac.

Erica?

MS. CHAC: Thanks Deanna.

Okay, so we're going to go into the incentive structure now.

Next slide please. Thank you.

There are four types of incentives that

make up the total incentive a builder can receive under BUILD. The base incentives -- the first is the base incentive which is a -- which is based on greenhouse gas emissions avoided from mixed-fuel buildings. Currently, this is valued at $150 per metric ton of CO_2 emissions.

The second is a building efficiency incentive based on a percentage above code. This incentive maxes out at $1,000 per bedroom.

The third is an incentive for the incremental PV above code that might be included in the modeled resident utility cost requirement. We are looking at $1.30 per watt for a low-rise and $3.00 per watt for mid- and high-rise.

Fourth is an optional kicker incentive for things like grid flex, battery, EV charging, and other technologies we will go through soon. This is a flat rate, depending on the equipment.

So an eligible applicant would add all of these incentives together to get the total amount.

Next slide please.

The purpose of offering kicker incentives is to encourage the market for things such as technologies that contribute to electrical grid stability, like grid flex and onsite energy storage, low-emission technologies, such as heat pumps with low GWP refrigerants, high efficiency appliances such as induction cooktops and heat pump clothes dryers, and other things, like EV chargers. The price levels are listed on here and are based on GHG reduction or incremental costs with considerations to other incentive programs that are offered. We would appreciate any feedback you have on these incentive levels.

Next slide please.

We want to provide flexibility to applicants but also need to ensure ratepayer funds are being spent appropriately. Our goal is to incent new activity, so reservations must be submitted before receiving building permits. We also want to support broader market transformation and disperse funds to many different applicants, so incentives will be kept at $3 million per applicant. Applicants are also required to agree to liquidated damages if there was no good faith effort to continue the project. And we will be allowing layering of incentives so long as the applicants aren't overcompensated for the actual project costs.

Next slide please.

This is a sample project, Mateo Valley Garden, to show the incentive types and levels available for a low-rise project in Climate Zone 13, or Fresno area. This is a minimal BUILD-compliant project with battery storage and low GWP refrigerant kicker. This project is eligible for $218,000. This includes the base incentive at $150 per metric ton. No building efficiency incentive because it is a minimally compliant -- minimally BUILD-compliant building with no additional energy efficiency measures. And $1.30 per watt for the incremental PV incentive, and then the kicker incentives.

Next slide please. Thank you.

If we took the same sample project and looked at it across different climate zones, this is what we would see. The same project will receive a different base incentive amount based on climate zone since greenhouse gas savings and PV requirements are different in every climate zone. This project in Climate Zone 10 would receive slightly less incentive, whereas Climate Zone 16 would receive more. That's because there is more potential for avoided greenhouse gas emissions in Climate Zone 16.

Next slide please.

This is the same Mateo Valley Garden project but this time we added more energy efficiency measures. This building has a more efficient HVAC system, a drain water heat recovery system, two-inch insulation for the recirculation loop, and Title 24 prescriptive envelope. This project is eligible for $290,000. This is more than $70,000 than the minimally compliant version that we just looked at. So the base incentive increased, the PV’s incentive decreased, the kicker stayed the same, and this time there is a $72,000 incentive for building efficiency.

Next slide please.

This is, again, the same project across the other different climate zones.

And next slide please.

This is a sample project for a mid-rise project in Climate Zone 3, or at the Bay Area. The total incentive amount is over $1.2 million with a highly efficient building. The building efficiency incentive is maxed out at $1,000 per bedroom. The incremental PV increased to $3.00

per watt because it’s a mid-rise project. And there is no kicker incentive but this project has potential to increase more incentives if they choose to include them.

Next slide please.

And, again, this is the same project across different climate zones.

And next slide please.

Here are some items we are seeking feedback on. Are the incentive amounts set appropriately? We would appreciate any feedback on any of the incentive types. Should any of them be increased or decreased? Are there any other equipment that we should be incenting that wasn’t mentioned today? And is it reasonable that applicants agree to liquidated damages of ten percent of incentive reservations if there is no good faith effort in moving forward? What alternative approaches could we adopt to ensure that applicants are committed?

And Next slide please.

And now we’ll open it up to questions and comments. Again, you can use the raise-hand feature in Zoom, or over the telephone, star nine to raise your hand, and star six to mute and un-mute.

Are there any questions in the Q&A?

MS. LEE: Hi team. This is Natalie. It looks like we missed a raised hand previously. Could we un-mute Merrian Borgeson for her comment?

MS. REMY-OBAD: Hi Natalie. I am working on that. Bear with us.

MS. BORGESON: okay, I think -- is it working now?

MS. REMY-OBAD: Yes.

MS. BORGESON: Great. Thanks. I actually did type this in, as well, because I didn't know that you could see my hand or not. So my main question is just around the experience of developers at they look at this program and can they understand what is really being offered to them quickly and easily?

So if you guys could say more about, like what is the work that the developer would need to do to understand what their base incentive value is? That seems to be the most complex piece. The other pieces make sense to me. I could imagine calculating those in my head. But this, it sounds like they need to do two different models of a building they're going to have in the future. They need to know their climate zone. There's a bunch of information that they'll need just to be able to say is this $500,000 or is it $1 million or is it -- you know? Because then they have to multiply GHGs by $150 a ton. So can you say a bit more about the developer experience?

And then, is there any other -- if it's complicated, as it seems to be, what are the other ways that we might be able to design the program that still meets the statute but is simpler for understanding the program quickly from a developer perspective?

MS. CARRILLO: Hi Merrian. This is Deana Carrillo. Can you hear me?

MS. BORGESON: I can.

MS. REMY-OBAD: We can hear you.

MS. CARRILLO: Oh, perfect, because my internet went out, which was fabulous.

But you have a very good question. We did frontload some of the complicated issues up front to explain how the Energy Commission's model is going to work. So I think what might benefit the discussion is if we jump into the participation process and how this happens, and then we can loop back to your question, because I think it's a very important one. And while we took some time to walk through the complexity of the modeling, because meeting that statutory requirement isn't always easy, we do have some what we hope are simple fixes for the developer to make that process easier for them.

MS. BORGESON: Great.

MS. CARRILLO: So --

MS. BORGESON: Sounds good.

MS. CARRILLO: Great. Thanks.

And with that, why don't we go ahead --

MS. REMY-OBAD: All right.

MS. CARRILLO: Oh, go on.

MS. REMY-OBAD: No. There are a couple of open questions in the Q&A. And we do have two hands raised.

MS. CARRILLO: Great.

MS. REMY-OBAD: Okay. So for the Q&A, the next question is: "Are affordable all-electric rate designs being evaluated?"

MS. CHAC: We are looking at affordable all-electric rates. We looked at CARE rates for the IOU. And then for POUs the equivalent of low-income rate.

MS. REMY-OBAD: Great. Okay. Thank you.

Next, there is a question from Natalie Laughin (phonetic). "Is there an incentive for EV chargers or EV-ready?"

MS. CHAC: The incentives that were shown in the previous slide earlier, those were for the EV chargers.

MS. REMY-OBAD: Okay. Next, we have a question.

"Is the technical assistance to developers being funded separately or is the incentive envisioned to cover the additional modeling analysis that developers need to procure to reach the program thresholds?"

MS. CARRILLO: I'll take that question. And I apologize, I don't have a visual. This is Deana Carrillo again.

The program is offering two different services. The first is technical assistance which will be provided to applicable developers separately. And the second is the incentive value and the actual financing and incentive for building the actual building. And so it's two different components under the program. And the technical assistance provider will be available to developers to help model their program, identify measures, troubleshoot using new types of equipment, and support them in their application to the incentive.

MS. REMY-OBAD: Great. Thank you, Deanna.

Next, we have a raised hand from Nehemiah Stone, so I'm going to un-mute you for your question.

MR. STONE: Can you hear me now?

MS. REMY-OBAD: Yes.

MS. CARRILLO: Yes.

MR. STONE: Okay. I noticed that there's incentive for additional PV, and as well as incentive for battery. And it seems to me, based on the status of the grid at this point, that there should be something of a link between them rather than being able to maximize one without touching the other. Was there any thought given to having a link between those two so you could only get an incentive up to a certain point unless you -- the additional PV, unless you included batteries?

MS. CARRILLO: That's a good question, Nehemiah. It is something that we considered. But we're also working to be cognizant of adding additional construction costs to the projects and meeting the statutory requirements. We would love to hear more about how the developers would -- how we could manage that or other ideas on that linkage and what the maximum or the cap of that incentive would be. So if you could include that in your comments, that would be terrific. We'd love to consider it.

MS. REMY-OBAD: All righty. We have another question from John James.

"Is and/or could supplying infrastructure during buildout for alternative methods of transportation, such as bikes or e-bikes, be part of the design criteria?"

MS. CARRILLO: That's an interesting proposal, John. If you could include that in your written comments, as well, and how that would best be incentivized or fit within the program design, we'd appreciate looking at that.

So I have learned some lessons on the sequencing of our slide deck. Program participation we should have put up front, so we’re going to dig into that to help provide some clarity on what the process looks like for developers, and the simplicity that we have been trying to build in to this pretty complex program.

Next slide please.

So the program participation process is designed to recognize the funding and regulatory processes required for developing low-income multifamily and single-family homes, and provide flexibility to better support the unique challenges such development space. Broadly, there are three steps in the incentive process under the program.

Step one is the incentive reservation. After working with a technical assistance provider, if applicable, the applicant will have their initial building design developed to apply for an incentive reservation. At this point you need, in essence, to know what type of building you’re going to build, what type of measures you think you’re going to install, and we’ll help you with those calculations. The developer will provide the information outlined here and, upon review and approval by CEC Staff, will receive an incentive reservation before receiving construction financing. The term of the reservation is proposed to be 18 months to provide applicants time to obtain their construction financing. And the Energy Commission staff will endeavor to review these requests within three weeks.

Step two is the applicant project confirmation. So upon receipt of a developer's construction financing the applicant would return to the Energy Commission and confirm any changes to their project. What we heard from developers is sometimes they might need to modify the number of units or the number of bedrooms to be more competitive at TCAC or some of the other housing financing agencies.

So applicants would then return to us, confirm that they are moving forward. And upon the Energy Commission staff's confirmation of the continued eligibility and the incentive value of the project, if things have changed, an applicant will have 24 months to construct their project. And, again, the Energy Commission will endeavor to review those confirmations within three weeks.

And at step three, this is upon the

completion of the project, the applicant will provide the appropriate documentation demonstrating construction which the CEC will review and cause the incentives payments to be made. I wish I could say that this payment would happen in three weeks. It is a bit of a process to get a cut check from the State of California. This time period would be, likely, 90 days. I'm going to dig into this a little bit more.

Next slide please.

This slide demonstrates some other elements of program participation. So at the incentive reservation, Staff is suggesting two other elements of flexibility, that we allow a six-month extension of that 18 months, so the reservation would not exceed up to 24 months, upon a demonstration that the project financing can be received. So this might be, perhaps, the TCAC funding round happened a little later that year. We're hoping to be flexible.

And secondly, to encourage developers to explore their whole portfolio for decarbonization opportunities, and not just on a project-by-project basis. We'd provide the ability to transfer awards within a developer's -- excuse me -- within a developer's portfolio, assuming that funding is available and the project eligibility requirements can be met. We're also requiring annual reports to milestones and participation in the EM&V process.

So Merrian asked a really good question earlier about how challenging or simple this may be for applicants, so let's go to this next slide.

I wanted to spend a few minutes to dig a bit deeper into the reservation process.

We received a lot of stakeholder feedback that varied. Many developers asked for a simple process that didn't require costly modeling. We received other feedback from other developers suggesting that we just rely on their existing building processes and models. So to balance those various stages that a project might be in their lifecycle and the level of investment developers might be willing to make at specific periods, we are proposing a two-step -- two different pathways to that incentive calculation. One would be based on the developer's custom energy model that they're already working for their building processes with an acknowledgment of the methodologies that we've approached to meet some of our statutory requirements. And the other is the BUILD Calculator.

Next slide please.

And at this point, I am going to introduce a colleague of mine, Larry Froess, who is going to walk through the BUILD Calculator.

And to tie this back to the earlier question of how can we make this simpler for developers to understand what they would need to do to meet some of the program's statutory requirements, the Energy Commission has been doing a lot of work and analysis and, we believe, this tool that will help in that process to make it more simple.

So with that, I'm going to turn it over to Larry.

MR. FROESS: Thank you, Deana. Can you release or release the screen so I could share? Sorry, it's still -- do I need to be promoted to a host? It's not letting me share.

Erica, can you maybe load it up and I could talk it through, if you can share?

MS. CHAC: Yeah, that sounds good. Let me just pull it up really quick. It's opening up right now. Sorry. My computer is freezing up a little bit.

MR. FROESS: Okay. I got promoted.

MS. CHAC: Okay.

MR. FROESS: I can take it over. Thank you. Sorry about that technical difficulty. Thank you, Deana.

So I'm going to demonstrate the BUILD Calculator using a few examples to show how it determines the incentive amounts. These models are based on a two-story, eight-unit, 12-bedroom apartment building that has a prescriptively compliant envelope. I want to point out, too, that the incentive dollars that are being shown are for these demonstration purposes only and don't necessarily reflect what the final incentives will be when the BUILD Program is launched, but this is, rather, to show how the incentives change based on the building efficiency changes.

I'm going to start with a building in Riverside. That will be Climate Zone 10. And you can see that this already has a percent better than Title 24, so this is a minimally compliant building for Title 24 code.

And what we can see is, right off the bat, we go up to the as modeled prior to incremental PV, that this is -- the modeled utility cost is 32 percent higher than the mixed-fuel case which would result in a modeled resident utility cost of being $9.16 more per month per tenant. And so right now it would be -- it would qualify for $25,816 for the building for incentives, which is about $2151 per bedroom. And what this is doing is it's going to -- in order to close this gap of the 32 percent higher bill savings to get to the 5 percent, we can either increase the building efficiency or we can add the incremental PV. And so this calculator is automatically sizing that PV. So here, we've got 0.45 kW per unit, or 3.64 kW more for the entire building to achieve that bill savings.

So next, I'm just going to increase this building efficiency by increasing the heat pump efficiency to 12 HSPF, go to an 18 SEER AC, put in some pretty good windows of 0.23, then we're going to keep the exterior wall foam board as R-4, we're going with TIER 4 heat-pump water heaters and are located outdoors or in a garage, in a covered area, and we're not going to do a battery just yet. And so this increased the Title 24 compliance up to ten percent. And now the modeled utility cost went down to 26 percent higher than the mixed fuel, at $7.26 a month. And you'll need less PV now, so you need 0.37 kW per unit or about 3 kW for the building. And then all the incentives calculate out now to $35,758 for the building, or about $3,000 per bedroom, and that's about $10,000 extra for improving the building there.

Now if I add a battery to this scenario, I'll add a 14 kW battery, you can see that the modeled utility cost is down to 11 percent higher, or about $3.00 a month per tenant. The PV went way down, the extra PV, to 0.19 kW per unit, or about 1.5 kilowatts for the building. And the incentives went up to $37,838. So that shows the change that the battery can contribute to it.

So let me change it back to a minimal compliance and I'll take a different climate zone. And we'll go with Sacramento, Climate Zone 12. And so with Climate Zone 12, our gas utility is going to be -- oh, I'm sorry, for Climate Zone

10 it was Southern California Gas for the utility and Southern California Edison for the electric. For Sacramento, we're going to use PG&E for the gas utility and PG&E, also, for the electric utility.

Again, it's a minimal compliant building at 1.9 percent above Title 24. The modeled utility cost before incremental PV is 53 percent higher than the mixed-fuel bill at $15.92 extra a month that the tenants would pay. And so to get to the five percent cost savings, it's going to need an additional 0.58 kilowatts per unit or 4.65 kW per building. And that's going to result in an incentive value of $31,521 for the building, or $2,627 per bedroom.

Again, I'll do the same exercise. I'll maximize the efficiencies of the heat pump, of the air conditioner, pick the better window, and we're at 12.2 percent better than Title 24. The modeled utility cost is down to 43 percent higher at $12.89. And the PV went to 0.48. So by making the building more efficient the result is less PV at the same time and the incentive is up to $40,360 for the building.

And just to go back, our last demonstrate will be changing it back to a minimal efficient building. And there's some climate zones that have multiple utility combinations, as Deana mentioned before. And in Climate Zone 12 there's another electric utility, that is SMUD. And based on if this project gets built in a SMUD territory, based on their electric rate structure, they are already, just a minimally compliant building, at positive modeled utility cost savings of plus ten percent. So that results in not needing any additional PV if you're in a SMUD territory. And this would qualify for $24,244 for the building.

So that's the end of my demonstration. Back to you, Deana.

MS. CARRILLO: Thanks Larry.

So this is a tool that we've developed to help developers really identify on what type of building design they could adopt within certain climate zones and utility territories in order to meet that statutory requirement of ensuring that our most vulnerable Californians have some resiliency on utility costs as we move towards decarbonization.

We're hoping that this tool can be very

helpful for applicants and developers in simplifying the process to figure out, what do I need to install and how much is it going -- you know, estimate their own construction costs? And then look at the level of incentives that they'll be able to receive.

We have this tool populated for a few climate zones, not all, and so it's for demonstration purposes only. But we do want feedback on whether it's helpful.

We've also heard from some developers that they may just want the surety and be able to submit their own models at that time as they're closer to the construction process. And we're trying to build this flexible approach to address both scenarios.

So here's some key areas where we're seeking feedback. And then we're going to open it up to questions and comments again. And I'm very interested in getting your comments on whether this approach helps absorb that complexity and is simply enough for -- to encourage developers to make that decision.

I think another thing to note is that technical assistance will be provided to all potential applicants to help work through this and help developers, A, understand the process and, B, demonstrate compliance.

So here’s some ways that we’re seeking feedback. We want to see if this three-step process appropriately aligns with the requirements around the low-income funding programs? If not, what could we be doing better? What else should we be considering?

Also, for each step in the process, are the various milestones and documents reasonable and consistent with both the industry timetables and industry standards? You will see that we requested for demonstration of completeness based on documents that a developer would already be submitting to participate in the building process, as well as documents that they may have already submitted to their financing elements. So we’re really trying to leverage those existing processes.

We talked a little bit about this third question: Is the BUILD Calculator helpful or not? Interested in that discussion. We’d really like your feedback because we’ve been working to absorb that complexity.

And this last question, the Energy Commission is exploring how we expand this participation process to projects in tribal areas that might not readily -- that won't readily participate in Title 24 building standards. So we're looking for some equivalent examples that we could use to help projects in those areas. And we'll be reaching out to additional stakeholders for input.

And with that, we go to our next slide, which is questions and comments on that program participation process.

MS. REMY-OBAD: Hi Deana. I have a couple of questions in our Q&A box. The first is from Sean. He says,

"SEER values on heat pumps go much higher than 18. Will there be higher values available? They top out at SEER 36, literally twice as efficient as the SEER 18 that seems to be the software cap."

MS. CARRILLO: So Sean, I'll give my answer.

And Larry, maybe you can follow up for anything I may have missed?

I think the answer is, yes, we want developers to be able to design the building that they want to develop. We are looking -- again, the BUILD Calculator is only an example. And so we will be doing some further population.

And with that, Larry, you know the technical specifications better than I do. Maybe you'd like to add some detail to that answer, or we could also just review the questions and comments and get back to folks then.

MR. FROESS: No, I can answer it. Hey. Hi John.

Yeah, so the mini splits or the variable capacity heat pumps, those can go up to 36 SEER. But we were just trying to represent the traditional heat pumps that go from -- you know, the 18 SEER would be like the Infinity, the Carrier Infinity line, kind of a traditional-type system. But we also will have the VCHP credit available as a different selection as we develop it in the future.

MS. REMY-OBAD: Great. Thank you, Larry and Deana.

Next, Claire asks -- says, "Is not SEER calculated using a particular temperature? Would not using EER be better?”

MR. FROESS: Yeah. We’re using CBECC, so CBECC asks for SEER and EER. And so whatever SEER has put in, a corresponding EER is calculated in CBECC, so it’s using whatever CBECC was calculated with.

MS. CARRILLO: I think we could also add that in the preliminary program design, which is a document that we distributed last night and this morning but there’s just one document, we do have a list of eligible equipment under kind of the calculator approach where we’re looking to absorb that complexity, and then the models. And I realize that we’ve also -- I missed reinforcing something in my own talking points.

Could we go back to slide 39, Cenne(phonetic), for just a second? Oh, you did. Sorry.

So slide one is when developers are going to submit their reservation application to get an idea of what type of project they’re going to need to build and what type of incentive they’d be eligible for before they get their construction financing. So you could use the BUILD Calculator or you could submit your models.

By step two, you know what you -- the developers know what they're building. They've gotten their construction financing. What we want submitted at this point is what you're actually building. And there will be kind of a recalibration of the award to ensure that it's still eligible, that Building Code hasn't changed. It could go up at this time. Likely, it, probably, it could also go down at this time if Energy Code did change, or if you're doing fewer units, or if something has shifted. But at that point we're looking at models, where we can look at the different levels of equipment that could be above and beyond whatever we end up putting in the BUILD Calculator.

I don't know if that -- hopefully, that helps.

Okay, next question.

MS. REMY-OBAD: All righty. Zahar (phonetic) says,

"Have you compared the tool calculations against the inputs and outputs of the QUAC tool," or, yes, "CUAC tool? Most developers use the CUAC receipt to estimate utility bills for tenants. Would be helpful to not have to use two separate calculators or not get different results from each."

MS. CARRILLO: That is a very -- I appreciate that comment. Yes, we have done -- we did some preliminary calibration with CUAC. And we will be sure to look at that again. Good point. Appreciate that. And if you could extrapolate on that a little bit more on what that impact would be for developers in the comments, that would be helpful.

MS. REMY-OBAD: And I think that the next two comments from Natalie and Sean are sort of in response to some comments that Staff have already provided, you know, so they're not specifically questions, just things for us to note, which we will most definitely do. If I have that wrong, please raise your hand and let me know and I will make sure to read out your responses.

We also have a hand raised from Nehemiah, so I am going to ask him to go ahead and talk on that, as well.

MR. STONE: Can you hear me?

MS. REMY-OBAD: Sure can.

MR. STONE: Okay. One of the things that you showed was that in areas where VNEM is available that there's an incentive for sharing with the tenants using VNEM, and where there is not it would be -- it would require a contract or something between the owner and the tenants. I'm very concerned about the second option because although VNEM is not, in theory, complicated it requires an accurate estimation or an accurate accounting of what the PV production is on a monthly basis. And the calculation for each tenant is based on the amount that they use that month.

I noticed, also, that time-of-use rates are what is included. And I find it -- it seems like it's way beyond the ability of a developer to keep track of the time-of-use production and time-of-use use of each of the tenants and fairly and consistently allocate the PV generation to the tenants based on, you know, the size of their unit.

So I'm wondering. I know that you're looking to make the program less complex so that you get more developers involved in it. But this is an area where it has to be somewhat complex in order to ensure that the tenants are not disadvantaged.

MS. CARRILLO: Yeah.

MR. STONE: So I'm wondering what your thoughts are on, you know, post-construction verification?

MS. CARRILLO: Thank you. That's a good question, Nehemiah, and there's a lot there, so I'm going to tease a few things out. And then would appreciate having a deeper conversation or seeing more detail in comments.

You know, I think this is one of those -- this is where it comes down to a model and rates. And what the program is -- currently, what we're looking to do is establish a robust standard to ensure that our residents are not paying any increased costs than they otherwise would have from a mixed-fuel building. So that's the intent of the bill savings requirement.

I agree that there are other ways to get to energy equity for our most disadvantaged. I think our goal here with the VNEM approach is not to do -- is, well, one thing worth exploring. Take a few steps back because I kind of think on my feet.

What we're looking to explore is whether we could come up with a modeled amount based on the program methodology for a period of time within a certain period of time. And I'm going to keep that as a modeled amount because the program can't predict future rate increases. And I agree with you that the developers or the primary owners of the building and their managing partners can't manage that real-time cost differential and we're not asking them to take on that burden. I think we would be looking -- you know, we're opening up the question of could we do this simply through estimates at the beginning to meet that statutory intent? So that's as far as program requirement, is like that's a question we're posing.

Parsing out the second --

MR. STONE: So do you --

MS. CARRILLO: Can I just parse out? The second question is: Are we going to be tracking actual rates in utility areas, and rate differentials, and the solar impact over time for participating projects? That isn't something that we've contemplated to date beyond what the PUC will be doing through its evaluation, measurement, and verification process. And we're still working through what that will look like.

So those are the two pieces that I picked up, but there's a lot there. Is there some -- did I miss --

MR. STONE: If --

MS. CARRILLO: -- anything?

MR. STONE: -- if I may?

MS. CARRILLO: Yeah.

MR. STONE: Yeah. If I may, one of the considerations, one of the beauties of VNEM is that it automatically puts the burden on the owner of the PV system to keep it functioning correctly because, if it doesn't, then the owner has to make up some difference for the tenants. If you base the calculations or if you base everything on an estimate or a model of what's going to happen you remove that incentive for maintenance of the system. So there's a lot to be considered.

MS. CARRILLO: Yeah.

MR. STONE: I think this is something for the larger conversation. But I just encourage you to think through all of the possible disadvantages to the tenants from this.

MS. CARRILLO: Yeah. Well, and let me reframe the question, because you bring up a good point, which is in areas where VNEM is not available but a solar benefit could be accrued to benefit the resident to meet the statutory requirement, is there something that we could do administratively? Because, you know, we are working across territories and not all IOU territories have VNEM.

Okay, moving on to any other questions, or should we move to the next section?

MS. REMY-OBAD: I think we're covered for now.

MS. CARRILLO: Great. Well, then we're going to launch into technical assistance. And bear with me. My IT has gone down here at home, so it's nice to still be with you all virtually. Okay. I'm just trying to figure out where we are on our slides. So it's technical assistance.

As I mentioned earlier, the statute requires that technical assistance be provided to projects that serve low-income residents. We're really excited about this element of the program. We think it's going to have the ability to reduce risk and accelerate market transformation.

Next slide.

And we're also very excited to announce

that the Association for Energy Affordability was selected as the technical assistance provider. It was approved by the CEC at our last business meeting this month. We anticipate that the contract will be executed next month. And we'll move quickly and swiftly to get technical assistance awards on the street, so we're working towards a Q4 launch. There will be some elements of the technical assistance that will be in the future guidelines. We're also going to address most of the technical assistance in a manual under our contract with AEA and its team.

Two elements that we're considering under the guidelines is going to be to provide applicants unlimited hours for technical assistance for at least the first two projects, and limit the next two projects to 50 hours. Ideally, we're providing technical assistance to numerous developers. But given that we do have scarce resources, we want to make sure that this impact -- because it really does have a market transformation impact, and so that we're able to work with developers substantively on a number of projects. And ideally by then the assumption is they've got the decarbonization design down and we can move to folks that are, perhaps, later adopters or that might not have had the opportunity to pull this into their portfolio yet.

Another thing that I do want to clarify, also, on the technical assistance is that we don't -- technical assistance is independent of the incentives. We want to be working with our TECH initiative so that we can provide incentives to all sorts of eligible, you know, low-income housing developers. We don't anticipate that every development is going to move forward or at that time with that specific equipment, and so the two items are not dependent on each other. Developers can come in and get technical assistance. They can also just come in and get an incentive if it's something that they're familiar with and don't need.

So with that, I think we open back up to Q&A on technical assistance. Any questions?

MS. REMY-OBAD: I'm not seeing any at this time.

MS. CARRILLO: Okay. The let's go ahead and move to metrics.

The statute and the decision have metrics for the programs to be considered and evaluated on. In statute, it's the number of low emission systems, the projected utility bill savings, and the cost per metric ton of avoided GHGs. We'll be working with the PUC's Evaluation, Measurement, and Verification Contractor, or EM&V, which is Opinion Dynamics, through this process. But we really want to get stakeholder feedback on what metrics they would suggest would demonstrate success or improvement or technology uptake. There's a lot here and we'd like to hear from stakeholders what they think should be included.

Next slide.

And this is us. Given the depths of some of the content, I'm surprised that we got here so quickly, and I'm open to going back to some other slides if folks have follow-up questions, but we want to introduce the team. And don't just reach out through the docket or through the BUILD listserv. Feel free to reach out to us individually.

Next slide please.

As I mentioned earlier, we're hoping for written comments and suggestions by September

30th of this month. And if you haven't already, please subscribe to the BUILD listserv.

And next slide.

And now we can open it up to public comments. We can go back to any of the previous slides. I welcome public feedback and input on what we can improve, maybe it's more, maybe it's less, just open up that discussion.

MS. REMY-OBAD: All righty. We have -- I will go over some of our open questions. And we also had a comment from Sophia. She asks, "Why was Q4 selected for program launch? With the holidays, could that be changing?"

MS. CARRILLO: So the question from Sophia, this pilot was authorized in 2018. Yes, things can change and pivot. It is the middle of the summer -- or the middle of the holidays. But I would just note that this is our goal for when technical assistance would be available, not necessarily any requirement. So if folks were busy around that time, they wouldn't need to participate. Our hope is that we can work out the details and get that rolled out so that projects that are thinking about electrification today could jump in and get some assistance.

But agreed, around the holidays, agreed that given where we come today, it's a pretty optimistic and aggressive time schedule, but we're going to work pretty hard to -- we're going to work hard to keep at it.

MS. REMY-OBAD: Okay. Great. Thank you.

Natalie had made a comment, just letting us know that we may need to have a different incentive between multifamily versus single-family dwellings. Her understanding is that the cost is higher for multifamily. So I just wanted to go ahead and read that comment out.

Sean also mentioned that there are -- SEER for ducted systems do go to 26 and 24. Again, I think that was just a helpful comment.

The next is from Claire.

"Has the state considered encouraging remodeling or retrofitting past state buildings, for example, 9th Street, CEC, to make low-income affordable efficient -- energy efficient Downtown Sacramento multi-unit housing? I noticed that there are state buildings which appear less occupied out in the east part of the county too. It seems like these emptier buildings could be converted. Retrofitting and remodeling large buildings might avoid more embodied carbon greenhouse gas making which seems could be a metric parameter.

"I have been in some beautiful and comfortable converted" -- oh, shoot, sorry, my little thing just -- hold on one second, I'm so sorry, come on, there we go -- "could be a metric parameter. I have been in some beautiful and comfortable converted buildings, at least one with great loft housing inside."

MS. CARRILLO: Great. Thank you for that comment.

It looks like Merrian has her hand raised again.

MS. BORGESON: Yes.

MS. REMY-OBAD: And we also do have a question from Tom.

MS. CARRILLO: Okay. Could we un-raise Merrian's hand? I want to see if we answered her question.

MS. BORGESON: I'm un-muted. I think I got --

MS. CARRILLO: Oh, good.

MS. BORGESON: -- un-mute control before.

MS. CARRILLO: I really appreciate our -- you know, how we're trying to make it sensible for the developers, or is there anything that you'd like to go back to?

MS. BORGESON: Yeah. I just wanted to -- I think that the -- I mean, the two pathways to get there makes a lot of sense. And I get the restrictions of the statute that you guys are trying really hard to work around. So I totally get it and you guys have done an amazing job with the statute and the way its language was.

I still think that there could be an additional layer that you think about in terms of marketing the program where, I mean, just one thing you said was really striking that, you know, in SMUD territory, they don't have to do anything extra. They just have to build it all electric. And I think giving folks, maybe it's just by climate zone or, you know, some sort of simple map where you can click on the map and you're like, you see two examples, like a larger building and a smaller building. And you know, given certain assumptions, you know, the per-bedroom incentive is $3,000. I think developers need to see that more quickly than going -- like there's just this barrier for people who are not currently motivated. And there's a lot of motivated folks on this call and that have been looking at this program.

MS. CARRILLO: Yeah.

MS. BORGESON: And what I'm interested in is for the folks who are not motivated, for them to see like, wow, I can $3,000 per bedroom, under certain conditions, you know, with technical assistance, but that that number comes up really quickly when they look into the BUILD Program. So they don't have do too much work before they get a sense of what they might be able to get in terms of incentives. That's just one suggestion for marketing and how you can use the tools you've created to get an initial impression for people who are new to this or haven't been thinking about electrification for ten years.

MS. CARRILLO: Yeah. Appreciate that. Full disclosure, this is a guideline workshop, not marketing. We had a few others on the slide. Not my skill set.

MS. BORGESON: Yeah. That's fair. That's fair. I'm just thinking about like translating it for folks --

MS. CARRILLO: Yeah.

MS. BORGESON: -- once they're -- yeah.

MS. CARRILLO: Great.

And I'm getting a feedback, which I think is on my end.

But, Camille, maybe you can see if there's any other questions?

MS. REMY-OBAD: Yes, we have.

"Regarding the metrics to collect, it would be wonderful to get insight into the actual costs of installed measures that the developers install and how much of that cost does the incentive offset? The goal here is market transformation. We need to make sure the incentives are high enough to push developers over the hump of the initial investment, and also impactful in reducing the cost of the measures long term."

Deana, you're muted.

MS. CARRILLO: I appreciate that comment. And I think that is a great -- you know, it piggybacks off of Merrian's comment, as well, you know, what's the per bedroom? What are offsetting on costs?

I think when you pose the question of what developer costs we're offsetting, we've heard really different things. You know, there are those who, as Merrian had mentioned, aren't even thinking about electric, going all electric yet, or haven't done it before, and so how can we incent them to try it? There are their actual construction costs, which some say are lower, and then there's the first-time adoption costs of trying something new. And so we're looking at both of those elements.

As we look at the equipment costs, we're looking to offset those costs to the extent and kind of calibrate them so we can not only make that incremental difference but make the difference to try something new. And as I mentioned, getting those late adopters to be interested in thinking about it, and then doing it. And if we can get them to do it once, as Commissioner McAllister said, you know, we'll be, you know, moving the market.

MS. REMY-OBAD: Great. And I wanted to circle back to Tom, who said, "Would you allow layering of build incentives with other CEC grant funding programs?"

MS. CARRILLO: Yeah, so we did have one note on that.

Both the PUC decision notes that we -- that layering incentives is eligible, as well as incentives within local areas that might have Reach Codes. As far as laying incentive, what I would say is, yes, as long as the developer, you know, isn't making a profit on it and that the incentive layering doesn't go over the actual cost of the equipment.

MS. REMY-OBAD: Great. And I want --

MS. CARRILLO: So, yes, and layers are okay, yes, but not over the cost of the equipment.

MS. REMY-OBAD: And I think Merrian had her hand raised.

Can you talk? Are you able to talk, Merrian?

MS. BORGESON: Sorry. It was a mistake. Thanks.

MS. REMY-OBAD: Oh, no worries. Okay.

MS. CARRILLO: All right. Well, I want to say thank you to everyone. We will have these slides posted later today.

Oh, it looks like we've got one more

question come in. So the question is,

"Can you explain the value of the valuation if incentives will be paid before an evaluation is completed? What if the evaluation finds the models were very poor, over or underestimating benefits?"

So while the incentive value isn't -- I think to answer that question, Cenne, could you go back to the one, two, three slide? I don't know what number it is at this point. There we go.

So the incentive reservation is made at one before project construction -- or before project construction financing is obtained. Ideally, with this reservation -- and the developer is coming in and saying this is what I'm going to build in this climate zone in order to get this level of incentive. And we'll have the BUILD Calculator there, and we'll have our technical assistance provider to come up with an estimate. It is a strong estimate because we know that projects may change between one and two. The Building Code may change between steps one and two.

And after construction financing, that

incentive value will be confirmed. We will know what year of Title 24 you're implementing under. You will provide your model per the Building Code. And you'll provide your building permit. So at that point the commitment is confirmed and the funding itself will happen in stage three.

So with the goal of that incentive, in some of them it was up to almost $1.5 million for some projects, well, that funding will happen in three. What we've heard from developers is that they can manage that through construction loans to help offset as long as they know it's coming. So if that is different, or if you have a different experience, we look forward to hearing that so that we can figure out, you know, how best to provide some surety with, also, the flexibility that we're working to incorporate.

All right. Well, with that, I think that wraps up our questions in the Q&A. Again, we want to say thank you. If you could go to slide 53, we have that written out. We'll also have an appendix of equipment. And we recognize that that preliminary program design was provided last night. As questions come up, or with your comments, we look forward to seeing those on

September 30th, and then getting the guidelines out.

Thank you all so much for your time and for joining us today. We appreciate it. And I want to thank you in advance for the time it takes to participate and contribute to these programs and providing your comments. But just to reiterate Commissioner McAllister's comment earlier, it's definitely the stakeholders that make the programs better. And so I thank you in advance for the time that you'll take to give us some thoughtful feedback and, perhaps, some alternatives to the approaches we've suggested. We've gotten a lot of great feedback today, so thank you for your time.

Have a good day.

(Off the record at 11:27 a.m.)

CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 7th day of October, 2021.

Martha L. Nelson

MARTHA L. NELSON, CERT**367

CERTIFICATE OF TRANSCRIBER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

Martha L. Nelson

MARTHA L. NELSON, CERT**367

October 7, 2021