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CALIFORNIA ENERGY COMMISSION

In the matter of:

)		
Lead Commissioner Hearings)		
for the 2025 Building Energy)	Docket No.	24-BTSD-01
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_____)		

CEC LEAD COMMISSIONER HEARINGS ON
 2025 BUILDING ENERGY EFFICIENCY STANDARDS

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VOL. 1

TITLE 24, PART 1 AND 6

TUESDAY, APRIL 16, 2024

9:00 A.M.

Reported by:

Chris Caplan

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J. Andrew McAllister

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1 we go on.

2 The restrooms for the folks that are here are
3 down the hall on the right side, and if those are occupied,
4 there's more restrooms downstairs by the cafeteria.

5 Now some housekeeping rules. Again, this hearing
6 is being recorded, and the transcript from this hearing
7 will be posted on the docket as soon as it becomes
8 available. So to make it easy to follow the transcript, we
9 will have staff present their sections, and we will set
10 time aside for comments.

11 For people here in the room, please raise your
12 hand and we will have staff come by with a microphone and
13 hand you the microphone and you can make your comment or
14 ask a question. In doing so, because this is being
15 recorded, we need you to state your name and affiliation.
16 And we're allowing two minutes per presenter -- or per
17 commenter, excuse me.

18 Folks on the Zoom, if you raise your hand using
19 the raise hand mechanism, it will unmute you and, again,
20 please state your name and affiliations. If you're on the
21 phone, if you type in star 9, that will raise your hand,
22 and I will unmute you. And star 6 on your computer -- on
23 your cell phone, excuse me -- will mute you back up.

24 Again, we're allowing two minutes per speaker,
25 one speaker per affiliation.

1 And with that, for today's agenda again, my name
2 is Payam Bozorgchami, I'm one of the senior engineers, as
3 I'm doing the general structure of the hearings. The
4 opening remarks will be done by Commissioner Andrew
5 McAllister, and then we'll jump into Javier Perez. Javier
6 Perez is our project manager for the 2025 Energy Code. And
7 he will do the rulemaking introduction, how we came up with
8 the process of developing the Code for 2025.

9 Then we'll go into the Administration Section of
10 Title 24. And Joe Loyer, our Senior Engineer with the
11 Standards Compliance Branch, will do a quick presentation,
12 and we'll take a break at about 10:30 or so for about 15
13 minutes, then Joe will reconvene his presentation.

14 And lunch, being my favorite time of the day,
15 we'll take about an hour to a 45-minute lunch break.

16 And in the afternoon, we'll have Haile Bucaneg,
17 our Senior Mechanical Engineer with the Buildings Standards
18 Branch, do a quick presentation on the scopes and the
19 definitions that are in Sections 100 and the mandatory
20 provisions of Sections 110 in the afternoon.

21 After every presenter there will be an
22 opportunity for comments, but if we do not get your
23 comments or if you're concerned that we did not hear you,
24 you can always submit your comments to us in writing. You
25 have to -- you have up to May 13th at 5 p.m. to submit your

1 comment to our docket. The information on the docket is
2 provided, and we'll see this slide over and over again. I
3 apologize, you may get sick of this slide, but I just want
4 to make sure that you guys have that information.

5 That is pretty much -- with that, tomorrow we
6 will have our second lead hearing. This is a Zoom call
7 only. It's not in-person, it's not a hybrid, so if you're
8 here there will be nobody here. Alright? We're all
9 working remotely. And we will have the Nonresidential
10 Building Standards that will be presented.

11 And on Thursday, April 18th, we will reconvene
12 back to hybrid. We can do in-person or remotely. And we
13 will be talking about the single family residential
14 buildings and multifamily buildings. That's on Thursday.

15 As we've noticed that we're presenting our
16 standards for proposals for 2028 -- excuse me, for 2025 --
17 we're getting a lot of new proposals and new comments
18 coming in at this time. It's getting a little late --
19 actually it's late for now, for 2025. So here's a slide
20 where it shows where you can provide us ideas for
21 evaluation for 2028. There's a link below. You'll see
22 this slide again later in my presentation, probably at the
23 end of the presentation, where if you have new ideas, new
24 thoughts, that we did not capture for 2025, you can submit
25 them to the Title Plan for stakeholders.com and they have

1 an opportunity to get a list going that we'll sit together
2 with the staff -- with the IOU team and internal staff --
3 we'll evaluate and decide which ones we will tackle for
4 2028.

5 Again, like I said earlier, everyone's going to
6 get tired of this slide, but this slide's going to keep
7 coming up over and over again throughout the day today and
8 the next two days also.

9 That's all I have to present. I'm going to pass
10 the mic to Commissioner McAllister.

11 So any opening remarks, Commissioner?

12 COMMISSIONER MCALLISTER: Is this one working
13 too?

14 MR. BOZORGCHAMI: Yes.

15 COMMISSIONER MCALLISTER: Great. Well, thank
16 you, Payam.

17 This is a big three days here we have going
18 forward this week. I'm really happy to see those of you in
19 the room. Hopefully lots of people online as well.

20 You know, the Building Standards -- Building
21 Energy and Efficiency Standards, Part 6, Title 24, is
22 really the bread and butter of the Energy Commission. It's
23 been that way for half a century. And it's done the state
24 of California an incredible amount of good, and really
25 leads the nation in terms of just the process and the rigor

1 and the consistency of the Building Code. And I think
2 that's just the lifeblood of what we're doing here.
3 Process is king, and we really need everyone to
4 participate.

5 We have a lot of really smart people, very
6 engaged people that are deep into the buildings ecosystem
7 across the State. We have a diverse state, very large,
8 lots of climate zones, lots of, you know, context --
9 contextualization that's needed locally across the State.
10 And our Building Code has to really respond to that need,
11 and help build buildings -- build highly efficient, high-
12 performing buildings, get constructed anywhere in the
13 State, everywhere. And so this is incredibly important.
14 The Building Standards have saved the economy of California
15 over \$100 billion since they started in the 1970s, and that
16 number continues to grow year after year. And all of you
17 in this room and online listening who have contributed and
18 will contribute, you're an essential part of that, of
19 making that happen going forward. So everybody has their
20 role to play. I'm really just happy with all the
21 engagement.

22 I want to thank, you know, Payam, who you know up
23 here, Javier and Joe and Haile, who you'll see present
24 throughout the day. There's a huge team behind them. Will
25 Vicent leads the team, leads the charge here at the

1 Building Standards, and the leadership of the Division,
2 Mike Sokol. There are dozens of folks who contribute to
3 this in the Commission, but many multiples of that outside
4 the Commission. So the case process is really important,
5 the stakeholders that participate in that, broadly the
6 stakeholders across the State, and even beyond the State,
7 contribute substantially to the Energy Code.

8 So that is really the lifeblood of how we go
9 about this process. It's being accountable. It's being
10 grounded. It's, you know, everybody bringing your comments
11 to the table, backing it up with data, with experience,
12 with observations about how the marketplace works, the
13 builders, the trade allies, the environmental community,
14 the justice community, all of the contributors to the
15 lifecycle of the buildings in the State. There's raters,
16 there's providers, just the list goes on and on. I can't
17 include all of them here. But really, the contributions
18 you all make are what keeps this train running down the
19 tracks well.

20 So really would just encourage all of you to not
21 be shy, to participate, to submit comments verbally today
22 and this week, and submit them in written form. If you
23 feel like you need to do that or have additional items to
24 contribute, that is how Energy Code becomes all it can be.
25 And we made some I think important updates, proposed some

1 important updates for this cycle, and you'll hear about
2 those throughout the course of the three days, and have a
3 chance really to ask questions, to make comments, to give
4 your hard-won experiences and contribute those to the
5 process.

6 So this is -- I think it's, what, my fourth code,
7 I think, cycle, since I came to the Commission, and the
8 advancements we've made in that time are -- are really
9 huge. And I think they're notable globally. A lot of
10 people paying attention to what we do especially, you know,
11 given what's happening out there in the world, across the
12 country, with the sort of other primary, you know, pathway
13 that people use to get to an Energy Efficiency Code kind of
14 somewhat in turmoil. So I think people are looking at us
15 to be kind of a rock in this process, and I think we
16 absolutely are, and can be, and should be, and must be.

17 So really looking forward to everybody's
18 contributions this week, and I'm happy to be here and
19 thanks again, Payam and Javier and the whole team. Pass it
20 back to you. Thank you.

21 MR. BOZORGCHAMI: Thank you, Commissioner.

22 Next we'll have Javier Perez do the
23 (indiscernible) presentation,

24 MR. PEREZ: Thanks, Payam. Thank you,
25 Commissioner.

1 My name's Javier Perez and I'm the Project
2 Manager for the 2025 Energy Standards, and today I'll
3 briefly go over our authority and process, some of the
4 drivers behind the 2025 Standards, the underlying energy
5 metrics of our Code, and finally timelines for the 2025
6 Update.

7 I do want to take a second to thank you all for
8 taking time out of your day to participate in this hearing.
9 You know, we've got a few people in this room and another
10 140 plus online, so I think that's a really good turnout
11 for day one of these three hearings. So we hope to make,
12 and continue to make, great strides with energy efficiency
13 and our long-term statewide goals, and this participation
14 is really key to making sure that we do that right.

15 Next slide, please.

16 Okay. So let's start with the Energy
17 Commission's authority and process. This slide is a little
18 bit loaded, so I'm going to bring it up in segments and
19 hopefully train your eyes to (indiscernible) too.

20 So the first segment here is just about how two
21 California Assemblyman, Charles Warren and Al Alquist, co-
22 authored the Warren-Alquist Act. And this act authorizes
23 the Energy Commission to develop and update standards on a
24 triennial basis, and for local jurisdictions to enforce
25 these standards through the building permit process. The

1 standards were developed at the direction of the Warren-
2 Alquist Act to reduce wasteful, uneconomic, inefficient,
3 and unnecessary consumption of energy.

4 One more quick slide.

5 On the right, you're now seeing a chart that
6 compares the site energy consumption of a single family
7 residential building when built to the 2021 International
8 Energy Conservation Code in blue, and then the same
9 building built to the 2022 California Energy Code's
10 requirements in green. Now, if you take only a few points
11 away from this graph, they should be that averaging across
12 all climate zones, single family buildings built to
13 California's Energy Code use an estimated 52 percent less
14 site energy than those built to the 2021 International
15 Energy Conservation Code, or the IECC, at the national
16 level.

17 And while our buildings are becoming -- let me go
18 back one slide -- while our buildings are becoming more
19 efficient over time and outpacing our national standards --
20 okay. And while our buildings are becoming increasingly
21 more efficient over time and outpacing national standards,
22 our buildings' natural gas consumption, the light green
23 segments on the bars, are a large portion of our buildings'
24 overall energy consumption. Now, our state has lofty
25 greenhouse gas emission reduction goals, and reducing

1 emissions in buildings will be one of the main keys to meet
2 those goals. Our state also has clean energy requirements
3 for electricity retail sales over the next couple decades
4 that will make electricity significantly cleaner over time.
5 Now, for more on how the 2022 Energy Code compares to
6 federal standards, our 2022 Impact Analysis Report can be
7 found at the link at the bottom of this slide.

8 Next slide.

9 Now, let's talk about the state-level drivers and
10 some of the themes of the 2025 Energy Code.

11 Now, we're obligated to contribute to the State's
12 greenhouse gas reduction goals, and one of those being
13 Governor Brown's carbon-neutral Executive Order to achieve
14 carbon neutrality by 2045. Another driver is Senate Bill
15 100, or the 100 Percent Clean Energy Act of 2018, which
16 states that by 2045, 100 percent of electricity retail
17 sales must come from clean energy. Now this will make
18 electricity significantly cleaner over time and will also
19 have substantially positive impacts on the State's
20 greenhouse gas reduction goals. The Energy Code is tasked
21 with contributing to these goals and must do so by
22 increasing building energy efficiency requirements, all
23 while proving the standards to be cost-effective and
24 technically feasible.

25 Now what were some of the goals or the strategies

1 employed with the proposed 2025 updates to contribute to
2 these goals? Building on the efforts of the 2022 Code
3 cycle, we continue to explore where highly efficient heat
4 pumps could be introduced as the prescriptive baseline for
5 space- and water-heating systems, and you'll hear some of
6 those proposals tomorrow and Thursday. In the 2019 cycle,
7 we introduced solar photovoltaic system requirements for
8 low-rise residential buildings. And in 2022, we introduced
9 similar requirements for some nonresidential, High Rise
10 residential, and hotel/motel buildings, and also added
11 energy storage system requirements. And in 2025, we're
12 looking to expand where these systems could be deployed
13 cost-effectively, and are proposing updates to the
14 requirements to ensure that we're in step with the evolving
15 landscape of photovoltaic and energy storage systems.

16 Now, for the purposes of the Energy Code, a
17 process is an activity or treatment that's not related to
18 human occupancy, and a covered process is just one of those
19 processes that we have requirements for. Now, processes
20 can consume large amounts of energy, and as with all items
21 identified on this list, we look at these systems to find
22 efficiencies where possible. We wanted to ensure that our
23 standards continue to serve as protection for affordable
24 housing. When our standards increase energy efficiency,
25 they raise the bar for -- they raise the bar for newly

1 constructed buildings, and in doing so they bring
2 affordable housing construction along with them. Now, when
3 looking at affordable housing programs and the compliance
4 tools that they use, we streamlined some of their efforts
5 to make it easier for the designers of those buildings to
6 demonstrate compliance with our code and demonstrate
7 compliance with the requirements of affordable housing
8 programs.

9 As with all cycles, existing buildings continue
10 to be a focus for the Energy Code. In the cycle, we took a
11 stronger look at smaller homes, or ADUs, and requirements
12 that fit -- and how they fit with those smaller dwellings.
13 And we continue to collaborate with the Air Resources Board
14 and the Department of Housing and Community Development and
15 the Building Standards Commission to ensure that our
16 buildings continue to meet acceptable levels of indoor air
17 quality, and to support their efforts in CALGreen, or Part
18 11 of Title 24, as they relate to embodied carbon and
19 electric vehicle charging.

20 And finally, one thing that's not on this list is
21 just our never-ending intent to make our code easier to
22 understand, to make compliance with our code simpler, and
23 make enforcement of the requirements of our code easier.
24 Now, I don't know if we'll ever get this right, but if we
25 don't, it won't be for lack of trying.

1 Next slide.

2 Now let's go over our underlying energy metrics
3 that help determine energy savings for compliance with our
4 code. For the 2025 Code cycle, we are pivoting from using
5 the term Time Dependent Valuation energy, or TDV energy, to
6 using Long-term System Costs. Long-term System Costs is
7 the cost-effective energy valuation methodology used in
8 development of the implementation of the Energy Code. LSC
9 factors are used to convert predicted site energy used to
10 long-term energy dollar costs to California's energy
11 system. Now the underlying varying valuation of energy,
12 depending on the time of day or the day of the year that
13 was used for TDV has not changed, but we've converted those
14 savings into Long-term system cost savings to better
15 reflect the actual costs of energy to consumers, the
16 utility systems, and to society. This graph represents an
17 average day's dollars per megawatt hour, and how that cost
18 varies by time of day and different inputs that go into
19 that cost.

20 Next slide.

21 So the Source Energy Metric was introduced during
22 the 2022 Energy Code and is defined as a source energy of
23 fossil fuels following the long-term effects of any
24 associated changes in resource procurement. It focuses
25 specifically on the amount of fossil fuels that are

1 combusted in association with demand-side energy
2 consumption and to calculate the source energy for a given
3 hour. The value in that hour for each forecasted year is
4 averaged to get a Lifetime Average Source Energy.

5 Next slide.

6 Now, because a building's energy use can vary
7 depending on weather conditions, which differ throughout
8 the State, the Energy Commission has established 16 climate
9 zones representing distinct climates within California.

10 This is not new for this cycle, but hopefully it serves as
11 a refresher if you're already up to speed on California's
12 Energy Code.

13 As a result of having 16 climate zones,
14 requirements can vary significantly from zone to zone. And
15 since when energy savings vary, measures are found to be
16 more or less cost-effective.

17 Next slide.

18 Now let's go over how far we've come in this
19 cycle. Now, from June 2021 to July of 2023, the Codes and
20 Standards Enhancement team, or the CASE team, took in
21 measure proposal ideas, held 19 different public workshops
22 and -- on those measure proposals -- and finalized reports
23 for those proposals. From March to November of 2022, the
24 Energy Commission updated weather data, LSC, and Source
25 Energy Metrics. And from March 2023 to September 2023, the

1 CEC held nine pre-rulemaking workshops on the proposals for
2 the 2025 Energy Code, culminating with publication of draft
3 express terms in November of 2023. And then on March 29th
4 of this year, we opened formal rulemaking and released the
5 45-day language changes to the 2025 Standards.

6 Next one.

7 Now, something that we feel is important to
8 highlight is the amount of stakeholder input and engagement
9 that went into these updates. We had over 60 different
10 stakeholder groups participating in every step of this
11 cycle, from measure intake ideas to vetting a proposal, to
12 providing feedback on code language. Now, these groups
13 included everyone from consulting groups, multiple trade
14 organizations, building industry leaders, advocates,
15 environmental, and even ADU advocates. Now, this level of
16 participation is crucial to the development of this code,
17 and we very much appreciate and thank you for your
18 continued engagement.

19 Next slide.

20 Now, what's to come? Our 45-day public comment
21 period runs through May 13th, and we're having our three-
22 day Lead Commissioner Hearings today, April 16th through
23 Thursday, April 18th. We plan on holding our 15-day
24 comment period in June of this year. We expect to adopt
25 the 2025 Energy Code at the August 14th Business Meeting.

1 The Building Standards Commission then will have their
2 Commission meetings to approve updates to all parts of
3 Title 24 in December of 2024, and from July of '24 to March
4 of 2025, we'll be updating our manuals, compliance
5 software, and compliance tools. The effective dates of the
6 2025 Energy Code will be January 1, 2026.

7 Next slide.

8 Now for this Code cycle, this is a list of senior
9 staff to the Building Standards Branch at the Energy
10 Commission. Again, my name's Javier Perez. I'm the
11 Project Manager for the 2025 Energy Code. Payam
12 Bozorgchami is our Technical Lead and specializes in
13 building envelopes, additions and alterations to existing
14 buildings, and accessory dwelling units or smaller dwelling
15 units. Haile Bucaneg is our lead on cover processes,
16 demand response controls, and our nonresidential and
17 residential alternative calculations method work. Muhammad
18 Saeed is our solar, PV, and energy storage systems lead.
19 Box Sun is our lead on HVAC systems and refrigeration. And
20 Michael Shewmaker is supervisor of the Standards
21 Development Unit. And Gypsy Achong is the Building
22 Standards Branch manager. If you'd like to reach out, our
23 email convention at the Energy Commission is just first
24 name dot last name at energy.ca.gov.

25 Our goal is to build consensus through these

1 workshops and this public process, and your participation,
2 your comments, they all go a long way in helping with that
3 goal, so thanks for making time today.

4 With that, I'll send it back to Payam and maybe
5 to Joe for the next segment.

6 Thank you.

7 MR. BOZORGCHAMI: Thank you, Javier.

8 Next, we'll have Joe Loyer presenting on Title
9 24, Part 1, Chapter 10. That's the Administration Section
10 of Part 1 of the Code.

11 MR. LOYER: It's always surprising to me how much
12 better everything looks when I put my glasses on. Story of
13 my life. I actually am the Loud Howard of our office.

14 I'm Joe Loyer, Senior Mechanical Engineer with
15 the California Energy Commission.

16 Next slide.

17 I would like to welcome everybody here. But
18 getting into this, this is going to be for the sections of
19 part one where Staff either proposed no changes or provided
20 clarifications that Staff determined have no regulatory
21 impact. And you can see it is actually quite a long list
22 of part one where we've made no touches or light touches.

23 Next slide, please.

24 Section 10-102 includes several new definitions
25 as shown on the slide, as well as minor changes to existing

1 definitions and the deletion of definitions concerning
2 references to the Home Energy Rating System, or HERS
3 program.

4 Next slide, please.

5 Sections 10-103.1, or -- yeah, keep going down.
6 There we go. Sections 10-103.1 and 10-103.2. This
7 proposed change relates to the quality assurance
8 requirements that apply to the Acceptance Test Technician
9 Certification Providers, or ATTCPs, who are approved by the
10 Energy Commission. Section 10-103.1(c)3F is the proposed
11 changes for the lighting controls, and Section 10-
12 103.2(c)3F is the proposed change for the mechanical
13 systems ATTCPs, and yes, they do mirror each other. The
14 existing code includes a requirement that the ATTCPs
15 accomplish quality assurance audits of their Acceptance
16 Test Technicians, or ATTs -- and yes, the acronyms are
17 going to get thick -- by performing a shadow audit on the
18 construction site of a randomly selected project directly
19 observing the performance of the ATT. The proposed change
20 adds an alternative where the ATTCP can perform that shadow
21 audit at an approved training facility, so instead of the
22 ATTCP going out to the field, they can coordinate with the
23 ATT to come in for the audit.

24 The change also removes the requirement for a
25 Building Department Survey as part of the ATTCP

1 application. This has been determined to be outside of the
2 scope of duties for ATTCPs.

3 Next slide, please.

4 The next five slides discuss the proposed changes
5 to various sections within part one. Now at the top of
6 this presentation we said this was going to be for part six
7 -- this was going to be for part one. But these changes
8 are related to how the ATTs and HERS Raters interact. So
9 being that this is part one, we expect HERS Raters to be
10 attending, at least remotely. I hope that this 163
11 includes a large number of raters, as well as ATTs and
12 ATTCPs. And I know I see at least one HERS provider in the
13 room right now. So we decided to put these slides into
14 this presentation.

15 So the next five slides will discuss proposed
16 changes in various sections within Part 1 and the reference
17 appendix that clarify the roles of the ATTs and HERS Raters
18 regarding nonresidential duct leakage testing and
19 multifamily Field Verification & Diagnostic Testing.

20 Next slide, please.

21 The changes here apply to nonresidential duct
22 leakage testing, which is the same for multifamily common
23 areas -- so nonresidential duct leakage testing and
24 multifamily common areas. The modification affects all the
25 sections you see listed for nonresidential and common areas

1 of multifamily buildings, both for new construction and
2 alterations. As a reminder, the nonresidential duct
3 leakage test applies only to a small subset of systems
4 where you have all of the following conditions: constant
5 volume, single-zone system, serving less than 5,000 square
6 feet, where more than 25 percent of the ducts are located
7 in unconditioned space.

8 Next slide, please.

9 The existing 2022 Energy Code requires the duct
10 leakage test to be performed first by a certified ATT, and
11 then followed by a HERS Rater performing the same test.
12 The proposed change recognizes that the duct leakage test
13 performed by a certified ATT is sufficient. It does not
14 require a HERS Rater to perform the same test. Just a
15 quick note that ATTs are already on-site performing the
16 acceptance tests, not related to the duct leakage test.
17 This change will help avoid overlap and confusion on who is
18 performing tests in nonresidential buildings.

19 Next slide, please.

20 This change pertains to the testing of High Rise
21 Multifamily Dwelling Unit Ventilation Systems. We're
22 looking at sections 10-10 -- sorry, Section 160.2(b)2Biv,
23 the HERS Field Verification & Diagnostic Testing, and
24 Section 160.3(d)2A, Acceptance Testing. Specifically, this
25 is the whole-dwelling ventilation airflow test, kitchen

1 range hood ventilation, and if applicable, heat or energy
2 recovery ventilation, HRV ERV verification. These
3 requirements are only applicable to High Rise multifamily
4 buildings, four stories or above, only where systems are
5 serving a single dwelling unit, as opposed to central
6 systems serving multiple dwelling units.

7 The existing Energy Code requires dwelling unit
8 verification ventilation tests to be performed first by a
9 certified ATT and then by a HERS Rater. The proposed
10 change requires dwelling unit ventilation tests to be
11 performed only by a HERS Rater, which we will get into
12 later -- the HERS Rater will also be known as an ECC-Rater
13 -- and removes the acceptance test. The proposed changes
14 to additional clarification that nonresidential appendix
15 NA1.9, the Acceptance Test Alternative Procedure is an
16 option.

17 Next slide, please.

18 Similar to the previous item, this change
19 pertains to High Rise Multifamily Dwelling Unit Enclosure
20 Leakage Tests. This is Section 160.2(b)2AivB2, HERS Field
21 Verification & Diagnostic Testing, and Section 160.3(d)2B,
22 Dwelling Unit Enclosure Leakage Acceptance Testing. Again,
23 the existing code requires enclosure leakage testing when
24 triggered by the ventilation requirements to be formed
25 first by an ATT and followed by a HERS Rater. The proposed

1 change requires enclosure leakage testing performed by a
2 HERS or ECC-Rater and removes the acceptance test, and the
3 proposed change also adds clarification that nonresidential
4 appendix NA1.9, the Acceptance Test Alternative Procedure
5 is an option for these tests.

6 Next slide, please.

7 So I don't think that's the correct slide. I
8 think you're down one.

9 Alright. This change is within the acceptance
10 test technician alternative procedures as described in
11 nonresidential appendix NA1.9. As a reminder, this
12 alternative procedure allows a certified ATT to perform the
13 Field Verification & Diagnostic Tests listed in NA2 with
14 approval from the local enforcement agency.

15 NA2 is only those tests we just covered, for
16 nonresidential duct leakage as well as High Rise
17 Multifamily Ventilation and Envelope Leakage Tests. It
18 does not apply to single family or low-rise multifamily
19 buildings.

20 The proposed changes remove the condition that
21 the enforcement agency must approve this procedure. The
22 alternative is not typically known or understood by local
23 enforcement agencies or where they would be expected to
24 approve the procedure beforehand. As a note, the builder
25 or responsible party decides and approves whether the

1 alternative procedure is used. This is intended to provide
2 flexibility in the case the installer is a certified ATT,
3 or if the responsible party already has ATTs onsite
4 performing acceptance tests.

5 Next slide, please.

6 The next 12 slides refer to Section 10-103, a new
7 section that was developed to replace and clarify the
8 administrative procedures for the Home Energy Rating System
9 Field Verification & Diagnostic Testing requirements, which
10 is proposed to be referred to as the Energy Code Compliance
11 or ECC program in the 2025 Energy Code.

12 Next slide, please.

13 Staff engaged in two rulemakings to separate the
14 Home Energy Rating and Labeling requirements, Whole House
15 and Field Verification & Diagnostic Testing Requirements,
16 that were implemented under the HERS program. These
17 changes have been coordinated through these two separate
18 rulemakings, beginning in October of 2022. One of these
19 rulemakings was for the HERS regulations in Title 20, and
20 the other was for the Field Verification & Diagnostic
21 Testing Regulations, which ultimately joined this 2025
22 Energy Code rulemaking. This separation was needed due to
23 several factors, chief of which is the fact that the Home
24 Energy Rating and Labeling is a voluntary program under the
25 HERS regulations, while Field Verification & Diagnostic

1 Testing is mandatory under the Energy Code. While these
2 programs were originally developed together over time, they
3 have started interfering with their individual objectives.

4 Next slide, please.

5 The bulk of the new proposed Field Verification &
6 Diagnostic Testing regulations are in a new section within
7 Part 1 of the Energy Code, Section 10-103.3. These new
8 regulations include application approvals, stakeholder
9 responsibilities, new quality assurance procedures, and new
10 Progressive Discipline procedures. They also include
11 provisions to incorporate HERS Rater Companies into the ECC
12 program, in addition to providers and raters. These
13 provisions have been developed through the pre-rulemaking
14 phase, and have been adapted to respond to the comments and
15 questions that staff received.

16 The latest version of these provisions that was
17 made public was published in late October of 2023. We will
18 summarize each section of these provisions, and will also
19 indicate where changes have been made after that last
20 publication.

21 Next slide, please.

22 Section 8 describes the scope of the Energy Code
23 Compliance ECC program. It's limited to construction
24 associated with newly constructed buildings, as well as
25 additions and alterations to existing buildings that would

1 require Field Verification & Diagnostic Testing. The ECC
2 program proposed regulations applied to Providers, Raters,
3 and Rater Companies certified under the program. It
4 excludes home rating -- home energy rating, and labeling,
5 which remains in the HERS regulations in Title 20 Section
6 10, sections 1670 through 1675.

7 Next slide, please.

8 Section B includes two major components, the
9 Conflict of Interest and the Prohibition on False,
10 Inaccurate or Incomplete Information.

11 The Conflict of Section begins with the
12 Prohibition of Conflict of Interest, which includes nine
13 major subsections. First, Providers must be independent
14 from Raters and Rater Companies. Providers, raters, and
15 Rater Companies must be independent from builders,
16 contractors, designers, or subcontractors serving as a
17 Responsible Person on a project.

18 We did get a lot of comments on this requirement
19 since the October release even though this is not really a
20 new requirement. It was part of the original requirements
21 in the HERS regulations. However, we agreed that the
22 original language was not clear enough, so we added the
23 specification that the entity that they need to be
24 independent from is the Responsible Person. Additionally,
25 this is the first place in these regulations where we are

1 adding an exception for what we are calling the Declaration
2 of Separation of Services, which we will discuss in more
3 detail later in this presentation. This exception allows
4 Rater Companies to provide design, permit application,
5 oversight, and management services while maintaining the
6 third-party independence of the Rater.

7 The third element, the prohibitions, also include
8 definitions for financial interests, which is limited to
9 \$2,000 and ownership debt or employment. There is a
10 prohibition on working for close family relatives, which is
11 defined. Raters are prohibited from performing
12 construction activities on the project.

13 Raters or Rater Companies must provide a
14 homeowner with a consumer information form. This document
15 is intended to inform the consumer of the ECC program of
16 the roles and responsibilities of all parties, as well as
17 resources for the consumer if they have complaints. Raters
18 or Rater Companies must provide a result summary of the
19 Field Verification & Diagnostic Tests performed at the
20 project site.

21 Raters can be declared the Rater of Record when
22 they test and fail an installation. This will help to
23 prevent the builder from seeking another Rater that might
24 pass the installation when it should be failed. The
25 Certificates of Compliance, Installation, and Verification

1 are restricted to the demonstration of the Energy Code
2 compliance until the project is complete. After
3 completion, these documents may also be used for other
4 purposes such as a federal tax credit.

5 The Conflicted Data Requirements address what the
6 Provider should do regarding data registry entries when it
7 is discovered that a Rater is in violation of the Conflict
8 of Interest Regulations. The Provider is required to mark
9 the data as conflicted, not rely on it for the generation
10 of certificates, and perform a desk audit on the Rater.

11 Finally, there are prohibitions on false,
12 inaccurate, or incomplete information carried over from the
13 HERS regulations with several additional restrictions
14 regarding the use of uncertified technicians in performing
15 Field Verification & Diagnostic Testing.

16 Next slide, please.

17 Section C describes the Provider approval
18 regulations, which are built on the original application
19 process, and address several issues that have come up over
20 the past 20 years. The application process is generally
21 covered by Part 1, Section 10-110. The regulations allow
22 for the Provider to submit confidential information as part
23 of their application.

24 The proposed regulations describe the minimum
25 requirement for a full application. The triennial

1 applications are applications made by an existing Provider
2 for a new triennial code, such as this one. An Application
3 for Remediation is submitted by a Provider that has been
4 decertified by the Energy Commission. This also includes
5 the Energy Commission's Basis for Approval. Updated
6 Applications allow the Provider applicant to modify its
7 application during the Energy Commission approval process.
8 Post-Approval Amendments allow the Provider to make a non-
9 substantive modification to its approved application. And
10 Conditions of Approval allow the Energy Commission to
11 approve a Provider application with conditions that the
12 Provider must comply with in a timely manner. The
13 Executive Director of the Energy Commission can reject a
14 decertified Provider's application or application for a new
15 application.

16 Section D focuses on the Provider
17 responsibilities. These include the following: classroom
18 and laboratory training for certified Raters and classroom
19 training and certification for Rater Companies. The
20 Provider must keep a list of certified Raters and Rater
21 Companies available to the public. And one new item, the
22 Provider must also maintain any submitted Declarations of
23 Rater Company Separations of Services available for the
24 Energy Commission or local jurisdictions to verify.

25 Quality assurance, which includes Onsite Audits,

1 QII, Shadow Audits, and Desk Audits. Quality assurance
2 also gives the Provider the authority to designate a Rater
3 as exemplary and reduce the amount of auditing for that
4 Rater. The Provider must have a system to receive and
5 respond to queries and complaints for Raters, Rater
6 Companies -- or from Raters, Rater Companies, builders and
7 installers, local jurisdictions, the Energy Commission, and
8 the public, including consumers.

9 Rater and Rater Company Progressive Discipline
10 allows the Provider to discipline a Rater or Rater Company
11 without going immediately to decertification. At each
12 step, the Rater has ample opportunity to respond to the
13 Provider findings and possibly resolve them. There are
14 four steps to the Progressive Discipline system: notice of
15 violation, probation, suspension, and decertification. At
16 the end of the decertification step, the Rater or Rater
17 Company has the right to appeal to the Energy Commission.

18 Data recording includes data from Field
19 Verification & Diagnostic Tests as well as quality
20 assurance actions. Data retention includes a 10-year
21 minimum retention of all data and access to this data by
22 the Energy Commission staff. Data reporting includes the
23 annual reporting requirement to plan Commission Clients
24 Document Repository, the CCDR, implementation which will
25 supersede it. It includes the new quality assurance

1 reporting, both annually and quarterly, as well as the new
2 annual Rater Company reporting activities.

3 This section also gives the Energy Commission the
4 ability to make data requests of the Provider through a
5 structured process. The Provider is still required to
6 submit a data registry for approval in compliance with
7 Joint Appendix JA7 and Part 1, Section 10-109. There are
8 also provisions for the possibility that the Energy
9 Commission cannot approve any Provider during a Code cycle
10 in this situation, which is remote. The Energy Commission
11 can suspend all or a portion of the Field Verification &
12 Diagnostic Testing requirements. There is also a Provider
13 Progressive Discipline Process that the Energy Commission
14 will use instead of only decertification. This is very
15 similar to the Rater and Rater Company Progressive
16 Discipline Process.

17 Next slide, please.

18 Section E pertains to the four elements needed to
19 be certified as an ECC-Rater.

20 An ECC-Rater applicant must apply to an Energy
21 Commission-approved ECC-Provider. The applicant must pass
22 all the required training through the Provider. The
23 applicant must sign the ECC-Rater agreement with the
24 Provider, and the applicant must have a clean record with
25 other ECC-Providers or no record at all.

1 The required conduct includes the following. The
2 Rater must provide Field Verification & Diagnostic Testing
3 services in compliance with these regulations. The Rater
4 must not provide false information for a Field Verification
5 & Diagnostic Testing or report test results that do not
6 comply with these regulations. Raters cannot accept
7 payment for a Field Verification & Diagnostic Test that was
8 not conducted, or not reported, in compliance with these
9 regulations. Raters must comply with the conflict of
10 interest requirements. Raters must be present and
11 participate in any Field Verification & Diagnostic Test
12 activities. If the Rater uses employees or trainees for
13 field assistance, the Rater must be able to directly
14 monitor and verify that any test measurements are performed
15 in compliance with these requirements. Raters may not use
16 assumptions, averages, or generated values for Field
17 Verification & Diagnostic Testing services not in
18 compliance with these requirements. Raters not employed by
19 a Rater Company are considered independent raters, and are
20 required to submit the same annual reports submitted by
21 Rater Companies.

22 Failure to adhere to the required conduct may
23 result in Progressive Discipline implemented by the ECC-
24 Provider. The Rater may seek reconsideration and review of
25 a disciplinary action through the Energy Commission.

1 Next slide, please.

2 Section F pertains to the Rater Company
3 Certification and is very similar to the Rater
4 Certification. The Rater Company must apply to a Provider,
5 pass all required training, and sign the Rater Company
6 agreement with the Provider. At least one principal of the
7 ECC-Rater Company applicant must hold an ECC-Rater
8 Certification themselves.

9 Rater Company required conduct includes the
10 following. Maintain a public list of Raters that it
11 employs. Rater Companies may have a view-only access to
12 compliance documents registered by the Raters it employs.
13 The Rater Company may not change data entered by the --
14 into the data registry by the Rater.

15 Rater Companies may act as a document author for
16 their certificates of the compliance and installations,
17 that's CF1R and 2R, but may not sign as responsive person
18 or installing technician with the following exceptions.
19 The Rater or Rater Company may sign as the authorized
20 representative on the certificate of installation if they
21 have a delegation of signature authority, part one, Section
22 10-103(a)3A, on file with the Provider. This is an
23 existing provision within the Energy Code. The energy
24 company may not provide additional project services beyond
25 Field Verification & Diagnostic Testing unless it submits a

1 Declaration of ECC-Rater Separation of Services to the
2 Provider, which is new since November and will be discussed
3 at the end of this slide. These additional project
4 services include design work, construction management,
5 permit services, and signing as a Responsible Person on
6 compliance documents.

7 Rater Companies must use the approved data
8 registry interface or approved external digital data
9 service for data input into the data registry. No later
10 than March 31st of each year, the Rater Company must submit
11 an annual report of activities to the Provider. This
12 report will include the company contract -- the company
13 contacts and principles, list all employed Raters, the
14 total number and type of test performed, and the total and
15 average cost of services charged for each type of test
16 performed. The Rater Company is responsible for ensuring
17 that all employed Raters comply with these regulations.
18 The Rater Company must support their Rater Progressive
19 Discipline Requirements with specific task for each
20 progression, including facilitation of any consumer refund
21 that may be required. Rater Companies may not provide
22 false information or report Field Verification & Diagnostic
23 Test results that do not comply with these requirements.
24 Rater Companies may not accept payment for Field
25 Verification & Diagnostic Test services that were not

1 performed in compliance with these requirements. Rater
2 Companies must comply with the Conflict of Interest
3 regulations. Failure of the Rater company to adhere to the
4 required conduct may result in Progressive Discipline, and
5 the Rater Company may request reconsideration and review of
6 a disciplinary action through the Energy Commission.

7 Next slide, please.

8 Section 10-103.3(f)2Dii is where we will discuss
9 the new requirements required regarding the Declaration of
10 ECC-Rater Company Separation of Services. The intent of
11 this provision is to allow the Rater Company to provide
12 additional services while at the same time maintaining the
13 third-party independence of the Rater. The Declaration
14 must show that the Rater employed or contracted by the
15 Rater Company to provide FV&DT services are independent and
16 acting as a third party from the persons employed or
17 contracted by the Rater Company to provide services beyond
18 Field Verification & Diagnostic Testing on the same
19 project.

20 The proposed regulations include four elements to
21 achieve this goal. The Rater Company must show proof that
22 the person providing these additional services do not have
23 management, hiring or firing, payment, or any other
24 authority over the Rater, or direct the Rater activities in
25 any regard on the same project. The Rater Company must

1 show proof that the person providing these additional
2 services are qualified to do so under Division III of the
3 Business and Professions Code. The Rater Company must show
4 proof that the person providing the signatory services for
5 the Certificates of Compliance and Installation, the CF1Rs
6 and 2Rs, will be legally responsible for design,
7 construction, or installation in the applicable
8 classification for the scope of work, and are eligible to
9 sign as a Responsible Person. The Declaration must be
10 submitted to and retained by the same Provider to which all
11 project compliance documents are submitted.

12 Next slide, please.

13 Section G concerns a prohibition from practice
14 and re-entry for Raters and Rater Companies or Providers
15 that have been suspended or decertified. While suspended
16 or decertified, Raters and Rater Companies may not provide
17 Field Verification & Diagnostic Testing services by
18 collecting data or submitting that data to the data
19 registry. Rater Companies may not act in any manner that
20 leads to a violation of the prohibition. Providers may not
21 accept Field Verification & Diagnostic Test submissions
22 from a suspended or decertified Rater or Rater Company.
23 However, the Executive Director of the Energy Commission or
24 the Energy Commission may reinstate a Rater, Rater Company,
25 or Provider for good cost.

1 Next slide, please.

2 Section H provides the process for Raters, Rater
3 Companies, and Providers to appeal these certification
4 actions to the Energy Commission.

5 The written appeal: the appeal must be in writing
6 and signed by the appellant and served on the party whose
7 decision is the subject of the appeal and the Energy
8 Commission. The appeal must consist of a written argument
9 stating that setting the grounds for modification or
10 reversing the decision, identifying the statutes and
11 regulations relevant to the appeal, and stating whether the
12 oral hearing is requested in a copy of all relevant
13 notices, responses for responses, documents and decisions.

14 The submission of statements and evidence: within
15 30 days after the date of the appeal was filed, the
16 respondent may serve on the appellant and the Energy
17 Commission a written agreement stating the grounds for
18 affirming, modifying, or reversing the decision,
19 identifying the statutes and regulations relevant to the
20 appeal, and stating whether an oral hearing is requested.
21 The respondent's written argument must also be accompanied
22 by any relevant notices, responses, correspondence
23 documents, and decisions not previously provided by the
24 appellant.

25 And the Commission's consideration of the appeal.

1 The proceedings on the appeal will be conducted in a manner
2 consistent with Chapter 4.5 of the Governmental Code
3 Section 11-400 and Title 20 CCR Sections 1200 through 1216.
4 The Commission will review the decision or determination
5 made pursuant to this section for substantial evidence.

6 Next slide, please.

7 Staff has been presented with recommendations
8 that are outside the stated scope of the rulemaking, and
9 are thus not supposed to be implemented at this time.
10 Primarily these recommendations require significant
11 investigation, research, and outreach with affected
12 parties, which Staff intends to engage in for future
13 rulemakings. Staff plans to engage with interested parties
14 following the adoption of the 2025 Energy Code later this
15 summer for these purposes. The Energy Commission is still
16 evaluating the most effective format for that engagement
17 and will notify parties when that determination is made.

18 Interested parties should submit recommendations
19 directly to Staff when the engagement process begins --
20 when the engagement process begins. There is no obligation
21 to participate in future engagement efforts with the
22 submission of the recommendations. You may simply provide
23 your recommendations for Staff's consideration if that's
24 your preference.

25 If you would like to be notified when Staff plans

1 to engage in these efforts, provide your contact
2 information to Joe.Loyer@energy.ca.gov.

3 Next slide, please.

4 And we're a little early.

5 MR. BOZORGCHAMI: Yeah.

6 MR. LOYER: 10 o'clock.

7 MR. BOZORGCHAMI: Well, we're going to take some
8 -- thank you, Joe.

9 I'm going to open it up for comments and
10 questions. First, I'm going to ask anybody in person if
11 you have any questions or concerns.

12 No?

13 Please state your name and affiliation.

14 MR. MAYER: My name is Shawn Mayer with Harris &
15 Sloan. We are an engineering consultant for new
16 construction.

17 My questions really revolve around the
18 Declaration of Separation of Services and what the
19 requirements are. Specifically, the added services state
20 design has an added service, but it doesn't clarify what
21 that means. Is that energy design? Mechanical design?
22 Plumbing design? Architectural design? All of the above?
23 That's my first question. And then how do we kind of track
24 that?

25 My second question is the Declaration makes

1 sense, but how do we verify that it's incorporated, that
2 it's adhered to? Is it a self-certification? Is it
3 something that is renewed annually? That's a challenge.

4 I believe the intent of this whole section is to
5 eliminate some of the challenges with and clarify the code
6 and what's required. If we, in my opinion, continue to
7 have ambiguity then, you know, we're going to just go to
8 the 2020 code and make another section that does
9 essentially sort of the same thing. I think making an
10 effort to ensure that we have clarity is very important.

11 And then my other two questions really revolve
12 around how the Separation of Services will work.

13 We stated earlier that one principal must be a
14 HERS Rater. We understand -- or ECC-Rater -- we understand
15 that likely means that they're overseeing the rating. In a
16 Separation of Services, we're also saying that there's
17 additional services being provided that must not be
18 overseen by the same group, or that must not interplay.
19 But in a company that only has one principle, how is
20 Separation of Services really possible?

21 MR. LOYER: So when it comes down to the
22 Separation of Services and how somebody wants to structure
23 their company, we take a very hands-off approach. It is up
24 to each company to figure out how it is that they will
25 comply with these requirements.

1 Now in the regulations themselves, we actually do
2 lay out pretty cleanly what we intend. In terms of where
3 this would apply, basically your main concern is where this
4 applies in terms of design, the design services. So in
5 terms of that element, it's going to be focused on where
6 the conflict would have been. So I don't want to say it's
7 going to be limited to energy, it's going to be limited to
8 structure, it's going to be limited to foundation, but it's
9 pretty obvious that this will primarily be limited to where
10 the Field Verification & Diagnostic Tests will be
11 occurring. So that's primarily energy.

12 So in those circumstances, where are you going to
13 run across these kinds of potential conflicts? It is the
14 best course of action to create this document, create the
15 structure, so that those that are providing these extra
16 services that can go well beyond energy, and well beyond
17 anything that the Energy Commission really intended to
18 assert any kind of authority over. It is best that you
19 create a structure where those individuals that are
20 providing that service are not in control of the rater and
21 are not directing the rater's work.

22 How you do that is up to you. We keep it pretty
23 well open, primarily because we have very little knowledge
24 of exactly every structure out there in terms of a
25 corporation. So we prefer for you who are more experienced

1 at developing your corporate structure to do that work.

2 COMMISSIONER MCALLISTER: Can I actually -- I
3 want to chime in here.

4 I mean, the intent here -- so it sounds like, you
5 know, you've read the language and you're asking a question
6 because it's not clear to you. So the intent here is to --
7 I mean, there are some synergies here, right, that a
8 corporate structure that sort of is more of a full service
9 but can make a lot of sense out there in the marketplace,
10 and we do not want to get in the middle of that. So if
11 there's a, you know, firm that does design that also has --
12 you know, that acquires a rating entity or vice versa,
13 right, if there's a merger or whatever, like -- or just a
14 large firm that gets into this space somehow, we want to
15 make sure that there's no prohibition of providing all the
16 services in the marketplace that that firm deems, you know,
17 sort of fits its business model, right?

18 But that also there's, you know, you're not
19 gaming, that they're not able to sort of, you know, sort of
20 -- that it's clear that there's independence from the
21 compliance piece from everything else. Right? So -- but
22 just acknowledging that there's some potential synergies
23 even to have, you know, that broad expertise under one roof
24 and have some communication going on on technical matters,
25 but on, when it comes to compliance, having sort of, you

1 know, clearly no conflict and having the right expertise
2 sort of dedicated to that activity.

3 But that's the intent. So if there are changes
4 we can make to make that clear, absolutely.

5 MR. MAYER: I guess my argument -- or not
6 argument, my point is not to say that we should or
7 shouldn't allow anything. But I'm just asking for clarity.

8 COMMISSIONER MCALLISTER: Yes.

9 MR. MAYER: I'm okay with whatever we allow as
10 approved.

11 But in following this and reading this, and this
12 is my fifth or sixth round of code changes, the start point
13 was, we were concerned that there was conflict of interest
14 and there's challenge, so we created this section. And now
15 we're saying, do all this stuff, but basically self-certify
16 that you're doing all this stuff. And so you're saying
17 it's up to me to create the system for my company, which is
18 fair, but I would argue that that's what we've all been
19 doing. And the Commission is standing here and saying, we
20 don't think that that's right.

21 MR. LOYER: That's not exactly what we're doing.

22 MR. MAYER: -- providing some clarification.
23 We're trying to make it better.

24 COMMISSIONER MCALLISTER: Yes.

25 MR. MAYER: But keep doing the same thing.

1 That's my concern, is that we all walk away from this
2 feeling like, okay, we've clarified some things but we
3 really didn't clarify enough and it's a challenge.

4 So to the point of my point as just a consultant,
5 we provide a lot of design services. We do not provide
6 rating. We've explored that. We are interested in that.
7 But as a company who feels like it's not clear, we stay
8 away from that.

9 COMMISSIONER MCALLISTER: Right. Right.

10 MR. MAYER: And ultimately, if we're trying to
11 make it better for the end user, which is what the
12 Commission is doing, I think adding clarity allows
13 companies to make decisions that will serve the community,
14 the industry, and ultimately the home buyers.

15 COMMISSIONER MCALLISTER: Well, I think -- so --

16 MR. BOZORGCHAMI: I'm going to stop right there.
17 I'm sorry.

18 Just for the record, that was Shawn Mayer from
19 Harris & Sloan.

20 Sorry, Commissioner.

21 COMMISSIONER MCALLISTER: No, that's okay.

22 MR. BOZORGCHAMI: For the record.

23 COMMISSIONER MCALLISTER: Go for it. Yeah.

24 Thanks. No, we need to make sure -- just, everybody, if
25 you could state your name and maybe even spell it, because

1 the court reporter who's listening is not an expert in
2 these areas doesn't know any of you. So assume they don't
3 know anything. So apologies to the court reporter.

4 But so it sounds like it we're -- I mean, if
5 anything we're sort of validating what you're already doing
6 and clarifying that, and saying, look, if you do want to go
7 out there and acquire or do something in this space, that's
8 okay, like, where it hasn't been clear in the past. So I
9 think that's the intent.

10 And in terms of, like, self-certification, some
11 might argue that that's kind of too light a touch, and that
12 we ought to do some enforcement on the Declaration or sort
13 of, you know, really, really pay attention to that
14 Declaration. And I mean, that's an option, certainly. But
15 we just want to have visibility into the marketplace so
16 that we're comfortable there's no conflict, but not inhibit
17 innovation and, you know, not constrain business models.

18 MR. LOYER: I would agree.

19 A lot of the -- like you say, a lot of the
20 companies that are out there right now are currently doing
21 this. But they're doing this of their own accord and
22 they're doing this without a safety net. And so this gets
23 us a little bit closer to a safety net, brings everything
24 into light of day and says to everybody, yeah, we are doing
25 this, and we are structuring it this way and we're making

1 it clear to the consumer -- at least to a certain extent --
2 the consumer and the regulatory agencies that are involved
3 here, exactly what it is that we're engaged in. And that
4 in and of itself will bring things, people who are doing it
5 right. It will validate what they're -- hopefully validate
6 what they're doing. And people that are not doing it right
7 will hopefully think twice.

8 And we should move on now.

9 MR. BOZORGCHAMI: Thank you.

10 Anyone else in the -- go ahead and state your
11 name and affiliation. If you talk loud, it's picked up.

12 MR. WINSTEAD: I'm Steven Winstead, I'm with NEMI
13 --

14 MR. BOZORGCHAMI: Sorry, I think our microphone
15 guy failed.

16 MR. WINSTEAD: I'm Steven Winstead. I'm with
17 NEMI.

18 I just wanted to clarify on the High Rise
19 Multifamily Dwelling Unit Enclosure Leakage Test, the
20 removal of the ATT Certified Technician from that.

21 MR. LOYER: So yes, to a certain extent, we are
22 now relying on the ECC-Rater to perform that. However, the
23 subsection NA1.9 provides the alternative. So the
24 developer, the project lead of that construction project
25 can, in fact, redirect that test to the ATT.

1 MR. WINSTEAD: Alright. Thank you.

2 MR. BOZORGCHAMI: Thank you. Thank you, Joe.

3 Anybody else in the room? If not, we have quite
4 a few raised hands.

5 I'm going to unmute Andrew. Go ahead and state
6 your name and affiliation, sir.

7 MR. GRAF: Hi. Good morning.

8 Can you hear me?

9 MR. BOZORGCHAMI: Yes.

10 MR. GRAF: Good morning. My name is Andrew Graf.
11 That's A-N-D-R-E-W G-R-A-F. I'm with Western States
12 Council of Sheet Metal Workers.

13 I would just like to start my comments by
14 thanking the Commissioner McAllister and Commission staff.
15 I know that the Energy Code is a giant undertaking, and I
16 greatly appreciate the work that they've done and
17 collaboration with a lot of stakeholders in developing the
18 language.

19 You know, Western States Council is largely
20 supportive of the changes that are being made to the ATTs
21 and ATTCPs. I do have some questions regarding the ATTCP
22 Quality Assurance Requirements.

23 With respect to the proposed Shadow Audit
24 Alternative at the training facility, I was wondering why
25 the new language required an audit of each ATT once per

1 Code cycle, while the job site option only requires 1
2 percent of each AT's overseen projects be shadow audited.
3 Shouldn't the Training Facility Option and Job Site Option
4 be equivalent?

5 MR. LOYER: So we felt that that was equivalent
6 when it came down to it. The 1 percent job option and the
7 -- or the test each ATT at the training facility. When we
8 did that calculation, it wasn't a 1 percent of the jobs
9 that the ATT performed, it was a 1 percent job of the ATE,
10 the Acceptance Test Employer. So when we did the back-of-
11 the-envelope calculation in estimating it, it came out to
12 roughly the same number of audits. So we can actually -- I
13 believe we actually do show that calculation at some point
14 in our background documents, but we can make that clear.

15 MR. GRAF: Yeah, that would be helpful. I
16 appreciate that.

17 And it seems like in the new language, in adding
18 that the ATEs or ATTs would be once per Code cycle, that
19 you're attempting to clarify the time period in which the
20 auditing would occur. And I think that that language was
21 helpful, and I think that language could be implemented for
22 the paper audit as well in kind of establishing a time
23 period for the audit review, and when you're capturing that
24 1 percent, because I think it's a little vague at this
25 point. So for example, you know, having a Shadow Audit

1 occur within a Code cycle looking back at the last Code
2 cycle to determine what that 1 percent of the compliance
3 forms are, and the Shadow Audit would be, for purposes of
4 calculation.

5 Does that question make sense?

6 MR. LOYER: Well, I mean, I think that's not so
7 much a question as is a suggestion for a change to the
8 codes that we're talking about. And for that, I would
9 encourage you to actually write that out to the best of
10 your ability and put that into our docket system so it's a
11 comment that we can consider.

12 So in terms of does it make sense to me: yeah, I
13 follow what you're saying and I think it's something that
14 we might consider.

15 MR. GRAF: Okay. Yeah. Greatly appreciate that,
16 and we do plan on following up with written comments on
17 these topics.

18 MR. LOYER: Alright. Good.

19 MR. GRAF: So much appreciated, and thank you
20 again for all your hard work. We greatly appreciate it.

21 MR. BOZORGCHAMI: Thank you, Andrew.

22 Next is Shelby. Go ahead and state your name and
23 affiliation, please.

24 MS. GATLIN: Good morning, this is Shelby Gatlin.
25 I'm with CalCERTS, S-H-E-L-B-Y G-A-T-L-I-N. I want to

1 thank Joe and the team for all of their hard work on the
2 regulations. It has been a long road, and we've worked
3 very hard together, and have a few different comments that
4 we'll be docketing that we think we've worked with
5 Commission staff on tailoring some language on the
6 challenge tests and the data requests and some shadow
7 audits.

8 My comment today is about the new rule for us to
9 do QAs on sample groups and residential new construction
10 sample groups. And the new requirement is that we do
11 quality assurance reviews on associated homes for every
12 seventh sample group.

13 That's going to impact over 30 percent of
14 residential development in the state of California, and so
15 we want to work with the CEC on the language of that a
16 little bit to get some flexibility, because I think there's
17 going to be an impact to builders and a substantial expense
18 that we haven't calculated in this rulemaking. Most -- so
19 over 30 percent of builders use sampling of those. More --
20 most of them exceed seven sample groups. And if we can't
21 get in, they need to go to 100 percent testing, or we need
22 to work with the CEC on what that actually means. And if
23 that home doesn't pass Title 24, what does that mean? And
24 those questions really aren't clear in the regulations.

25 So we kind of need to work through that

1 provision. It's -- doing associated QA is not new, but the
2 strict language and the code for this specifically might
3 need some work.

4 MR. LOYER: We appreciate that comment, Shelby.
5 We look forward to the comments that you will submit into
6 the docket.

7 MS. GATLIN: Thank you.

8 MR. BOZORGCHAMI: Thank you, Shelby.

9 Next we have Christopher. Go ahead and state
10 your name and affiliation.

11 MR. RUCH: My name is Christopher Ruch, R-U-C-H,
12 with NEMI. Commissioner McAllister, Mr. Loyer and CEC
13 team, as always appreciate all of your work on this. I
14 know there's a lot to consider with a lot of different
15 people here.

16 The suggestion to consider -- I want to hit up
17 10.103.2 -- the suggestion to conduct shadow audits at a
18 training center I believe is a really positive step
19 forwards. However, it is crucial that such audits do not
20 pose excessive burdens on the ATTCP who's responsible for
21 their implementation. While the idea of executing random
22 mechanical audits at job sites could be effective under
23 certain conditions for certain jobs, it will prove and has
24 proven to be impractical for widespread implementation due
25 to challenges related to access, security, safety, and

1 legal considerations. Therefore ATTs should be afforded
2 the flexibility to carry out a shadow audit on either on-
3 site or a training center, meaning at some points it may
4 make sense to do an on-site depending on the region and
5 where you're at. Other times it may make sense to do it at
6 a training center.

7 And for that, we would ask that the -- everything
8 be kind of even there. So the regulations and objectives
9 governing shadow audits should be consistent irrespective
10 of the location where they're conducted.

11 The other point to hit on what Andrew had talked
12 about before, there is a need for clarification on the
13 general requirement of 1 percent audit frequency to ensure
14 uniform compliance across all ATTCPs. Simply stating
15 something like 1 percent per Code cycle, that would help
16 make sure that everyone's doing the same thing. Just
17 saying one percent is -- kind of leaves it out in the open.

18 Other than that, I just want to appreciate your
19 work. I will be submitting all this in written
20 documentation and look forward to working with all of you
21 in the future.

22 Thank you.

23 MR. LOYER: Thank you, Chris. We look forward to
24 your comment.

25 MR. BOZORGCHAMI: Thank you.

1 Next, Gina Rodda. Please state your name and
2 affiliation and I forgot to say this, please spell your
3 name and last name too for the record.

4 MS. RODDA: My name's that hard?

5 MR. LOYER: Oh yeah.

6 MR. BOZORGCHAMI: Yeah.

7 MS. RODDA: Hi this is Gina Griffiths Rodda. G-
8 R-I-F-F-I-T-H-S R-O-D-D-A, and I'm from Gable Energy. I'm
9 an energy consultant here in California, and I have
10 docketed this comment with the last few rounds of this.

11 I really am uncomfortable with the name Energy
12 Code Compliance, ECC, because it can convey that this is
13 about -- can be confused with the energy consultant, and
14 what really is their purview. And if I were to have a
15 choice, there should be something like verification in the
16 name that then ties it to the Certificate of Verification
17 that is associated with their work.

18 Thank you.

19 MR. BOZORGCHAMI: Thank you, Gina.

20 Next we have Mike. Mike, I'm going to unmute
21 you, but I need you to spell your last name and affiliation
22 please.

23 MR. LITTLE: Hello, my name is Michael Little, L-
24 I-T-T-L-E. I'm a sole proprietor, a HERS Rater, in
25 Southern California.

1 First of all, I agree with Gina on the comment
2 that she just made. My first interpretation of ECC was
3 that more in line of energy compliance -- not energy
4 compliance, but energy consultant.

5 Second, I was unclear on the language for
6 entities like myself, sole proprietor, zero employees, I
7 offer several services to homeowners and contractors,
8 permit, HERS rating, or ECC rating, and also consulting for
9 contractors on compliance, interpretation of compliance
10 forms, et cetera. As a one-man operation, I didn't hear a
11 lot of clarification as to the Separation between Services
12 for someone like myself.

13 MR. LOYER: So the Separation of Services for a -
14 - I'm sorry, did I interrupt you?

15 MR. LITTLE: No. No, I was just concluding.

16 MR. LOYER: Okay. Okay, sorry.

17 So the Separation of Services for a, shall I say,
18 one man band are actually moot. You can't separate your
19 services as a design -- or as somebody who's going to be
20 providing these other services.

21 Now, that said, we believe that there is a
22 synergy to be had with such an individual. You do have to
23 be careful about how you treat the CF1R and CF2R and
24 permits. When you sign as a Responsible Person on CF1R or
25 CF2R, you are taking full responsibility for the project as

1 if you are the project manager. So you have to be careful
2 about how you sign that. You can still produce those
3 documents, but you need to sign as a document author in
4 that situation.

5 As far as inputting onto design and polling, that
6 can be done, but the signature, again, on those documents
7 has to be somebody who is basically not going to be you as
8 the project proponent or project manager.

9 So there are issues with this and we understand
10 this. There are -- you are not the only sole proprietor.
11 But we hope to hear from you exactly how it is that you do
12 your business now in these terms, and I would ask that you
13 submit that to us in a comment to the docket, and let us
14 know exactly how you believe that this this new requirement
15 is going to impact your business.

16 MR. LITTLE: Okay. Thank you.

17 MR. LOYER: Thank you.

18 MR. BOZORGCHAMI: Thank you, Joe. Thank you,
19 Mike.

20 Next, we have Stephanie. Stephanie, please state
21 your name and affiliation, and spell your last name,
22 please.

23 MS. GORTON: Hi, this is Stephanie Gorton. I'm
24 the Vice President over at Energuy, we are a rating
25 company. And it's S-T-E-P-H-A-N-I-E G-O-R-T-O-N.

1 So I just want to thank the Commission and the
2 teams at our very supportive providers, CHEERS and
3 CalCERTS, just for bringing ethical accountability to our
4 industry. And as a rating company we really appreciate the
5 providers and the Commission's effort in ensuring quality
6 rating, and we believe that will result in quality
7 installs.

8 So while we appreciate all the years of feedback
9 and listening and collaboration, I do have an interest in
10 just hearing the vision pertaining to the disclosure of the
11 details of our pricing structures. So if there's any
12 sharing or confidentiality of those prices, but more
13 importantly, I just wanted to know if there was an intent
14 for regulation of pricing.

15 Could you expand on that?

16 MR. LOYER: Yes. I can.

17 So the intent here on that reporting is that that
18 reports to the Provider, and that's very specific in the
19 regulation. We don't want you reporting your confidential
20 pricing structures to the Energy Commission, primarily
21 because at that point, the Energy Commission, that
22 information can be gotten from us in a Request for
23 Information.

24 So what we prefer to have happen is have that
25 information go to the providers. The providers will

1 aggregate that information to a very specific set of rules
2 that we've actually put in regulation as well to
3 additionally protect you and protect other companies'
4 pricing structures.

5 The intent here is not to regulate pricing. But
6 as you may or may not know, the Energy Commission does not
7 have sufficient information on the cost of these services
8 that we have created for the marketplace, so we need better
9 information, and this is our primary means of getting that
10 information. We don't need it specifically from individual
11 companies, or individual raters, but we need to know what
12 the marketplace of raters and Field Verification &
13 Diagnostic Testing services is costing consumers.

14 MR. BOZORGCHAMI: Thank you. Thank you, Joe.

15 Next, Bob Raymer. Bob, go ahead and state your
16 name.

17 MR. RAYMER: Yes. Thank you, Payam. This is Bob
18 Raymer with the California Building Industry Association.
19 My last name is R-A-Y-M-E-R. And I just wanted to say very
20 quickly that CBIA concurs with the concern that's been
21 raised by Shelby from CalcERTS and from CHEERS. We'll, of
22 course, as in the past, we'll be working with CEC staff and
23 the two providers to try to figure out how to deal with the
24 problem that the new language on on-site audits might be
25 fixed or whatever, but we'll deal with that in a written

1 comment, and look forward to working with you on it.

2 Thank you.

3 MR. BOZORGCHAMI: Thank you, Bob.

4 Next, we've got Jeremy. Jeremy, go ahead and
5 state your name and last name, and please just spell your
6 name.

7 MR. ZEEDYK: Didn't want to take a shot at trying
8 to say that, huh?

9 My name is Jeremy Zeedyk, Z-E-E-D-Y-K, and I'm
10 with NEMI.

11 I'd like to just make a comment about the name
12 change from HERS to the Energy Code Compliance program. I
13 just feel that it might be a little bit inappropriate to be
14 named that, and it might cause a little bit of confusion in
15 the sense that the ATT program also covers Energy Code
16 Compliance. We would suggest that maybe changing the name
17 to Residential Construction Code Compliance would be more
18 appropriate because it would help to match the intention of
19 that program to its scope and purpose, and provide a little
20 bit of clarity and avoid some confusion. So I'll keep my
21 comments brief but that's the basis of it.

22 COMMISSIONER MCALLISTER: Well we have to think
23 about an acronym because REEC isn't the greatest.

24 MR. BOZORGCHAMI: Thank you, Mr. Zeedyk.

25 COMMISSIONER MCALLISTER: Thanks for that.

1 MR. BOZORGCHAMI: And Christine, go ahead and
2 state your name and affiliation and spell your last name,
3 please.

4 MS. CONDON: My name's Christine Condon, C-O-N-D-
5 O-N. And my affiliation for this call is I'm a Certified
6 Energy Analyst, and I'm also a HERS Rater. And I spent a
7 decade in the private sector working at a small firm as an
8 Energy Code Compliance Consultant and also a rater in the
9 field for the same projects often.

10 And so I just wanted clarification here. I'm
11 still a little confused. The documentation author who made
12 the compliance document settling and consults with the
13 client can be the same person as the HERS Rater, is that
14 correct?

15 MR. LOYER: As long as they're signing as the
16 document author and not the Responsible Person.

17 MS. CONDON: Okay. Okay, because that's a very
18 beneficial relationship between those two roles.

19 MR. LOYER: Yes.

20 MS. CONDON: Also, again, I would like to
21 actually reiterate my concern about calling a Field
22 Verification & Diagnostic Testing rater an Energy Code
23 Compliance Rater. I think it is confusing in this industry
24 because those are two separate, really separate roles.

25 Thanks so much for all this great work.

1 MR. LOYER: Thank you and look forward to your
2 comments.

3 MR. BOZORGCHAMI: Thank you.

4 I think at this time, I have no more comments in
5 the room, and I have no more raised hands.

6 Oh, I got one more. Mike, go ahead and state
7 your name and affiliation.

8 MR. LITTLE: Hi. This is Mike Little again.

9 I just wanted to ask what -- first of all, is
10 there any intent to maybe certify or in some way bring into
11 the equation the energy consultants? I think there's a
12 large gap between most energy consultants and everyone
13 else.

14 And also, is there any path to improve the rate
15 of permits pulled on existing remodels and change outs?
16 Because to me, that's the number one concern with
17 compliance.

18 MR. LOYER: So taking the last question first:
19 yes. Not in this engagement. We are looking at ways that
20 we can improve the permitting rate for California outside
21 of the Energy Code itself.

22 As far as -- and I think I've actually, I'm
23 sorry, I think I've forgotten what your other question was.

24 MR. LITTLE: It has to do with the energy
25 consultants and the lack of -- I can't think of a polite

1 way to say it.

2 MR. LOYER: Go for it.

3 MR. LITTLE: Competence in in building assemblies
4 and application of those.

5 MR. LOYER: Yeah. That is also a concern of the
6 energy Commissions as well. That is another element that
7 we are looking into outside of the Energy Code itself.

8 So we are interested, are actively engaged in
9 efforts to improve the abilities of not only the designers,
10 but the people actually swinging the hammers, as well as
11 improving the permitting rate itself.

12 MR. LITTLE: Okay. Thank you.

13 MR. BOZORGCHAMI: Thank you.

14 Next we're going to go to Michael Shewmaker. We
15 have some questions and answers. Michael is going to read
16 those out and try to answer some of those questions.

17 MR. SHEWMAKER: The first question we have online
18 is from Christine Condon: will these presentation slides be
19 available somewhere?

20 The answer is yes. A copy of today's
21 presentation will be docketed to the rulemaking docket, as
22 well as posted to our website and event page following
23 today.

24 MR. BOZORGCHAMI: We will try to get those done
25 by this Friday. We've got two more hearings going on, so

1 we'll try to get three hearings together and posted on our
2 docket by this Friday.

3 MR. SHEWMAKER: Next up, we have a comment from
4 an anonymous attendee: most cities are unaware and do not
5 require any ATT certifications on most projects that
6 clearly show it.

7 MR. LOYER: Yeah. We are aware of this issue.
8 And as I've stated just a moment ago, we are attempting to
9 address that through another program, another process.

10 MR. SHEWMAKER: Next question is from Raymond
11 Hernandez: will the city start requiring ATT
12 certifications, as most of the departments in Southern
13 California do not ask for these requirements?

14 MR. LOYER: I think we've answered that one.

15 COMMISSIONER MCALLISTER: Can you provide that?
16 Can you tell folks what that forum actually is for that
17 discussion?

18 MR. LOYER: So at this point -- I'm not sure
19 exactly what you want me to say there, Commissioner.

20 COMMISSIONER MCALLISTER: Well, you referred to
21 some other process that how we're going to address the --

22 MR. LOYER: Right, that's our rate, our -- okay,
23 I'm sorry -- our compliance rate study that we are
24 currently designing at the moment. We are looking to try
25 and fund that through federal funds to help improve -- help

1 outreach to local jurisdictions to educate them on not only
2 the ATTCP program, but also the HERS program or the ECC
3 program, or whatever name we may change it to, how they can
4 easily and simply enforce the Energy Code by supporting
5 these programs and requiring the use of the ATT technicians
6 and the raters to be on site to do the proper inspections
7 at the proper times.

8 MR. SHEWMAKER: So the next question we have is
9 from Vicki Burlingham: will the CEC provide an external
10 website or report format for the yearly reporting? Also,
11 what security measures will be provided for retaining our
12 financial and company information? This appears to be
13 similar to our corporate reporting.

14 MR. LOYER: So we will ask that information to be
15 sent to the providers who will secure that information as
16 confidential and give the Energy Commission summary data
17 only. So, in that regard, the Energy Commission will not
18 retain any corporate or confidential information from rater
19 companies or raters.

20 MR. SHEWMAKER: And another question from Vicky:
21 what documentation or testing will be required to prove we
22 are capable of procuring permits and assisting a builder
23 better manage the Title 24 portion of his project? We will
24 need clarification of what qualifications are required.
25 And how do we provide this info to the CEC and ECC-

1 Provider?

2 MR. LOYER: So that information is included on
3 the Chapter Three of the Codes and Standards -- Business
4 and Professions Code. So Division Three of the Business
5 and Professions Code actually goes to great extents to
6 identify exactly what has to be included for individuals
7 that will be performing this line of work.

8 MR. SHEWMAKER: Next question is from Marina
9 Blanco: during the presentation, only CF1Rs and CF2Rs were
10 mentioned. Should the language also include the LMCI and
11 LMCV forms?

12 MR. LOYER: So the language itself includes the
13 Certificate of Compliance and Certificate of Installation.
14 By restraining my presentation to enunciating CF1Rs and
15 CF2Rs, those are the most common versions of those forms.
16 But since we refer to the Certificate of Compliance and
17 Certificate of Installation, the LMCI and LMCC are
18 included.

19 MR. SHEWMAKER: Joe, next question is from Mike:
20 I would also like to know if there was an easier way to
21 find these meetings. I have signed up for CEC emails, but
22 CEC inundates my email and I have to sit through volumes of
23 emails else to try and find anything relevant but serious.

24 MR. PEREZ: Yeah. This is Javier Perez, Project
25 Manager for the 2025 Energy Code.

1 I feel your pain, Mike. As far as any hearings
2 or events that are scheduled related to our rulemaking
3 process, our 2025 webpage has -- the bottom half of the
4 webpage has upcoming events with links to, you know, the
5 different hearings. We have the three days here, as well
6 as a new event that was added in the last 24 hours for
7 April 30th, not related to this rulemaking.

8 So I'll -- Mike, we'll put a link to the 2025
9 page in the chat so the audience can see it. But
10 otherwise, just hang in there with us. You know, we're
11 trying to update our dockets to limit the amount that
12 anyone gets. So very much appreciate the feedback.

13 MR. SHEWMAKER: Thank you, Javier.

14 And our last question is from Karen Bragg: will
15 we have an opportunity to provide written comments in
16 response to the proposed Energy Efficiency Standards after
17 these three days of hearings are finished?

18 MR. BOZORGCHAMI: This is Payam.

19 Yes, there is an opportunity. Later on, in the
20 presentation after the break, when Joe's done, there will
21 be a slide actually that has the docket address where you
22 can submit your comments in writing. In doing so, please
23 provide your contact information also. Stay tuned. That
24 slide was presented after my presentation, and it will be
25 presented after every presenter's presentation.

1 With that, I think that was the end of the
2 questions and answers. We have one more raised hand.

3 Michael Scalzo, please state your name and
4 affiliation, and spell your last name, please.

5 MR. SCALZO: Michael Scalzo, S-C-A-L-Z-O,
6 National Lighting Contractors Association of America.
7 We're a lighting ATTCP.

8 First of all, thank you Commissioner, staff, and
9 especially Joe for all of your hard work. I do appreciate
10 you adding the Shadow Audits into the code, and hopefully
11 this gets approved and pushed through. This was something
12 we pushed for during COVID because we were in dire need of
13 it, but regardless it's here and coming now.

14 I do really like what you've done with the
15 residential HERS program, the new ECC program. I know you
16 were talking about solutions for the ATTCP program. You'd
17 mentioned a couple of directions that you were going to go.
18 It would be nice to see if maybe something along the lines
19 of what you're doing for ECC could apply to the ATTCP
20 program, holding all parties accountable and documenting
21 all actions on different projects.

22 My one concern was that you mentioned with the
23 ATTCP program for improvement that you're looking to use
24 federal funds to help with maybe enforcement, compliance,
25 outreach, whatever it may be to help educate the HGAs.

1 What happens if the federal funds do not become available,
2 or what happens when you exhaust those federal funds? This
3 is not a solution that's going to be based off of a budget.
4 It's based off of some incoming funds. So I hope you're
5 taking into consideration that there might be better
6 options or better funding outside of federal funding.

7 Thank you.

8 COMMISSIONER MCALLISTER: Yeah. I'll take that
9 one. Thanks a lot for the question. This is Commissioner
10 McAllister.

11 So we do actually have funds now to do this. We
12 were awarded, not to the level we applied for, but we did
13 get, you know, a relatively modest grant to do work with
14 selected local governments to kind of unpack this problem
15 and try to establish, you know, a better way of doing
16 things with them.

17 At the end of the day, the local governments
18 enforced the code on the ground at the project level, and
19 so they have to be bought in to requiring the ATT process
20 in any given applicable project. So we really need to
21 treat them as partners while we figure this out. We have
22 tried legislation to get more, you know, funding to this,
23 so that we can develop a system with a little more teeth,
24 and so far so not successfully. You know, advocates have
25 worked the legislature for that for a couple of rounds now,

1 and so far it has not gotten done.

2 And so there is a -- the fundamental problem here
3 is that if somebody -- you know, if a local government
4 doesn't engage and see that -- either doesn't even know
5 they're supposed to be requiring it or they choose not to,
6 that's a problem. And so we never find out about it. The
7 Energy Commission never finds out about it until after the
8 project is done.

9 And so we really need a system to be more
10 rigorous to track projects and the measures within a
11 project, say in the nonresidential for the ATTs. And, you
12 know, the equivalent on the HERS, you know, on the ECC side
13 as well. We really need more information earlier about a
14 project to know that these regs -- that these rules apply
15 in the first place. Then we have some teeth to, you know,
16 enforce compliance.

17 But there's a -- there are a lot of links in this
18 chain, and the local jurisdiction is a big one obviously,
19 but there are others that we also need to put in place with
20 more rigor so we can have a system that actually works, and
21 get the ATTs into the projects at the right moment so they
22 can do their jobs. Right?

23 So we all have that goal. And, you know, we're
24 committed to getting there, and hopefully we can
25 collectively find some mechanisms to resource this and to

1 put in place a system with some rigor.

2 MR. BOZORGCHAMI: Thank you Commissioner.

3 Michael, do you see any --

4 MR. SHEWMAKER: We have some more questions.

5 MR. BOZORGCHAMI: No. Don't wait. We have one
6 comment in the Q&A and then we'll go right to you, sir.

7 MR. SHEWMAKER: Okay.

8 So online we have a series of questions from
9 Stephanie Gorton: who are what committee is treating the
10 permitting and compliance, and where can we find that
11 information? Energuy, our providers CHEERS and CalCERTS,
12 and our competitors have experienced tremendous energy --
13 have expended tremendous energy in attempting to raise
14 California's compliance rates, to no avail. Without
15 enforcement and consequences for noncompliance, aka fees,
16 I'm afraid this effort and budget will be spent in vain.

17 COMMISSIONER MCALLISTER: Can I comment on that
18 real quick?

19 Yeah. So I think this is one of these things
20 that keeps me up at night. I know it keeps a lot of staff
21 up at night, and, you know, I know it keeps a lot of you up
22 at night as well.

23 So I'll just -- I'll talk on the residential side
24 a little bit. So one sort of fundamental problem here is
25 the lack of information. So Joe referred to that earlier,

1 but if there's an HVAC retrofit, you know, or that kind of
2 scale of a project out in the world, and either the
3 contractor or the homeowner does not get a permit or -- you
4 know, I think that's very common in this space, certainly
5 in the HVAC area -- if they don't get a permit, even if
6 they do get a permit sometimes, you know, there really is
7 no visibility. You know, maybe they don't fill out the
8 right forms, or they don't sort of proactively get into the
9 system, then it's like a tree falling in the forest when
10 nobody's around, right? We don't even know that project
11 took place.

12 And so we need a system to enable us to know --
13 and us I'm referring to in broad terms, but it's the local
14 government and the Energy Commission -- to know that
15 there's even a project so that we can know that the Code
16 applies so that we can expect the compliance, you know,
17 documentation to come through. If that does not take place
18 then, you know, it's an orphaned project out there with no
19 link to compliance.

20 So that's why there's been, you know, many
21 advocates, and many of you are very aware, painfully aware,
22 of this problem. And many of you have, you know, put your
23 heads together to try to get a legislative solution and,
24 you know, we're now planning to move forward with a
25 solution that maybe -- you know, it'd be great to have the

1 legislature's sort of imprimatur on this effort. But we're
2 going to find ways, we're looking for ways within our
3 existing jurisdiction to bring some resources to this to
4 build the systems that we need to understand what equipment
5 is coming into the State and start to connect some of these
6 dots.

7 You know, but we have obviously a lot of sort of
8 skin in the game, and interest in making this happen. But
9 again, it's a chain with a lot of links in it, so each
10 chain is important -- each link is important to make the
11 whole system work, so.

12 Anyway, I know none of this is satisfying. None
13 of this is a complete answer or a fully satisfying answer
14 to any of us, probably, but we are concerned and looking
15 for solutions. So again, it's not a (audio glitches) we're
16 going to try to find new ways to move forward.

17 Thank you.

18 MR. SHEWMAKER: A couple more follow-up
19 questions.

20 COMMISSIONER MCALLISTER: Yeah.

21 MR. SHEWMAKER: So a follow-up question from
22 Stephanie: how can we get involved to share the specific
23 and impactful data we have?

24 And then final question: is this coming from the
25 IRA funding?

1 COMMISSIONER MCALLISTER: So the initial -- the
2 funds I referred to before, we already have in-house: yes,
3 those are from the IRA RECI program, Residential Compliance
4 Enhancement -- or whatever it's called -- program.

5 Anyway. One of the IRA programs. So that's what
6 we have thus far.

7 MR. LOYER: And in terms of getting involved,
8 Stephanie, you actually are already in touch with the
9 members of staff that are working on this, so we will be
10 reaching out to you.

11 MR. SHEWMAKER: That's it for the questions.

12 MR. BOZORGCHAMI: Thank you.

13 So we have two raised hands in-person.

14 Go ahead, sir. State your name and affiliation.

15 MR. KANE: Sure. Thanks. My name is Kevin Kane.
16 I'm with CHEERS. That's spelled K-A-N-E, is my last name,
17 and CHEERS, I think you can figure that one out.

18 I apologize for being out of order. I was
19 thinking I was going to go after the second component of
20 your presentation, Joe, but given the number of discussions
21 that have gone on and the questions that we have some
22 concerns with as well, I thought I'd go ahead and voice
23 them now.

24 Let me also start off by saying that we are very
25 much appreciative of the effort and the collaboration

1 you've had with CEC along with the other certified
2 providers, CalCERTS. And we certainly look forward to that
3 same type of collaboration going forward, especially when
4 we talk about the QA process. I know there have been a lot
5 of questions that's been brought up, and I was going to
6 bring this up later, but since this topic's been broached,
7 I'm going to go ahead and make sure we make our comments
8 now.

9 The first point is -- which is what has been
10 raised by CAA and by CalCERTS -- and that is the onsite.
11 So if the builder has trouble coordinating that, then they
12 have to convert it to 100 percent testing, and that has a
13 lot of challenges. I'm sure you all might recall, as we've
14 already stated: logistical issues, liability issues, what
15 have you. So that's a concern we'd like to have the
16 Commission address.

17 Secondly, also this goes back to the separate
18 sample of the QA process. And if I understand the language
19 correctly, it refers to requiring the ECC-Provider to go
20 out in the separate sample test and to then QA inspect the
21 house that was inspected by a HERS tester -- or inspector,
22 but in addition to another house within that same sample
23 set.

24 MR. LOYER: Correct.

25 MR. KANE: And so that lead to a bit of a

1 confusion for us only because we, as you know, do training
2 and certifying of raters, and so we are testing to do the
3 QA process on raters, not on contractors. So that's
4 broaching us into a different area that goes outside our
5 charter.

6 And with that I'll surely follow up as well with
7 all my comments in writing on the docket.

8 MR. BOZORGCHAMI: Thank you, sir.

9 Next?

10 MR. WINSTEAD: Hello. This is Stephen Winstead
11 with NEMI. W-I-N-S-T-E-A-D.

12 I wanted to go back to my previous question on
13 the High Rise Multifamily Dwelling Unit Ventilation Removal
14 ATT from that, and I know you added on NA1.9 that --
15 basically, like, you said the project manager gets to
16 choose to use an ATT alternatively, but that could be a
17 little confusing, and I was wondering what the
18 justification for taking it completely is out, instead of
19 saying ATT and HERS -- or, sorry, ATT or HERS.

20 MR. LOYER: So the justification for that was
21 really basic. The way the code was written in 2022, we
22 were kind of in a mid-step with mechanical ATTCPs. They
23 weren't quite implemented yet, and they were implemented
24 mid-code. So we were in a difficult position there. That
25 language was very confusing in and of itself. I'm not

1 saying this language is perfect, far from it.

2 If you have a way to better clarify that, I
3 encourage you to make that comment and to our docket.

4 MR. WINSTEAD: Perfect. Thank you.

5 MR. BOZORGCHAMI: So that's all the comments and
6 questions I see, so we're going to take a quick 15-minute
7 break. How about we reconvene at 11:10. Okay?

8 With that, I'm going to put up a sign, as soon as
9 I build it, and we'll go from there.

10 (Hearing went to break at 10:53 a.m., returning
11 at 11:10 a.m.)

12 MR. BOZORGCHAMI: Will everybody take their
13 seats.

14 We'll start the second half of Joe's presentation
15 for this morning, and then after he's done we'll take
16 comments for the entire morning's presentation from
17 everybody.

18 MR. LOYER: Sounds good

19 MR. BOZORGCHAMI: So with that, we're going to go
20 to 10-109.

21 MR. LOYER: Yes.

22 MR. BOZORGCHAMI: Joe?

23 MR. LOYER: Okay. Section 10-109(c)1 was updated
24 to provide guidance for the Compliance Manager, the
25 software developed by the Energy Commission, and for third-

1 party compliance software. This included guidance on the
2 use of standard building design for comparison to the
3 proposed building design; metrics used in the comparison,
4 such as Long-term system cost, Source Energy, and Peak
5 Cooling Energy; and the use of climate zones and
6 simulations.

7 The development of the Alternative Calculation
8 Method referenced to provide further clarification for
9 compliance simulation is also included. These requirements
10 were based on the Alternative Calculation Method Approval
11 Manual, which by its inclusion here in Section 10-109 will
12 not be provided as a separate manual for the 2025 Energy
13 Code.

14 Next slide, please.

15 Section 10-109(k) allows the Energy Commission to
16 make cost-effectiveness determinations for PV and PV and
17 battery systems where local public agency rules cause the
18 cost-effectiveness rules not to hold for particular
19 buildings. The Energy Commission has used Section 10-
20 109(k) to grant PV exceptions for the city of Trinity and
21 the city of Needles, and to a low rise multifamily project
22 in the city of Lodi.

23 For Section 10-109(k), the proposal makes a
24 slight change for revised applications in the existing
25 Code. New revised applications are required to be approved

1 at an Energy Commission business meeting. Under the
2 proposed changes for the 2025 Energy Code, revised
3 applications are not required if the change in conditions
4 are not drastic enough to modify the cost effectiveness
5 determinations already made by the Energy Commission.
6 Additionally, if the change in condition is enough to
7 change the Energy Commission determination, the prior
8 applicants are required to assist the Energy Commission to
9 redo the determinations.

10 Next slide, please.

11 Section 10-110 provides the steps that's taken by
12 the Energy Commission when evaluating applications. The
13 proposed changes include the addition of Section 10-103.3
14 and Section 10-116. Application received under either
15 Section 10-103.3 or Section 10-116 will be evaluated using
16 the process identified in Section 10-110.

17 Next slide, please.

18 The changes proposed for Section 10-115 are minor
19 clarifications for the Community Solar Requirement. In
20 2022, the Energy Commission introduced the provisions that
21 a Community Solar System needs to be located on a
22 distribution system of the Load-Serving Entity providing
23 service to the participating buildings. In 2025, the
24 intention is to clarify that the distribution system will
25 be defined as having the interconnection voltage less than

1 or equal to 100 kV. This is also consistent with the North
2 American Electric Reliability Corporation, NERC, definition
3 of bulk energy systems of 100 kV.

4 Next slide, please.

5 Section 10-116 is a proposed new section to
6 describe the third-party compliance software approval
7 process. This includes what is needed in the application,
8 the steps in the review and approval process, and how
9 software updates are handled. The specifics of the
10 software exploration and decertification process are also
11 described in Section 10-116. These requirements are based
12 on the Alternative Calculation Method Approval Manual,
13 which, with its inclusion here in Section 10-116, will not
14 be provided as a separate manual for the 2025 Energy Code.

15 Next slide.

16 MR. BOZORGCHAMI: That's it for this morning's
17 presentation.

18 I'm going to open it up for comments, questions.
19 I'm going to go to the folks in the room right now on
20 anything you heard this morning.

21 If not, we're going to go -- I have one raised
22 hand so far. I'm going to unmute you, and please state
23 your name and affiliation. Bladimir?

24 Bladimir, go ahead and unmute yourself. There
25 you go.

1 BLADIMIR: I'm sorry. No, I probably just did it
2 by accident.

3 MR. BOZORGCHAMI: Oh. No comments?

4 BLADIMIR: Yeah. No comments.

5 MR. BOZORGCHAMI: Thank you.

6 I don't see -- okay, I've got one.

7 Natalie, go ahead and state your name and
8 affiliation, and spell your last name.

9 MS. SEITZMAN: Yes. Thank you so much. My name
10 is Natalie Seitzman, S-E-I-T-Z-M-A-N.

11 I apologize, I'm not entirely sure where in the
12 hearings this will fit, but you mentioned 10-109(k) and PV
13 Community Solar Requirements, so I thought --

14 MR. LOYER: Yes.

15 MS. SEITZMAN: -- this was the time.

16 So my name is Natalie Seitzman. I'm from the
17 Southern California Public Power Authority, or SCPPA.
18 SCPPA is a Joint Powers Authority whose members consist of
19 12 publicly owned electric utilities in Southern
20 California, and thank you for the opportunity to provide
21 comments at this series of hearings.

22 SCPPA members are committed to reaching the
23 State's SB 100 goals. Several of our member utilities have
24 committed to timelines that are even more aggressive than
25 100 percent by 2045. So as we all work to decarbonize the

1 bulk and distributed energy system, we encourage CEC to
2 consider including evaluations of PV system and battery
3 storage system requirements based on the collective impact
4 on the local energy system rather than as a building-by-
5 building resource.

6 We think this is especially important in two
7 areas. First, in pockets of new development and fast-
8 growing areas. Those bring a lot of new solar and storage
9 onto the same circuit in a short period of time. And then
10 second, in distribution systems that are approaching 100
11 percent clean energy, where rooftop PV is more likely to
12 displace other renewable energy sources.

13 So we believe that CEC is perfectly positioned to
14 marry expertise of building energy usage and understanding
15 the State's electrical system, and we look forward to
16 working with the CEC to ensure that the Energy Code
17 provides enough flexibility to accommodate local grid
18 conditions and grid planning in POU territories.

19 Thank you.

20 MR. LOYER: Thank you. We look forward to your
21 comments.

22 COMMISSIONER MCALLISTER: Can I make a quick
23 comment there?

24 MR. LOYER: Commissioner, go ahead.

25 COMMISSIONER MCALLISTER: So Natalie, I really

1 appreciate that comment.

2 And so the Energy Code is about the building.
3 That's the, sort of the boundary of the -- sort of the unit
4 of analysis of the building code, If you will. But -- and
5 so in that, the cost effectiveness, you know, is defined in
6 a particular way, but that way does actually complement
7 much of the other planning activities that the Commission
8 and the PUC and others actually do, and so SB 100 is one of
9 those.

10 Our forecasting is another that also is an hourly
11 modeling, you know, at a larger scale. But it does
12 actually look at aggregated building loads, and anticipates
13 the electrification that's going to take place, and the PV
14 and the behind-the-meter storage and the rest of it.

15 So whether there's an incentive within the code
16 to build in those technologies from the outset like, you
17 know, through the builders and kind of code-related
18 incentives, that's one question. But I think there
19 definitely are ways that the Energy Commission is valuing
20 those Distributed Energy Resources beyond the code.

21 And so whether that's in the IRP context, you
22 know, in our forecasting work, we fund a lot of research
23 and development on technology development -- you know,
24 microgrids and the like. We're funding a lot of battery
25 work, sort of up and down the grid, for reliability

1 purposes. So just would really encourage, I know you know
2 much of this but, you know, SCPA utilities have been such
3 innovators, and just really encourage you and your members
4 to plug into those various, you know, rulemakings or
5 discussions that are happening at the Commission, and often
6 jointly, you know, with other agencies.

7 So thanks for the comment and really all you're
8 doing.

9 MR. BOZORGCHAMI: Thank you, Commissioner.

10 Now that I've unmuted you, did you still want to
11 make a comment, or are we good?

12 MS. SEITZMAN: No. I just wanted to thank the
13 Commissioner for his feedback.

14 Thank you.

15 MR. BOZORGCHAMI: Thank you.

16 I don't see any raised hands. We may be able to
17 go to lunch early.

18 MR. SHEWMAKER: (Indiscernible.)

19 MR. BOZORGCHAMI: You do have one question?

20 Go ahead, Mikey.

21 MR. SHEWMAKER: So online we have a question from
22 Chandra Apperson: will current HERS raters be able to
23 recertify for the 2025 Energy Code cycle, or will all
24 raters be considered new based on the proposed program
25 changes and have to complete all classroom and lab training

1 again?

2 MR. LOYER: No, you will be able to recertify for
3 the new Code cycle.

4 MR. SHEWMAKER: And that's it for the online
5 questions.

6 MR. BOZORGCHAMI: Thank you, Joe.

7 And I put up again -- put the same slide back up.
8 If you have any comments, please submit your comments by
9 May 13th, 5pm, on anything on Title 24 Part 6, and then the
10 docket website is right there also.

11 I don't see any more raised hands, and I don't
12 see any comments coming to me right now. So I think we're
13 set for lunch break. That was fast.

14 COMMISSIONER MCALLISTER: Okay.

15 MR. BOZORGCHAMI: 12:30?

16 Commissioner, would 12:30 be okay for a lunch
17 break?

18 COMMISSIONER MCALLISTER: Sure. Great.

19 MR. BOZORGCHAMI: So we will reconvene at 12:30.

20 Thank you everyone.

21 (Hearing went to break at 11:21 a.m., returning
22 at 12:29 p.m.)

23 MR. BOZORGCHAMI: Alright. Good afternoon,
24 everyone. We're going to get started with the afternoon
25 session.

1 So Haile Bucaneg, who's our Senior Mechanical
2 Engineer, will be presenting on -- pardon me, there's a
3 delay on my computer -- on our Scopes and Mandatory
4 Requirements within Part 11.

5 Excuse me. I said Part 11, I meant Part 6 of
6 Title 24.

7 MR. BUCANEG: Good afternoon. Thank you all for
8 joining us in these Lead Commissioner hearings. My name
9 Haile Bucaneg, and I will be presenting on Sections 100 and
10 110.

11 Next slide, please.

12 We have to postpone the update.

13 MR. BOZORGCHAMI: Oh, sorry, folks. I'm
14 following a minor technical difficulty. We'll take care of
15 that right now.

16 There you go.

17 MR. BUCANEG: Perfect.

18 So two updates were made to Section 100.0(a).

19 First, Occupancy Group L was added to the list of
20 Occupancy Groups included under the Energy Code. Occupancy
21 Group L applies to laboratory suites, which may include
22 laboratories, offices, storage, equipment rooms, or similar
23 support functions where the aggregate quantities of
24 hazardous materials stored and used do not exceed the
25 prescribed quantities.

1 Second, Exception 2 was clarified to allow
2 building departments, at their discretion, to not require
3 compliance for temporary buildings, temporary outdoor
4 lighting, or temporary lighting in an unconditioned
5 building, or structures erected in response to a natural
6 disaster.

7 Next slide, please.

8 Section 100.0(e)2f was updated based on sections
9 applied -- applicable to covered processes and to cleanup
10 language within this section. First, Section 120.3, which
11 includes pipe installation requirements, and sections
12 141.1, which includes additions and alteration requirements
13 for covered processes, were added to the list of sections
14 applicable to covered processes. Additionally, the list of
15 mandatory sections that are applicable to covered processes
16 was updated to include Section 110.2 and 120.3. The note
17 that was included in the section was also removed as it is
18 not regulatory language. These changes were to support
19 covered process measures that were part of the 2025 Energy
20 Code update process and as general cleanup to the Energy
21 Code.

22 Next slide, please.

23 Table 100.0-A, Application of Standards, was
24 updated to include the appropriate code sections for
25 nonresidential and hotel/motels and for covered processes.

1 This included the addition of Section 120.10 under the list
2 of mandatory sections for nonresidential and hotel/motels.
3 For covered processes, Section 120.3 was added to the list
4 of mandatory sections and Sections 110.2 and Section 120.3
5 were added to the list of additions and alterations.

6 Next slide, please.

7 Two quick notes before I jump into this slide.

8 First, I will not be going over every definition
9 change during today's presentation. I will focus on a few
10 changes in the next few slides. Instead, as additional
11 topics are presented, the associated definition changes
12 associated with those topics will be brought up during
13 those presentations.

14 Second, there may be some additional changes to
15 the definition sections here as we align definitions
16 between Part 1 and Part 6. An example of this would be to
17 add the definition of Executive Director here in Section
18 100.1. The definition for Executive Director is included
19 in Section 10-102, but not in Section 100.1, and we just
20 want to include that definition in both sections.

21 So moving on to this slide, to support the
22 inclusion of Occupancy Group L under Section 100.0(a),
23 several definitions were added. The definition for
24 nonresidential buildings in Section 100.1 was updated to
25 include Occupancy Group L, and the definition for

1 laboratory was included to clarify which spaces must meet
2 Energy Code laboratory requirements. The definition for
3 laboratory suites, which referenced Occupancy Group L, was
4 also added.

5 Next slide, please.

6 The definition for healthcare facility was
7 updated to provide clarity for clinics. This definition
8 was updated with the assistance of the Department of
9 Healthcare Access and Information, HCAI, to ensure that
10 clinics are properly covered by either the Energy
11 Commission's Energy Code or HCAI requirements.

12 Next slide, please.

13 There were four definitions that were updated as
14 part of the changes associated with energy budgets. The
15 definition for energy budget was revised to reference Long-
16 term system cost and source energy as the metric used when
17 developing a building energy budget. The Long-term system
18 cost definition was a newly added definition and is the
19 Energy Commission projected present value of cost over a
20 30-year period for California's energy system. LSC does
21 not represent a prediction of individual utility bills.

22 The Source Energy definition was also updated and
23 is the long-run hourly marginal source energy of fossil
24 fuels that are combusted as a result of building energy
25 consumption, either directly at the building site, or cost

1 to be consumed to meet the electrical demand of the
2 building, considering the long-term effects of Commission
3 project energy resource procurement. For a given hour, the
4 value in that hour for each forecasted year is averaged to
5 establish a Lifetime Average Source Energy. And finally,
6 the definition for Time Dependent Valuation energy was
7 removed as this is no longer used.

8 Next slide, please.

9 Section 100.2 describes the calculation of the
10 energy budgets that are used to determine compliance with
11 the Energy Code. The energy budget is calculated for both
12 the standard building design and proposed building design
13 when a project complies through the performance compliance
14 approach.

15 Two metrics are used when calculating the energy
16 budget. The Long-term system costs, LSC, and Source
17 Energy. The hourly factors for LSC and Source Energy have
18 been calculated by the Energy Commission and will be made
19 available. For both LSC and Source Energy, the metrics are
20 dependent on the type of energy being used, whether
21 electricity, natural gas, or propane; dependent on the
22 climate zone; and dependent on whether the project is a
23 residential or nonresidential building. LSC compliance
24 metrics are applicable to new construction addition and
25 alteration projects, while Source Energy is applicable to

1 new construction projects.

2 Next slide, please.

3 Joint Appendix JA3 provides additional
4 information regarding the Long-term system costs and Source
5 Energy metrics. In addition to a description of the Long-
6 term system costs and source energy, JA3 includes a summary
7 of the LSC and Source Energy factors. These summaries are
8 broken down by energy type, climate zone, and building
9 type, and it should be noted that these factors are just
10 summaries, and hourly factors will be available at the
11 Energy Commission's website.

12 Next slide, please.

13 In the next slide, I will be going over some of
14 the revisions made for controls for heat pumps and
15 supplementary heaters.

16 Next slide.

17 Revisions to Section 110.2(b) were made to
18 support new single family heat pump requirements. Section
19 110.2 will be focused on control requirements for heat
20 pumps with supplementary heaters in non-residential and
21 multifamily buildings, and for heat pumps with
22 supplementary heating control requirements are described in
23 Section 150.0(h)7.

24 In the next few slides, I will be discussing the
25 requirements for cooling towers. This will cover Section

1 110, 140, and 170. I wanted to discuss all of these
2 requirements today instead of talking about cooling towers
3 requirements intermittently over the next few days.

4 Next slide, please.

5 Cooling tower blowdown control requirements in
6 Section 110.2(e) have been updated to remove flow-based
7 control options and update parameters for a cooling tower
8 blowdown. The updates to the parameters used to determine
9 when cooling tower blowdown occurs now includes
10 consideration of conductivity, total dissolved solids,
11 total alkalinity, calcium hardness, chlorides, sulfates,
12 and silica, in addition to Langelier saturation index.

13 Next slide, please.

14 The prescriptive minimum cooling tower efficiency
15 identified in Section 140.4(h)5 and 170.2(c)4Fv have been
16 updated based on climate zone. In climate zones 1 and 16,
17 the efficiency remains the same at 42.1 gallons per minute
18 per horsepower. The minimum efficiency in climate zones 3,
19 11, and 14 also remain the same at 60 gallons per minute
20 per horsepower. In climate zones 2, 4, 5, and 12, the
21 efficiency was increased to 70 gallons per minute per
22 horsepower. And in climate zones 6, 7, 8, 9, 10, 13, and
23 15, the efficiency was increased to 80 gallons per minute
24 per horsepower.

25 Next slide, please.

1 Construction and functional testing for Cooling
2 Tower Conductivity Controls are described in Appendix
3 NA7.5.18. These are used to confirm that controls are
4 operating based on parameters identified in Section
5 110.2(e) of the Energy Code.

6 Next slide.

7 And I think at this time we want to open up for
8 questions and comments.

9 MR. BOZORGCHAMI: Yeah. Any -- we have one
10 attendant in person that has a raised hand.

11 Please state your name and affiliation.

12 MS. PAYNE: Bronte Payne with SunPower. I just
13 had a question, if you could clarify. I think it's slide
14 (indiscernible) slide eight on our appendix.

15 MR. BOZORGCHAMI: Bronte? (Indiscernible.)

16 MS. PAYNE: Bronte Payne, SunPower.

17 Can you clarify the LSC and the Source Energy,
18 what they're relevant to? And when you went over it, both
19 are relevant to new construction, but then the slides, it
20 looks different.

21 MR. BUCANEG: So LSC compliance metrics are
22 applicable to new construction additions and alterations.

23 Okay.

24 Oh, I think the slides are incorrect on there.
25 Let me double check that. Is that correct? LSC is new

1 construction additions and alterations, and Source Energy
2 is only new construction.

3 MR. BOZORGCHAMI: That's correct.

4 MR. BUCANEG: Okay. I think that the slides are
5 the last bullet here on the slide here and the fourth
6 bullet on the Long-term system cost needs to get updated.
7 I think I missed that

8 MR. BOZORGCHAMI: (Indiscernible.)

9 MR. BUCANEG: Perfect. Thank you.

10 MR. BOZORGCHAMI: Any other -- there's no more
11 raise hand in the room. Anybody on the phone? Any
12 comments you would like to make on what you heard.

13 I have no raised hands. Michael, do you have any
14 Q&A?

15 MR. SHEWMAKER: I have just one comment in the
16 Q&A, and it's an anonymous attendee, and they're just
17 mentioning that it's difficult to hear the questions.

18 MR. BOZORGCHAMI: I think we resolved that by
19 giving her the mic. Sorry about that. Thank you.

20 I don't see another raised hand or anybody
21 putting comments in the Q&A, so I think we will just move
22 on.

23 MR. BUCANEG: Perfect.

24 MR. BOZORGCHAMI: To Space Conditioning.

25 MR. BUCANEG: Sounds good.

1 Okay. I'll be jumping back in, starting with
2 Space Conditioning Equipment Efficiency.

3 Next slide, please.

4 Okay. The tables in Section 110.2(e), which
5 identify minimum efficiency for Space Conditioning
6 equipment, were updated for various equipment to align with
7 ASHRAE standards. Also, for equipment where minimum
8 efficiencies are set federally, these values were removed.
9 And this was just to reduce the chance of inconsistent
10 information between the Energy Commission-identified
11 efficiencies and federal-identified efficiencies,
12 especially when federal efficiencies are updated. We are
13 planning to provide a separate supporting document with
14 these federal efficiencies, which we'll be able to update
15 outside of the standard Energy Code update cycle.

16 Next slide, please.

17 The proposed changes to the mandatory
18 requirements in Section 110.3 are all in regard to
19 installation of heat pump water heaters.

20 These requirements will be applicable to newly
21 constructed buildings, additions and alterations. In
22 Section 110.3(c)7a, the proposed requirement is for the
23 heat pump water heater to have backup electrical resistance
24 heat if the compressor cutout temperature is below the
25 winter median of extreme at that location. This will

1 ensure the water heater continue to provide adequate hot
2 water in all conditions.

3 In Section 110.3(c)7b, there are new ventilation
4 requirements that are applicable to all heat pump water
5 heater installations. These requirements include minimum
6 space volume for the installation space or communicating
7 space, Minimum Net Free Area for the openings, and ducting
8 requirements if the air inlet and/or outlet is ducted.
9 These proposed requirements ensure best practice in heat
10 pump water heat installation because studies indicated
11 degraded heat pump water heater performance and efficiency
12 when they are installed in confined spaces without adequate
13 ventilation. Alternatively, a method certified by the
14 manufacturer can be used to meet ventilation requirements
15 of 110.3(c)7b.

16 Next slide, please.

17 In Section 110.4(a) we did some cleanup and
18 reorganization. The exception language regarding electric
19 resistance heating has been incorporated into the new
20 Subsection C. We also cleaned up the requirements for pool
21 heater instructions. Section 110.4(b)1 is a new section
22 that references applicable testing standards for each of
23 the pool heater types. In Section 110.4(b)2, based on
24 industry feedback, the requirement for pipe between the
25 pool heater filter to the heater or dedicated suction and

1 return line has been updated to 18 inches of horizontal or
2 vertical pipe.

3 Next slide, please.

4 We had some cleanup for Section 110.4(b)3
5 regarding pool covers. In Section 110.4(c), this is a new
6 section and a new requirement for pool heater heating
7 sources. This requirement is applicable to new pool
8 heaters installed for single family, multifamily, and
9 nonresidential applications. This change requires a pool
10 heating system, a heat pump pool heater as the primary
11 heating system, or a heating system that derives at least
12 60 percent of heating energy from on-site renewable or
13 recovered energy.

14 In support of this pool heater requirement, there
15 is a new Joint Appendix JA16, criteria for pool and or spa
16 heating. The appendix provides eligibility criteria for
17 the mandatory pool heater requirements here in Section
18 110.4(c), which includes solar pool and or spa heating
19 system certification requirements, heat pump pool heater
20 methodology, and documents requiring -- document
21 requirements for on-site renewable or recovered energy.

22 Next slide, please.

23 There are five exceptions to the new pool heater
24 requirements. Exception one, portable electric spas are
25 not required to comply. Exception two, replacements of

1 existing pool and or spa heating systems are not required
2 to comply. This is applicable to single family,
3 multifamily, and nonresidential systems. This is a change
4 from the pre-rulemaking language where initially the
5 exception only applied to single family. Exception 3, a
6 pool and/or spa that is heated solely by a solar swimming
7 pool or spa heating system without any backup heater are
8 not required to comply. Exception 4, a heating system used
9 solely for permanent spas in existing building with gas
10 availability is not required to comply. And Exception 5, a
11 heating system used solely for permanent spas in existing
12 building with inadequate solar access is not required to
13 comply.

14 In Section 110.8, the code language was revised
15 to reference ASTM E1980, and the latest equations in this
16 document to calculate the solar reflectance index of
17 roofing products.

18 Next slide.

19 There are a small number of clarification changes
20 to the demand management section of 110.12. Section
21 110.12(a) contains overall requirements to all subsections
22 within demand response section of 110.12.

23 Two changes in this section are about terms or
24 terminology. First, the term protocol is used to clarify
25 that all demand responsive control shall be capable of

1 communicating using a wired or wireless communication
2 protocol. And second, the term demand response signal is
3 used to clarify the situations when demand response signal
4 is available or disabled.

5 There are also clarification changes to the
6 demand responsive lighting control requirements. The
7 changes clarify where the building is required to have
8 demand responsive lighting controls. The demand responsive
9 lighting control shall control the general lighting in the
10 spaces required to have multi-level lighting controls.

11 Last, there are changes to the demand responsive controlled
12 receptacles. The changes clarify that where the space
13 already has demand responsive lighting controls and is
14 required to have controlled receptacles, the receptacle
15 must be capable of automatically turning off the connected
16 loads upon receiving DR signals. These suggestions and
17 revisions are based on the opinion that the 2022 language
18 did not explicitly prepare the system designers for the
19 test procedure requirements by adding the recommended
20 language that would likely be improved compliance with the
21 testing.

22 Next slide.

23 And I think that's it for that section.

24 MR. BOZORGCHAMI: Yeah. So do I have any
25 questions or comments from the audience?

1 Alright. Well, I have two raise hands.

2 Go ahead and unmute. Brian, go ahead and state
3 your name and affiliation, and spell your last name please.

4 MR. SELBY: This is Brian Selby from Selby Energy
5 Inc. Last name is Selby, S-E-L-B-Y.

6 Comment regarding Section 110.4, specifically
7 Exception 5 to Section 110.4(c), where it states -- slide
8 77, by the way -- where it states the exception applies
9 when an "inadequate solar access." It's very vague and not
10 defined. We find this could be a potential abuse of this
11 exception, thinking that it needs some sort of parameter
12 indicating what inadequate solar access means.

13 So I've been in communication with the case team
14 on this particular exception. They're proposing some
15 changes to this. Just want to make everyone aware that
16 this, as it's written, is really unenforceable or has a
17 high potential for abuse in compliance.

18 MR. TAM: This is Danny. Thank you for your
19 comment.

20 This is also something we've recently heard, so
21 we'll consider it. We could possibly make some changes in
22 13 days, or address it with the compliance manual.

23 MR. BOZORGCHAMI: Thank you. Yeah, we'll look
24 into it, Brian.

25 By the way, that was Danny Tam, spelled T-A-M.

1 He's with the California Energy Commission. He's our Water
2 Heating Expert and Cooling/Heating.

3 MR. SELBY: Thank you, Danny, Payam.

4 MR. BOZORGCHAMI: Thank you.

5 So Danny, we'll take a look at that and get back
6 to Brian.

7 Next, we have Meg Waltner. Please state your
8 name and affiliation, Meg, and spell your last name.

9 MS. WALTNER: Great. Can you hear me?

10 MR. BOZORGCHAMI: Yes. Perfect.

11 MS. WALTNER: Great. Meg Waltner, W-A-L-T-N-E-R.
12 I'm with Energy 350, and I'm here on behalf of NRDC.

13 I have comments on to two of the items presented
14 in the section.

15 First on the heat pump water heater ventilation
16 requirements. Definitely support the intent of these
17 requirements to ensure that installed heat pump water
18 heaters have adequate ventilation, and really appreciate
19 the work that the Commission and staff and the case team
20 have done to date, working to make sure that the right
21 balance is struck between ensuring that performance and
22 also making sure these are not overly burdensome
23 requirements.

24 There's just a couple of small issues in that
25 section that are issues that I've commented on on the

1 docket before. One is the compressor rating point is not
2 actually something that's published by the manufacturers.
3 I just have some concern about the enforceability about
4 that specific -- the use of that for determining the room
5 size and ventilation amount. And then also concerns about
6 the required area with the ducted inlet configuration. So
7 I'll submit those comments on the docket. Again, they're
8 similar to what I've submitted before.

9 And then on the pool and spa heating
10 requirements, overall really support this measure and, you
11 know, this I think was the largest gas-saving measure
12 proposed by the IOU team. I was disappointed to see the
13 expansion of that exception for alterations to all --
14 basically all existing pools from just single family in the
15 draft express term. That really cuts into those savings,
16 which are so important. And so I'll be commenting further
17 on that on the docket, but just wanted to register that
18 concern and agree with Brian's comments as well. It sounds
19 like you're working on tightening up that definition in
20 Exception 4, but I agree with that concern as well.

21 So thank you very much.

22 MR. BOZORGCHAMI: Thank you, Meg, and we'll look
23 forward to your comments. Thank you.

24 I have no more raised hands here.

25 So Mikey?

1 MR. SHEWMAKER: Yeah. We have one online comment
2 from Carol Roberts. I'm going to break this up into two
3 parts.

4 MR. BOZORGCHAMI: Actually -- oh, sorry about
5 that. Carol had raised her hand, but she dropped it.

6 Okay, go ahead, Mikey. I apologize.

7 MR. SHEWMAKER: Carol's back up.

8 MR. BOZORGCHAMI: She's back up, so I'll let her
9 ask that question, Mikey.

10 Go ahead, Carol. State your name, affiliation,
11 and spell your last name, please.

12 MS. ROBERTS: Hi, Carol Roberts, R-O-B-E-R-T-S,
13 g.r.e.g. Consulting. Apologies in advance, I stepped in
14 mid-slide, but two parts.

15 So regarding heat pump water heater and the
16 backup electric heat requirement, are you referring to a
17 hybrid unit? I mean, it's commonly used in a hybrid water
18 heater where the tank and everything is all in one unit.
19 Are you referring -- or are you also referring to a
20 separate requirement for a separate electric resistance
21 water heater on a central boiler setup in that first piece?

22 MR. BOZORGCHAMI: Danny, do you want to respond?

23 MR. TAM: Yeah. Because of the location, it's
24 currently (indiscernible) any heat pump water heater,
25 whether it's commodity here, whether it's individual or

1 central.

2 MS. ROBERTS: Mm-hm.

3 MR. TAM: But yeah, most hybrid or unitary heat
4 pump water heater does have a backup assistance, or in the
5 case of some, their compressor shutoff is below the ambient
6 stream --

7 MS. ROBERTS: So --

8 MR. TAM: Yeah?

9 MS. ROBERTS: Sorry. So to read this -- to read
10 that correctly, are we saying that if you have a central
11 heat pump boiler system, you are going to be required to
12 also have an electric resistance water heater backup? Is
13 that the statement being made there?

14 MR. TAM: If the compressor cutoff is below the
15 winter medium of extreme, it's currently written. If
16 that's an issue, please submit comments and we'll --

17 MS. ROBERTS: Okay.

18 MR. TAM: -- consider it.

19 MS. ROBERTS: I mean, we've had -- sunny Southern
20 California, we've had some pretty cold days where all of
21 these have not performed very well for that one or three,
22 you know, one week a year. It's been pretty horrible for
23 that one week in the year.

24 Leading to my next question on the next bullet
25 point there you have, regarding the heat pump water heater

1 venting calculations, another huge issue when these are not
2 outside. And again, I'm referring to central water heaters
3 primarily. How is this new additional calc and
4 coordination going to be confirmed in the field? Is this
5 by plan review and the building inspector? There's no
6 Mechanical Acceptance test for that, and there's no HERS
7 test. So how does that get enforced?

8 MR. TAM: So that ventilation requirement
9 currently is a consumer-integrated water heater, so a
10 central system is not applicable.

11 As far as enforcement, it's not going to require
12 ECC verification, it's just got to be done through
13 appliance (indiscernible) documentation.

14 MS. ROBERTS: Is there any intention to have it
15 apply to Central? I mean, we're seeing -- I don't think
16 I'm alone in the energy consulting field where we're, you
17 know, widespread failure in heat pump water heater boiler
18 systems that are in either the garage under a podium or in
19 a mechanical boiler type room. They're just not being
20 ventilated properly. I don't think anyone anticipated the
21 amount of additional ventilation required.

22 MR. TAM: That is definitely an issue.

23 For this round cycle, I don't think we consider
24 for a central system. We can consider for next full cycle.

25 COMMISSIONER MCALLISTER: For 2028?

1 MR. TAM: Yeah. We also do have some mandatory
2 water heater ready language that's being proposed that will
3 be presented on the third day, but that should address all
4 the concerns of the future.

5 MS. ROBERTS: I'm sorry, the screen froze a bit
6 while you were explaining the timeline on that. Did I hear
7 we won't be addressing central heat pump water heater
8 ventilation until 2028?

9 MR. TAM: So two parts, for this current cycle we
10 didn't consider ventilation requirements for central heat
11 and water heaters, but that's something we can consider for
12 2028. On day three of the hearing on Thursday, we'll be
13 presenting the mandatory requirement for multifamily, and
14 then there are some new proposed heat pump water heater
15 ready central system language. That does address some of
16 the ventilation issues.

17 MS. ROBERTS: For the proposed 2025 cycle?

18 MR. TAM: Yes.

19 MS. ROBERTS: Okay. Thank you.

20 MR. BOZORGCHAMI: Thank you, Carol. Thank you,
21 Danny.

22 I don't see any more raised hands or any
23 comments, any Q&A.

24 MR. SHEWMAKER: Nothing further online.

25 MR. BOZORGCHAMI: So if that's the case, I would

1 like to open it up for any comments, questions, concerns
2 that -- on any of the topics that folks have heard today.

3 I just want to make sure that we get your
4 comments or concerns in way before May 13th if possible,
5 please, so that we can do a proper job of review and get
6 our comments ready and respond to you. And if we need to
7 make edits, we can.

8 I've got one raised hand again. Go ahead, Carol.
9 State your name and affiliation and spell your last name.

10 MS. ROBERTS: Carol Roberts, g.r.e.g. Consulting.
11 Just one kind of overarching question as we look at what
12 things we can take care of during the 2025 Code cycle, and
13 then moving into looking at things that we can't really
14 move until 2028.

15 I've had an inquiry here and there regarding
16 forms and different -- just in general, things. We're
17 going to be living with multifamily construction for the
18 2022 Energy Code for the next four and five years, maybe
19 even six years. And to look at things that we can't
20 address until the 2025 Code, how do you suggest we get some
21 things that may need action sooner than the 2025 Code cycle
22 taken care of under the '22 Code? I know it's old news
23 but, you know, we're on the ground here, living with these
24 buildings still in construction for the next five or more
25 years.

1 MR. PEREZ: That's a difficult question, Carol.
2 This is Javier Perez, Energy Commission.

3 MS. ROBERTS: Yeah.

4 MR. PEREZ: We go through this rulemaking process
5 every three years and every three years it's like our shoes
6 fall apart on the way to the finish line here.

7 MS. ROBERTS: Yeah.

8 MR. PEREZ: I think we absolutely want to engage
9 and understand where challenges exist, and I think we --
10 our outreach team does a really good job of hearing these
11 issues and trying to provide clarity on how our
12 requirements apply when there is some clarity that's
13 needed. With regards to changes to requirements, I think
14 that's a conversation that we need to have, and understand
15 the issues that are in existence.

16 MS. ROBERTS: Yeah.

17 MR. PEREZ: In conclusion, we can do in-between
18 rulemaking, but we appreciate this is the tough
19 (indiscernible) every three years, so apologies that this
20 response may not be, you know, completely satisfactory.

21 MS. ROBERTS: Yeah. Requirements may be the
22 wrong word.

23 You know, now we're boots on the ground dealing
24 with forms. We're dealing with registries. We're dealing
25 with acceptance testing forms. We're dealing with

1 installation forms, things that don't exist, things that
2 are incorrect. There's just, you know, boots on the ground
3 now. All of these things that were thought out years ago,
4 they're kind of broken and it's hard to get attention to
5 have things fixed when we're focusing on 2025 and 2028, so
6 I'm just -- and like I say we're going to be working with
7 things that are broken for years before we ever touch a
8 2025 Code building that's in construction.

9 MR. PEREZ: I very much appreciate that comment
10 Carol. You know, our compliance office is working on
11 multiple fronts with regards to compliance and enforcement
12 of our requirements. So I do want to encourage you to
13 reach out after this hearing.

14 Again, my name is Javier Perez, and our email
15 addresses are just first name dot last name at
16 energy.ca.gov. And I can connect you with our compliance
17 branch and, you know, make sure that we're on the same page
18 about the efforts that are generally ongoing in between
19 Code cycles. And I think we'd love to have your
20 participation, and really anyone who would like to
21 participate, in trying to make sure that compliance and
22 enforcement gets to a much better place.

23 MS. ROBERTS: Great. Appreciate it. Thank you.

24 COMMISSIONER MCALLISTER: This is Commissioner
25 McAllister. I'll just chime in quickly.

1 So really appreciate those comments. And if
2 there are questions of usability, or forms that don't make
3 sense, or don't seem to reflect the intent or the need, you
4 know, we'd love to hear that. I mean, the -- you know,
5 CBECC and the forms ecosystem is under constant
6 improvement. So, you know, we don't know about problems if
7 nobody tells us. So I think, really, if -- as Javier
8 suggested, get in touch with him and the Compliance Office,
9 that would be super helpful. Really appreciate your time
10 and effort.

11 MS. ROBERTS: Thank you.

12 MR. BOZORGCHAMI: And one more notification. In
13 the presentations that we will be posting, I think Javier
14 and his section provided everyone's last name -- first
15 name, last name, and their email addresses, and that
16 information will be there for anybody that needs more
17 clarity or has issues with 2022 or 2020, or any other part
18 of the code. You can always reach out to us and we'll try
19 to assist as best we can.

20 With that, Bob, go ahead and state your name and
21 affiliation. Please spell your last name.

22 MR. RAYMER: Yeah. Thank you, Payam. Bob
23 Raymer, that's R-A-Y-M-E-R, and I'm with the California
24 Building Industry Association, and also the California
25 Apartment Association.

1 This is a question going back to part one or
2 Section 115, community solar. It's not that we have an
3 issue here. I just wanted to kind of make sure I'm reading
4 this correctly. Under subsection 6, location, you're
5 adding the language, the distribution system shall have an
6 electric voltage less than 100 kilovolts. You know, just
7 looking at that and talking with Mike Stone from NEMA, it
8 just seems that you're trying to clarify that you don't
9 want, like, major power lines coming in from the desert.

10 Is that kind of correct? I mean, it's just 100
11 kilovolts is still pretty big. So, you know, we're fine
12 with that, but is that the intent here?

13 And by the way, this provision is on page 111.

14 MR. PEREZ: Yeah. Thanks for that, Bob. Yeah,
15 our subject matter expert -- I think it'd probably be best
16 if you submit that in writing --

17 MR. RAYMER: Yes.

18 MR. PEREZ: -- to our docket. I think it's
19 important that we get that clarification --

20 MR. RAYMER: Yes.

21 MR. PEREZ: -- (indiscernible) and the source for
22 where that's coming from.

23 MR. RAYMER: Yeah. I'll do that. We -- I don't
24 think we have a problem at all with it. I just want to
25 make sure I'm reading it right.

1 Thank you. Have a good one, guys.

2 MR. PEREZ: Yeah. Appreciate it. Thank you,
3 Bob.

4 MR. BOZORGCHAMI: Shelby, I'm going to unmute
5 you. Please state your name, affiliation and spell your
6 last name. Thank you.

7 MS. GATLIN: This is Shelby Gatlin. I'm with
8 CalCERTS, a HERS provider. Last name is G-A-T-L-I-N.

9 I'm commenting on one of the comments that
10 Stephanie Gorton from Interguy had this morning on the
11 rater company disclosures, which are new under the new code
12 language. And some of the things that the rating companies
13 are supposed to disclose to the HERS providers are their
14 pricing structures, and one of the things that CalCERTS
15 would like to suggest is that the Commission start with
16 having the providers disclose their pricing, and then maybe
17 in subsequent Code cycles have the rating companies
18 disclose their pricing. One of the things that as a rating
19 company I would be concerned about is the protection of
20 that information. Joe mentioned that it will be provided
21 to the CEC in aggregate form, but the providers would need
22 to work with their clients to make sure that the providers
23 themselves protect that information.

24 And so we'll be submitting some comments to the
25 docket, that it's -- I understand the importance of the

1 financial information needing to be disclosed to the
2 Commission, but I would highly recommend that the
3 Commission start by looking at provider pricing first.

4 Thank you so much.

5 MR. BOZORGCHAMI: Thank you Shelby, and I think
6 we look forward to those comments. Please provide those
7 and we'll take care of those. Thank you.

8 I don't see any more raised hands or anybody in
9 the room with any questions. Mikey, do you have any?

10 MR. SHEWMAKER: No other questions online.

11 MR. BOZORGCHAMI: No?

12 So what I'm going to do, if it's okay,
13 Commissioner, I'm going to open up the discussion for all
14 parts of Title 24, Part 6 --

15 COMMISSIONER MCALLISTER: Sure.

16 MR. BOZORGCHAMI: -- and Part 1.

17 So if anybody has any concerns, not just on what
18 you heard today, but any parts, or questions, please raise
19 your hand or state your name.

20 COMMISSIONER MCALLISTER: But just to be clear,
21 probably make comments on items other than what we've heard
22 today, if you could sort of do that in the spirit of
23 putting those topics on the table. You know, we may not be
24 fully prepared to have like a lot of dialogue. I want to
25 make sure we have the right people in the room so that that

1 substantive dialogue is probably most appropriate at the
2 appropriate time, you know, tomorrow or the next day if
3 it's not on today's agenda. But just to give kind of some
4 heads up, the staff the heads up, of the topics that are,
5 you know, coming in the next couple days as well.

6 Thanks.

7 MR. BOZORGCHAMI: Thank you.

8 Bob, go ahead.

9 MR. RAYMER: Thank you.

10 Once again, this is Bob Raymer, R-A-Y-M-E-R, with
11 the California Building Industry Association and also the
12 California Apartment Association, and I don't expect to
13 have any kind of a detailed discussion today. This would
14 be sort of a question or comment for Thursday's discussion
15 on residential.

16 You know, as we move into the LSC, as you know,
17 that we've done a lot of work with Commission staff
18 regarding the LSC and making sure that it doesn't have an
19 unintentional impact on peak load items that serve summer
20 peak load very well. And it's my understanding that we're
21 going to be doing the ACM workshops this summer, which will
22 really get into the weeds on this, and so to the extent
23 that we can have a chat about that on Thursday, that'd be
24 great.

25 Right now I think we've been working on a 20

1 percent buffering, which apparently is working out very
2 well. We did an extensive research analysis through a
3 grant provided by the California Homebuilding Foundation.
4 We provided that information to the CEC.

5 So anyway, we'll be looking forward to that
6 discussion in the course of the summer because, you know,
7 the way it always works for us -- you know, we support the
8 standards, the standards development, but it's difficult
9 for us to support individual provisions, because we always
10 comply with the regs in their entirety. And so right now
11 it looks like it's heading in a direct -- in a good
12 direction, you know, with that 20 percent buffer that would
13 apply for probably about three years. So we'll look
14 forward to the discussion on Thursday.

15 Sorry, that was kind of rambling, but that's a
16 big item for us, and we support where the CEC is heading.

17 Anyway, thank you.

18 MR. BOZORGCHAMI: Sure. Thank you, Bob.

19 And yes, the peak cooling and the 20 percent will
20 be presented on Thursday. Danny Tam will be presenting
21 that piece. Stay tuned.

22 MR. RAYMER: Hey, perfect. Thank you.

23 MR. BOZORGCHAMI: Alrighty.

24 I don't see any more raised hands. Oh, I've got
25 one raised hand here in the audience. We'll get her the

1 microphone in one second.

2 MS. PAYNE: Hi. Bronte Payne with SunPower, B-R-
3 O-N-T-E P-A-Y-N-E.

4 This will come up tomorrow for non-res, and I
5 think it'll also come up Thursday on multifamily -- and
6 I'll put the full technical comments in the docket -- but
7 in the cost-effectiveness analysis for PV and battery
8 storage, I think there's an undervaluing. It's -- products
9 will be more cost effective when the ITC is properly
10 factored in.

11 Actually, there's two places where the current
12 explanations don't totally line up with the way that the
13 Inflation Reduction Act will work.

14 The first thing is on prevailing wage. A lot of
15 projects might not need to comply with prevailing wage to
16 get the full 30 percent value of the ITC. They only need
17 to do that if they are over one megawatt, and then they
18 need to comply with prevailing wage and apprenticeships if
19 they want the full 30 percent. But a project developer, if
20 they wanted to, could decide to opt out of the full 30
21 percent, not do prevailing wage and apprenticeships, just
22 for the IRA. I know there's some separate state laws. But
23 the first one that they're in, they'll still get a 6
24 percent ITC.

25 And then the other thing is, for things like

1 battery replacement, the ITC has a phase out, but Section
2 48 and Section 48(e) are the corporate taxpayer version.
3 Section 48(e) kicks in in 2025. It's the tech-neutral
4 version of the ITC, and that, starting in 2035, remains at
5 10 percent. So there's not actually a full phase down of
6 the ITC for corporate taxpayers, only residential taxpayers
7 under Section 25(d) of the federal tax code.

8 MR. PEREZ: Thanks for that, Bronte. This is
9 Javier with the Energy Commission.

10 Just want to make sure that we're clear on what
11 you're saying. I think what you're saying is that the PV
12 and energy storage requirements would be even more cost
13 effective where these other considerations would be taken
14 into account?

15 MS. PAYNE: Yeah. There'll be projects where the
16 prevailing wage portion of the cost effectiveness should be
17 removed, and then there'll be portions where more ITC value
18 could actually be added later on. Yeah. They'll be more
19 cost effective.

20 MR. PEREZ: Thank you.

21 MR. BOZORGCHAMI: Thank you.

22 I've got one more raised hand. I'm going to --
23 Christopher, I'm going to unmute you. Please state your
24 name, last name, and affiliation.

25 MR. RUCH: Christopher Ruch, that's R-U-C-H, with

1 NEMI.

2 Mr. McAllister, I want to talk about 10-103.3(a),
3 and this goes off of Mr. Zeedyk's comment earlier about the
4 ECC program, that you really need to do clarify that that
5 is a residential program.

6 Specifically, I was looking at the scope that's
7 outlined in 10-103.3(a). It currently does not match the
8 defined purpose of the ECC program. According to the
9 definition in Section 10-102, the ECC program is
10 specifically designed for Field Verification & Diagnostic
11 Testing in residential construction. But when you look at
12 the scope, they didn't include the word residential
13 anywhere in there. That really makes it into a very broad
14 program.

15 To avoid any issues with this and ensure clarity,
16 the language describing the scope of the ECC program should
17 specifically state that it's limited to residential
18 buildings only. This adjustment will align with the
19 program scope with its intended purpose as it's defined in
20 the Energy Code.

21 Thank you for your consideration.

22 MR. BOZORGCHAMI: Thank you.

23 Could I request you to submit that comment in
24 writing to the Energy Commission if possible, please?

25 MR. RUCH: Absolutely.

1 MR. BOZORGCHAMI: Thank you.

2 COMMISSIONER MCALLISTER: Thank you.

3 MR. BOZORGCHAMI: I don't have any more raised
4 hands or any comments.

5 COMMISSIONER MCALLISTER: Did we, did you
6 describe the -- so I know the link to the docket is up
7 there. You know, you've flashed that a lot, and we'll
8 continue to do so.

9 MR. BOZORGCHAMI: Yes.

10 COMMISSIONER MCALLISTER: But maybe it's worth
11 talking about our public advisor.

12 If anybody has any issues or questions about how
13 to submit comments into this docket or any other docket at
14 the Energy Commission, we do have a Public Advisor's office
15 that can help with any sort of access issues or answer any
16 questions about how public engagement happens at the Energy
17 Commission. So this audience is probably, you know,
18 relatively sophisticated and gets this, and many of you
19 will have submitted comments in the past, so that's the
20 same this time around, but if you or anybody you know wants
21 to participate in this or any other proceeding at the
22 Energy Commission, there are ways to get help to do that.
23 So our Public Advisor's office is where to start. And
24 they're easy to locate on our website. So just wanted to
25 open that door a little bit wider.

1 MR. PEREZ: Yeah. Just to expand on that,
2 Commissioner, the 2025 Energy Standards page has an
3 accordion tying to public participation, and the third or
4 fourth paragraph under that subheader includes a link to
5 the Public Advisor's office who, like you said, can assist
6 with any participation in these proceedings. So if you
7 can't make it, they can even communicate your comments on
8 the record as needed. So it's on our website. We'll,
9 maybe for Tuesday -- or Wednesday and Thursday's slides, we
10 can add something on there.

11 COMMISSIONER MCALLISTER: And that can be as
12 simple as -- you know, it can be formal comments on
13 letterhead and submitted, you know, multipage, you know,
14 documents. But also, you know, often it's just emails,
15 it's just a one-paragraph, two-sentence email that comes in
16 through the docket as well.

17 So the lift doesn't have to be really big. We
18 just want your substantive comments to come in. Like, that
19 one could be brief, but it's important. So thanks.

20 MR. BOZORGCHAMI: Commissioner, I think this
21 concludes our presentation --

22 COMMISSIONER MCALLISTER: Okay.

23 MR. BOZORGCHAMI: -- today.

24 I'm going to see if you have any remarks you
25 would like to make?

1 COMMISSIONER MCALLISTER: Yeah.

2 Well, so thanks everybody for participating
3 today. I think it was a productive day and maybe -- when
4 will the recording be up for people to listen to?

5 MR. BOZORGCHAMI: We're going to try to get them
6 -- as soon as we get them, we'll post them on our docket.

7 COMMISSIONER MCALLISTER: Okay.

8 MR. BOZORGCHAMI: But the presentation,
9 PowerPoint presentation, will be up on our docket by this
10 Friday.

11 COMMISSIONER MCALLISTER: Okay.

12 MR. BOZORGCHAMI: We've got two more
13 presentations to get ready for, and we'll probably -- we'll
14 probably have three separate links in our docket for the
15 three separate days.

16 COMMISSIONER MCALLISTER: Okay. Okay.

17 I mean, sooner is better, just so people can,
18 while they're -- you know, if you participated, or if you
19 know somebody who has not, you know, look at the -- as you
20 develop your written comments, look at the transcript.
21 Look, that'll be a little bit longer, but the recording is
22 helpful, and also the presentations to dial in your
23 comments and just refresh your memory. So we try to get
24 those up as soon as we can.

25 So thanks to the team, the Energy Commission

1 team. This was a big team effort. So all the people you
2 heard of today, and a lot of folks behind them. I did want
3 to lift up Gypsy Achong as well, who's in the room, who's
4 the Branch Manager over the Building Standards Branch, and
5 working together with Javier year on all things 2025
6 Update.

7 So again, any of the staff you've heard today can
8 be a point of contact. Your comments will get heard.

9 And thanks to Will Vicent as well, who is Deputy
10 Director of the Efficiency Division, so really overseeing
11 all this very, very capably. and Mike Sokol, the director
12 of the Division itself.

13 So, you know, again, I'll just wrap up by sort of
14 maybe high level detailing a bit why we're here in the
15 California energy context. And, you know, today, tomorrow,
16 Thursday are really critical for a lot of detail in this.
17 You know, a lot of weeds, a lot of rabbit holes. You know,
18 this is a complex endeavor.

19 But in sum, the Building Energy Code is a key
20 instrument for California to meet our decarbonization
21 goals. Every new building is an opportunity to do better,
22 to build low-carbon. The building code is a minimum bar,
23 but certainly we want to open up all sorts of room for
24 innovation and not get in the way of that. And every
25 electron, every molecule, that comes through our energy

1 systems really needs to go one way going forward, and
2 that's low-carbon. So we have to do it equitably, we have
3 to do it cost-effectively, has to be technically feasible.
4 We really value the market intel and knowledge that all of
5 you bring to this process to help us achieve all these
6 goals. So California is really out there leading, and a
7 lot of people are looking at this update and, you know,
8 we're really trying to land in a place that's both forward-
9 thinking and also grounded and responsible.

10 So today was sort of chapter one of that, and
11 tomorrow and Thursday will be subsequent chapters. And,
12 you know, we really look forward to engagement with all of
13 you, and your help for us to get it right, and to really
14 get the builders and all of the trade allies and all the
15 stakeholders engaged with our built environment, new and
16 existing, all the tools that you need to build and operate
17 better buildings in California.

18 So again, thanks everybody. And I think we're
19 wrapped up for today.

20 MR. BOZORGCHAMI: Thank you, Commissioner. Thank
21 you everyone for participating, and this ends our day.

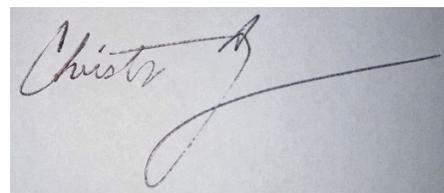
22 (The hearing adjourned at 1:23 p.m.)
23
24
25

REPORTER'S CERTIFICATE

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 notary public and 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 23rd day of May, 2024.

A photograph of a handwritten signature in black ink on a light-colored surface. The signature is written in a cursive style and appears to read "Chris Caplan".

Chris Caplan
Electronic Reporter
CER**1971

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, CERT**367

May 23, 2024