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BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the matter of,)
) Docket No. 17-EBP-01
)
Improving Energy Compliance of)
Air Conditioning and Heat Pump)
Systems)

STAFF RESCHEDULED WORKSHOP
PROMOTION OF REGULATORY COMPLIANCE IN THE INSTALLATION
OF CENTRAL AIR CONDITIONING AND HEAT PUMPS

CALIFORNIA ENERGY COMMISSION
FIRST FLOOR, ART ROSENFELD HEARING ROOM
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

FRIDAY, JULY 20, 2018
9:10 A.M.

Reported By:
Peter Petty

APPEARANCES

CEC Staff Present

Lea Haro

Judy Roberson

Juventino Mendoza

Joe Loyer

Stakeholder Participants

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District 2

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Cynthia Moore, CSLB

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Stanford A. Rollins, 1 Earth Multifamily Assessments

Alex Ayers, Heating and Air-Conditioning Refrigeration
Distributors International (Via WebEx)

Gene Ashdown, City of Winters

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Vicki Burlingham, CRDS Capital Rating & Documentation Services
(Via WebEx)

Bruce Severance, Mitsubishi Electric

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P R O C E E D I N G S

1
2 JULY 20, 2018

9:10 A.M.

3 MS. HARO: Good morning everyone and thank
4 you -- is the mic not -- it is? It's green. Hello.
5 So, the transcriber can hear me. I hope everyone else
6 can hear me. So, thank you for joining our workshop.
7 And we apologize for some of the WebEx issues that we
8 had during the last workshop.

9 So, and thank you to all the participants who
10 tried to join the last workshop and were unable to and
11 thank you for joining this workshop.

12 So, just a couple housekeeping things that we
13 need to go over. So, for your information this workshop
14 is being recorded. And for those of you who are not
15 familiar with the building, the closest restrooms are
16 near that entrance, and there is one sort of tucked
17 around the corner back there.

18 We do have vending machines on the second floor,
19 if you want coffee or anything out of -- or anything
20 more, you'll have to leave the building and go to one of
21 the local cafes.

22 So, if there is an emergency, please leave the
23 building. And we will reconvene at Roosevelt Park,
24 which is just across the street.

25 So, for those of you who were unable to get onto

1 the WebEx and for those of you who are interested, the
2 recording of the WebEx was made available on July 3rd.
3 And I believe the transcripts of -- okay, the
4 transcripts of the previous workshop will be made
5 available shortly.

6 So, in addition, we will also be posting the
7 recording of this workshop and posting the transcription
8 of this workshop to our website, as well.

9 So, and just to give you some background of how
10 we came to this place of trying to write a plan to
11 increase compliance with central air conditioning and
12 heat pumps. So, some of you may be familiar with the
13 2008 Energy Commission Strategic Plan to Reduce the
14 Energy Impacts of Air Conditioners, and this was born
15 out of Assembly Bill 2021.

16 We've also had Assembly Bill AB 758, which
17 mandated the Energy Commission to develop a program to
18 improve energy efficiency in existing buildings. And
19 out of that, the Existing Buildings Energy Efficiency
20 Action Plan was born, and this was updated in 2016, and
21 is currently being updated as part of the SB 350
22 efforts.

23 And in 2015, we have SB 350, which establishes
24 energy efficiency targets to achieve statewide
25 cumulative doubling of energy efficiency savings in

1 electricity and natural gas end uses. And so, one of
2 the major studies that's come out of that is the Low-
3 Income Barrier Study.

4 So, SB 1414 mandates the Energy Commission, in
5 consultation with the CSLB, local building officials,
6 and other industry stakeholders to develop a plan. So,
7 there has been a lot of discussion over the years about
8 how to increase compliance with the standards and with
9 HVAC systems. And so, this piece of legislation
10 specifies central air conditioning and heat pumps. And
11 part of this is we are meant to evaluate methods and
12 collect data to determine whether the recommendations
13 are feasible and cost effective.

14 The plan also needs to consider and evaluate the
15 impacts on property owners, the HVAC industry, local
16 governments, and building departments.

17 We are also required to develop a plan, and put
18 it before the public, and seek input. And we are also
19 authorized to adopt regulations that are consistent with
20 this plan. And so, as many of you know, we are also
21 meant to have this draft, the plan approved by January
22 2019. And so, we are on a fast pace to try to put
23 something out.

24 But I think what is extremely important about
25 this process is that we are bringing together the

1 various stakeholders in the industry and this is not
2 just an Energy Commission or CSLB plan. That this is we
3 do want something that is implementable and so we do
4 want to hear from all of the stakeholders. And so,
5 again, thank you for joining our second workshop.

6 And so, I'm going to hand this over to Judy, who
7 is our Project Lead.

8 MS. ROBERSON: Thank you, Lea. Before I get
9 started, I want to make sure that I'm loud, but not too
10 loud. Loud enough, but not too loud. I know that
11 there's some construction outside.

12 How is this working for everybody in the room?
13 Okay. Court reporter, Peter, is this okay? All right.

14 So, my job is a little bit easier this time.
15 Because this is basically a do-over from the June 29th
16 workshop, where the WebEx was not working properly, we
17 want to make sure that you have the same introduction to
18 the topic before we start taking questions and having
19 discussions.

20 So, we certainly appreciate your coming and we
21 welcome all the people on the WebEx, and we want to hear
22 from all of you. This is a big problem. It's a long-
23 standing problem. It's been around for at least 20
24 years. And some of you may have been familiar with it
25 before that.

1 We have a mandate, now, which is an opportunity
2 to come together, and put our heads together, and solve
3 this problem, and it's not going to be easy. And that's
4 why we need, and we want, and we're asking for your
5 input.

6 The scope of SB 1414 is all central air
7 conditioning and heat pump system installations.
8 However, the biggest problem with compliance is in the
9 alterations market. By alterations, I mean what you
10 would -- what a lot of you call change outs. It's not
11 new installations, necessarily, unless it's a whole new
12 installation.

13 And, particularly, installations and alterations
14 in small commercial and residential buildings, which
15 tend to be served by a different pool of contractors
16 than the ones that work on large commercial buildings
17 and new construction. It's easier to avoid permits when
18 you're doing an alteration than it is when you're doing
19 a new construction or working on a large building.

20 So, the focus of the workshop is going to be on
21 what I'm calling the alterations or the change out
22 market. And this is important because we have minimum
23 -- our minimum code requirements include third-party
24 verification by a HERS Rater, which is generally
25 triggered by pulling out a permit. And HERS

1 verification is important because these are complicated
2 systems. They're prone to a number of installation
3 failures or defects. And that's what HERS Raters are
4 for is to make sure that these more complicated energy
5 systems are actually performing properly before they're
6 put into use.

7 We don't know big the problem is, but we know
8 it's big. We don't know how big it is because we don't
9 know how many alterations are actually happening. And
10 we can get an idea of how many are being permitted, but
11 we don't know what the bigger number is.

12 But not all of the alterations that are
13 permitted are actually HERS-verified or documented,
14 which means that their compliance is not documented and
15 the permit is not closed.

16 For compliance to be verified and documented, we
17 need to bring these systems into the permit process.
18 And so, that's a big part of the problem is identifying
19 and addressing what is now unpermitted activity.

20 So, I have one slide on solutions coming up.
21 Thank you. This slide is on the barriers, one slide on
22 barriers and one on solutions. So, this is a very high-
23 level fly-over overview of the barriers that have been
24 identified by various people over the years. It's not
25 comprehensive and it's not exclusive.

1 There are a lot of stakeholders, including
2 property owners and homeowners, and especially when
3 they're in a situation where they need to replace their
4 air conditioning system because it has failed, their
5 decisions are basically driven by low-cost and
6 convenience. So, low-cost is driving the market at this
7 point.

8 Homeowners and property owners are not aware of
9 the complexity of these systems, generally speaking, and
10 they may be under the impression that if they buy an
11 efficient piece of equipment that it's going to work at
12 that efficiency, and we know that that's not always
13 true.

14 The equipment itself is one component of a
15 larger system that includes ducts, refrigerant charge,
16 and air flow. And these things need to all be designed,
17 installed, and commissioned to make sure that they're
18 operating most energy efficiently.

19 So, we are looking for value propositions.
20 We're all more or less aware of the problems and the
21 barriers. What we want to talk about today is moving
22 towards solutions. We want to hear not just what's
23 wrong with the market, but what we can do about it. And
24 what we can do about it in away that's synergistic. We
25 want to solve multiple problems.

1 Excuse me, my pages are a little mixed up.
2 Okay. We don't want to just focus on different pieces
3 of the elephant, so to speak, in isolation from the
4 rest. This is a real market transformation effort. We
5 need to be thinking about not only our own perspective
6 as stakeholders, from wherever you're coming from, but
7 all the stakeholders' perspectives. We need to consider
8 everybody that's involved. Everybody needs to come away
9 from this plan with a value proposition for improving
10 compliance, whether you're a building owner, a HERS
11 Rater, a contractor, a distributor, a local government,
12 or anybody else.

13 The enforcement agencies are the CSLB,
14 Contractors State License Board. We are specifically
15 required to consult with them and we are consulting with
16 them, because we're dealing with licensed contractors.

17 Building departments are very resource-
18 constrained. They have to deal not just with the Energy
19 Code, but with all the codes. They have to try to
20 enforce all of those and we know that the Energy Code is
21 sometimes less of a priority for enforcement agencies
22 than some of the other safety-related codes.

23 So, we need to consider the building
24 departments' limited resources and how we can help them,
25 not add more of a burden to them for their enforcement

1 activities in this respect.

2 The compliance process itself, the process of
3 applying for and getting a permit, and closing a permit
4 is perceived as being too complex and too expensive by a
5 lot of people. So, they lack a value proposition to
6 take that route. And we need to provide value
7 propositions, both negative and positive.

8 So, for example, a positive value proposition
9 would be an incentive or a reason to do something.
10 Whereas, a negative value proposition is more of a
11 disincentive or a reason not to do something, such as
12 penalties for not pulling permits, or not getting HERS
13 verification. That would be a negative proposition.

14 All of these mechanisms are on the table. We're
15 not married to any particular solution. We don't know
16 at this point what the answer is. That's why we're
17 having this series of workshops. This is the second of
18 three workshops.

19 The next one will be August 3rd, in Irwindale.
20 it will be a full-day Commissioner workshop and we're
21 preparing for that, and we're asking for your help.

22 Back to barriers. Contractors in the small
23 building alterations market tend to basically compete on
24 the basis of cost. Even if they're industry trained,
25 and qualified, and certified, and want to do the best

1 possible quality installation according to industry
2 standards, it's very hard for those contractors to
3 compete when the market, the building owners, the
4 decision makers are primarily concerned with, first,
5 cost. So, we need to do something about that.

6 Solutions. In terms of solutions, again we need
7 to consider value propositions for all stakeholders,
8 including property owners and contractors, and
9 progressive penalties for failure to comply. At
10 present, not only is it difficult to identify
11 unpermitted activity, but when it is found the
12 penalties, the fines, the consequences for not pulling a
13 permit are inadequate too deter scofflaws. It's not
14 perceived as a real risk by contractors or homeowners.

15 Quite a few contractors don't have the industry
16 training and skills that it takes to properly install
17 central air conditioning and heat pump systems. I'm
18 talking about the technicians in the field, who actually
19 do the work.

20 We need to make sure that contractors have the
21 opportunity to get that training and know what needs to
22 be done and can, therefore, install them in such a way
23 that it's going to pass the HERS verification.

24 In terms of raising consumer awareness about the
25 problem, one solution that has been mentioned is the

1 possibility of mandatory disclosure of the compliance
2 process, including the permit and HERS verification to
3 property owners in some way. Details to be determined.

4 Requirements for these types of alterations are
5 not that different across the State. There are some
6 climate zone variations, but generally the process is
7 the same.

8 Contractors, however, one of the problems they
9 face is that building departments each have their own
10 method of categorizing and processing these permits.
11 They're own inspection scheduling process and their own
12 permit fees.

13 So, for contractors who work across different
14 jurisdictions that really doesn't help. It makes it
15 harder for them.

16 Now, we're not talking about the whole Energy
17 Code here. We're talking about this subset of
18 mechanical alterations. And it should be possible to
19 somehow streamline or standardize the permitting process
20 so that it would be more convenient for everybody
21 involved and that would potentially remove at least one
22 barrier.

23 HERS Raters have a huge stake in this. HERS
24 Raters are called to verify an installation because a
25 permit has been pulled and the installation is complete.

1 If the process is going smoothly, the HERS Rater is
2 called to verify the performance or the compliance, the
3 minimum compliance of the system.

4 The way it works now, most HERS Raters are hired
5 and paid for, not employed by, but they're hired and
6 paid by the contractors whose work they're inspecting.
7 One suggestion or idea that has been proposed is that to
8 help building departments out, if they had HERS Raters
9 on staff, or on call, that a HERS Rater might, working
10 for a local government, for a building department, might
11 be able to go out and conduct the final inspection, as
12 well as after they've performed the HERS field
13 verification and diagnostic testing, which would save
14 building departments one trip to the field on every job.

15 It would also probably require HERS Raters to
16 receive ICC, International Code Council certification
17 for that type of final building inspection. It's an
18 idea that we're putting out there.

19 And last, but not least, building departments,
20 the CSLB, and stakeholders have no way to identify
21 unpermitted activity in a timely manner,
22 comprehensively, and systematically across the State.

23 So, if we want to bring this underground economy
24 into the mainstream, where we actually know how well
25 these systems are working and how much energy we're

1 saving through proper installations, we need to be able
2 to identify where the equipment is being installed and
3 when it is being installed. At least that's one of the
4 ideas that has been proposed and discussed for a long
5 time now.

6 In this workshop process we want to hear from
7 everybody. We also need you to identify yourself before
8 you speak, whether you're on the WebEx or in the room.
9 Say your name and your affiliation clearly, so we can
10 write it down.

11 And we're going to ask that if you have
12 something to say, which is great, you can speak more
13 than once. But please fill out a blue card, which my
14 colleagues are taking care of, and submit that along
15 with your business card to the -- the court reporter
16 needs a business card for his purposes, and that's Peter
17 over there on the opposite corner.

18 If you have a blue card that hasn't been picked
19 up yet, raise your hand and somebody will come around
20 and pick it up.

21 We're asking everybody to speak into the
22 microphone. If you're at a table, make sure the
23 microphone light is green before you're speaking and red
24 when you're not speaking to the whole group.

25 We ask that you keep your comments within the

1 workshop scope. And if you have any questions about the
2 scope, we can go over that again. But it's primarily
3 alterations or change outs to central air conditioning
4 and heat pump systems in residential and small
5 commercial buildings.

6 If necessary, we may try to enforce a three-
7 minute time limit. You can speak more than once, but we
8 ask that you keep each comment short and concise.

9 We have a docket. We ask that you submit your
10 written comments, as a result of this workshop, to the
11 docket. The docket number is on the slide, at the
12 bottom, 17-EBP-01.

13 The docket is how we keep track of your input
14 and we also use the WebEx recording, and the transcript,
15 the written transcript to record your comments and keep
16 track of them.

17 This is the second public workshop. As I
18 mentioned, the third one will be August 3rd. That's two
19 weeks from today. In Irwindale, California. It's a
20 Commissioner workshop. Commissioner McAllister will not
21 only be attending, he'll be presiding. And it will be
22 all day instead of a half a day.

23 Between now and then we're asking, inviting
24 stakeholders to prepare your own analysis of a potential
25 solution or group of solutions. But according to SB

1 1414, the Energy Commission and the rest of the
2 stakeholders need to include practicality, feasibility
3 of implementation of the plan, and again we're looking
4 for synergies. So, think about the effect of, the
5 impact of your proposed solution on different
6 stakeholders.

7 We need to consider cost effectiveness,
8 technical feasibility, and value propositions for all
9 stakeholders. We need to consider the impact on
10 property owners, the HVAC industry, including
11 manufacturers, distributors, and contractors, and also
12 low-income and disadvantaged communities, such as
13 renters in apartments.

14 And especially we want to encourage any new or
15 innovative technological or economic information. For
16 example, if there's any way to apply Smart Meter data to
17 verifying the performance of these systems, either
18 separately or in the aggregate, we want to apply that.
19 We want to hear about that.

20 And I want to stress that we need to come up
21 with a suite of solutions. This is not going to be a
22 menu that it's like either/or, or you get to choose one
23 or two. It's going to take an integrated process,
24 integrated solutions to solve this problem. The
25 problems are deep-rooted, and so we need to find

1 creative ways to remake the market.

2 A lot of people have been working on this for a
3 long time, but this is our opportunity to pull it all
4 together here and plug this hole which is a lack of
5 minimum code compliance among one of the most energy-
6 intensive systems in our buildings in California.

7 We hope that you can participate in the August
8 3rd workshop, either in person, in Irwindale, which is
9 at the Southern California Edison Energy Education
10 Center, or by WebEx.

11 We want you to submit your suggestions, your
12 comments, your proposed solutions. We will accept them
13 at any time, the sooner the better. They may not make
14 it on to the August 3rd workshop agenda, but we will
15 consider everything.

16 And if you have solutions that you haven't
17 submitted to the docket, bring them with you to the
18 August 3rd workshop.

19 Leave that slide up a little bit. I should have
20 had that up.

21 So, if you want to follow up your verbal
22 comments today with written comments, we encourage that.

23 Here's the compliance plan schedule. At this
24 point it's subject to change. Today is the 20th of
25 July. We're not going to be able to -- we're not going

1 to have time to look at comments much the few days
2 before the workshop in Irwindale, so we ask that you
3 send comments prior to that, as soon as possible.

4 The comments on the August 3rd workshop, we're
5 asking that they be submitted by August 20th to the
6 docket, because we're going to be -- during August and
7 September we're going to be drafting and reviewing,
8 internally reviewing the compliance plan. At least
9 that's the schedule right now.

10 That would mean that, hopefully in October we
11 have an opportunity -- you have an opportunity,
12 everybody has an opportunity to review the draft
13 compliance plan and give us their feedback on that
14 before we finalize it in November and take it to a
15 December Business Meeting for Commission approval.

16 So, it's a very optimistic schedule, but I think
17 it's also very motivating. This is my contact
18 information and my cards. My business cards, if you
19 want one, are here on the table and there's some
20 outside, on the way out.

21 If you have any questions about the proceedings
22 or the process, you're welcome to call me, e-mail me,
23 and I will respond.

24 And at this point, we'll open it up to
25 discussion and stakeholder comments. Thank you.

1 MR. MENDOZA: Hi, good morning everyone. My
2 name's Tino Mendoza. I will be facilitating the
3 discussion portion.

4 First, I'm going to go down to the roundtable
5 process slide and leave this up. So, as Judy said
6 earlier, we have these blue cards that I think most of
7 you have already filled out. If you haven't, please
8 wave Joe Loyer down. He'll pass them out. And I'll do
9 my best to get through all of these.

10 We also have listeners on WebEx, so we suggest
11 that you raise your hand and we'll call on you. There's
12 also the chat option, so if you want to post your
13 comment on there, I can read that out loud.

14 So, I'll just start going through these cards
15 here and open it up to a discussion.

16 So, the first card I have is Chris Ruch.

17 MR. RUCH: Hi, my name's Chris Ruch, with NEMI,
18 National Energy Management Institute. Relatively new to
19 NEMI. Most of my experience has all been in the field.

20 What I can tell you is that in the last 14 years
21 of testing equipment that's been recently installed, or
22 doing surveys of existing equipment, it's very clear
23 that this problem is rampant. There was nothing that
24 was said up there that I disagree with at all. I think
25 it is very clear that it would be very hard right now to

1 put an actual number on things. But I can tell you, if
2 you were to talk to any field technician that's out
3 there that knows what they're doing, they're going to
4 tell you that this problem is rampant.

5 There definitely is a loophole in the idea of
6 change out. I would say there's even a very
7 misunderstanding, not only among the public, but even
8 among some contractors of exactly what's required when
9 they're doing a change out and at what point that goes
10 to a different level. So, that is something that I
11 think we could work on, as well.

12 You know, we have a system here, and that I
13 thought was expressed pretty well up there that where
14 quality and compliance has a cost. And what we're doing
15 right now is really those that are honest, or really
16 have something to lose, or hurt, meaning that if the
17 only people that are following this are, you know,
18 hitting a financial burden and others are not, then you
19 have what was described up there correctly as an uneven
20 playing field.

21 And that's, really to get where we want to go
22 with compliance and energy savings, we really need it to
23 get to a level playing field where everyone's playing
24 the same game.

25 Another good point that was made up there was

1 that enforcement agencies are overwhelmed, I would say.
2 I mean, just in the sense that you have excellent
3 enforcement agencies, but you also have a lot that's
4 being put on these individuals for going to these jobs.
5 They have a lot on them going to each one of these
6 things.

7 So, looking at this and how we could do this,
8 the two ideas and, of course, I'll expand more in
9 written documentation but, really, I think high-quality
10 training is going to be it. And that's a key factor is
11 that every one of these contractors is only as good as
12 their technician that's out in the field.

13 So, many times we get stuck on that the person
14 that's at the head of the company, or selling them to
15 the customer, they're the ones with the expertise, and
16 many times they are. But, really, they're not the ones
17 doing the installation. What we need to be careful of
18 is that every single person who's doing the installing,
19 not just the person with the contractor's license, is
20 truly trained to do this work appropriately.

21 The other part would be ease of enforcement.
22 Finding ways that enforcement agencies can work with
23 this program without further burdening them. You know,
24 initially looking at this, digital tracking of equipment
25 seems to be something that would be a very good way to

1 address this, especially in today's day and age with the
2 technology we have. This is done in other fields, as to
3 how they track equipment coming and being installed.

4 So, I think these are two ways to go for that we
5 should address, with the main focus on really quality
6 training, so that way everyone that's getting into this
7 is doing the high-quality work.

8 And then, working on a way to even the playing
9 field so that way all contractors are competing on the
10 same level.

11 Thank you very much for your time. I appreciate
12 you covering this topic.

13 MR. MENDOZA: Thank you, Chris.

14 Next up we have Randy Young.

15 MR. YOUNG: I'm Randy Young with the Sheet Metal
16 Workers' Local 104. I pretty much mirror the same
17 comments that Chris came up with.

18 I've actually been looking, doing quite a bit of
19 research here recently on the training standards and I
20 found a report from the National Institute Standards
21 Training that actually quantifies training saves energy.
22 I think that the way they put it there could be a 30
23 percent increase in the capacity if people were properly
24 trained. And they also went on to say that if you had a
25 30 percent capacity to improve that could also relate to

1 a 30 percent reduction in energy cost.

2 So, I think training is key. You have to train.
3 State-approved training programs are the only way to go.
4 Certifications aren't going to do it. A certification
5 doesn't give you the full training aspect that you
6 really need in the HVAC industry, I don't believe.

7 And as far as compliance and tracking of the
8 product, again doing more research, I said last time we
9 could put a little GPS bug on the systems, but I don't
10 think that's realistic. I think we should look to the
11 automotive industry and see how they're tracking VIN
12 numbers. VIN numbers were tracked for a reason, because
13 mechanics were doing faulty repairs and selling cars
14 that were lemons. So, the automotive industry decided
15 to start tracking the automobiles and I think it's
16 working.

17 I took my daughter's car to Jiffy Lube last
18 week. Never been to that Jiffy Lube with her car
19 before. They scanned the car and they told me exactly
20 what was wrong with it and what had been done with it.

21 So, I think that we could look to other
22 industries to come up with solutions without reinventing
23 the wheel. Thank you.

24 MR. MENDOZA: Robert Scott.

25 MR. SCOTT: I'm Robert Scott. I'm representing

1 the Institute of Heating and Air Conditioning
2 Industries, IHACI. And a couple of things. One of the
3 real issues I see here is engagement of contractors,
4 engagement of the industry in general, engagement at the
5 supply chain level.

6 There's been discussions about how technology
7 has been able to allow us, especially information
8 technology and communication of information allows us to
9 create some transparency in the process as long as we
10 create steps that can be recreated and established as an
11 industry.

12 I think, I believe that if we engage all of
13 these, from the manufacturer, to the supplier, to the
14 contractor, to the technician we can create a
15 transparent path.

16 One of the concerns I have is that if we create
17 a one-size sort of fits-all approach to this, it seems
18 that we're looking at what is compliance and what is
19 performance. So, if compliance is to establish that we
20 want to make sure that systems are performing well what
21 is the proof? And if the proof, we're going to say, is
22 a single way of doing it, then that's going to constrain
23 our opportunities in terms of coming up with solutions.

24 So, I believe that we've said we want to make
25 sure everything has a third-party verification. I

1 believe we need to look at going beyond that and saying
2 because we do have advances in technology and
3 communication, we should be finding ways to really
4 engage the who industry so there are options.
5 Especially, for those contractors who really are doing
6 the right thing. Because, currently, their only option
7 is to go and either reduce the amount of percentage
8 they're being inspected on or find themselves another
9 HERS Rater.

10 So, I just think we need to be thinking beyond
11 that and I hope that this process would allow us an
12 opportunity to say there are other options. We need to
13 look beyond the closed way in which we've looped this.
14 And I think that we can have some discussions on that
15 and I'd like to see that occur here. Thank you.

16 MR. MENDOZA: Thank you, Robert.

17 Bob Wiseman.

18 MR. WISEMAN: Yeah, Bob Wiseman. I'm here
19 representing IHACI. I'm a C20 contractor in the State
20 of California and here representing IHACI today.

21 IHACI does, you know, support the concept of a
22 tracking system as many people do, but we support a very
23 limited version of it. And the reason for that is, you
24 know, as this topic has been discussed over many, many,
25 many years, you know, not all tracking is the same.

1 And, you know, if something is done wrong, it's worse
2 than doing nothing. So, we're very concerned that if
3 something happens, it's not going to be done simply and
4 it would be incredibly burdensome on contractors. We do
5 support a -- we know that distributors do collect serial
6 numbers on everything that they have. It is matched to
7 a contractor. The data already exists there.

8 And, you know, most distributors that I'm aware
9 of, it's not very hard for them to make that list and
10 send that list around. Comparing that list to a
11 database that's been collected through the HERS process
12 and comparing those two serial numbers is a -- you know,
13 it's a pretty -- you know, it would really help level
14 the playing field for contractors, something we've been
15 dealing with for many, many years. And it's something
16 that IHACI would support.

17 You know, we do believe in industry standards as
18 well, workforce industry standards, common sense
19 standards. You know, we've long been advocates of NEAP
20 certification. You know, it's a detailed certification
21 that has been supported by the manufacturers of this
22 equipment for many, many years. It has not been a
23 requirement in many applications.

24 But, you know, quite honestly as that process
25 evolves and more and more contractors become NEAP

1 certified, and their technicians in the field become
2 NEAP certified we have the opportunity to really
3 increase the quality of work being done out there. So,
4 we're not using a one-size-fits-all, you know, model to
5 do that.

6 NEAP has been very successful, you know, around
7 the country and we strongly recommend pushing it
8 forward.

9 You know, as far as training for compliance, you
10 know, I don't -- it's kind of a sensitive topic. But
11 the simple truth is that there's no amount of training
12 that is going to teach a contractor to pull a permit,
13 because contractors know they're supposed to pull a
14 permit. They have to be trained to do the work
15 properly. Okay, that training is absolutely critical
16 and important, they must perform and do the work
17 correctly.

18 And those that are not need to be removed from
19 this industry. We know that there's about 10 percent of
20 this industry, the number's debatable, the percentage,
21 but there's a large percentage that should not even be
22 performing work in this State. And that's the simple
23 truth.

24 And, you know, telling contractors that they
25 have to pull a permit, teaching them how, the process is

1 kind of a waste of time, quite honestly, but they
2 understand it, they know it. But the market is broken
3 and that's why we're here is to try to fix the market at
4 the higher level so that the permits will just happen.

5 There's a lot more of this in our written
6 comments, so I'll just leave it at that for the moment.
7 Thank you.

8 MR. MENDOZA: Dave Dias.

9 MR. DIAS: Hi. This is Dave Dias and there's a
10 few things that I want to talk about.

11 One thing that I think if people start talking
12 about training, they talk about training contractors.
13 If you train just the contractors and, you know, leave
14 it up to CSLB to train the contractors in testing,
15 you're missing the whole thing. Because, actually, you
16 need to train the workforce.

17 A good portion of the contractors aren't sole
18 proprietors and they don't do all the work. It's their
19 workforce that does the work. So, that's one thing. I
20 think we should focus on training the workforce.

21 Another thing is I think that there has to be
22 some, I know, the carrot and the stick. I think there
23 needs to be more sticks against the contractors that are
24 completely doing it wrong. I can't understand how any
25 contractor can compete against people that don't pull

1 permits, Worker's Comp, and all the other stuff that
2 they do.

3 I just got a call from one of our contractors
4 the other day and they're trying to compete against this
5 person that has no Worker's Comp. You go to Yelp, let's
6 show the whole workforce. And how do you compete
7 against that? If you're a legit contractor, how do you
8 compete against somebody that doesn't -- I don't even
9 know what the Worker's Comp rate -- you guys might.
10 It's 30 percent or something like that. That's a lot of
11 money that you can't overcome.

12 Okay. So, and then -- so that was the Worker's.
13 Oh, permit pulling, that's another one. I mean, yeah,
14 we need to streamline that and I think we talked about
15 it last time. And I think if you could do a statewide
16 streamline, that would be great. And help out the
17 authorities having jurisdictions, which are the building
18 departments, make it easier for them.

19 I don't know if you'd have to put more money
20 into the system or however, whatever it is to help them.

21 And the rest of it, I'll just do on my written
22 comments later. Thank you.

23 MR. MENDOZA: Thank you, Dave.

24 Pat Splitt.

25 MR. SPLITT: Hi, this Pat Splitt. I'm an energy

1 consultant from Santa Cruz. The company's APP-TECH.

2 And I've got several comments.

3 But I want to step back, first, because most of
4 my experience is on the energy compliance side. And
5 I've been doing these for years and years, certifying a
6 lot of projects to CalCERTS and almost all of them need
7 some sort of HERS testing. And over all those years
8 I've had maybe five or six HERS Raters call me up to ask
9 me to transfer or share a file with them. That's all.

10 So, you may be thinking that the people that
11 pull permits are actually -- everything's going well,
12 but it's not. They may pull the permit, but there's
13 nobody that goes out there to test that installation.
14 And these are the guys that are supposedly the better,
15 bigger contractors.

16 So, what I'm thinking of what we have to do
17 first is fix that. And my idea is we have HERS Raters
18 that are meant to test this equipment. Come the next
19 code cycle there's going to be a lot more HERS testing.
20 We've got QII, so there's going to be a lot more stuff
21 that they're out there onsite to do.

22 So, it wouldn't be that much of a leap to say
23 that they're already doing so much stuff for the Energy
24 Code, make them an Energy Code special inspector. Have
25 them do all the inspections, since they're out there

1 anyway, including the mandatory features. The building
2 department does nothing. The building department
3 doesn't have to collect any paperwork or collect any
4 signatures because we have this project status report,
5 now, that all the raters have that, if it gets filled
6 out correctly, this stuff will automatically get
7 populated into a database, and the building department
8 can just look at it to see if they've done the work that
9 they have to do in order to get the occupancy permit.

10 This has started to be implemented in the State.
11 I just got a call about a week ago from Los Angeles, and
12 the building department there rejected the application
13 for an occupancy permit because a couple of the HERS
14 testing and installation certificates hadn't been
15 submitted. And they just gave them a copy of the sheet
16 and said, look here, these are red. Well, they have to
17 be green before you get an occupancy permit.

18 That's all done in the ethernet. There's no
19 paperwork at all. So, that relieves the building
20 department of a lot of hassle. They don't have to do
21 anything, they don't have to check any paperwork. They
22 just, when it's time to issue an occupancy permit, they
23 just look at this project, and if it's all green, you
24 get it. If it's not, you don't, fix these things.

25 I was at a local ICC meeting yesterday, and

1 brought this up, and they all thought it was a great
2 idea. And I think there's a building official here who
3 probably thinks it is, too.

4 So, I think that has to be done first because
5 you have to have a basis, you have to have a system that
6 works, that enforces this stuff for the big projects, so
7 the guys that really know what they're doing.

8 Once you have that, then you can piggyback onto
9 it some subset of that for the change outs. But there's
10 nothing for the change outs to write on, now, because
11 the system that the Commission thinks it working isn't
12 working.

13 So, let me see if I missed anything. Oh,
14 another thing that is a problem with the compliance with
15 the installation is there's a Green Code requirement for
16 ACCA, Manual JD&S design. But that's not the same as
17 the requirements in the Energy Code. And I think these
18 two groups should get together and come up with the same
19 requirements so that everybody knows what they have to
20 do, and they're doing the same thing.

21 And I do manual JD&S calcs, very few. But I do
22 some and have a couple local contractors that I do them
23 for. And, you know, you can say that's because they're
24 really on top of things or that they want somebody else
25 to blame if something goes wrong. But I get paid either

1 way, so I make sure I don't do it wrong.

2 But at any rate, I think this system of having
3 sort of an energy field inspector, a special inspector,
4 and the doing all the compliance in this form that's
5 online, so there's no paperwork at all for the building
6 official is a good start.

7 And I think you have to do that first before you
8 go on to these other things and try to get the guys that
9 are, you know, in the weeds someplace. You've got to
10 get the good guys doing it right.

11 MR. MENDOZA: Thank you, Pat.

12 Greg, did you want to comment on that?

13 MR. MAHONEY: Well, I haven't brought it to
14 CALBO, but I'm representing CALBO and the City of Davis.
15 I would support that concept of having a special
16 inspector who does all the energy. And, in fact, I
17 personally would like to hire someone and I don't want
18 this to be misconstrued at all, because I'm going to say
19 something that's going to sound totally contradictory to
20 this. But I wish that I had the ability to hire someone
21 who could do green and building inspections in the City
22 of Davis.

23 The reality is that is not going to happen. I
24 have four temporary, part-time employees right now,
25 three inspectors and one permit tech. And these are

1 people that I spend six months training and then I have
2 to let them go because of the PERS rules. And so,
3 there's just no possible way that I would ever be able
4 to hire a full time permanent special inspector to do
5 just energy.

6 But the concept of, I don't know, maybe CalCERTS
7 overseeing those inspectors and maybe having a list of
8 energy special inspectors, just like we treat other
9 special inspectors, I would be supportive of that.

10 MR. MENDOZA: Thank you.

11 Next up we have Rusty Tharp.

12 MR. THARP: All right, Rusty Tharp with Goodman.
13 A couple of comments I'll make in general. One thing,
14 what was noted is that we know the problem's big, but we
15 don't know how big. And one thing I haven't done much
16 digging in myself, but it would be nice to know,
17 actually quantify we think is being wasted or could be
18 saved by this process. Is it a kilowatt issue? Is it a
19 gigawatt? Is it a terawatt? You know, so how much can
20 we really save? And that's one thing that needs to be
21 determined before we dig in too far.

22 Another just side comment is there was a comment
23 was made about installed efficiency not being what was
24 expected. The reality is the DOE test procedures and
25 SEER ratings are a laboratory performance and they have

1 never been specified to be equal exactly to the applied
2 performance in the field. Because the SEER rating is
3 based up certain bin hours, and certain operating
4 conditions, and no single home in America is going to
5 have, or in California, or anywhere is going to have
6 those exact same conditions. So, that's just one thing
7 to be mindful of.

8 We talked about -- there's been quite a bit
9 talked about the first cost driving things and that's
10 going to almost always be the case. So, one thing we
11 need to be careful of as we go down this process is to
12 make sure that we don't choose a method to improve
13 that's going to increase the costs. Because whatever
14 the decision is moving forward, you know, whatever's
15 made next January, cost will still be an issue for the
16 building owners, and so they will be looking to take the
17 lowest first cost -- many of them, anyway, will be
18 looking to take the first cost, lowest first cost route.

19 One thing I think, another item we should
20 discuss, make sure we have is how effective are each one
21 of these options and we need to go with cost
22 effectiveness. So, we need to find whichever solution
23 is going to be the most cost effective for all
24 stakeholders involved.

25 Another comment is that as part of the DOE

1 negotiated rulemaking on air conditioners and heat pumps
2 that was concluded in January of 2016, one of the items
3 that was on the term sheet was improving energy
4 efficiency of systems as applied.

5 The Department of Energy has had some workshops,
6 two workshops I believe at this point on those, and I
7 would suggest that it would be beneficial to coordinate
8 the efforts between DOE nationally, as well as the CEC
9 efforts here in California.

10 We are not -- I do not think that digital
11 tracking would be the most cost-effective method to get
12 what we're looking for. And I'll stop there, thank you.

13 MS. HARO: Hi, this is Lea. I just wanted to
14 respond really quickly. I wanted to specify that the
15 list of potential solutions that we have on the slides
16 are things that have been identified in previous studies
17 and have been discussed over the years. We are open to
18 hearing what solutions everyone might have. We are very
19 interested in hearing, you know, out-of-the-box
20 solutions. So, we have heard some very interesting
21 ideas today and during the previous workshop.

22 So, the list that we have here is meant to spark
23 discussion, rather than it being the list that we're
24 committed to at this stage.

25 MR. MENDOZA: George Nesbitt.

1 MR. NESBITT: George Nesbitt, HERS Rater. But
2 just to remind people, I was an ICBO-certified building
3 inspector in 1990. I've been a licensed general
4 contractor since 1992. In 2001, I was trained as a
5 building performance contractor, as well as certified as
6 a HERS Rater, energy consultant as well. So, I've been
7 on all -- and I've been on all sides of this industry.

8 So, first I'd like to say technology is great
9 when it works. And I was one of the people in the
10 webinar three weeks ago.

11 We spent two hours trying to participate. We
12 sent Energy Commission staff down about 20 minutes into
13 the meeting. I was calling and e-mailing all the
14 Commissioners. So, it was two hours before I got the
15 proper phone number and I was able to hear some
16 interesting comments but lacked any context.

17 So, I want to talk about just some global,
18 bigger-picture things at the moment. Compliance is a
19 bigger problem than just change outs. I just want to
20 say that in the nonres end of the Energy Code, we have
21 heard that there's a lot of problems with compliance,
22 despite all the commissioning rules, design-meeting
23 rules, all the acceptance testing we hear of the same
24 problems. People either not pulling permits or things
25 not being enforced. Problems with the acceptance

1 testers not necessarily doing their job. So, we hear
2 all that.

3 Yes, change outs in residential is a humungous
4 problem and that's what we're talking about right now,
5 but it's not the only problem. It's a bigger problem.

6 So, I think when we talk about this, I think we
7 really need to think about this issue in two broad
8 terms. There's the issue of pulling permits. And then
9 -- well, maybe we should think in three. Then there's
10 the issue of code compliance. And then, we could really
11 say performance is another issue. Although, quite
12 frankly, our code requirements do pretty much require a
13 pretty -- you know, a proper level of performance.

14 So, as Pat said, you can pull a permit but not
15 have compliance. What we don't necessarily know is to
16 what extent we're getting compliance with the code,
17 whether a permit is being pulled or not. And from an
18 Energy Code stand point that's what we really care
19 about.

20 And so, in my 30 plus years I have experienced
21 every problem. Everything from not pulling a permit,
22 the hassle, the cost of pulling the permit, to never
23 being asked for an installation certificate, from seeing
24 building inspectors pass something that absolutely does
25 not meet the code. R-13 wall insulation in 2 by 6

1 walls, when the Title 24 report specs R19.

2 You know, I've installed jobs that, you know,
3 there was no code compliance on. You know, as an energy
4 consultant, you know, sure, I can say HERS verification
5 or whatever and that doesn't mean it happens. So, yes,
6 it's a rampant problem. And I could go on for a long
7 time.

8 I'm going to leave that at now and then after
9 people cycle through, I'll come back and talk more.

10 MR. MENDOZA: Thank you, George.

11 I'm going to switch gears a little bit here and
12 check the WebEx. We still have a few blue cards to go
13 through, but I think I saw some raised hands on the
14 WebEx here. Maybe I didn't.

15 While I figure this out, we'll just move on to
16 the next blue card. Next, we have Cynthia Moore.

17 MS. MOORE: I'm Cynthia Moore with the
18 Contractors State License Board. Yes, it's on. How's
19 that? Better.

20 Okay, I'm Cynthia Moore with the Contractors
21 State License Board. And I just wanted to bring some
22 more information that I didn't have last time. And I
23 wanted to also clarify that CSLB's ability and position
24 have been discussed by many different forces. And that
25 for the purposes of accuracy and clarity I'd ask that

1 you get that information directly from CSLB, so that I
2 don't have to stand up and contradict everything as we
3 speak.

4 We don't have or necessarily support a specific
5 percentage of unpermitted jobs. We don't know what we
6 don't know. So, the 95 percent, the 5 percent, the 10
7 percent we do not support that. We don't know what the
8 percentage is.

9 And also, there was some questions about testing
10 last time, so I met with our testing chief and there's
11 definitely testing with our Energy Code compliance and
12 design. There is a very large validation report that's
13 accessible to anyone if you'd like it. It's a binder.
14 It's about 100 pages long for this specific test.

15 And part of that is domain one. That's 26
16 percent of the test and that includes all of these
17 different code compliances, energy efficiencies,
18 permitting, and design. So, I hope that helps to answer
19 those questions.

20 The test is updated every five to seven years.
21 The last time it was updated was September 30th, of
22 2015. And it's scheduled for revision in 2019.

23 And she also specified that any time any of the
24 codes are updated, we also update the testing. So, we
25 don't wait for that five- to seven-year process to

1 happen, we immediately update the test.

2 And then, finally, I'd like to remind everyone
3 that safety and consumer protection are CSLB's number
4 one priority. We must keep this in mind when we're
5 discussing high fines and strict enforcement. Thank
6 you.

7 MR. MENDOZA: Thank you, Cynthia.

8 Okay, I'm going to go to the WebEx. I have Mary
9 [sic]. I'm going to unmute you. Please state your name
10 and your organization.

11 MS. CARPIZO: Great, thank you. Hello, my name
12 is Marie Carpizo and I'm with the Air Conditioning
13 Heating and Refrigeration Institute. And I was one of
14 those callers that was stuck in the WebEx snafu a few
15 weeks ago, so I appreciate the opportunity to be able to
16 speak here today and participate via the WebEx.

17 AHRI represents close to, or more than 300
18 member companies that produce more than 90 percent of
19 the HVAC equipment sold in North America. We have
20 manufacturers based in California and manufacturers'
21 products that are sold in California. In fact, we
22 actually have some of our member companies present at
23 the meeting there today, as well as online via WebEx.

24 We understand that compliance, especially with
25 permitting, is a huge issue in California. And we have

1 and will continue to support efforts to improve
2 compliance issues in California.

3 However, AHRI and its members do not agree that
4 digital tracking, which has been raised as a possible
5 solution at the last workshop and again here today, as a
6 solution that will address the problems that are ongoing
7 in California, and for several reasons.

8 One of those is that the cost of developing and
9 implementing a digital tracking system would be a
10 massive undertaking for California. We believe that the
11 time and the cost going into investing and developing
12 this tracking system can be better used in other efforts
13 to shore up strong enforcement through the inspectors
14 and fines on those contractors.

15 Our manufacturers ship a large percentage of our
16 equipment and components to various regional
17 distribution centers throughout the nation. The
18 manufacturers do not know if their products that are
19 sold will end up in California once it leaves their
20 possession.

21 Another big concern for them is protecting
22 proprietary business information. It's important for
23 our manufacturers. Going towards this route of a
24 digital tracking system, there's the fear of proprietary
25 information being released, such as customer lists,

1 market share, and product selection information.

2 Finally, in looking at some of the barriers
3 raised on the previous slides, we just don't see how
4 digital tracking will address those issues.
5 Specifically, the cost of compliance or permit pulling.
6 We plan to submit written comment to be considered, for
7 the CEC, for the August 3rd workshop. Thank you.

8 MR. MENDOZA: Thank you, Marie.

9 MR. DIAS: Dave Dias, may I respond?

10 MR. MENDOZA: Dave, go ahead.

11 MR. DIAS: Yeah, I just wanted to respond. I
12 heard what can't be done. Do you have a solution at
13 all?

14 MS. CARPIZO: So, we're talking or we're
15 thinking about specific solutions that we can raise.
16 One thought and it's still a though in process, is the
17 idea of working with utility companies to incentivize
18 quality installation in the form of rebates to
19 homeowners. Also, possibly including in the permit
20 documentation for rebates, for higher-efficiency
21 products as another possible solution.

22 I think really getting at the heart of trying to
23 incentivize the homeowners and property owners is
24 something that we're looking at as well.

25 But just, again, the digital tracking system, we

1 just don't see how that can address some of the barriers
2 raised.

3 MR. MINER: Yeah, this is Tyler Miner,
4 representing IHACI, and a C20 contractor. I just have a
5 couple questions or something I see in that. You talk
6 about proprietary information and market share
7 information that you wouldn't want released. Currently,
8 all equipment that enters into the HERS database is
9 serialized and known by the manufacturer. So, I think
10 that, you know, there is already access to that.
11 Granted, you know, we're not sure what percentage that
12 is. It's rather low. But that information's available
13 to people to get, so I'm not sure I necessarily agree
14 with that.

15 And then, also, I think you commented that the
16 equipment goes into warehouses and is distributed in
17 different areas, and you're not sure -- manufacturers
18 don't know where they go. I think, you know, this comes
19 into this very generalized assumption of what
20 serialized, or what digital tracking is. And I think,
21 you know, all products, all equipment has a serial
22 number and a model number attached to it, so I don't
23 think there's any additional cost to that. Or, it
24 doesn't matter if that piece of equipment landed in New
25 York or if it landed in Southern California, it's a

1 rather simple process and I would think it's not adding
2 anything to the manufacturer.

3 Yeah, it would actually fall more along the
4 lines of the distributor to report that, which they're
5 already tracking for warranty purposes, for upstream
6 rebate programs that they submit to utility programs in
7 California.

8 So, yeah, I think there's a lot of -- there is a
9 burden there upon everybody, I think, in this, but I
10 don't think it's an undue burden. And, you know, the
11 cost, I think -- I won't go too much into it, but if you
12 read the IHACI's position on this, you know, there could
13 even be a small fee that's charged per serialized
14 equipment that would support funding a database that
15 would support something like this.

16 MR. NESBITT: George Nesbitt. Just kind of
17 wanted to make a comment on the serial tracking. I
18 think we have to ask what does it get us that we don't
19 already have? We know roughly how many pieces of
20 equipment come into California. Yeah, plus or minus,
21 who knows, maybe even a hundred thousand out of a
22 million, whatever. It doesn't matter.

23 We know there are very few permits being pulled.
24 So, does tracking every serial number that comes into
25 the State and then, you know, seeing that these serial

1 numbers don't come up in permits, they don't come up on
2 a HERS registry, what does that tell us or do that we
3 don't already know?

4 Unless we go out and bust the nuts of installing
5 contractors for not pulling permits and not complying
6 with the Energy Code, you'll have to -- you know, they
7 want it out of the box. So, busting nuts is out of the
8 box.

9 You know, if we're not getting more permits and
10 more compliance, we're not gaining anything. So, in a
11 sense I would think that effort needs to be placed
12 elsewhere.

13 And one of the comments I did hear three weeks
14 ago was Scott Blunk, from SMUD, saying that, well, the
15 utilities think it's a burden to have to, you know,
16 check if there's a permit on a job that they're giving a
17 rebate for.

18 I'm sorry, but I was trained by PG&E, in their
19 Contractor Program, in 2001, and they required permits.
20 They required we do Manual Js, and Manual Ds, and you
21 know, get the ducts tight, and check the refrigerant
22 charge, and all those things.

23 I'm sorry, if we are giving away public money or
24 utility money, you know, we should expect, and demand,
25 and require that certain standards are being met. And

1 that's all I really want to say at the moment.

2 MR. LOYER: And with that, this is Joe Loyer
3 from the California Energy Commission. There was one
4 thing we did fail to say at the very beginning of this.
5 Whilst George's reference to -- what he did say is just
6 fine. It wasn't -- it's not over the line at all. We
7 do want to remind everybody that you are on the record.
8 Don't say anything you wouldn't want your mother to
9 hear. And so, just try to keep it as clean as possible.
10 Thank you very much.

11 MR. MENDOZA: All right. Thank you, Joe. Thank
12 you, George.

13 MR. NESBITT: You just have to have some humor
14 somewhere.

15 MR. MENDOZA: Next, we have Stanford Rollins.

16 MR. ROLLINS: Good morning. I'm Stanford
17 Rollins. I'm with 1 Earth HERS Raters. We're based in
18 Norco, California, about an hour east of Los Angeles.

19 We are strongly in favor of the equipment
20 registration. We oppose the HERS Raters being hired by
21 local building departments because it may force HERS
22 Raters into becoming more territorial in nature. For
23 instance, today I'm attending here, after having been at
24 projects that are two and three hours north of here.
25 So, I drove down to Sacramento to be here.

1 There was a comment about the enforcement
2 agencies, one of them being the California State
3 Licensing Board. The question that I have is with
4 regards to these unpermitted transactions, I wonder if
5 the contractors are charging and collecting sales tax on
6 these equipment from the homeowner. And if they are,
7 are they paying the sales tax over to the State or are
8 they pocketing the money?

9 And the question relates to whether or not the
10 Franchise Tax Board would have an interest in this
11 matter as well. And then --

12 MS. MOORE: Cynthia Moore from the Contractors'
13 Board. Would you like me to respond to that?

14 MR. ROLLINS: No.

15 MS. MOORE: Oh, I'm sorry, I thought you were
16 asking a question.

17 MR. ROLLINS: And the second quick comment is
18 with regards to the possibility, the actuality of there
19 being cross-border sales where equipment is purchased
20 outside of California but delivered and installed inside
21 California. In South Lake Tahoe area, south of Lake
22 Tahoe, just a little bit east of Lake Tahoe, where it
23 borders on Reno and Gardnerville, and that stretch.
24 Yuma, Arizona, where it borders the southeastern corner
25 of California. Suppliers and distributors deliver and

1 install all the way to past El Centro, in Southern
2 California, all the way up to Susanville. This has been
3 my experience on projects.

4 My HERS Rater experience on these projects are
5 the first time a diagnostic test was done they failed.
6 We're talking 44 units in southeastern California, 24
7 units in east of South Lake Tahoe. So, the quality of
8 the install is suspect. But again, these are out-of-
9 state contractors installing in California due to their
10 proximity to the project site.

11 So, how do we monitor, regulate cross-border
12 sales is a question I'd like to pose. Thank you.

13 MR. MENDOZA: Thank you, Stanford.

14 Cynthia, did you want to make a comment
15 following that?

16 MS. MOORE: Yeah, just simply the contracts
17 don't reflect sales tax. They just have a flat fee for
18 the equipment, for the install. So, there's no way for
19 CSLB to track that. If Franchise Tax Board would like
20 to take that on, they certainly can.

21 As far as across-the-border sales, years ago we
22 did have problems with that. We've done quite a few in-
23 depth stings and we partner with Nevada, and in Tahoe,
24 specifically, and been successful at that, catching
25 contractors of different classifications. But I believe

1 we did focus on the C20 HVAC and did find a little bit
2 of problem there and took action.

3 MR. MENDOZA: Go ahead, Dave.

4 MR. DIAS: The gentleman is right, though, that
5 there is a huge issue of underground economy in tax
6 dollars and everything else that go with it. In fact,
7 the lady for the CSLB actually had a -- or, when she got
8 her PhD, she reported on the underground economy in
9 California. I can't remember the billions of dollars it
10 is every year, when I read the report, but it's
11 outstanding how big it is. It's a huge issue.

12 MR. MENDOZA: Okay. I'm going to read a few
13 general comments that I received in the chat box,
14 through the WebEx.

15 Just a reminder to those listening on WebEx,
16 please, if you would like to comment, raise your hand.
17 I don't see anybody else has raised their hand. If you
18 do so, I will call on you and unmute you.

19 So, just a few comments here. And anybody feel
20 free to stop me if you want to respond or make comments
21 to these, as well.

22 First comment: Many things use keys - cars,
23 trucks, backhoes, et cetera. And if the key, digital or
24 physical, to central HVAC was held by building
25 officials, they would have to be involved in every

1 installation. Almost anything other than a "key"
2 guarantees the continuation of the black market.

3 UNIDENTIFIED SPEAKER: Who made that comment?

4 MR. MENDOZA: That comment, Sean Armstrong.

5 This was made on the chat box.

6 I think there was only three comments. The next
7 one, I think this is in regards to energy savings being
8 validated. It says: Has been validated based on system
9 individual faults in the study performed by National
10 Institute of Standards Testing.

11 And I think I saw another comment regarding
12 tracking equipment.

13 That one, Jeff Henning. Jeff Henning, MSDC.
14 Thanks, Joe.

15 And then this one is a comment from EnergyGuy, is
16 what it says. The tracking equipment by VIN model
17 number seems fairly simple to implement with an app,
18 which can be downloaded, scanning software to grab the
19 model numbers, and a State-managed database for the
20 equipment.

21 And one last comment by Jeff Henning, from MSDC:
22 Sales tax is collected at the distributor level and paid
23 to the distributor by the contractor.

24 Okay, next on the blue cards I have Tyler Miner.

25 MR. MINER: Thank you. Tyler Miner,

1 representing IHACI. I'm also a C20 contractor in the
2 State of California.

3 I listen to everything in this room and, you
4 know, this problem is so big, it encompasses so many
5 things it almost starts to blow your mind. We can go to
6 so many different directions and I think, you know,
7 almost every point that's brought up here is a valid
8 point.

9 You know, workforce education, that's something
10 that we're lacking in, and we need to focus on. You
11 know, all these installs, performance.

12 We start going different directions, you know,
13 sales tax, we're going down to the sales tax. All this
14 kind of stems from, you know, this underground economy
15 and this kind of broken marketplace that we've been
16 dealing in for so many years.

17 I just think it's -- I think it's really
18 important to establish a strong foundation, you know,
19 and I think that starts with compliance. It starts with
20 compliance, pulling and finalizing a building permit,
21 and following through with the Title 24 HERS-permitting
22 process. That's what's been established.

23 Whether that equals performance, whether that
24 equals energy savings, you know, we don't know. There's
25 been different studies, there's been different stuff.

1 But that's that foundation that levels the playing field
2 for contractors.

3 So, when I go out and I'm bidding a job, and I'm
4 bidding the permits, and I'm doing it right, and my
5 price is \$1,600 more than the guy who's not pulling a
6 permit and not going through that process, it levels the
7 playing field. He now has to pay that same dollar
8 amount and we're closer.

9 And when we get to the level playing field, and
10 everybody's base price is about the same because those
11 compliance fees are in line, now you can start
12 differentiating yourself with the home performance, and
13 all these other energy matters. And now, it's that
14 disparity between price is not so great and there truly
15 is value there.

16 Homeowners have a hard time perceiving the value
17 in a permit and a HERS verification. You know, as much
18 as we try to sell it, well, the other guy says he's
19 going to do just as good a job and I'll save you all
20 these headaches.

21 And I think we have to focus on that foundation,
22 first. And once we establish that foundation of
23 compliance and we get contractors pulling permits,
24 everything else starts to fall in place.

25 Contractors who continue to fail and fail

1 building inspections, and fail HERS tests, you know,
2 they don't want to keep doing that. That's money out of
3 their pocket, right. What are they going to do?
4 They're going to train their workforce.

5 You know, as we get more and more people
6 pulling, they need to learn about the, you know, proper
7 installation techniques, and the HERS process, and what
8 all that's involved. And as we get that foundation, all
9 this other stuff that we talk about seems like it starts
10 to come online and go there.

11 And I think, you know, it's the equipment
12 tracking is a tool to do that. You know, there's been
13 some questions asked and stuff, you know, whether -- you
14 know, I don't see the purpose in that. It seems
15 expensive. Well, it's a tool that an agency can use to
16 enforce whether people are pulling permits or not.

17 The equipment's serialized. It leaves the
18 distributor and goes to the contractor with the serial
19 numbers on it. Every invoice I get has the model number
20 and serial number on it. And the distributor knows my
21 contractor's license number. I don't see that as being
22 too far-fetched for the distributor to report that to a
23 State database. That doesn't seem out of line. It
24 doesn't seem like that's a huge financial burden for
25 that person.

1 I get a HERS inspection. The HERS inspector
2 records the model and serial number, the address, and my
3 contractor's license. He's reporting that to a
4 database. We just need to join those two databases and
5 someone needs to look at that database and kind of be
6 that enforcement. And send out a letter, send out a
7 notice, hey, these pieces of equipment have not been
8 matched to a job. You know, you bought these equipment,
9 we've not seen it in a HERS database.

10 Once contractors know that people are really
11 looking at this and taking it seriously, compliance is
12 going to come inline, you know. And it's a process that
13 we work into. Day one, it can't be lose your
14 contractor's license if your numbers don't line up. But
15 once people start to know, again, we kind of talked
16 about, you know, this kind of -- it's a somewhat
17 arbitrary number but, you know, 80 percent of the
18 contractors want to do right in the State of California.

19 Once they know people are looking at it and
20 they're tracking it, it will bring compliance up. We're
21 never going to have 100 percent compliance, nor should
22 we expect 100 percent compliance. We'd be silly if we
23 did because it's not going to happen.

24 But if we got to 80, 85 percent compliance, I
25 mean that's far better than where we're at. And now, we

1 can start really divulging into, you know, does
2 compliance equal energy savings, and what does the
3 effect of all these codes that we've implemented and
4 done. In the change out market, you know, I think this
5 is key.

6 And that's all I have to say, thanks.

7 MR. NESBITT: George Nesbitt. I want to talk on
8 a couple things. Low price. Low price is not the only
9 thing. And I think there are -- you know, in this room
10 we have union contractors. We have nonunion contractors
11 who give their employees benefits, and have training and
12 certification, have higher prices, and they do exist and
13 survive in the marketplace. Yes, there's always going
14 to be someone cheaper. Someone who doesn't own a
15 building or the unlicensed people, the people paying
16 under the table, not pulling permits, whatever.

17 So, it's not, you know -- and then, when it's
18 100 degrees out, your air conditioner breaks down,
19 you're not shopping on price. You want it fixed. And I
20 bet a lot of contractors gouge. If they did that same
21 job before your equipment failed, it would probably have
22 been cheaper if you just called them had them replace
23 it.

24 So, price is not the only thing. The other
25 thing I wanted to -- what did I want to hit on, also?

1 Yeah, I mean this is a big problem. The customer loses.
2 The customer loses when the ducts are leaky, when the
3 air conditioner is not charged right, air flow, you
4 know, whatever. The equipment's too big. You know, we
5 know all these problems. I've known all these problems
6 for 15 years or more. We've talked about them, we know
7 the problems.

8 So, the customer needs to know the value of
9 having a properly designed and installed system, and
10 having it checked to ensure that it is. Because they're
11 going to lose comfort, they're going to have higher
12 bills. That's what they care about and they're not
13 always -- they're getting ripped off.

14 The other comments I wanted to make is as a
15 licensed contractor, I'm required to pull permits. The
16 Energy Code is required. I believe it's in Section 1 of
17 Title 24, it says the code applies anytime you're
18 supposed to pull a permit. Not if you pull a permit.
19 If I'm not pulling a permit, I'm still doing a good job.
20 I'm still wanting to do a good job and something that
21 complies with the code because there is a liability to
22 not doing it.

23 So, you know, it comes down to, you know, how do
24 you create an industry where people are trained,
25 knowledgeable, know how to do a good job, and they go

1 out and do a good job whether they're pulling a permit,
2 whether the price is \$500 more or less, whatever. You
3 know, that's where I think -- and I think there is some
4 hope. I know on my bigger, multi-family jobs, duct
5 tightness is no longer a major issue.

6 Now, on all the one-offs people haven't done it,
7 they don't know how to get there. But on the bigger
8 jobs, you know, so I think we have seen some
9 improvement.

10 And that's, you know, one of the big unknowns if
11 we just assume if there's no permit, there's no HERS
12 verification, it's a job that fails. That may or may
13 not be true.

14 So, to the extent that people are trained, and
15 know, and do it right, permit or not, and how do you
16 create an industry, a customer base, a contractor base.
17 But there's always going to be those installers doing
18 the side jobs on the weekend, or the unlicensed people
19 that may not know and may not care, and people hire
20 them.

21 So, I mean, you know, I think part of it is to
22 some extent a lot more education of potential customers.
23 Because if the customer can see the value of paying that
24 extra money then, you know, some of these issues do drop
25 by because they're not going to hire the person, with

1 the back of the truck, on the weekend then.

2 MR. MENDOZA: Thank you, George.

3 A comment came in and Rusty, maybe you can
4 address this as well. The comment, I think it was in
5 response to Tyler's comment earlier: What is the
6 manufacturer policy regarding the warranty on
7 nonpermitted installations? And this comment is from
8 Bruce Cheney.

9 MR. THARP: Rusty Tharp, with Goodman. I don't
10 think I can necessarily address what every manufacturer
11 does. We have requirements in our installation
12 instructions and those, we require that the installation
13 instructions be followed.

14 In responding to some of the other comments that
15 have been made, one comment was made is we don't know
16 how much energy savings there would be if we implement
17 digital tracking. And one of the things, the whole
18 reason to do any of this is to save energy. The whole
19 reason for CEC to put any type of regulations into place
20 is to save energy. So, we need to identify how much
21 energy is going to be saved by whatever method is
22 implemented.

23 One of the things we need, you know, first cost
24 has been mentioned several times. Referring to your
25 comment that there's a \$1,600 difference for a permit

1 process. So, for a contractor who's following the
2 requirements has roughly a \$1,600 increase in cost over
3 a noncompliant product.

4 One of the things that this could -- if there's
5 that much of a difference between compliant and
6 noncompliance, one of the things we need to be very
7 cognizant of is the potential increase in repair,
8 instead of replace, on existing lower-efficiency
9 products.

10 So, if a consumer has the choice of spending --
11 you know, if today their choice is, say, \$5,000 for a
12 new system, or repair the old system for two or three
13 grand, but now the new system is, instead of costing
14 \$5,000 is going to cost \$6,600, a consumer's going to
15 look at that and say, I'll just fix this old, lesser-
16 efficient product, and then we're actually losing energy
17 savings. So, we need to keep those things in mind,
18 also.

19 One of the things it seems to me that the
20 digital tracking is really only an enforcement tool. It
21 doesn't necessarily address the ease of permit pulling.
22 And as was stated, you know, once you get this digital
23 tracking in place, now the building officials have one
24 more thing to check, which increases the burden on the
25 building compliance checking.

1 So, we need to make sure that -- it seems to me
2 is what we should do is simplify the permitting process
3 to make it lower cost. Another thing that the State and
4 local municipalities could look at is if we get -- if
5 there's only 10 percent of applications being pulled
6 today, if you get that closer to 90 percent that's a
7 pretty good revenue stream that could come in, which
8 could actually be used to fund additional compliance
9 checking. So, thank you.

10 MR. MENDOZA: Okay, we have -- oh, go ahead,
11 Tyler.

12 MR. MINER: Yes, really quick. I think you
13 brought up a good point. You know, you talk about the
14 building departments and that end up being a burden.
15 First of all, you know, building departments would be
16 severely impacted, I believe, if all of the sudden all
17 contractors were pulling permits.

18 But I think to have the conversation and let's
19 just use this 10 percent number, there has been some
20 studies done that it puts the permit compliance anywhere
21 between 10 to 28 percent. And the consensus is it's
22 more down around the 10 percent number.

23 But we're having these conversations about
24 streamlining and having a statewide process for 10
25 percent of the contractors. It seems to me that there

1 might be something that needs to be done. The people
2 who are doing the permit process are already kind of
3 complaining about this.

4 If we have enforced compliance and contractors
5 are required to do this, and having to do this, and
6 they're going to get in trouble if they're not doing
7 that more permits are going to be pulled. The process
8 will likely be burdened down and there will be an
9 incentive for everybody to solve that problem. Again,
10 it starts with that foundation and we start working on
11 everything else that starts coming from that.

12 That's kind of my vision of it. It's absolutely
13 an issue. But we're trying to fix something else and
14 we're not going to get anymore people there. Very few
15 people there. Whereas if we have, you know, kind of the
16 spank-the-hand, or fines, or whatever that may be that
17 encourages people to do this, now we can start looking
18 at all those different issues.

19 MR. MENDOZA: Dave.

20 MR. DIAS: Yeah, and I think one other solution
21 would be that a piece of equipment that requires a
22 permit to be installed only be purchased, and I said
23 this last time, too, by a licensed contractor, with the
24 licensed required for that piece of equipment.

25 So, in other words, you don't want a roofing

1 contractor buying an HVAC piece of equipment, or
2 whatever. Right now, there's no requirement. I mean,
3 anybody can buy one. So, if we require that statewide,
4 you'd have a lot of the issues with an underground
5 economy taken care of.

6 MR. MAHONEY: I don't really have a dog in the
7 fight. But I can't go along with only contractors being
8 able to buy mechanical equipment because I like to do my
9 own jobs, and I would want and have bought mechanical
10 equipment for myself. That's not necessarily the best
11 approach.

12 MR. NESBITT: So, George Nesbitt. On the issue
13 of permits, so why I do not pull a permit. If I need to
14 add one electrical outlet, let's just say it's \$150 to
15 add the outlet. The minimum permit fee 60, 75, 80 bucks
16 just for one outlet.

17 When I have an appointment with the City of
18 Berkeley to submit for a permit and then it takes them
19 two hours to get to me, even though I had an
20 appointment, right. I mean, so making permits easier to
21 get, whether it's online or reducing requirement to pull
22 a permit for certain thresholds.

23 So, like City of Oakland, a roofing permit is
24 now a postcard that you send back in. And part of it
25 was with all the cutbacks they just couldn't go out and

1 inspect them all. And the number of problems they have
2 with such jobs that they kind of, you know, gave up on
3 trying to inspect them.

4 Then, of course, the issue is if we are pulling
5 a permit, so I've done jobs like in Berkeley. Berkeley
6 has long thought they are categorically exempt from the
7 Energy Code, like duct testing.

8 So, if you pull out an old gravity floor
9 furnace, install a central ducted system, you have a new
10 system which has always required duct testing. They
11 don't enforce it because they're exempt, right.

12 So, I had a plumber come to me and say, George,
13 I'm trying to put in a water heater on a commercial
14 building and they want documentation that it complies
15 with the Energy Code. I dug around a little and then,
16 of course, I figured out there are absolutely no
17 restrictions on a commercial building to what water
18 heater you put in. So, they were essentially trying to
19 ask for something that residentially was valid, but it
20 commercially was not. So, then they don't even know the
21 Code and they ask the wrong thing.

22 So then, we have the issue of I've never, ever,
23 in 30 plus years, submitted an installation certificate.
24 So, we pull the permit. You know, whether we complied
25 with the code or not, the permit department then does

1 not ask for the documentation before final.

2 So, yes, the permitting system needs, you know,
3 some work. If it was easier and cheaper, perhaps more
4 people would pull permits. But, you know, like I say, I
5 don't think that's -- that's not, in itself does not
6 ensure compliance.

7 Since I'm talking about the building department,
8 HERS Raters are, under Title 20 are considered special
9 inspectors to the local jurisdictions. As a HERS Rater,
10 many HERS Raters, when we fail people, you get
11 threatened. There are people, you know, that maybe have
12 even suffered physical violence. You get fired. You
13 know what, they go get someone else to pass them. I've
14 had this personally happen.

15 And, you know, when I went to the old CHEER's
16 for backup, you know what, they didn't have my back,
17 right. So, when you fail someone and they don't want to
18 believe that they actually failed, we don't support that
19 person. I ain't got no balls, right. I can't say to
20 the building department, well, this system fails. Well,
21 they can just go off and get another HERS Rater and make
22 it, you know, get them to sign it off, or they have to
23 change.

24 MR. MENDOZA: You want to --

25 MR. NESBITT: Yeah. You know, or maybe they

1 then have to actually fix it to make it pass. But, you
2 know, we hurt. I mean, so the lack of permits, the lack
3 of compliance, it hurts the building departments, it
4 hurts the HERS Raters, and it ultimately hurts the
5 consumer.

6 MR. MENDOZA: Okay, I'm going to go ahead and
7 call on someone on the WebEx. We have Alex Ayers, who's
8 been patiently waiting.

9 Alex, please state your name and your
10 organization.

11 MR. AYERS: Hi, this Alex Ayers, with the
12 Heating and Air-Conditioning Refrigeration Distributors
13 International. We represent the distribution chain
14 within the supply chain. So, the guys that obviously
15 buy from the manufacturers themselves, the contractors.

16 Our concern is that digital tracking seems like
17 a solution without a problem. So far, a lot of people
18 have said that it will increase compliance, but there's
19 been nothing of enforcement actually discussed of how it
20 will do that.

21 I don't believe that any contracting board would
22 want to take away a license simply for not having
23 adequate paperwork of tracking all of the HVAC that's
24 installed.

25 At the same time unpermitted work, is there --

1 knowing that it was simply just sold to a contractor
2 does not necessarily improve any idea of where it was
3 actually installed at if there was not a permit.

4 So, until the permitting process is actually
5 fixed and simplified, make it so that it's not as
6 costly, increase that by a proposition, as has been
7 said, tracking anything really doesn't solve any
8 solutions.

9 It seems like a large cost for no real solution.
10 Especially when we -- with a lot of distributors that
11 work in multiple states. Just because the air
12 conditioner enters California doesn't mean it will be
13 installed there. It could quite easily leave the State
14 and that would have to be reported for just simple
15 business transactions that make no sense.

16 I would encourage everyone to really look at the
17 permitting process and find out ways to encourage
18 permitting, rather than just simply tracking something
19 that doesn't actually have an enforcement with it.

20 MR. MENDOZA: Thank you, Alex.

21 Next on the blue cards we have Greg Mahoney.

22 MR. MAHONEY: My name's Greg Mahoney. I'm a
23 building official for the City of Davis, and I'm
24 representing CALBO, California Building Officials.

25 And I would respectfully request that we remove

1 the concept of building departments hiring HERS Raters.
2 Like I said last time, it's a non-starter. You're
3 asking us to assume the role of contractors and CALBO
4 would adamantly oppose that.

5 And I also -- I'll start off with some things I
6 don't think are going to work very well and then I'll
7 try to provide maybe some potential solutions.

8 Introducing a large bureaucracy, like the State
9 of California, to oversee permitting, I don't see that
10 as a simplification or a way to reduce the costs.

11 ICC and IAPMO can proctor a certification exam
12 for \$200. The State of California, the Department of
13 General Services charges \$1,600 for a CASp exam. So,
14 the State of California hasn't shown that they can do it
15 simpler or less expensive.

16 And I think that online permitting, the
17 individual jurisdictions we should support online
18 permitting and make it as easy as possible. There's
19 been a fair amount of discussion about training. We
20 actually have training and certification requirements
21 codified in the California Green Building Standards
22 Code, but that only applies to new projects and projects
23 that increase the conditioned floor area. So, that's a
24 pathway to require certification.

25 And it actually says that Installers, HVAC

1 installers have to be trained and certified by a state
2 certified apprentice program, a public utility training
3 program, a training program sponsored by trade labor or
4 statewide energy consulting, or verification
5 organizations, programs sponsored by manufacturers,
6 organizations or other programs that are approved by an
7 authority having jurisdiction.

8 So, we do have a path if that's what we want to
9 do is require training or certification. You just have
10 to go through the code change process and get them to --
11 the Building Standards Commission, NHCD to approve that.

12 I think if there is a concern about the quality
13 of the installation, then we should eliminate the
14 sampling and just require HERS verification on every
15 HVAC change out.

16 And I wasn't going to bring this up last time,
17 but I'll go ahead, since we're trying to think out of
18 the box. The City of Davis, we have a program that's
19 been in place since 1976, where when someone sells their
20 house they have to come in and pay for an inspection.
21 And we call that resale inspection.

22 And so, I would argue that we're probably closer
23 to 100 percent compliance, much closer to 100 percent
24 than 10 percent because everyone in Davis -- this
25 program's been in place since 1976 and everyone knows

1 that when they sell their house, the City of Davis is
2 going to come and they're going to look for work that's
3 been done without a permit.

4 And so, there's a couple things that are
5 beneficial. One, that people know, you know, when they
6 sell their house they're going to have to get a permit.
7 It's going to cost them more money because we charge
8 penalty fees, double fees because they didn't get a
9 permit, and they have to comply with the current code,
10 the code that's in effect at the time of application.
11 So, there's definitely consequences for not getting a
12 permit when you install, when you do work without a
13 permit in Davis.

14 It also gives us, when we do that resale report,
15 we have the opportunity to actually report people to
16 CSLB because we become aware of work that was done
17 without a permit, and we can submit a building
18 department referral form.

19 And so, there is one this kind of -- well, a
20 carrot and a stake, I guess. The carrot being that they
21 don't have to pay double fees when they get caught.
22 Because everyone eventually sells a house or almost
23 everyone and eventually they're going to have to come
24 into compliance.

25 So, that's how the City of Davis does it.

1 Again, I'm not saying that this is a solution for all
2 cities. It's a fairly large undertaking to inspect
3 every house that's sold in the jurisdiction. We have a
4 population of 68,000 and we have two full time resale
5 inspectors.

6 So, I just thought I'd throw it out there.

7 MR. MENDOZA: Thanks, Greg.

8 MS. ROBERSON: This is Judy Roberson with the
9 Energy Commission. I just wanted to say that we're not
10 -- we don't want to consider any of these problems in
11 isolation. They all need to be solving some component
12 of the problem.

13 So, for example, HERS Raters working for
14 building departments. You know, you wouldn't be
15 expected to hire a HERS Rater if you didn't have extra
16 funding to pay for it. The idea is that through some
17 kind of a permitting system --

18 THE REPORTER: Move closer to the microphone,
19 please.

20 MS. ROBERSON: Sorry. That there would be more
21 funds available to the building department if more
22 permit were pulled. And that, I mean we don't have the
23 details figured out, but we have to find the funding for
24 those HERS Raters. We're not expecting you to hire them
25 out of thin air.

1 Another example is if there were a tracking
2 system, you're right, it's not enough to just track
3 things. You need a workforce to follow up, to follow up
4 on those unpermitted installations. And where does that
5 workforce come from? You know, we haven't really talked
6 about that. These are connections that we have to make
7 and that's why this is a synergistic -- it needs to be a
8 synergistic plan. We need to figure out how to make
9 those things work together.

10 Again, we're not committed to any particular
11 solution, except that -- except for a multifaceted
12 solution. This is not, again, it's not a menu where you
13 need to choose tracking over permitting, streamline,
14 that sort of thing. We need to make it all work
15 together.

16 MR. MAHONEY: So, just a comment. It's not just
17 about funding. Us, the building departments hiring a
18 HERS Rater, it's a whole new role that we would be
19 assuming and one that I don't think that we should be
20 assuming, and taking responsibility for work, or quality
21 assurance of work. And so, it's not just about funding.
22 It's about our role in this whole enforcement and
23 compliance process and we don't want to become
24 contractors.

25 MR. SPLITT: This is Plat Splitt. I'm just

1 hearing that you people aren't talking to each other.
2 He's saying that he doesn't want the building department
3 to be the employer of these people. We have HERS Raters
4 going out there and all kinds of special inspectors.
5 They're paid. All right, the HERS Raters are either
6 paid by the contractor or the homeowner. Somebody else
7 has the contract with them. He's not hired by the
8 building department. So, he's just saying he doesn't
9 want the building department to all of the sudden get
10 involved with this, which is what you're trying to
11 imply.

12 It's they have nothing to do with that except
13 they have a list of approved special inspectors and they
14 suggest that people pick someone from that list,
15 usually, but they don't pay for it.

16 MR. MAHONEY: I have to say, I also don't want
17 to be responsible for scheduling HERS verifications.
18 That's not my role and I don't want to take on that
19 role.

20 So, it's not just about hiring them. It's about
21 being in that position of having to schedule HERS Raters
22 throughout. So, yeah, we're not the contractors. So,
23 that would entail the contractor somehow communicating
24 with us that they need a HERS verification, and we have
25 to then contact a HERS Rater and make sure that they

1 were there at a given time and, you know, a given place.
2 And that's not our role. And again, CALBO would
3 adamantly oppose that as our role, as taking on that
4 role.

5 MR. NESBITT: Yeah, George Nesbitt. I would
6 definitely agree that A, requiring a building department
7 to hire a HERS Rater would not necessarily be a good
8 thing. There could be building departments that would
9 choose to go that route, but I doubt most would.

10 So, HERS Raters are already considered special
11 inspectors by law. I know that City of Santa Rosa, for
12 the Green Building -- for Green Point Raters, actually
13 was requiring Green Point Raters to register with the
14 city directly, in order to be able to sign off on jobs.

15 So, I mean, I think and there are special
16 inspectors for various geotechnical and structural
17 things that even if those special inspectors don't work
18 for the city, but the city is dependent on the reports
19 from these engineers that things have been done right.
20 They rely on that.

21 So, I think --

22 MR. LOYER: Can I say something real quick?

23 MR. NESBITT: Sure.

24 MR. LOYER: Okay. So, this is Joe Loyer. I
25 just want to interrupt real quick and ask George a

1 question on the City of Santa Rosa's approach. Do you
2 know if they do quality assurance checks on those
3 registered - and what are they, Builders Green?

4 MR. NESBITT: Yeah, so does the city do quality
5 checks on the Green Point Raters?

6 MR. LOYER: Yeah.

7 MR. NESBITT: I don't know. I know that as a
8 Green Point Rater there are quality checks over your
9 work by Built It Green, the "provider". To put it in
10 the terms of HERS, the rater is QA'd by the provider.
11 Whether the city does any additional.

12 But I think part of requiring the special
13 inspectors to register with the city is one of the means
14 to increase the quality of those inspections.
15 Essentially, because you are now more accountable. And
16 if you can no longer do work in that city, well, why
17 would you want to cheat and sign off on contractors.

18 But I think this also ties into that issue of,
19 remember, HERS Raters getting threatened and fired. The
20 problem is we are too dependent on selling our services
21 to the people whose work we are checking and passing or
22 failing. So, you know, so it's a very uneasy
23 relationship. So, if you're failing someone a lot, you
24 know what they're never -- if they need a HERS Rater on
25 another job, you're not getting the call.

1 So, yeah, so I mean, yes, we have issues in
2 HERS. So, I mean I do think perhaps encouraging cities
3 to have HERS Raters register with them as special
4 inspectors and then I think the idea of the city
5 recognizing a HERS Rater to do all the Energy Code
6 related signoffs on projects. Whether that means we
7 have to get certified, that's fine. I think there are
8 people that would do that and gladly do it.

9 Because like I say my -- I have seen building
10 inspectors sign off on stuff that was completely wrong.
11 So, I think HERS Raters would be a very natural person
12 or entity to do the full Energy Code inspection.

13 An out-of-the-box thing, and this may seem
14 contradictory coming from me because I definitely
15 believe in the third-party independent model. And we've
16 decertified HERS Raters for doing things like doing
17 refrigerant charge.

18 So, if we are concerned about compliance, want
19 to make it easier and make it cheaper, perhaps there are
20 times that the HERS Rater should be allowed to do
21 something like adjust the refrigerant charge to make it
22 right, rather than having to have the installer sitting
23 there at the same time, and do it.

24 You know, in that sense, in the big picture
25 we're not installing the equipment. We're just doing a

1 final little tune to bring it in spec. You know, so I
2 think, honestly, we do need to consider. I know in my
3 early days of duct testing, everyone failed. I'd tell
4 them what they needed to do beforehand. They wouldn't
5 do it. Yes, I have gotten out there -- I've either
6 directed them and/or I've helped them do some final duct
7 sealing.

8 You know, so do we care that the ducts got
9 tight? Do we care that I got out a brush? You know,
10 what's more important in that sense? I mean, I've
11 passed jobs that used building cavities, but we got the
12 ducts tight. You know, what am I going to do, I'm going
13 to bust the person's -- I'm not going to say it, bleep,
14 bleep, bleep. I could use a different word, but that
15 would be a different word.

16 And, you know, for having not had a sheet metal-
17 lined building cavity coming down to where it turned or
18 the fact we got it tight is that, you know, what we care
19 about. So, sometimes the letter of the code is perhaps
20 less important than the intent.

21 So, just as we're struggling with compliance we
22 want compliance, you know, perhaps we do need to expand
23 our boundaries to what is conflict of interest.

24 But I would say part of it really, then, I would
25 love to not have to pursue my installers for work. You

1 know, that's not where my work should be coming from
2 because it does put you in an uneasy relationship of --
3 and this, I think, is why we have had some bad conflict
4 of interest. There are, you know, certainly are raters
5 out there that are just signing off stuff. They never
6 even saw it, did it.

7 You know, so that's sort of a different level of
8 a problem. It is a problem. But it is part of this
9 problem. When you have that kind of thing going on that
10 doesn't help encourage installing contractors to do the
11 right thing.

12 MR. LOYER: This is Joe Loyer. Just one quick
13 note to anybody else that is interested in other things
14 that are going on at the Energy Commission, and
15 specifically for you, George, as well, I want to make
16 sure that you know that, we haven't announced it yet,
17 but there will be a rulemaking for the HERS Program that
18 is coming up. It's not officially kicked off, yet, but
19 it is coming. So, these kinds of issues you do want to
20 be raising there. And if you have issues that you are
21 considering for -- that you have concerns for HERS, I
22 would ask that you basically wait for that rulemaking to
23 officially kick off and make those comments and
24 considerations there. Not that that wasn't warranted.

25 MR. NESBITT: All right.

1 MS. MOORE: This is Cynthia Moore. I'd like to
2 ask a -- I'm sorry. I was very intrigued with the idea
3 that you have really high compliance with your
4 permitting because of the program you have going on. Is
5 it self-funded, for the most part?

6 MR. MAHONEY: We charge \$426 for a resale
7 inspection and it covers most of it. It doesn't cover
8 all of it. So, it's -- I won't say it's a hundred
9 percent self-funded.

10 MS. MOORE: Close.

11 MR. MAHONEY: But it covers most of it.

12 MS. MOORE: It's a great carrot. We've talked a
13 lot about problems, but I think we're supposed to be
14 talking about solutions and that sounds like a very
15 intriguing solution for possibly other jurisdictions.
16 It's something that CALBO, you know, looks into for the
17 other jurisdictions?

18 MR. MAHONEY: No, I've been getting more and
19 more calls and questions about it, though, because it is
20 a way to deal with unpermitted work. And everyone who
21 buys a house in Davis, they get a clean slate. That
22 house has been inspected and all the work that was done
23 without a permit has been corrected. And like I said,
24 it's been in place since 1976. So, we've been in pretty
25 much every house in Davis and we have an inventory from

1 the last time it was sold. So, over whatever, 40 years,
2 we've kind of figured it out.

3 MS. MOORE: Have you gotten a lot of pushback
4 from the real estate industry on this because of the
5 extra fee? I know it's not a lot.

6 MR. MAHONEY: So, I need to be careful because I
7 know what I'd really like to say but -- the real estate
8 community is supportive of the program. And they are
9 supportive because one of the things it does is maintain
10 the quality of the housing stock, and it also relieves
11 them of a lot of disclosure problems and issues.

12 So, they are reluctantly supportive.

13 MR. DIAS: What do you do about the commercial
14 buildings or nonresidential? Nothing on that aspect?

15 MR. MAHONEY: No, we don't. The program doesn't
16 address commercial or multi-family. So, we go up to
17 triplexes, is we inspect those. And the reason the
18 program's in place is because way back in the 70s, there
19 was a professor at the college who remodeled their
20 garage and converted it into an apartment without a
21 permit, and there was a fire and two students perished.
22 So, that was the impetus for this program.

23 MR. MENDOZA: Next on the blue cards we have
24 Gene Ashdown.

25 MR. ASHDOWN: Good morning. I'm Gene Ashdown,

1 the building official for the City of Winters and I do
2 not represent CALBO. I represent the City of Winters,
3 only. I do happen to live in Mr. Mahoney's
4 jurisdiction, though, for the last 38 years. And I will
5 say the resale program is a fantastic program for us.
6 We would love to implement it in Winters. Politically,
7 right now, it's not the time to do that.

8 We've talked about, there's been a lot of great
9 comments made, and I can just give you the facts from my
10 jurisdiction. For those of you who don't know, Winters
11 is a small population. We run roughly 8,000 people.

12 Greg did a great job representing CALBO. I
13 would like to echo a lot of his comments. The idea of
14 the building department hiring HERS testers I think is
15 totally out of line. It isn't going to work for -- it's
16 going to be very difficult for small jurisdictions, like
17 mine. I am a one-person operation. I have a permit
18 tech, and myself, and that is it.

19 The idea, and I would agree with Greg, is that
20 that is not our role. Our role is basically safety.
21 And so, we would strongly oppose that.

22 I've heard the comment about streamlining the
23 permit process. If you come into my jurisdiction,
24 typically -- typically, Monday through Friday, with your
25 paperwork, it will take you approximately 15 minutes to

1 get your HVAC change out permit. And that's with a one-
2 person operation, with a permit tech. If you fax your
3 paperwork in or submit electronically, you're in my
4 office for roughly seven to eight minutes.

5 We typically do, on an HVAC changeout, a final
6 inspection. That's it. That's usually a 15- to 30-
7 minute inspection. We actually spend almost as much
8 time looking at the California Energy Commission-
9 required paperwork and forms as we do the actual safety
10 issue of it. Unfortunately, that's just what it takes.

11 I support, and I can't remember your name, sir.

12 MR. SPLITT: Pat.

13 MR. ASHDOWN: Pat's comments on the third-party
14 special inspection. It would be great for us to be able
15 to access a computer from our office, making sure that
16 everything was checked off for the Energy Commission
17 forms, and everything, and myself or a fill-in
18 inspector, or whatever goes out and does what we were
19 hired to do to start with, would be the safety portion
20 of the permits.

21 The carrot and the stick comment is great. I'm
22 believing and we have the idea that when we double fee a
23 permit for not getting a permit to start with, we seem
24 to have a little more compliance. But then also doing
25 some type of possibly looking into a rebate program for

1 the contractors that do everything correctly.

2 If there was a fee that these guys were paying
3 for when they purchased their equipment, or whatever, I
4 don't have the answer to that. But okay, everybody puts
5 in a deposit. If you get your permit, final out, and
6 it's within the 180 days, you get that portion back. If
7 you don't have your HERS testing and everything done
8 after your permit's pulled, within 180 days, you don't
9 get the money back.

10 But again, my big thing is the idea of the
11 building departments hiring HERS testing and scheduling
12 that, for us is just not practical at all. Thank you.

13 MR. NESBITT: George Nesbitt. The City of Davis
14 program sounds great. It's actually a carrot that is
15 also a stick.

16 I actually wonder, because it is a stick, you're
17 also getting people pulling permits in the first place.
18 So, to the extent -- I mean, even though the inspection
19 fee may not quite cover things, you may actually be
20 covering it through getting permits in the first place
21 to an extent.

22 The City of Berkeley has had a Residential
23 Energy Conservation Ordinance, as well as a commercial
24 one for -- probably since the late 70s. It was horribly
25 out of date. They were requiring things, upgrade

1 levels, pipe insulation that didn't meet the Energy
2 Code. Also, enforcement was poor.

3 And since we brought up realtors, they are
4 adamantly opposed to time-of-use things. You know,
5 we've talking about time-of-use HERS ratings. There's a
6 -- the Energy Commission has a required disclosure to
7 educate people. It's one of the disclosure forms.

8 Realtors are also -- they want to hire
9 unlicensed and the cheapest people, you know, as they
10 get their clients to fix up their houses. They have,
11 I'm sure have tried at the CSLB to increase the minimum
12 amount that an unlicensed person can do in a year,
13 because 500 just doesn't cut it, right.

14 So, it is a shame because, honestly, I think,
15 and especially in up markets as property values keep
16 going up and, you know, the prices of houses, people are
17 buying houses that have problems. That have been
18 painted over or, you know, they spend a lot of money
19 putting in water heaters, and new furnaces, and
20 upgrades. And, you know, it's a shame because a fair
21 amount of money gets wasted and then people come in and
22 have to redo it, or find out the house is uncomfortable
23 anyway, and so on, and so forth.

24 So, it's really a shame that the realtors -- or
25 it's a shame they are so opposed. And I do think that

1 there is value in having that permit file, and the
2 disclosure. And, you know, it shouldn't be -- it should
3 be a good thing. Not having lawsuits come back at you
4 later is a good thing.

5 MR. MENDOZA: Thank you, George.

6 We have a commenter online. Vicki, I'm going to
7 go ahead and unmute you. Please state your name and
8 your organization.

9 MS. BURLINGHAM: This is Vicki Burlingham, with
10 Capital Rating & Documentation Services, here in
11 Sacramento. We serve the greater Sacramento, all the
12 way up to Truckee area.

13 Can you guys hear me okay because I'm getting
14 feedback.

15 MR. MENDOZA: Yeah, we're getting a little bit
16 of feedback, too.

17 MS. BURLINGHAM: Okay, I'm turning the mic down,
18 the volume down. That's probably why.

19 Anyway, a couple things that I would like to
20 see. It (indiscernible) -- to hear that, again, we're
21 discussing having the HERS Rater become a building
22 department employee which means, guess what, I'm out of
23 a job and my company gets to close up. So, that doesn't
24 make me very happy. Especially since the CEC continues
25 to say we don't have enough HERS Raters to handle the

1 workload as it is. So, that's worrisome to me.

2 The second, I have daily conversations with
3 builders and homeowners that call and say I don't know
4 anything about this, blah, blah, blah. And, you know,
5 quite a few expletives. Somebody just decided that this
6 was going to start last year and, you know, I don't know
7 what I'm supposed to be doing and I'm not going to do
8 it. My building inspector told me I don't have to do
9 this. All he wants is a duct test. He doesn't care
10 about that owner thingy.

11 Just like the job we did the other day, and I
12 won't say the jurisdiction, but it was local, and they
13 signed off on a project and none, zero of the project
14 was in compliance with the CF1R that was written for the
15 project, and zero of the seven HERS verifications were
16 completed. But yet, the building department signed off.
17 And this is the norm.

18 But there should be some way for us to reach out
19 to homeowners, for us to reach out to contractors. One
20 of my big deals is I'm here to help. I'm not here to be
21 an enemy of the contractor. I'm not here to be an enemy
22 of the building department. We are all on the same
23 team.

24 But yet, as the HERS Rater, along with likely
25 the building department, we get blamed for it.

1 So, there's no education. People go online or
2 watch the DIY network, HDTV, they see that a brand-new
3 split system and all new duct work's only going to cost
4 them five grand, the reality is it's going to cost you
5 15. And I know that for a fact because I worked in the
6 HVAC industry, in the install department, and I bought
7 equipment and helped manage those installs.

8 So, they look at that and when the contractor
9 comes in and says it's going to cost you 15 to do this
10 job, well, I saw it on TV for 5,000 bucks. They're
11 going to go to the next person in line and they're going
12 to take them.

13 So, the contractors that are trying to do the
14 right thing and show the homeowners this is the cost
15 savings, they're not listening. I've got homeowners,
16 they get five to ten estimates before they'll pick a
17 contractor. You don't need more than three people, but
18 that's how they perceive it.

19 We, here in California, do not educate our
20 populace. We don't do it. Contractors don't know
21 anything about the Title 24. They call somebody like
22 me, a HERS Rater, and say what is this, blah, blah,
23 blah. And you have to try and walk them through it.
24 Sometimes they hang up. They call back a few days
25 later, calmed down, and we try to get something

1 accomplished. But there's no education.

2 How much would it cost for the CEC to get some
3 TV ads? We have TV ads for the laundry, but not for
4 home energy? Not about the HERs Rating Program, not
5 about the Title 24, what the benefits can be instead of
6 all the negative side that gets put out everyday about
7 the Title 24. The negative side of pulling a permit.
8 The negative side of the building department.

9 You know, you can pull a permit in Woodland for
10 an HVAC change out for 180 bucks that costs you \$500 in
11 Sac County. The same thing.

12 So, homeowners see all this negativity. They
13 don't see anything positive. We never present anything
14 positive about the Title 24, or the enforcement, or
15 pulling a permit and the enforcement.

16 There's the solution right there. We need to
17 educate the populace. Not just the homeowners, but the
18 contractors. Offer something that they can grab a hold
19 of, something positive. Especially for the contractors,
20 they've got to feed it to the homeowner and make them
21 want, want to do this, want to spend the extra money and
22 not take Hobo Joe because he's going to do the install
23 for 5,000. He's not going to pull a permit. He's not
24 going to be in compliance. He's going to order his
25 equipment off of Amazon, or one of the other HVAC sites

1 that, hey, we saw a job last week. They bought the
2 equipment off an internet and installed 13 SEER R-22.
3 It happens. All the tracking in the world isn't going
4 to stop that from happening.

5 So, there needs to be some kind of education.
6 Put it out there. Put it out to the public. Navigating
7 the CEC website, not. The CSLB, no. They don't care
8 about the Title 24. There's nothing on the CSLB's
9 website. You can look at it and figure it out, they can
10 look up who your contractor is and see if they're
11 licensed, but that's it. There's nothing positive to
12 push the State of California populace in the right
13 direction of compliance. It has to start there.

14 If the homeowner says, hey, I'm supposed to have
15 a permit, where's my permit for this job? I don't see
16 it in the contract. I'm supposed to have HERS testing.
17 Where is it on my contract?

18 Now, the contractor that's trying to skim by in
19 the underworld is like, oh, well, you know, we could
20 take care of that but it's going to cost you an X amount
21 of dollars and, you know, it's going to jack up the
22 price a thousand bucks. Okay, but it's still what I'm
23 supposed to have.

24 And now, you have homeowners that are not
25 (indiscernible) -- they're watching the DIY network that

1 doesn't talk about permitting, doesn't talk about, you
2 know, energy compliance testing. We need to educate.

3 So, thank you for letting me say my piece. I'm
4 talking a little fast and I apologize. Thank you.

5 MR. SPLITT: This is Pat Splitt. I just want to
6 clarify. It seems like there was a misunderstanding.
7 What I was proposing with my energy special inspector is
8 that we just expand the scope of the existing HERS
9 Raters, the same people, not different people. That we
10 keep the payment system the way it is now, that it's
11 handled not by the building department. Everything's
12 the same way, the scheduling's the same way, they're
13 scope is just expanded. The same people, so you're just
14 going to get more work, not less.

15 MS. BURLINGHAM: You don't understand who's
16 going to schedule all of that. Scheduling with a
17 contractor is a nightmare. They install. Tomorrow,
18 what time are you going to be there? Who's going to
19 handle that kind of dispatching. This is a dispatching
20 nightmare.

21 The building departments have enough issues just
22 dispatching their own guys to get them somewhere within
23 a two-hour time frame, within a six-hour day. And now,
24 you're talking about the contractor calling the building
25 department and saying I need a test in an hour --

1 MR. SPLITT: Excuse me. I just said that the
2 building department has nothing to do with it. It's
3 handled the same way however you get scheduled now, it's
4 the same way. Everything's this -- nothing changes
5 except your scope. Do you understand that? Hello?

6 MS. BURLINGHAM: We're just curious about what
7 HERS Raters get hired? I mean, would be just be on
8 standby and hope somebody calls us this week?

9 MR. SPLITT: What do you do now?

10 MS. BURLINGHAM: You know, right now I've got
11 several contractors. But if all I'm going to do is just
12 wait for the building department to call, maybe one job
13 a week, and who decides who gets hired? I don't know,
14 there's just a lot of ifs there. We've thought about
15 this for years.

16 MR. LOYER: So, I'm going to just break in here.
17 This is Joe Loyer with the Energy Commission again. So,
18 I think we're sort of talking around the same issues.
19 The way that HERS Raters and contractors interact with
20 each other right now, as they sign an individual
21 contract, they set the schedule between each other. And
22 I don't -- I think for myself, when I think about the
23 whole idea, the concept of HERS Raters being hired by a
24 building department, that's not the concept I have in my
25 mind.

1 So, I don't see the building departments
2 scheduling for any HERS Rater, ever. What I might see
3 is something along the lines of a building department
4 saying these HERS Raters, on this list, being enforced
5 by the provider can work in my area. That sort of thing
6 is the kind of thing I see the involvement that the
7 building departments might someday consider.

8 But really, when it comes down to it, I think
9 Pat's point is more along the lines of you've got the
10 HERS Rater out there, anyway. If it's a small job, if
11 we're talking about a simple replacement of an HVAC
12 unit, the additional inspection work that a building
13 inspector might do is a fire, life and safety. Is there
14 a good reason why a HERS Rater with proper training, ICC
15 training, couldn't do that for the building department
16 as an added incentive? But there is -- yeah, and I know
17 Greg's going to chime in on all this.

18 But that -- from what I'm hearing you say, Pat,
19 that's kind of what's going through my mind when --

20 MR. SPLITT: Well, I was thinking just the
21 Energy Code and --

22 MR. LOYER: So, just do enforcement of Energy
23 Code and just do the current -- basically, the current
24 enforcement of the standards as they are right now?

25 MR. SPLITT: That's correct. There are other

1 parts of Energy Code that they're not -- they're similar
2 to -- you know, they already know all this stuff. It's
3 the same concept, the same building science.

4 MR. LOYER: Yeah.

5 MR. SPLITT: They don't have to -- you know, it
6 won't be hard for them to expand the scope.

7 MR. LOYER: Okay. All right. So, I think
8 that's fair enough and we can sort of put that to bed.
9 Is that satisfactory for you, Vicki?

10 MS. BURLINGHAM: That and we didn't discuss, you
11 know, the idea of education. Honestly, we need to get
12 the word out. We're never going to get anywhere.

13 MR. LOYER: Well, let me chime in on that then.
14 The Energy Commission does have another project that
15 we're working on, SB 350. I'm going to look to my boss,
16 SB 350?

17 MS. HARO: Yes.

18 MR. LOYER: Okay, so SB 350, one of the
19 requirements is that we are supposed to be reaching out
20 to the education of consumers, as well as contractors in
21 terms of educating how the permitting process is
22 supposed to work. Is that --

23 MS. BURLINGHAM: I think that would be great.

24 MR. LOYER: Oh, it's a mandate to develop
25 consumer protection guidelines. So, that is

1 essentially, how should I say, in the works. It's not
2 ready for primetime release, yet. So, without being
3 more specific than that, I think, essentially, we are
4 aware of the issue, we are trying to deal with it.

5 MS. BURLINGHAM: Okay.

6 MR. LOYER: Okay.

7 MR. MENDOZA: Thank you, Joe. Thank you, Vicki.
8 Real quick, I'm going to do a time check. We have about
9 half an hour left. And I'm told that there's another
10 workshop or event occurring right after us, so it's sort
11 of a hard stop. Just letting you all know.

12 MR. ROLLINS: Hi, I'm Stanford Rollins, with 1
13 Earth HERS Raters. I want to thank you for this
14 opportunity and for this forum to have this discussion.

15 As part of the education of the homeowner, if
16 you will, it occurred to me that would it be possible,
17 and this is a question to the building department and
18 the CEC, would it be possible to include a pamphlet or
19 just a single sheet of paper at the permit issuance
20 stage to -- and those specific cases when homeowners are
21 the ones pulling the permits, and so to inform them what
22 the compliance process is, what the quality assurance
23 process is.

24 HERS providers, CalcERTS in particular, who my
25 firm is affiliated with, they actually provide a letter

1 that we are to give the homeowner to let them what the
2 quality assurance process is.

3 I think if something like that, in addition to
4 an explanation of what the compliance process is that
5 explains who all the different parties are, if at the
6 point of permit issuance that can be provided to the
7 homeowner, specifically, that will perhaps alleviate a
8 lot of the confusion on the back end when the contractor
9 puts it off to the homeowner to get the permit. Which
10 creates problems in and of itself where the contractor
11 isn't -- doesn't consider itself to be liable or
12 required to come back and correct any deficiencies.

13 So, the question is can we be more informing on
14 the front end as opposed to reactionary on the back end?
15 Thank you.

16 MR. MENDOZA: All right. I'm going to call
17 Bruce Severance up. We're kind of at the end of the
18 blue cards here.

19 MR. SEVERANCE: Yes, hello. My name is Bruce
20 Severance. I represent Mitsubishi Electric. As a
21 manufacturer, I think Mitsubishi is very concerned about
22 quality installation for a number of reasons. We've
23 reviewed the building science related to indoor air
24 quality impacts, and duct leakage.

25 In my mind, the primary issue is as much indoor

1 air quality as it is efficiency. Duct leakage averages
2 about 30 percent nationwide due to widespread failures
3 in traditional duct tapes, and misinformation, and
4 distribution of noncompliant tapes in large distribution
5 stores. Home Depot, Lowe's, you can't even buy UL
6 compliant tapes. It's kind of crazy.

7 So, there's a widespread problem where people
8 don't understand the problem. And the indoor air
9 quality impacts are that everybody always closes all the
10 doors and windows, turns on the HVAC. Most of the
11 leakage is on the supply side. Buildings are seeing
12 significant depressurization. The building science
13 that's there is well-documented and indicating that
14 there's a lot of particulate and biotoxin infiltration
15 that's resulting from depressurization of the building
16 envelopes.

17 Many houses have very leaky subfloors, with wet
18 crawl spaces. If you've been in crawl spaces, you know
19 what they often smell like.

20 So, all that indoor air is the sources of fresh
21 air that are coming into the houses when that
22 depressurization occurs. A house that's got a crawl
23 space, 40 percent of the so-called fresh air is coming
24 through the crawl space. And houses that have attics,
25 only, and no crawl space, most of that air is coming

1 through perforations in holes at the attic plane. So,
2 about half of the houses in existence have rodent or
3 bird intrusion problems, so you can imagine worst case
4 scenarios. And there are a number of those that I've
5 seen firsthand.

6 There's new research on indoor air quality
7 impacts. Survivingmold.com is an excellent resource.
8 But a new medical research in this field is associating
9 biotoxin infiltration with an entire host of chronic
10 inflammatory response illnesses, including arthritis,
11 bronchitis, asthma, heart disease, neurological
12 dysfunction, flu symptoms, all sorts of different
13 ailments, edema, rashes, et cetera.

14 So, a wide host of illnesses that we're seeing
15 in the general public are related to sick home syndrome.
16 And I think that that gives us an opportunity to do
17 public service announcements, come up with some
18 standardized advertising campaigns. Ask TV stations to
19 air these things for free.

20 At the same time, you know, put the State's seal
21 at the end of that commercial so people know that that
22 information is factual, it's based in science. And have
23 a tag line that relates to using a licensed contractor
24 so that they're getting somebody that's educated enough
25 to know how to handle that problem. And really make a

1 point of why these quality installations are important
2 from an IAQ stand point, as well as an energy efficiency
3 stand point. Clearly, the return on investment is there
4 so that people that are paying a little bit more money
5 to get HERS ratings are actually going to get that money
6 back in terms of the energy efficiency they're buying.
7 And they often don't understand that, so that's a whole
8 other PSA campaign.

9 My sense is that the problems are significant
10 and they're widespread. I have worked in the field
11 auditing houses. I was a BPI-certified contractor for
12 many years, ran an energy division for a construction
13 company. So, I've seen, from the contracting stand
14 point, come in behind HVAC contractors, installing
15 brand-new systems in tract houses. The sampling process
16 doesn't work at all. I completely agree with the
17 comment earlier.

18 I have tested brand-new houses that have 19, 20
19 percent leakages and the residents are disposed to
20 illness and they've called us because they have chronic
21 inflammatory response in a brand-new house.

22 So, these are issues that I think the general
23 public needs to be aware of. And if they understood all
24 those benefits, there would be a lot less push back from
25 the consumer stand point.

1 But I don't really think that that's all that's
2 needed. National Comfort Institute, which is highly
3 respected, has national data that the average, 90-
4 percent efficient furnace is yielding about 57 percent
5 efficiency on a nationwide basis.

6 The quality of installation on a nationwide
7 basis, not just in the State of California, is really,
8 really low. I think manufacturers should get behind
9 this. AHRI should get behind it as well from the stand
10 point of it improving product reliability, lowering
11 warranty calls, increasing customer satisfaction,
12 increasing efficiency, and the clients seeing the
13 benefit to that.

14 And I think we owe it to consumers, homeowners,
15 general contractors, developers to give them the best
16 possible value for their dollar.

17 So, the problem is that we've got a lot of
18 unlicensed work being done and I think that that's
19 fairly widespread. And there isn't really sufficient
20 censure against people that are doing unlicensed work or
21 unpermitted work, either one of those two categories.
22 There really needs to be very stringent enforcement. I
23 think, maybe an increasing scale of severity. If you
24 get busted the first time, there's maybe a less severe
25 fine. But if there's a second time, you know, two or

1 three times the amount of the contract and a very clear
2 statement of why these rules are in place relative to
3 indoor air quality and impacts on the consumer.

4 We can't allow the public to continue being made
5 sick by substandard work. And from the stand point of
6 just the integrity of that I think there's really no
7 argument against enforcement. And using more severe
8 penalties to pay for the contractor training. And my
9 feeling is it's not sufficient to just streamline the
10 permit process that's necessary. It's not sufficient to
11 just increase fines. We really do need better training
12 from a contractor stand point.

13 Because many licensed contractors are not
14 required to have any kind of continuing education. And
15 I've talked to HVAC contractors who were proud and
16 boastful to me about the fact that they had not pulled a
17 permit in 30 years, and they knew everything there was
18 to know because their granddad taught them how to do
19 HVAC in the 1940s. And they don't understand that the
20 technology in the industry is really evolving quite
21 quickly and there's a real need for very specific
22 training on different types of systems.

23 So, it's naive to think that contractors can
24 learn everything they need to know to pass the CSLB exam
25 and that no continuing education should be required or

1 needed over a period of time.

2 Life is a process and constant education is part
3 of that. The best HVAC contractors I know are reading
4 blogs from NCI, and BPI, and NATE, It's About Q on a
5 daily basis. Are engaging in self-training on a daily
6 basis and they hold multiple certifications, and they're
7 qualified to teach classes about it. But they're that
8 good and that's the quality they've committed to giving
9 to their clients.

10 We need to teach the entire industry to sell up
11 to a quality standard instead of compromising and
12 selling down to a price. The only way we can do that is
13 to eliminate the unlevel playing field that we currently
14 have with unlicensed contractors not paying Workman's
15 Comp, not paying for bonds, not paying for liability
16 insurance, and having no overhead since selling
17 everything off the back end of a truck and installing,
18 you know, SEER 13 equipment with R-22 refrigerant. That
19 just shouldn't be allowed.

20 So, should we allow homeowners to do their own
21 high voltage electrical work or their own HVAC equipment
22 replacement? And I would say no, we shouldn't. That
23 it's really important in these particular areas, we
24 don't want a repeat of the professor, who I'm sure was
25 well-intended when he converted a garage and ended up

1 really being responsible for the death of a couple of
2 students. He probably did electrical himself or hooked
3 up a gas wall furnace himself and didn't know what he
4 was doing. And I'm sure he was an intelligent, well-
5 meaning person, as most people are.

6 So, the bottom line is these codes are there to
7 protect the public and we need to set down very specific
8 policies and guidelines that protect public health, both
9 in terms of potential fire and electrocution, as well as
10 indoor air quality impacts.

11 And the CEC, I know, is very familiar with the
12 building science where this is concerned. And this just
13 scratches the surface. I wouldn't be making a complete
14 statement if I didn't mention Rick Chitwood's name. But
15 the CEC has invested a lot of money in getting some very
16 innovative people to figure out how to optimize system
17 installation.

18 And I would plead with you to pay Rick Chitwood
19 to write the textbook on what he's done. And he's got a
20 number of protégés that I'm sure would help him do that.
21 But nobody has written the book of what he has learned
22 over the last 30 years. He's about to retire. And if
23 we did everything that I've talked about up to this
24 point, we would regain the 30 percent duct leakage that
25 we've lost. We're currently spending kilowatt hours

1 pushing those Btus out of the house, so we actually
2 would regain more than 30 percent.

3 If we did Rick Chitwood's installation
4 methodologies, we can take a 5-ton air conditioning
5 system out of a house and replace it with a 2-ton system
6 every day of the week. And I've actually done that,
7 myself. I know it works.

8 So, there's a lot to that. It would require
9 some creative thinking about getting HVAC contractors
10 incentivized to bring in BPI general contractors or
11 allowing them to work outside their license to handle
12 and act as a primary contractor on things like having
13 the attic insulation blown or hiring a company to remove
14 the existing attic insulation, et cetera, or hiring an
15 insulation contractor to do the air sealing of the attic
16 plane, et cetera.

17 But the efficiencies of the home could be
18 greatly increased if we could incentivize the whole
19 package, whole house retrofit kind of a situation and
20 allow the HVAC contractor to become the primary
21 contractor for 90 percent of that.

22 I think this has been the biggest stumbling
23 block and I would point to it as the failure of the
24 California's Energy Upgrade Program has been that it has
25 not allowed the HVAC contractor to act as a primary in

1 this category.

2 All of the phone calls come from the guy whose
3 furnace just stopped working. That's where the work
4 comes from in terms of system replacements. By the time
5 you try to sell somebody an Energy Upgrade Program
6 rebate and you're telling them about the pros and cons,
7 if they're system is working at this moment in time,
8 that's a very hard system to sell. They're not going to
9 bring somebody in until their system fails.

10 So, I think we need to put the horse back in
11 front of the cart. Those are my comments. I have
12 submitted about a 14-page document online, if any of you
13 want to refer to that, it summarizes my comments today.
14 Thank you very much.

15 MR. MENDOZA: Go for it.

16 MR. SPLITT: Okay, it's Pat Splitt. I see we're
17 running out of time. So, I had a couple of cards' worth
18 of stuff here. So, throw that one away and I'll just
19 blow through this other stuff just so I can get it on
20 the record.

21 It's sort of unrelated but number one is I'm
22 from Santa Cruz, where it's on the coast, so most houses
23 don't have air conditioning. They just have forced air
24 furnaces and ducts in the attic. But recently, it's
25 been getting more warm more often. So, we have many

1 more people now that are taking their existing furnace
2 system and adding on a coil and a condenser, and that's
3 it.

4 So, these ducts are maybe 15 years old and
5 they're undersized, they're not sealed well, the blower
6 is way undersized. But what do we do about that? How
7 do we follow it up because it's not a change out?

8 Also, if the installer had any inkling of trying
9 to fix the problem, what he'll do is maybe up the blower
10 speed to a higher blower speed to try to get more
11 cooling through the system, which then is going to blow
12 apart the duct system that's still left, so it's going
13 to get more leakage. So, that's a big problem that I
14 haven't heard anybody mention is just adding AC to an
15 existing forced air system.

16 Another thing that I work a lot on are hydronic
17 systems. So, there are hydronic heat pump systems that
18 do heating and cooling, but they don't have ducts. So,
19 nobody's mentioned anything about that. And that's
20 another system that should be also monitored and checked
21 for correct installation.

22 As a matter of fact, there are projects where
23 the designers end up going with a hydronic system
24 specifically to get away from having to do duct testing.

25 We talked about residential and nonresidential.

1 I'm a great proponent of doing installation
2 certificates. And if the change out, if the installer
3 just filled out the installation certificate, and signed
4 it, and stated that he did all that stuff, even if
5 nobody checked it, but he's required to give that to the
6 homeowner. If the homeowner's made aware of what this
7 thing means, if something goes on later, he's got a
8 signed certificate from the installer, his signature on
9 it, stating he did this stuff. So, the homeowner could
10 do a lot of this enforcement.

11 A lot of them are going to be ticked off.
12 There's a guy who -- you know, the bigger the house is,
13 the more likely it is that he's got a lawyer on
14 retainer. So, that's something.

15 Also, thought, on nonres, the residential
16 installation certificates are pretty well thought out.
17 But for the nonres, it's basically a blank sheet.
18 There's just a spot where the installer can fill in
19 something that he wants to say, well, this is what I did
20 and then sign it, and that's it. It's totally
21 meaningless.

22 So, somebody has to actually come up with some
23 nonres installation certificates that are similar to the
24 residential.

25 And finally, I just want to agree again with

1 other comments that I also see that continuing education
2 is really necessary for these contractors and their
3 workforce. And I'm thinking that maybe every second
4 year they should be required to take a 3- or 4-hour
5 refresher class. This way, the contractor doesn't have
6 to send his entire workforce on a day when the class is
7 happening near him. He can do half this year and half
8 the next year.

9 But that at least would give them some chance
10 for the State to bring them up to speed on what's
11 happening and what they should be doing. So that's it,
12 thank you.

13 MR. MENDOZA: Just a quick reminder, we are
14 running out of time. We've got ten minutes and I have
15 an online commenter.

16 MR. NESBITT: George Nesbitt. I won't talk for
17 15 minutes. But I really appreciate your comments on
18 indoor air quality and health. I wanted to address, in
19 part, from the Winter inspector. Life safety, I mean
20 and that's I think one of the problems is the Energy
21 Code is not viewed as life safety. And I think you
22 pointed out really well how it is.

23 In addition, fire problems, carbon monoxide, and
24 let us not forget that in some of these extreme heat
25 waves around the world, which we have even had in this

1 country, where you have dozens, if not hundreds of
2 people die because they were in overheated buildings.

3 So, I would say the Energy Code is as much about
4 life safety as it is about energy.

5 I think one of the problems, though, is even
6 within our energy industry many people still link energy
7 efficiency with bad indoor air quality and bad health,
8 which is tragic. But I won't go further there.

9 Compliance forms. What, in 2013, we went up to
10 like 113 forms. There's really only three compliance
11 forms. CF1R, which says what you intend to do and that
12 you meet code. What's not the CF2R used to be a 6R, the
13 installation certificate that says this is what we did,
14 it's what we said we would do, and it meets the code.
15 Three, the CF3R, which is the HERS, which says they
16 passed these tests.

17 With all the forms you have, you have humongous
18 duplicity of having to fill this out and that out.

19 I can tell you that a lot of my installer
20 certificates neither match the CF1R or my HERS. Very
21 common. So, then we've wavered back and forth saying
22 the registries, of allowing the HERS Rater to fill out
23 the installer forms, and then not. But, of course, some
24 of us probably still did. Even if you allow us the
25 process of doing it, it's taken me longer to do the

1 forms on a duct test than it took me to do the duct
2 test. So, you know, so having a process that works and
3 that works easily would also help reduce barriers.

4 We have to be careful about electrification.
5 I've installed air conditioners in Berkeley. My last
6 furnace install I put in an air conditioning coil
7 because my client wanted to have that possibility and I
8 decided to install it up front.

9 Another house in Berkeley I designed, I left
10 space for one and he's now decided to add it. And, of
11 course, he didn't leave space for it. Much more
12 complicated. But, yes, adding an air conditioner
13 triggers the code.

14 Recently, I heard of people having trouble
15 meeting the code, the Energy Code, so they're taking
16 their houses off grid. These are high-end, expensive,
17 custom homes. That may or may not be a good thing.

18 MS. ROBERSON: George, can you wrap up your
19 comments?

20 MR. NESBITT: Yeah. I think I've pretty much
21 said what I need to at the moment. I just -- I think
22 I'll just say one closing thing. I think there's a lot
23 of things we need to do to drive people to doing the
24 right thing. You know, we have problems with unlicensed
25 contractors. We're never going to eliminate it, but if

1 we can make it harder for bad actors to not be able to
2 buy equipment, we can make it easier for the good people
3 to do the right thing. You know, that is our goal. And,
4 you know, the customer needs to reap the benefits
5 because so often they're not. They're getting ripped
6 off more, in many ways.

7 MR. MENDOZA: Thank you, George.

8 We've got one more comment online. Nick
9 McBurney, I'm going to unmute you. Just a reminder, we
10 do have about three minutes left because we need to wrap
11 up the workshop. Please state your name and your
12 organization.

13 MR. MCBURNEY: Hi, my name is Nick McBurney.
14 I'm a Nevada County Plans Examiner and I just had a few
15 comments related to the oversight of HERS Raters in the
16 field.

17 It's common practice for us to, as we are doing
18 our follow-up, final inspection, that two things. One
19 is that we collect the forms up front. But as we're
20 going around to check the lines, that installation,
21 service disconnect, that we do check to see that the
22 HERS Rater -- that the serial numbers match on the
23 equipment.

24 And if we had a list of certified HERS Raters,
25 it's a way for us to cull that list if we see someone on

1 our list. Because there's no way to know if these
2 people are doing their job, even if they're on the list,
3 to be able to remove them from that approved list.

4 And the second instance is if we see the comment
5 that the ducts have been smoke tested, because the duct
6 leakage doesn't match, but the assumption is that the
7 ducting is in an enclosed area that the test is
8 acceptable. If we see instances where the ducting is
9 entirely under the floor, that's another instance where
10 we're -- it seems clear that the person's not doing
11 their job accurately.

12 So, just a couple of ideas for how the building
13 department can easily provide some quality control for
14 the HERS Raters going forward.

15 And those are my comments. Thank you.

16 MR. MENDOZA: Thank you, Nick.

17 All right, thank you everyone. Just a reminder,
18 we still have a comment period, so we will have a docket
19 for any comments that were made today.

20 At this time, I'm going to invite Judy back up
21 to the podium for closing remarks.

22 MS. ROBERSON: Thank you. Okay, this will be
23 really brief. Thank you all for coming. We appreciate
24 all of your comments and we hope to hear more.

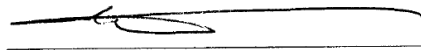
25 This slide is up now so that -- to remind you of

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