

**DOCKETED**

<b>Docket Number:</b>	17-EBP-01
<b>Project Title:</b>	Improving Energy Compliance of Central Air-Conditioning and Heat Pump Systems
<b>TN #:</b>	224209
<b>Document Title:</b>	Transcript of 06-29-18 Staff Workshop on Promotion of Regulatory Compliance in the Installation of Central Air Conditioning
<b>Description:</b>	Transcript of 06-29-18 Staff Workshop on Promotion of Regulatory Compliance in the Installation of Central Air Conditioning and Heat Pumps
<b>Filer:</b>	Patty Paul
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	7/19/2018 2:21:27 PM
<b>Docketed Date:</b>	7/19/2018

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 WORKSHOP ON 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, JUNE 29, 2018

9:00 A.M.

Reported By:  
Peter Petty

## APPEARANCES

CEC Staff Present

Lea Haro

Judy Roberson

Joe Loyer

Juventino Mendoza

Alana Mathews, Public Adviser

Stakeholder Participants

Gregory C. Mahoney, City of Davis, California

Ruben Willmarth, LG Electronics U.S.A., Inc.

Bruce Severance, Mitsubishi Electric

Christopher J. Walker, CAL SMACNA

David E. Dias, Sheet Metal Workers' Local Union No. 104,  
District 1

Kristin Heinemeier, Realized Energy Solutions

Bob Wiseman, IHACI

Cynthia Moore, CSLB

Randy S. Young, Sheet Metal Workers' Local Union No.  
104, District 2

Scott Blunk, SMUD

Tyler Miner, Redlands Plumbing & HVAC/ Henry Bush  
Plumbing & HVAC

Mark Ramirez, IHACI

Eric Taylor, California Energy Alliance

Thomas L. Trimberger, Interwest Consulting Group for  
CALBO

Barbara Hernesman, Western HVAC Performance Alliance,  
Inc.

**CALIFORNIA REPORTING, LLC**

229 Napa St., Rodeo, California 94572 (510) 313-0610

## APPEARANCES (CONT.)

Stakeholder Participants (Cont.)

Gregg D. Ander, California Energy Alliance

Chris Partridge, Rheem Manufacturing-Air Conditioning  
Division

## INDEX

	Page
Welcome and Housekeeping	5
Background to SB 1414 (Wolk, Chapter 768, Statutes of 2016)	7
Roundtable Discussion of Barriers and Potential Solutions	22
Wrap-Up and Next Steps	140
Adjournment	141
Reporter's Certificate	142
Transcriber's Certificate	143

1

## P R O C E E D I N G S

1  
2 JUNE 29, 2018

9:00 A.M.

3 MS. HARO: So, good morning and thank you for  
4 joining us at the -- this workshop is to discuss the  
5 promotion of regulatory compliance in the installation  
6 of central air condition and heat pumps.

7 So, first, we're going to do some housekeeping.  
8 There are restrooms on the left, down here. And there  
9 are vending machines on the second floor. So, we don't  
10 have a cafe anymore, so if you need coffee or a snack,  
11 you're going to have to leave the building and go to one  
12 of the other locations down the street.

13 In the event of an emergency, please leave the  
14 building to the doors on the right and the left, and our  
15 meeting point is Roosevelt Park.

16 So, please join the table. So, we'd like this  
17 to be more of a roundtable discussion, so if people  
18 coming in can join the table? Even people that work  
19 here.

20 So, just some background about, you know, where  
21 SB 1414 came from and this discussion to increase  
22 compliance with central air conditioning and heat pumps.

23 And so, this is something that some of us have  
24 been discussing for some time. And there have been  
25 various pieces of legislation that led up SB 1414,

1 including Assembly Bill 2020, which in 2008 authorized  
2 the Energy Commission to develop the strategic plan to  
3 reduce energy -- the energy impact of air conditioners.  
4 And, which was followed by the 2009 Assembly Bill 758,  
5 which mandated the Commission to develop a program to  
6 improve energy efficiency in existing buildings. And  
7 looking at ways to increase compliance is one of the  
8 strategies within that action plan.

9           And so, this also led us up to the 2015 Senate  
10 Bill 350, which establishes goals, energy efficiency  
11 targets to achieve statewide, cumulative doubling of  
12 energy efficiency in electricity and natural gas usage.  
13 And one of the key pieces of work that came out of that  
14 was the low-income barriers study.

15           So, what are we required to do through SB 1414?  
16 So, SB 1414 requires the Energy Commission, in  
17 consultation with the CSLB, local building officials,  
18 and other industry stakeholders to create a plan. To  
19 develop and approve a plan that promotes compliance with  
20 central air conditioning and heat pumps.

21           So, we're all supposed to evaluate various  
22 methods and collect data to determine the feasibility  
23 and cost effectiveness of the recommendations. And  
24 we're meant to evaluate the impacts on specific  
25 stakeholder groups, including property owners, the HVAC

1 industry, local governments, and building departments.  
2 And we're meant to have this plan drafted and approved  
3 by January 1st, 2019.

4 One of the last pieces that the mandate also --  
5 the mandate also gives the Energy Commission authority  
6 to adopt regulations that are consistent with the plan.  
7 So, the idea is that we have a discussion with  
8 stakeholders, we vet the plan and then, if necessary,  
9 the legislation authorizes the Commission to draft some  
10 legislation to support the strategies within the plan.

11 So, I am going to hand this -- the workshop  
12 scope over to the project lead, Judy Roberson. So, some  
13 of you may have received e-mails from her. So, welcome,  
14 Judy.

15 MS. ROBERSON: Thank you, Lea.

16 Welcome everybody, appreciate your coming. It  
17 looks like we have about 20 people in the room and not  
18 many online, yet. But this is being broadcast via  
19 WebEx, so we may get some remote participants through  
20 the course of the morning, and we want to hear from all  
21 of you.

22 This is a big problem. It's a long-standing  
23 problem. It's been around for at least 20 years and  
24 some of you may have been aware of it before then.

25 We have a mandate, now, which is an opportunity



1 to come together and put our heads together and solve  
2 this problem, which is not going to be easy. And that's  
3 why we need, and we want, and we're asking for your  
4 input.

5           So, SB 1414, the scope of SB 1414 is all central  
6 air conditioning and heat pump system -- central system  
7 installations. However, the biggest problem with  
8 compliance is with the alterations market, particularly  
9 in smaller buildings, small commercial buildings and  
10 residential buildings. They tend to be served by a  
11 different pool of contractors than the ones that work on  
12 large commercial buildings and new construction. It's  
13 easier to avoid permits in the alterations area.

14           And, so, basically the focus of the workshop,  
15 we're not excluding other installations, but the focus  
16 is going to be on the alterations market. And this is  
17 important because we have minimum code requirements that  
18 include, for energy performance verification, third-  
19 party verification, which generally is triggered by  
20 pulling out a permit.

21           And it's important that these are third-party  
22 HERS-verified because there are complicated systems,  
23 they're really prone to installation failures and that's  
24 what HERS Raters and ATT, acceptance test technicians  
25 are for is to make sure that these more complicated

1 energy systems are actually performing properly before  
2 they're put into use.

3           We don't know how big the problem is. We know it's  
4 big. But because we don't know how many alterations are  
5 actually happening, we don't know how many are not being  
6 permitted. We know how many are being permitted,  
7 generally, or we have that -- that information is  
8 available to us. But not all of the alterations that  
9 are permitted are HERS-verified or documented. Their  
10 compliance is not necessarily documented if they're not  
11 carried -- if the permit isn't closed, okay.

12           So, the way the code works now is that for  
13 compliance to be documented and verified --

14           THE REPORTER: Excuse me, can you try to stay a  
15 little more behind the microphone, please?

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

21           So, I have two slides. One slide on -- this is  
22 a very high-level sort of fly-over overview of the  
23 barriers that have been identified by various people  
24 over the years. It's not comprehensive and it's not  
25 exclusive.

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

8           Very few -- or a lot of homeowners and property  
9 owners are not aware of the complexity of these systems.  
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 true.

13           These are -- the equipment is a component of a  
14 system which includes duct systems, and refrigerant  
15 charge, and air flow, and these things need to be all  
16 designed, installed, and commissioned to make sure that  
17 they're operating most energy efficiently.

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

25           We don't want to just focus on different pieces

1 of the elephant or the pie, in isolation from the rest  
2 of it. This is really a market transformation effort.  
3 So, we need to be thinking about not only our own  
4 perspective as a stakeholder, from wherever you're  
5 coming from, but all the stakeholders' perspectives. We  
6 need to consider everybody that's involved.

7           And everybody needs to come away from this plan  
8 with a value proposition for improving compliance  
9 whether you're a building owner, a HERS Rater, a  
10 contractor, a distributor, or a local government, or  
11 anybody else that's involved.

12           The enforcement agencies are the CSLB, the  
13 Contractor State Licensing Board. We are specifically  
14 required to consult with them and we want to consult  
15 with them because we're dealing with licensed  
16 contractors here.

17           Also, building departments are -- the CSLB and  
18 building departments in local governments are very  
19 resource-constrained. They have to deal with the whole,  
20 not just the energy code, but all the codes. They have  
21 to try to enforce all of those. We know that the energy  
22 code is somewhat, sometimes less of a priority for the  
23 enforcement agencies than some of the other safety-  
24 related codes.

25           And so, we can't -- we need to consider their

1 limited resources and how we can help them, not add more  
2 of a burden to them for their enforcement activities in  
3 this regard.

4           The compliance process itself, the process of  
5 applying for, and getting a permit, and closing a permit  
6 is perceived as being too complex and too expensive by a  
7 lot of people. So, they lack a value proposition to  
8 take that route.

9           We need to provide value propositions, both  
10 negative and positive. Value propositions can be  
11 positive in the form of, say, incentives by a reason to  
12 do something. And there can also be negative value  
13 propositions, which are reasons -- disincentives,  
14 penalties for not pulling permits or not getting HERS  
15 verification.

16           So, all of these mechanisms are on the table.  
17 We're not married to any particular solution here.  
18 We're not -- we don't know what the answer is. We want  
19 this to develop from the series of workshops that we're  
20 going to have.

21           Contractors in the small building alterations  
22 market tend to -- well, they're competing on the basis  
23 of cost, basically. Even if they're industry-trained,  
24 and qualified, and certified, and want to do the best  
25 possible quality installation, according to industry

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

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

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

18 So, we need to make sure that contractors have  
19 the opportunity to get that training and know what needs  
20 to be done and can, therefore, install them in such a  
21 way that they're going to pass the HERS verification.

22 In terms of raising consumer awareness about the  
23 problem, one solution that has been mentioned is the  
24 possibility of mandatory disclosure of the compliance  
25 process, including the permit and HERS verification to

1 property owners in some way. Details to be discussed.

2 The compliance process itself is -- the  
3 requirements for this type of -- for these alterations  
4 are not that different across the State. There are some  
5 climate zone variations. But generally, the process is  
6 the same.

7 But contractors, one of the problems they face  
8 is that building departments all of their own method,  
9 their own process of dealing with these permits, their  
10 own application process, inspection scheduling process,  
11 their own permit fees. And for contractors who work  
12 across different jurisdictions that is -- it doesn't  
13 help, okay.

14 So, it could be possible, we're not talking  
15 about the whole energy code here, but it should be  
16 possible to somehow streamline or standardize this  
17 process so that it would be more convenient for  
18 everybody involved.

19 HERS Raters have a huge stake in this. HERS  
20 Raters are generally called to verify an installation  
21 because a permit has been pulled, and the installation  
22 is complete. And if the process is going smoothly, the  
23 HERS Rater is called to verify the performance, or the  
24 compliance, the minimum compliance of the system.

25 The way it works now, most HERS Raters are hired

1 and paid for, not employed by, but they're hired and  
2 paid by the contractors whose work they're installing.

3           One suggestion or idea that has been proposed is  
4 that to help building departments out, if they had HERS  
5 Raters on staff, or on call that a HERS rater might be  
6 able to go out and conduct the final inspection, after  
7 they have performed the field verification and  
8 diagnostic testing, for example. That would save one  
9 inspection trip, one every job. Okay, it would also  
10 require HERS Raters to receive ICC certification for  
11 that type of building inspection. I'm just putting it  
12 out there.

13           And last, but not least is there is currently no  
14 way, we have no -- building departments, the CSLB,  
15 stakeholders have no way to identify unpermitted  
16 activity in a timely manner comprehensively,  
17 systematically across the state.

18           So, it would really be nice, if we want to bring  
19 this underground economy into the mainstream, where we  
20 can actually know how well these systems are working,  
21 how much energy we're saving through proper  
22 installations, we need to be able to identify where the  
23 equipment is being installed and when it is being  
24 installed. At least that's one of the ideas that has  
25 been proposed and discussed for a long time.



1           So, we have a square table, not a round table.  
2   The workshop process, we want to hear from everybody.  
3   But we also need to have -- we need to identify you  
4   before you speak. So, we're going to ask that -- there  
5   are blue cards at the table. If you know you have  
6   something to say, which is great, you can speak more  
7   than once, but please fill out a blue card and submit  
8   that, with your business card, to the court reporter.  
9   You can pass it around or we can have somebody pick them  
10   up, pick up the cards and hand them over to the court  
11   reporter.

12           And then, one of my colleagues is going to pick  
13   up the cards and -- okay, and then we'll call on --  
14   we'll call your name from the blue card and then you'll  
15   speak.

16           We're asking everybody to speak into the  
17   microphone. It's a little hard to get used to  
18   sometimes, but make sure the microphone light is green  
19   when you're speaking and red when you're not speaking to  
20   the whole group.

21           And we're asking that you keep your comments  
22   within the workshop scope. And if you have any  
23   questions about the scope, we can go over that again.  
24   But it's primarily alterations to central air  
25   conditioning and heat pump systems in residential and

1 small commercial buildings. That's the focus of the  
2 problem, the focus of the plan.

3 And, if necessary, we have quite a few  
4 stakeholders here. It's good to have this many. If  
5 necessary, we may try to enforce a three-minute time  
6 limit on comments. You can speak more than once, but we  
7 ask that you keep your comments -- each comment short  
8 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, 17-EBP-01, within two weeks. July 13th is two  
12 weeks from today. The docket is how we keep track of  
13 your input, as well as this WebEx recording.

14 Today's workshop is going to end by noon. It's  
15 possible we might end sooner, if nobody has any  
16 comments. If we run out of comments or input, we'll see  
17 what happens.

18 The next -- this is the first public workshop on  
19 this SB 1414 compliance plan development effort.

20 There will be another one in five weeks from  
21 today, August 3rd, in Irwindale, California. It will be  
22 a Commissioner workshop. Commissioner McAllister will  
23 be not only attending, he'll be presiding over that  
24 workshop. It will be all day, instead of half-a-day.

25 And we are asking, we're inviting stakeholders

1 between now and then to prepare your own analysis of a  
2 potential solution or several solutions. And according  
3 to SB 1414 that needs to include -- it needs to include  
4 a practicality, the feasibility of implementation of the  
5 plan. We're going to develop the plan, but it has to be  
6 implementable.

7           So, we need to consider cost effectiveness,  
8 technical feasibility, value propositions for all  
9 stakeholders involved. We need to consider the impact  
10 on all property owners, and the HVAC industry which  
11 includes manufacturers, distributors, contractors.  
12 Also, low-income and disadvantaged communities. What  
13 about renters in apartments?

14           And, especially, we want to encourage any new or  
15 innovative technological or economic information. If  
16 there's any way to apply, for example smart meter data  
17 to verifying the performance of these systems, we'd like  
18 to hear about it, either individually or in aggregate.

19           And again, I'd like to say, I'd like to stress  
20 that we want the solutions to be not in isolation, but  
21 we need to come up with a suite of solutions. These  
22 problems are deep-rooted, they've been around a long  
23 time. So, we need to come up with creative ways to  
24 solve the problem.

25           And a lot of people have been working on this

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

6 So, we hope that you can participate in the  
7 August 3rd workshop, either in person, in Irwindale,  
8 which it's at the Southern California Edison Energy  
9 Education Center, or by WebEx. We'll also be available  
10 by WebEx, so you can participate remotely.

11 We ask that you submit your suggestions, your  
12 suggested solutions and your analysis to the docket by  
13 July 20th, that's three weeks from today, for it to be  
14 considered for a discussion at the August workshop. We  
15 will look at all of them and we will plan the August 3rd  
16 workshop agenda accordingly.

17 Here's the current compliance plan schedule.  
18 It's subject to change. Today is our kickoff workshop  
19 in Sacramento. As I said before, in two weeks we'd like  
20 to have your written comments submitted to the docket  
21 related to this workshop. So, if you want to follow up  
22 your verbal comments today with written comments, we  
23 would encourage that.

24 Three weeks from today we'd like to see the  
25 analysis, so that we can look over them and prepare for

1 the August 3rd workshop. We're going to ask for  
2 comments two weeks after that, further comments. That  
3 should give us the month of September to develop the  
4 plan, to draft the plan, which we hope will be available  
5 for public comment during the month of October.

6 And November, we can finalize it. And by  
7 December we can submit it to a Commission business  
8 meeting and have it approved, in order to meet our  
9 legislative mandate. That's the hope. It's very  
10 optimistic, but I think it's also very motivating.

11 So, this is my contact information. I'll also  
12 have business cards available. If you have questions  
13 about the proceedings or the process, you're welcome to  
14 call me, e-mail me, and I will respond.

15 For now, we're almost at 9:30. I'm going to go  
16 back. This is the workshop roundtable process. And  
17 this is where we will open it up to stakeholder  
18 comments.

19 MR. LOYER: So, why don't you grab a seat really  
20 quick. So, I'm just going to be running the WebEx from  
21 up here.

22 And if I could just remind everybody, our WebEx  
23 system, as opposed to our court reporter, the court  
24 reporter's picking up just about everything. The WebEx,  
25 not so much. It's a little bit more sensitive. You do

1 need to speak right into the mics.

2 So, oh, hey, Judy, there's a spot right over  
3 there in the corner.

4 THE REPORTER: Do not speak right into the mics.

5 MR. LOYER: Okay, don't speak right into the  
6 mics?

7 THE REPORTER: You'll overload the systems.

8 MR. LOYER: Okay. So, well, speak a little bit  
9 towards the mics. We talked to IT and that's why --  
10 that's why the whole thing dropped off of WebEx. And  
11 apologize for everybody on WebEx. You know, these kinds  
12 of things happen.

13 So, just kind of going back over a little bit,  
14 this is going to be our process going forward. We are  
15 asking for your assistance so please do try to  
16 contribute to this process, and we will get to the end  
17 result that we all want and can live with.

18 So, with that, I think Tino. Or, do you have  
19 the blue cards, yet? Okay, so you want to bring them  
20 either to -- yeah. So, we're just kind of gathering  
21 that process right now.

22 I think the main thing to take away from these  
23 slides is Judy's contact information. She's going to be  
24 the best person to talk to. She is the project lead.

25 All right, thank you. So, Tino's going to be

1 available to pick up anybody else's blue cards. If I  
2 haven't read your name off, just get Tino's attention  
3 and he'll help you out.

4 So, the first person on top of the list here is  
5 Greg Mahoney. So, yeah. You can either come up here  
6 or, yeah, down there is good. Just make sure the  
7 microphone has green on it.

8 MR. MAHONEY: My name is Greg Mahoney. I'm with  
9 the City of Davis, representing CALBO. And Bob Raymer  
10 also wanted me to inform you that we speak on behalf of  
11 CBIA. I hope he doesn't regret that, but he told me  
12 that he would support CALBO's position.

13 And so, I just want to talk from a building  
14 official's perspective for a little bit. I saw the one  
15 potential solution that included building departments  
16 hiring HERS Raters. I will say that's a non-starter.  
17 It's just not going to happen.

18 We don't have the staff that we need right now  
19 to do our job. I hire out of my, you know -- I have  
20 three full time permanent building inspectors and I have  
21 three temporary inspectors, which I can only hire for  
22 six months at a time and then I have to let them go.  
23 And for me to try to get more, additional, full time  
24 help to do HERS verification is just not going to work.

25 I will say that, you know, I applaud the Energy

1 Commission for taking this step to try to simplify this  
2 process and make it more effective, but I've got a stack  
3 of CF2Rs and CF3Rs for one HVAC change out, which  
4 includes 28 pages. I just can't get there. I mean, if  
5 you're trying to simplify the process, get rid of all of  
6 that stuff.

7           Yeah, I don't think that it adds value to the  
8 project. I know of contractors who falsify those  
9 documents. So, to think that that document equates to  
10 compliance is just -- it's not correct. It doesn't  
11 happen.

12           You know, I saw in one of the letters to the  
13 docket that somehow the building departments should be  
14 kind of responsible for policing and, you know, looking  
15 for contractors who are doing work without a permit, and  
16 we just don't have those resources.

17           What we have done in the past, we actually had a  
18 policy -- we have a resale program in Davis where we go  
19 and inspect houses when they're sold, you know, look for  
20 work that was done without a permit. So, we capture a  
21 lot of those at that time.

22           And one of our policies was if we find a  
23 contractor doing work without a permit, when we do those  
24 inspections, we just automatically report that to CSLB.  
25 But I'm not convinced that anything has really happened



1 because of that action. And so, if there was more  
2 certainty on our part that taking that step and putting  
3 that effort in actually had some effect, then we would  
4 do it. But we've kind of dropped off because we don't  
5 see that taking that action has changed anything.

6 I don't know, it may be that we just need to  
7 kind of hit the public, public service announcements or  
8 something like that to let them know that there is value  
9 in permits. Maybe, I don't know if the Energy  
10 Commission has the resources to send out public service  
11 announcements so that the community is better informed  
12 about the importance of getting a permit and, you know,  
13 how that adds value to their project that may be a  
14 possible solution.

15 It was mentioned that, you know, there's  
16 difference from city to city. I've worked for seven  
17 cities in my 30-year career and it's all basically the  
18 same. You come to the county, you get a permit, we do  
19 an inspection. There are minor differences, but the  
20 process is really similar.

21 The one thing that I think that building  
22 departments can do is online permitting to make it as  
23 simple as possible. And we've actually been working  
24 towards that for about five years but it's -- I don't  
25 know, it's challenging. I would say that if we were in

1 the private industry, we would have been done it four  
2 years ago. But the government isn't always super-  
3 efficient. But anyway, I'm doing my best to try to get  
4 online permitting going and I think that will be a big  
5 step.

6 But anyway, those are my comments from a  
7 building official's perspective. I hope that helps.

8 MR. LOYER: Okay. All right, I'll see what I  
9 can do about that.

10 So, Lea, could you take over for this, for a  
11 moment? We're still having a little difficulty with the  
12 WebEx, so I'm going to go talk to the powers that be.

13 MS. HARO: Ruben Willmarth.

14 MR. WILLMARTH: I haven't had time to digest  
15 much, but in general -- sorry, this is Ruben Willmarth  
16 with LG Electronics and also a California resident, so I  
17 have a dual stakeholder here.

18 I would just say initially that we would support  
19 the idea of additional training standards and elevating  
20 the knowledge and skill set of the technicians out in  
21 the field for contractors. I think that is the single  
22 most efficient and effective way to get the compliance  
23 that you're looking for.

24 No amount of paperwork is going to make somebody  
25 want to do something right. So, if you can get them to

1 buy into the process, and the way you do that is to give  
2 them value. So, if a technician has a certification  
3 with multiple, you know, riders on it so he's, for  
4 example certified in heat pumps, in variable speed heat  
5 pumps, in ground source heat pumps, furnaces, duct work  
6 design, or duct work installation, et cetera. If he has  
7 those certifications then he has value and he has a  
8 reason to protect that value. So, he has a reason to do  
9 it right so that he can be the one that is hired every  
10 time.

11 If a contractor has a certification, there's not  
12 a guarantee as much. So, I really think it needs to  
13 ride with the technician himself.

14 I would not support the idea of doing a  
15 registry. I think that is the least efficient way and  
16 very cumbersome. So, it should be looked at after every  
17 other option is exhausted.

18 I would give the example of the CEC's database  
19 for equipment, for split-system heat pumps that, for  
20 example, has to be listed with the SEER information of  
21 various heat pumps. And when variable speed heat pumps  
22 came out it took years to be able to adjust that to  
23 implement and list those equipment. So, that's just a  
24 simple database that is operated entirely by the  
25 Commission. Once you get multiple companies and

1 different databases, and IT systems involved, it gets  
2 complicated. It gets difficult. And I don't think  
3 you'll get the bang for the buck. So, that really  
4 should be a last resort. That's it for now.

5 MR. LOYER: Just in case there's anybody on the  
6 WebEx that can actually hear me, if you're having  
7 trouble with the WebEx, please log out and log back in.  
8 As far as our IT department can determine, the WebEx is  
9 working flawlessly. So, it is picking up everybody's  
10 voice now and it is -- our host is working correctly.  
11 So, all of that is going forward as it should.

12 MS. ROBERSON: This is Judy. I have a question  
13 for Ruben?

14 MR. WILLMARTH: Yes.

15 MS. ROBERSON: So, about certification, one of  
16 the things that we want to hear more about is what are  
17 the options for industry training and certification for  
18 technicians.

19 MR. WILLMARTH: Okay. Well, right now you have,  
20 you know, obviously trade schools, and I would love to  
21 see high schools take on some of this. I remember the  
22 ROP systems and such, having small engines, electrical.  
23 I don't remember any of them having (inaudible) -- but  
24 there's also industry training. But I think it's  
25 something that should be multi-prong. And so, overall

1 training like at the community colleges, expand those.  
2 Sac City College has one of the best training labs I've  
3 ever seen. That should be a real example that we can  
4 look at for setting the bar.

5 (Whereupon, a sudden loss of power occurred.)

6 MR. WILLMARTH: There we go. Sorry about that.

7 MR. ANDER: Can you start over?

8 (Laughter)

9 MR. WILLMARTH: Where was I. Okay. So, I would  
10 say community colleges and other training institutions,  
11 all of those resources can be used. And really, what we  
12 should do is try to define what are the criteria and set  
13 some of the certification qualifications and help -- you  
14 know, ask for their help to put those together. What  
15 are the industry standards that we want to have and  
16 promote for refrigeration systems or chilled water, and  
17 for duct systems? And so, create that. And that  
18 actually should be a multi-step, as well. Start with a  
19 white belt and work your way to a black belt. You know,  
20 so it actually will grow over time.

21 MR. LOYER: Okay. I have -- it's a little hard  
22 to read your last name, Bruce.

23 MR. SEVERANCE: Bruce Severance.

24 MR. LOYER: There you go, yeah.

25 MR. SEVERANCE: I'm with Mitsubishi Electric.

1           MR. LOYER: Or you can use this one over here,  
2 if you'd like.

3           MR. SEVERANCE: Yeah.

4           MR. LOYER: Okay. Yeah, our only thing is just  
5 speak towards the mic as much as you can, not right into  
6 it.

7           MR. SEVERANCE: Bruce Severance, Mitsubishi  
8 Electric. Got a former life as a BPI-certified general  
9 contractor, doing a lot of work under Energy Upgrade  
10 California. I'm an energy analyst. As a HERS Rater,  
11 used to have a roundtable meeting with the only three  
12 really quality HVAC contractors in the county trying to  
13 address this exact problem. We got together for  
14 breakfast every month for about a year.

15           It's something that I think the quality  
16 contractors really want to see addressed because there's  
17 currently not a level playing field. There's a great  
18 deal of fraud going on in the industry. And I'm not  
19 proud to say it, but I think probably 95 percent of the  
20 HVAC contractors are worse than used car salesmen.  
21 They're dropping new furnaces onto existing asbestos  
22 ducts that they know have 40, 50 percent duct leakage.  
23 They're not testing the systems. They're not telling  
24 the clients the indoor air quality implications of  
25 depressurizing the building envelope that's full of

1 holes and it's sucking asbestos back into the living  
2 space through all the orifices in the house. And the  
3 sweet, little, old lady that lives there has no idea  
4 that this very nice HVAC contractor is so mistreating  
5 her.

6           According to CSLB, there is widespread fraud,  
7 they recognize on HVAC contractors doing false red tags.  
8 Namely on senior citizens who are very vulnerable. They  
9 turn off their heating system when it's 30 degrees  
10 outside and hand them an estimate that it's only going  
11 to cost you \$17,000 to get this thing back up and  
12 running by the end of the day. And they sweet talk them  
13 into signing this thing and sign them up for a HERO  
14 program or something to finance it.

15           There's a lot of abuse in this field. And I  
16 hate to admit that, but it's true, and I've seen it  
17 firsthand.

18           And I think it's very important that if we're  
19 going to look at compliance, that we're also looking at  
20 the abuse of the customer and the indoor air quality  
21 issues. Having a building science background, I just  
22 can't stress that enough that we need to do away with  
23 putting brand-new furnaces on existing asbestos ducts.

24           They don't want to deal with the ducting system  
25 because that's not where they make their money. They

1 make their money sending a crew in, dropping a new box  
2 on. If it doesn't seem to be working properly at the  
3 moment, don't even test the system, ignore the holes in  
4 the system, just put a bigger box in there. Which is,  
5 of course, going to exacerbate the problem of high  
6 static pressure, stress on the heat exchanger, potential  
7 carbon monoxide issues, et cetera. So, there's very,  
8 very abusive behavior going on in the industry.

9           The way to solve this, in my mind, is to come up  
10 with a five-year plan to just cut the nonsense. If you  
11 are not going to comply with the law, we're going to put  
12 you out of business. And just get rid of all the people  
13 that work down to a price and make everybody work up to  
14 a quality standard. We just need to end the nonsense.

15           It's illegal what's going on. We can't make  
16 excuses for it. We need to be bold. I think very high  
17 penalties and fines for people that don't pull permits  
18 and don't get HERS testing done. There should be  
19 mandatory duct leakage testing on every existing system  
20 before you drop a new box in there because of the indoor  
21 air quality issues.

22           Mandatory MERV 13 filtration, over-sized return  
23 grills, low static pressure. Mandatory static pressure  
24 testing, not just fan WATT draw.

25           And I don't believe that the redundancy of



1 having -- I would agree with Robeson's [sic] comment --  
2 is that your name, Robeson. Roberson, okay. And, you  
3 know, let's question why we have inspectors who often  
4 don't really understand the specifics of HVAC, stick  
5 their head in the attic and look at the equipment and  
6 say, yeah, it looks like there's equipment in there.  
7 And it's redundant to having a HVAC HERS Rater, who's  
8 really trained to do that, handle the installation end  
9 of it.

10 I think the paperwork is excessive. There needs  
11 to be standardized, a statewide, online permitting that  
12 takes 20 minutes from your office, never leave your  
13 office, don't have to go down to the county and wait for  
14 four hours for somebody to help you.

15 The county departments need to be alleviated of  
16 that hassle, okay. And the State should institute that  
17 online registration process.

18 I don't feel that it makes sense to do an online  
19 registry by serial number for all this equipment. We  
20 just need to give a three-strikes rule. The third time  
21 you're caught doing unpermitted work, you're out of  
22 business for a year. You lose your license for a year.  
23 You're suspended. No nonsense, okay. First offense,  
24 twice the value of the contract. Second offense, four  
25 times the value of the contract.

1           These guys are making fistfuls of money at the  
2 expense of public health and safety. When are we going  
3 to stop this nonsense? It's so widespread, it's so  
4 pervasive. Ninety-five percent of the work in this  
5 State is unpermitted, 95 percent of it is operating at  
6 around 54 percent efficiency, even if they're using a 90  
7 percent efficient furnace.

8           Because the guys are installing were taught by  
9 their granddad, and they're absolutely sure their  
10 granddad knew everything there was to know about HVAC.  
11 And they're cocky as hell and they don't want to learn  
12 any kind of new methods.

13           We've got to require certification training.  
14 NCI, NATE. Institute it on a statewide basis, if you  
15 want to be in business a year from now, the owner has to  
16 have NATE certification by the end of the following  
17 year, every crew leader has to have NATE certification.

18           There's all kinds of online educational tools.  
19 It's about Q(uality). There's all kinds of resources  
20 that are available to HVAC contractors. There's no  
21 reasons why we should be doing these installs old school  
22 because granddad said that that was the way to do it.

23           Everything should be Chitwood school of  
24 thinking. Everybody know who Rick Chitwood is? Short  
25 ducts, drop all the ducts to the floor in the attic,

1 deeply bury, blown-in insulation. You know, air seal  
2 the building envelope.

3 Have incentives to take care of those other  
4 problems that are also related to the indoor air quality  
5 issues to the house. The attic plane needs to be air  
6 sealed. Okay, this is how people are getting sick.

7 There's new science, as of 2015, and it's just  
8 been peer reviewed, it's been 30 years in the making.  
9 Go to survivingmold.com, and Dr. Richie Shoemaker is  
10 heading up a team of doctors across the country that are  
11 studying biogenetic connections between bio toxins and  
12 illnesses in the home. There are 37 different  
13 diagnostic protocols under this new science that relate  
14 most of the illnesses that we're familiar with,  
15 everything from flu symptoms to bronchitis, to edema,  
16 arthritis, neurological issues, heart conditions to bio  
17 toxin infiltration the home.

18 Twenty-four percent of the population carries  
19 the gene that makes us ill. Okay, it's the same gene  
20 that gives us severe reactions to Lyme disease. One out  
21 of four people is being made sick by these houses that  
22 are wasting kilowatt hours to suck in bio toxins. Okay.

23 When are we going to stop not only the waste of  
24 energy but an absolute crime on public health, okay.

25 So, those are my comments.

1           I think we need to be bold about this and stop  
2 beating around the bush. There should be a sign behind  
3 the counter at every HVAC warehouse that says three  
4 strikes and you're out, okay. That's what we need, a  
5 sign behind the counter. Every single one of these guys  
6 that go online to buy equipment, three strikes you're  
7 out. Every distributor required to make the people that  
8 buy from them aware of the three strikes law.

9           We wouldn't need any kind of, you know, public  
10 service announcements. They would get the message.  
11 Okay, let's stop the nonsense.

12           MR. LOYER: Oh, Bruce, you mentioned that study  
13 that was just available?

14           MR. SEVERANCE: Survivingmold.com is a resource  
15 that has all this bio toxin, genetic medicine. It was  
16 just peer reviewed in 2015. The lead researcher is Dr.  
17 Richie Shoemaker. It's very accessible.

18           MR. LOYER: Thank you.

19           MR. MAHONEY: Can I respond really quick to some  
20 things?

21           MR. LOYER: Sure, yeah.

22           MR. MAHONEY: Greg Mahoney, again, with CALBO.  
23 And I want to agree with everything you just said except  
24 the part where the building inspectors' role in this is  
25 redundant. We look at different things.

1           So, the HERS Rater looks at refrigeration  
2 charge, and air flow and all that. We look at utility  
3 connections, gas pipe, electrical, condensate drain. We  
4 look at vents. So, we don't just stick our head up in  
5 the attic and see if there's a box there. There is more  
6 to our inspection. And so, they're different, yes.

7           MR. WALKER: Can I ask you a question? Is it  
8 okay to ask questions?

9           MR. LOYER: Yeah, say your name.

10          MR. WALKER: Chris Walker with Cal SMACNA. You  
11 know, one of the issues with the fear of the permitting  
12 for the homeowner is when you guys come on out to look  
13 at the HVAC system, you don't just look at the HVAC  
14 system. You might look at carbon monoxide, you might  
15 look at other things. And there might be a lot of  
16 tag-ons that increase the cost of the overall process  
17 for the homeowner, themselves.

18          Is there any way to isolate? That when you guys  
19 are called out to look at an HVAC system that anything  
20 else is advisory, only? And that you can permit the  
21 HVAC system, identify other problems and give them a  
22 time period to comply versus holding a permit open and  
23 driving up the cost for the homeowner.

24          Because I think there is a real fear. I mean,  
25 no house is totally compliant. And when you guys do

1 come out, you're doing your job. And that's what we  
2 want you to do. But when you get all these tag-ons, it  
3 can actually drive the cost up even higher and the fear  
4 of the homeowner to even call you guys out to begin  
5 with.

6 MR. MAHONEY: Well, we are required by State law  
7 to look for carbon monoxide detectors and smoke alarms,  
8 so we have to do that.

9 MR. LOYER: And how much do those typically  
10 cost?

11 MR. MAHONEY: I don't know.

12 MR. LOYER: Yeah.

13 MR. MAHONEY: Not very much.

14 MR. LOYER: Yeah, 30 bucks.

15 MR. MAHONEY: And it's probably the simplest  
16 thing that we do to, you know, promote life safety is  
17 smoke alarms.

18 As far as you're going into a house and looking  
19 for other things, my experience that doesn't happen. I  
20 don't know where that comes from. There may be some  
21 inspectors -- everyone always talks about worst case  
22 thing. Oh, you know, why, this inspection he did this.  
23 That's not how we operate. We go out to do an  
24 inspection on the HVAC system if that's what they  
25 called. I do not tell my people to go and look for

1 other things. Yeah, I don't --

2 MR. WALKER: Well, oftentimes, I know from  
3 personal experience that, you know, carbon monoxide will  
4 be identified. Yes, they're fairly cheap. They're  
5 inexpensive for most people. You know, people on a  
6 fixed income, it may not be inexpensive.

7 MR. MAHONEY: Yeah.

8 MR. WALKER: But you leave and then you need to  
9 go out and purchase these items and have them installed  
10 or install them yourself in the proper locations as  
11 identified by the inspector, then you have to call the  
12 inspector to come back out. And which is kind of  
13 frustrating because it's a pretty typical or easy thing  
14 to do, right.

15 MR. MAHONEY: Exactly.

16 MR. WALKER: And if you have it on hand, you  
17 just screw it up into the drywall or whatever and it's  
18 done.

19 MR. MAHONEY: Exactly. So, why don't the  
20 contractors do that? It's a really simple thing to do.  
21 It's part of their project. I don't see how you get to  
22 where the building inspector should do that. We're  
23 there just to verify. And it's State law, it's State  
24 statute. That's actually part of if you pull a permit  
25 with a valuation of over \$1,000, you have to install

1 smoke alarms and carbon dioxide detector -- carbon  
2 monoxide.

3 MR. WALKER: I think that that's part of the  
4 perception issue that we're having, however, is that,  
5 hey, once you let government in your building it's only  
6 going to run up the cost. What value -- what's the  
7 value proposition as I'm coming in, if your contractor's  
8 telling everything being's done properly and like that  
9 and --

10 MR. MAHONEY: Presumably, the value is that the  
11 project's done correctly.

12 MR. WALKER: No, I get that.

13 MR. MAHONEY: Yeah.

14 MR. WALKER: But this is the psychological  
15 barrier that we need to figure out how to get beyond.

16 MR. MAHONEY: Yeah. And I don't know, I won't  
17 accept carbon monoxide and smoke alarms as a good reason  
18 not to have a permit just because, like I said, that's  
19 the simplest thing that we can do to protect people in  
20 their own homes.

21 MR. LOYER: Well, and I think it -- I think one  
22 of the main points is that, you know, I think this is a  
23 perception problem with the customer. And I think one  
24 of the solutions that we may have had was to educate the  
25 customer. And I think there's a huge amount of value in



1 doing that.

2 I'm always a proponent of making somebody create  
3 -- or, making somebody have an informed decision, rather  
4 than just an immediate decision.

5 And I've got to say, every building department  
6 official that I've dealt with, and every building  
7 department inspector that I've personally dealt with at  
8 my own home has been nothing but exactly what I expected  
9 them to be. I put on a new roof. The guy came out and  
10 inspected my roof. That's what he inspected. I did  
11 some interior roof, he came out and inspected interior  
12 work. And then told me, hey, yeah, you need a smoke  
13 detector in each room, which the smoke detectors are  
14 actually quite cheap.

15 There are new rules for new smoke detectors that  
16 are coming out that make them a little more pricey. But  
17 if you're working with a contractor, the contractor, if  
18 they're doing interior work, they know if the inspector  
19 walks in one of the things they're going to look for is  
20 a smoke detector and they know they have to have it in.  
21 So, there is no question that the contractor knows  
22 that's going to happen and should prepare for it and  
23 should prepare the customer for it.

24 But you're right, it's mainly -- when we get to  
25 it, it's mainly a value of proposition that the customer

1 needs to be aware of. And there are other things, as  
2 well. If you put on a roof without a permit and your  
3 house burns down, your insurance company won't pay  
4 because it was an unpermitted roof.

5 They will look for any reason not to pay and  
6 that's a really good one. And most customers don't  
7 understand that.

8 So --

9 MR. WALKER: Yeah, I'm good.

10 MR. LOYER: Good so far. Yeah. Uh-oh, he  
11 raised his hand.

12 MR. DIAZ: This is actually just a response to  
13 the gentleman over here. Oh, I'm Dave Diaz with -- I'm  
14 actually Sheet Metal Workers. I'm also a Board Member  
15 of the Contractors State License Board.

16 So, when you -- you can't just go out and throw  
17 out this three-strike thing or anything else. There has  
18 to be some kind of legislation or something else that  
19 mandates that. It's not something that you can just do  
20 even at the CSLB level. It has to be done probably  
21 through legislation.

22 Also, the CSLB has let everybody know if there  
23 is an issue with a contractor that the contractor does  
24 something really illegal, you still have to be  
25 prosecuted through a district attorney, not just through

1 the CSLB. The CSLB can revoke a license, but they can't  
2 do anything disciplinary like throw them in jail, or  
3 anything, without a DA prosecuting it. That's the way  
4 things work. It's not just -- and I'll save the rest of  
5 my stuff until my comment thing comes up.

6 MR. LOYER: And guess what time it is?

7 MR. DIAS: Mine?

8 MR. LOYER: Yours.

9 (Laughter)

10 MR. DIAS: Wow, okay. So, somebody else -- or  
11 somebody said something about industry standards and  
12 certification. Please tell me, I've been a sheet metal  
13 worker for 35 years now, what are they? Because there  
14 are none. The only thing I know of is the EPA license  
15 for the refrigerants. There's no requirement for  
16 training anybody or anything else.

17 I was actually at ASHRAE this -- when was that,  
18 this week or last week? This week, yeah. Yeah, it was  
19 just this week. And they brought up the whole thing  
20 with the 48 percent -- and, actually, that's what they  
21 said, was 48 percent efficiency on units that are  
22 installed and it was residential for the most part.  
23 That's 48 percent of design what they were operating at.  
24 So, whatever the design was, they're only operating on  
25 average on some residential ones at 48 percent.

1           So, anyhow, and I brought up that there isn't --  
2 and then somebody said something about industry  
3 standards and certification for training. And I go,  
4 tell me what they are because I don't know what they  
5 are. What is actually mandated? Nothing, except for a  
6 contractor's license. If you're a C20 contractor, you  
7 have to pass the test.

8           I worked for a shop that had 1,500 employees,  
9 okay. The owner was a sole owner, he's finally sold it  
10 about two years ago, owned the contractor's license. Do  
11 you think somebody with 1,500 employees and \$75 million  
12 a year, this is back in the '90s, \$75 million a year in  
13 payroll did any work? Not at all.

14           So, we're a union shop so, yes, we do train  
15 ours, go through a five-year apprenticeship program.  
16 But besides that, there is no industry standard that's  
17 mandated in this State. You go down and get your  
18 contractor's license you don't have to have any  
19 training.

20           The gentleman over here said something about  
21 grandpa and that's exactly what goes on or worse. I got  
22 a call from one of our shops the other day, actually a  
23 letter, and stating that this certain -- I can't name  
24 him -- but this certain contractor is doing all these  
25 jobs with no Worker's Comp. That's also an issue, as

1 well.

2           CSLB is under the Department of Consumer  
3 Affairs, or Consumer Protection Agency, so that's what  
4 needs to go on. And I like the CEC bringing this whole  
5 thing together and understanding that there's a lot of  
6 issues. And also, when you talk about cost  
7 effectiveness, you've also got to talk about competition  
8 and make sure that that gets in there. The competition  
9 for somebody that's doing everything right cannot -- the  
10 guy personally cannot compete with the person doing it  
11 wrong. Absolutely not.

12           Also, there has to be some way to do something.  
13 I like the idea of a serial number tracking. I know a  
14 lot people don't. There has to be some way to track  
15 what's coming on and getting installed in this State. I  
16 think the strategic plan in 2008 had 270,000 on average  
17 and we only get, you know, 27,000 if it's 10 percent.  
18 If it's 5 percent, it's a lot more than that, or 2,500,  
19 whatever.

20           Clients really that's -- and that was in 2008.  
21 The last time I checked it was 2018 and pretty much the  
22 same. So, in ten years zero has happened? We've got to  
23 do something. That's what it's about. That's what this  
24 whole meeting's about. So, we've got to come up with  
25 plans. Some of the CEC stuff is good, serial number

1 tracking.

2           If there is some kind of certification for  
3 training, I'll tell you right now training will not work  
4 if you don't do field hours with it. Online training is  
5 not how to become a sheet metal worker, trust me.

6           MS. HARO: Dave, and I think that's a -- I think  
7 it's an important issue that you're trying --

8           MR. DIAS: Oh, I looked around and --

9           MS. HARO: -- trying to speak into the  
10 microphone. So, I think it's an important issue that  
11 you've raised. So, what would training look like? What  
12 would work? You know, how would this -- what would be  
13 required? So, if workforce standards were to be  
14 developed, if there were to be certification  
15 requirements? So, I think that's something that's  
16 really worthwhile exploring and discussing.

17           THE REPORTER: (Comments about microphones)

18           MR. DIAS: Sure. Well, right now, again I'm a  
19 sheet metal worker, pretty much everybody that knows me  
20 knows that. We're guided under the DAS to actually have  
21 certain training criteria. One is a five-year program  
22 with 1,080 hours required. We have to turn in our  
23 curriculum and all that, and get it approved. Okay.  
24 And then, that has to go along with 6,500 field hours.

25           So, we have to train in the field and in --

1 yeah, credits can't just work on their own and going  
2 here and here, doing whatever. No, they have to be  
3 under supervision of a journeyman.

4 So, you have 6,500 minimum requirement hours in  
5 the field and 1,080 hours that are minimum. In our  
6 District 1 of the Sheetmetal Workers Local 104, which  
7 I'm part of, actually we bump that up to about, I think  
8 it's 1,140 now. And so, mandated by the State or the  
9 DAS is 1,080, but we do more. So, and we do the whole  
10 gamut of training from air flow, refrigerant, all the  
11 way through.

12 And if anybody wants to come to our lab in  
13 Fairfield, I'll invite you. I mean, you can't beat a  
14 better one in this country. So, I want to bring the CEC  
15 there and show them how we train and what we do.

16 MR. LOYER: Well, if we get permission to leave  
17 the building, you know we're coming.

18 (Laughter)

19 AUDIENCE COMMENT: Just pull the fire alarm.

20 MR. LOYER: That's right.

21 (Laughter)

22 MR. LOYER: So, I'd just like to make a quick  
23 announcement, especially to people who are joining us on  
24 WebEx. I will get to you either -- there should be a  
25 raise-your-hand, you know, flag for the WebEx folks.

1 And if there's not that, there is the chat box. I have  
2 the chat box open, so feel free to just throw some  
3 comments in there and get my attention. You know, I  
4 look up every now and again.

5 And, so, Bruce, you handed me another blue card.  
6 And let me just say this for everybody. If you want to  
7 respond, make a comment back, basically, I think just  
8 kind of, you know, raise your hand. Once we've got you  
9 on a blue card one time, I think that's probably all we  
10 need to know. And if you want to -- we're definitely  
11 going to keep this and record them. So, I don't want to  
12 make it seem like this was not helpful. It is very  
13 helpful, actually.

14 So, there are some subjects that we do want to  
15 touch on. If you'd like to bring up a new subject or  
16 respond to an old subject, please feel free to just  
17 raise your hand and find a microphone, and we will  
18 proceed that way.

19 And so, Bruce, did you want to reply to anything  
20 said so far or you want to wait for a moment?

21 MR. SEVERANCE: I don't mind waiting, that's  
22 fine.

23 MR. LOYER: Okay.

24 MR. SEVERANCE: But I would love to just make  
25 like a one-minute comment. And I really agree with a



1 lot of what --

2 THE REPORTER: I'm not getting his comments, so  
3 he needs to come to the microphone.

4 MR. LOYER: Yeah, so --

5 MR. SEVERANCE: I'll wait.

6 MR. LOYER: So, Bruce, you're going to wait for  
7 a little bit and we're going to move on to the next  
8 person here.

9 MS. ROBERSON: Actually, I have a question for  
10 Dave.

11 MR. LOYER: Sure.

12 MS. ROBERSON: This is Judy.

13 MR. DIAS: Which hat am I putting on?

14 MS. ROBERSON: Which hat? All of them. Well,  
15 probably your SMACNA hat.

16 MR. DIAS: He's SMACNA. I'm Sheet Metal  
17 Workers.

18 MS. ROBERSON: I'm sorry, your union hat. Can  
19 you explain to those of us who aren't contractors in the  
20 industry what and where is the separation point, or the  
21 dividing line, or what is the -- who -- what -- let me  
22 see. Does your training cover flex duct or are you just  
23 strictly sheet metal because that seems to be --

24 MR. DIAS: No, it's HVAC systems is what we  
25 train to, the entire system. So, if it's flexible duct,

1 which in California you're only allowed five feet on  
2 commercial buildings and unlimited on residential.

3 MS. ROBERSON: Okay, so your training, your  
4 trainees are --

5 MR. DIAS: We're trained to different standards.  
6 SMACNA standards for one.

7 MS. ROBERSON: Yeah.

8 MR. DIAS: Which is basically how to build duct  
9 work. I mean, this is on the duct construction  
10 standards, which it also includes metal. Not only to  
11 build it, to install it, which it includes flexible  
12 duct.

13 MS. ROBERSON: And do your members work on small  
14 commercial and residential buildings?

15 MR. DIAS: Yes. That's what I was saying. When  
16 I'm on the shop that -- you know, the shop that called  
17 me is a residential change out. I think you used  
18 another term, but I call them replacement or change  
19 outs, not just -- what's the term? Alterations, yes.  
20 Not just an alteration, actually a change out when it  
21 goes back or somebody wants to upgrade, either way.

22 So, they do, yes, all the way from a residential  
23 track, residential exchange or whatever -- a  
24 replacement, excuse me, all the way of to giant  
25 buildings. Apple, that's one of them we did and that's

1 like, I think it was a million square feet or something  
2 like that. It's a big building.

3 MS. ROBERSON: So, contractors who do work on  
4 this -- on replacement, or change outs, or alterations  
5 in smaller buildings, using -- which use flex duct,  
6 primarily, they do have access to your training and  
7 certification programs?

8 MR. DIAS: Yeah, their apprentices are required  
9 to go through our training. It's a requirement. You  
10 don't -- you can't get through it without it.

11 MS. ROBERSON: You can't get certified without  
12 the training?

13 MR. DIAS: We don't get a certification. We get  
14 a journeyman card and a completion certificate that  
15 you've completed the apprenticeship program. But we  
16 don't actually call it a certification.

17 MS. ROBERSON: Thank you.

18 MR. LOYER: So, I'd like to call Kristin, I  
19 think it's Amarito [sic]. Kristin. Is that you?

20 MS. HEINEMEIER: Heinemeier.

21 MR. LOYER: Heinemeier, okay, yeah, there we go.  
22 Yeah. Heinemeier, yeah.

23 MS. HEINEMEIER: We can blame it on his not  
24 being able to read the writing.

25 MR. LOYER: There you go.

1 MS. HEINEMEIER: Okay, I am Kristin Heinemeier.  
2 I work, now, for a company called Realized Energy  
3 Solutions. Up until about six months ago I was with the  
4 UC Davis Energy Efficiency Center. And up until about  
5 five years ago I was the Chair of the Western HVAC  
6 Performance Alliance's Compliance Committee, and so this  
7 is something that we've looked at for years, and years,  
8 and years.

9 And I have to say I'm surprised at how little  
10 progress has been made since I left, and let's not say  
11 anything.

12 But there's just such a host of solutions that  
13 are needed and I could spend probably an hour here  
14 talking about some of the solutions I think are needed,  
15 so I'll save those for in writing.

16 But I want to just talk about a couple of  
17 perspectives that I have that I think are really  
18 important for the plan that you come up with ultimately.  
19 There's a lot of specifics that we've talked about that  
20 definitely should be in there.

21 But one thing, a couple pieces of wisdom from  
22 people on my committee, some of whom are in this room,  
23 some of whom are not in this room. One was a leader of  
24 a national organization who, in one of our early  
25 meetings, said something that really, really stuck with

1 me. And that is: California is a joke. That people  
2 around, you know other places in the country, I don't  
3 know if we're aware of this, but they look at California  
4 and say what the heck are those guys smoking out there.  
5 That we have -- we're constantly tightening our codes.  
6 We're so proud of ourselves that we get, you know, the  
7 latest and greatest technologies in there and, yet,  
8 nobody's paying any attention to it.

9           You know, and he calls, and I wouldn't go this  
10 far, but I definitely took the sense of it, he said, we  
11 need a moratorium on new measures in the code until we  
12 deal with compliance. And I'm not saying that, but I do  
13 think that that -- we need to understand that kind of  
14 attitude that this is not working. You know, if we get  
15 10 percent compliance or something it is generally not  
16 working.

17           And so, I would call for a big reset. I'm not  
18 going to say moratorium or anything. But think that,  
19 you know, if your plan comes out what we need to tweak  
20 things here, tweak things there I think it will not  
21 change things. I really, really encourage you to  
22 recommend in your report setting up a Blue-Ribbon  
23 Commission. We know how effective those are.

24           But, you know, some -- rather than here's 17  
25 specific things, set up a process for getting

1 stakeholder input that is driven by the industry. Not  
2 driven by the Energy Commission but driven by the people  
3 that are going to have to deal with this, the  
4 contractors, the distributors, the code officials, you  
5 know, someone representing the customers, the utilities.

6           You know, I think what's really needed is some  
7 *mea culpas* and some, okay, we're going to do things  
8 differently now. And what that differently now needs to  
9 look like is, I would say, a new ecosystem, a 360-degree  
10 expectation that this is how we're going to do things in  
11 the future.

12           But some of the proposals that we've had in the  
13 past didn't work because it put all of the onus on one  
14 entity for being the bad guy to enforce this, and that  
15 entity did not want to be the bad guy, understandably.

16           So, I think if everyone is the bad guy then  
17 there is no bad guy, right. If the utility is saying,  
18 no, you're not going to do a rebate unless you do this.  
19 If the manufacturer says, no, your warranty is no good  
20 if you don't do this. If your insurance company says.  
21 If the distributor says, I'm going to have to take the  
22 name so we can keep track because we really do expect  
23 that every system is going to be installed correctly.

24           So, I think that -- so, I think your goal should  
25 be a process driven by stakeholders. I think, you know,

1 the comment was made, hey, that's going to take  
2 legislation. Darn right it's going to take legislation.

3 I think the goal of this maybe ongoing process  
4 should be we need to do things in a different way.  
5 Everybody needs to understand that let's go as an  
6 industry, together, and say we need this legislation  
7 that's going to elevate the quality of installations in  
8 California. The industry is behind it, the utilities  
9 are behind it. You know, the real estate associations  
10 are behind it. And I think legislation can be passed.

11 So, but it is going to take a compromise to get  
12 there. It's not going to be we're going to put all of  
13 it on the distributors and hope that they support it  
14 when we take it to the Legislature. That's not going to  
15 happen.

16 Another comment I want to make is that I've been  
17 told that if you look at the spectrum of contractors,  
18 there's sort of 10 percent that are never going to do  
19 the right thing. They're just trying to get by as cheap  
20 as possible and not get sued or whatever. There's 10  
21 percent that are always doing the right thing because  
22 that's the way they do business. That's how they -- you  
23 know, that's in their culture. And then, there's 80  
24 percent in between that can go either way. I think some  
25 of you have heard that statement before and told me

1 that.

2           So, I think it's really critical that the  
3 solutions that are developed recognize that and have  
4 very, very different solutions for those three  
5 situations. If we say, hey, these guys that really  
6 should be driven out of business, and we take that  
7 attitude and we also apply that to the people that are  
8 doing good work routinely, we're just going to make them  
9 angry and not buy into the process.

10           So, we definitely need to drive that ten percent  
11 out of the industry, whatever that takes, three strikes.  
12 You know, we can talk about how exactly that would work.

13           The ten percent that always do good work, let's  
14 find a way to recognize them and then let's lay off.  
15 Let them do their good work and trust them because  
16 they've -- you know, sample or whatever to make sure  
17 they continue to do good work.

18           But our goal then would be, okay, what do we do  
19 with the 80 percent in the middle. Do they need  
20 training? Do they need, you know, salesmanship? I  
21 think salesmanship is an important part of this. If  
22 you're going to try to sell something that costs a  
23 thousand dollars more than some other guy, you'd better  
24 be a pretty good salesman to do that. And we need to  
25 help them, give them the date, give them the arguments



1 to make.

2           So, I think those are the main comments. And I  
3 guess the gist of it is I really think it's important  
4 that all the people in this room and the broader  
5 organizations are engaged in some sort of a process to  
6 do a hard reset. And I think that means more than just  
7 having some workshops, giving the input, and then you  
8 come up with proposed solutions and people throw darts  
9 at it. You know, it really needs to include the  
10 industry in developing these new processes and the new  
11 way of doing things.

12           MS. HARO: So, Kristin, thank you. I agree with  
13 you that we do need industry input and so this is part  
14 of what our call is to have the stakeholders provide  
15 their analyses and to open that discussion on the  
16 proposed solutions. Because this isn't just the Energy  
17 Commission's plan. This is -- and everyone is here  
18 because we believe this to be an important issue that  
19 we've been discussing for some time and we do want to  
20 move the needle on this.

21           You know, a ten percent -- of an approximately  
22 ten percent compliance rate for alterations is pretty  
23 bad. So, yes, we would like to hear from industry.  
24 Because if this is just the Energy Commission's plan and  
25 not implementable, then we might as well just write it,

1 and put it on a shelf, and forget about it. But we  
2 would like to have something more meaningful and  
3 implementable. And it's going to take, you know, all  
4 the stakeholders to come together and to come up with  
5 something that we can do together to move this forward.

6 MS. HEINEMEIER: I really appreciate you hearing  
7 you say that. That's the sense that I've gotten about  
8 this.

9 I just want to clarify that I don't think you're  
10 going to get this sort of hard reset in the next six  
11 months or however many months we have until the end of  
12 the year. I think it's going to take years, probably.

13 MS. HARO: Yeah.

14 MS. HEINEMEIER: So, I think, you know, what the  
15 -- you can do a great job in the next six months of  
16 setting up that process for doing that.

17 MS. HARO: Right.

18 MS. HEINEMEIER: And one point I wanted to make  
19 that I forgot is that I think we need a very, very  
20 specific solution for residential HVAC replacements. I  
21 think that code is working for new buildings, it's  
22 working for larger buildings, it's probably working for  
23 lighting.

24 But to the extent we need to, let's have very,  
25 very carefully crafted solutions that are just for that

1 one situation because I think we can get -- you know,  
2 the 80/20 rule, we can get a big, big change, you know,  
3 if we just focus it very, very tightly on the one  
4 problem, which I think is the biggest one that we're all  
5 thinking about. Thank you.

6 MS. HARO: Thank you.

7 MR. LOYER: So, once again I've been informed  
8 that the WebEx is having some more difficulties,  
9 apparently. So, if you are getting texts that are not  
10 able to join, have logged and can't log back in, as far  
11 as I know the IT team has stated emphatically that the  
12 WebEx is up and running. I do have two people that are  
13 on it right now, it seems successfully.

14 I did get a comment from Rick, nothing we need  
15 to share, just he was telling me that, yeah, the audio  
16 works fine for him.

17 So, it is working, it is up and running.  
18 However, if they are having difficulties and they can't  
19 join, and you are getting a text from them maybe they  
20 can send you an e-mail, maybe you can read that e-mail  
21 to us. And don't forget that they do have the  
22 opportunity to send us written comments. We are  
23 accepting written comments until two weeks after. It  
24 says July 13th right here for this workshop.

25 We will have another workshop in August. That

1 one will also be WebEx and will be working well.

2 So, with that said, we're going to move on to I  
3 think it's Bob Wiseman? Wiseman, all right.

4 MR. WISEMAN: Yeah, we're getting there.

5 MR. LOYER: All right.

6 MR. WISEMAN: How's that? Sound okay? All  
7 right, right on.

8 My name's Bob Wiseman. I'm with IHACI. I'm  
9 also a C20 contractor in the State of California.  
10 Second generation. I've been doing this, you know,  
11 pretty much my entire life. But the key, one of the  
12 things that we have to understand, which I haven't heard  
13 brought forward yet, is it's real easy to demonize air  
14 conditioning contractors. Oh, these guys are rotten.  
15 You know, they're used car salesmen. You know, they're  
16 people who are trying to take advantage of people. And  
17 that's just simply a lie 98 percent of the time, okay.  
18 There are people who do that. Okay, there's no  
19 question.

20 But back to, you know, the 80/10/10 rule, that's  
21 10 percent of the market. Okay, those people need to  
22 get out of this business and we need to find a way to  
23 get rid of them. And if they got to go to jail, great.  
24 If they gotta go -- if they lose their contractor's  
25 license, fine. You know, it's like they should, you

1 know.

2           And that's absolutely imperative. You know,  
3 because your average contractor is out trying to make a  
4 living and they're working in a marketplace that's been  
5 created for them in this State, okay. And this  
6 marketplace is broken because a contractor will go into  
7 a home, talk to a homeowner, who will beg them not to  
8 pull a permit, okay.

9           Now, why is that? We've already talked about  
10 the reasons. It's more expensive. You know, there's  
11 problems with it. I really -- you know, I do represent  
12 IHACI and IHACI does a tremendous amount of training,  
13 you know, in the State of California.

14           However, the answer to this is not training.  
15 Every contractor knows you're supposed to pull a permit.  
16 He knows that. You know, the system is broken, okay.  
17 So, it's not a simple, you know, let's throw out a  
18 couple ideas and get it done.

19           I strongly support, I think Kristin mentioned  
20 some type of a Blue-Ribbon Panel, or something. But the  
21 simple truth is this is hard.

22           You know, and distributors see this very  
23 differently than manufacturers do, than contractors do,  
24 but it has to be the entire industry that comes together  
25 to fix this.

1           You know, my fear would be that the Energy  
2 Commission comes up with a plan, great plan, works  
3 great, but if it's going to get -- you know, if it  
4 doesn't include the industry, it's going to get stuck in  
5 lawsuits forever. You know, and that's not where we  
6 want to be.

7           This is going to take legislation and it's going  
8 to be -- it has to go that direction. You know, it has  
9 to be a reset. I completely understand it.

10           But we have to accept the fact that the  
11 marketplace, the contractors are working and it's just  
12 broken. It's not that they're trying to do bad work.  
13 You know, there's ten percent that are and they should  
14 be gone, there's no question. No question. But it's  
15 the 80 percent in the middle who want to do the right  
16 thing, you know, but they have to make choices like am I  
17 going to feed my family tonight, you know, or am I going  
18 to pull a permit? There's a choice, you know. That's  
19 not a fair choice to make. Sorry, it's just not.

20           It should be a nonnegotiable, the level playing  
21 field that everybody has to do the same thing every  
22 time. That's the fair and moral thing to do and we're  
23 not there. We're nowhere close to it.

24           I see, you know, your paperwork, slide said, you  
25 know, as low as ten percent. You know, depending on the

1 jurisdiction, it's less than ten. You know, there's  
2 doubt about it. You know, and we deal with these people  
3 all the time. And it's sad and it's difficult.

4           You know, IHACI has -- you know, we've been  
5 supporting this concept of a statewide permitting  
6 process. I don't think it's a -- it's not a matter of  
7 one jurisdiction going online and getting online  
8 permitting. That's not really the problem. You know,  
9 it's not one more jurisdiction getting an online system.  
10 That's great.

11           But the problem is that, you know, where we deal  
12 with multiple jurisdictions, and different requirements,  
13 and different rules from every individual jurisdiction  
14 that we go into it it's just another barrier. You know,  
15 is it a fix? No. Is it going to solve the problem?  
16 No. But it's going to be a step in the right direction  
17 that makes it better for everybody to do.

18           IHACI has also often supported the concept of  
19 serial number tracking of some sort. You know, I am  
20 very much open for another way to do it. You know, I'd  
21 love to see it. I haven't seen it. You know, I'd like  
22 to be open. I'd like to be, you know, thinking about  
23 other alternatives, but it's not -- I just haven't seen  
24 it.

25           We've been dealing with this issue for a long

1 time. You know, this is not -- I know your comment was,  
2 you know, as a last resort. I'm with you, you know. I  
3 mean, because this is -- and if some type of tracking  
4 system is done wrong, oh, my goodness, it could be  
5 catastrophic. You know, that's why IHACI has always  
6 been very kind of selective as to type of serial. It's  
7 not just serial number tracking. It's, okay, we've got  
8 to get something that works.

9           And the only way that stuff like that is going  
10 to happen is with industry consensus. It's the only  
11 way. You know, it's not something that we can push on  
12 distributors to say, okay, distributors, you have to do  
13 this. No, it doesn't have to be that way. You know,  
14 this is a big industry and we all really want the same  
15 thing. See, that's the thing, we all want the same  
16 thing. You know, it's just how do we fix this economy  
17 and this market in order to get there?

18           Just a couple other comments here, then I'll  
19 pause. You know, HERS Raters, you know, hired by  
20 building departments, I can't see that happening. It's  
21 a nice thought. You know, I love the idea of having  
22 fewer visits to a homeowner's house. It's just another  
23 barrier. You have multiple people going out many times  
24 and that's a pain in the neck for homeowners. You know,  
25 they don't want to have -- they want to go back to work.



1 They don't want to sit home all day and wait for  
2 somebody to come out. It's just reality. And I don't  
3 blame them, you know.

4 IHACI will support stronger penalties for  
5 contractors because I think that's important, you know.  
6 The one thing that I think a contractor is afraid of is  
7 losing their contractor's license. I think that's it.  
8 There's not much more, you know.

9 I mean, and in this environment today, the  
10 chances of that are pretty low. You know, it just is.  
11 You know, it just is.

12 And you can educate homeowners all you want, but  
13 in the end for homeowners it comes down to price. You  
14 know, and when you start talking about the price of  
15 compliance in California, it's much higher than the rest  
16 of the country, okay. Now, these costs do drive up the  
17 difference between the cost of a permitted job and an  
18 unpermitted job. And, obviously, that's why we're here.

19 But I would strongly support, you know, an  
20 industry group dedicated specifically to dealing with  
21 this issue that crosses -- well, that encompasses the  
22 entire industry. And I don't think it's going to happen  
23 in a week. I don't think it's going to happen in a  
24 month. It would take some time and I think we would all  
25 be better for it.

1           MR. DIAS: Dave Dias, Sheet Metal Workers. I  
2 want to just respond. Everybody's been saying this ten  
3 percent. Okay, let's just do the numbers real quick.  
4 If 90 percent aren't compliant, okay, that's more than  
5 10 percent that are bad.

6           Okay, another thing is that CSLB, there's 11,500  
7 active C20 contracting licenses in this State, roughly,  
8 right now. Fifty-six percent claim exempt on Worker's  
9 Comp.

10          THE REPORTER: A little closer to the mic.

11          MR. DIAS: Oh, sorry. Fifty-six percent claim  
12 exempt on Worker's Comp. Basically, that's pretty much  
13 the average throughout all contracting licenses, except  
14 for roofing and I think it's asbestos that are two  
15 required to have Worker's Comp.

16          Oh, Bob, this question is for you. How can you  
17 compete against that? Against people that aren't  
18 pulling Worker's Comp and, of course, not pulling  
19 permits? You can't.

20          MR. WISEMAN: You can't.

21          MR. DIAS: So, it's worse than 10 percent, I'm  
22 telling you. And then, that's not even including the  
23 nonlicensed contractor. And so, if there's no way to  
24 detect where that furnace, or that air conditioner, or  
25 heat pump, or whatever went in and it's not being -- how

1 do we even know how bad the underground economy is? And  
2 the last time I checked, it's even harder to compete if  
3 they don't have to pay taxes on it as well, right. I'm  
4 just asking.

5 MR. WISEMAN: Dave, you're right on. My point  
6 with the 80 percent, I think it's important, is that  
7 those are the people we want to sway. Those are the  
8 people today who are not doing it right, who will do it  
9 right if the market makes them do it. That's it.

10 You've got ten percent that aren't going to do  
11 it, you know. But that 80 percent, if we set the -- you  
12 know, whatever the number is. Maybe. I hope not, but  
13 you never know.

14 But in reality, you know, we need to set up  
15 processes and procedures for that 80 percent. You know,  
16 that's who this group and I think that's who the Energy  
17 Commission, and that's who we have a chance to move and  
18 that's where our focus should be.

19 MR. LOYER: So, yeah, go ahead, Greg.

20 MR. MAHONEY: I have a question for the CSLB  
21 rep. So, if I submitted a building department referral  
22 form that says we found that this contractor's doing  
23 work without a permit, what happens? Because I'm not  
24 aware of anything that happens. Once I do that, it's  
25 almost like nothing happens from my perspective. And

1 I'm not saying that is what happens, I'm just asking.

2 MR. DIAS: I'm a board member. I'm not part of  
3 the enforcement department. But from what I understand  
4 is that every referral has to be investigated. I don't  
5 know, sometimes they go further than other times, but I  
6 believe every referral has to be investigated.

7 MR. WISEMAN: So, can you make the referrals  
8 online somewhere?

9 MR. DIAS: You can actually go online and  
10 actually put in a complaint. You can do that online for  
11 the CSLB website.

12 MS. MOORE: I'm Cynthia Moore. I'm a program  
13 manager with the CSLB. And every building department  
14 referral is absolutely investigated. I can't see you,  
15 too short. We have dedicated staff that do nothing but  
16 that, in our office here in Sacramento. And we very  
17 much encourage you to file those complaints. We take  
18 every one seriously, and not just from the building  
19 departments, but specifically from the building  
20 departments. And we do have specialized forms for that.  
21 So, absolutely, they're taken quite seriously.

22 MR. WISEMAN: What happens?

23 MS. MOORE: Well, we can -- there's progressive  
24 discipline. It can be anything from a letter -- I'm  
25 sorry, can you hear me? From an advisory notice to

1 we're doing brand-new letters of admonishment that are  
2 starting on the 1st of July. It's disclosable to the  
3 public for a year on your license, on our website. That  
4 will come along with training. There's a permit  
5 training video. We are currently, today, shooting the  
6 video for that. So, there will be a training component  
7 to that.

8           There can be citations on the license, which  
9 comes with a fine, and it's disclosable for five years  
10 on the license. And revocation is also a last step that  
11 we can take the license. Any other questions?

12           MR. WISEMAN: Just one other thing -- sorry  
13 about that. I will say one other thing. I believe that  
14 the CSLB has come a long way in the last ten years, you  
15 know, dealing with this issue. But quite honestly, it's  
16 still a drop in the bucket. But, you know, they are  
17 trying. And without legislation I don't think -- you  
18 know, the CSLB's hands are tied to a very large extent.

19           MR. WILLMARTH: I think it's a good point. You  
20 know, we have very low levels of compliance right now.  
21 And I've heard a few other ideas here. I think if one  
22 of the goals is to make compliance easier, we will get  
23 more participation. One of the challenges is it is a  
24 headache. It is difficult. It takes, you know, half of  
25 somebody's day to stay at home and those are real

1 challenges. We live in a more mobile society, you know,  
2 everybody works and it's a really big deal for someone  
3 to take half-a-day off and wait for an inspector. And  
4 stuff happens, sometimes he gets tied up somewhere and  
5 is two hours late, three hours late. It happens.

6 But those have real serious consequences for  
7 many people. So, if one of the focuses could be  
8 streamlining and improving the process for pulling a  
9 permit, for getting approvals, everybody has a smart  
10 phone nowadays, contractors especially. If you're a  
11 licensed contractor, it should be possible to take  
12 pictures of your installation, demonstrating that you  
13 have done the work. And as long as the process for that  
14 is detailed and there is selective, on-site visits from  
15 time to time, you know, random is always best, I've  
16 found. If you don't know which one it's going to be  
17 you're more likely to do it right every time.

18 And so, if that's one of the focuses, that's  
19 something that can be done early. It can be done as a  
20 quick, but an ongoing process, and implement different  
21 ideas. And I think you'll see a big moving of the  
22 needle just by making the process easier.

23 MR. YOUNG: Randy, I'm with the Sheet Metal  
24 Workers. I would just like to comment on the last  
25 commenter's comments about random, periodic inspections.

1 Several years back there was a predominant HVAC  
2 contractor here in Sacramento, who met with the building  
3 officials and had a deal worked out where they could do  
4 the inspections in the shop before the duct was actually  
5 installed. So, as long as it had the company sticker on  
6 it, they knew that it was inspected in the shop. During  
7 that time period there were well over 2 million homes  
8 that were built for that contractor. That contractor's  
9 responsible for a lot of the problems we're having today  
10 because that duct work was not inspected in the field,  
11 it was inspected in the shop, on the floor.

12           Anybody in here, besides Bob, ever install duct  
13 work? Flexible duct? So, if you tape it together on  
14 the floor and you get it up in the joists, and you've  
15 got joists running this way joists running this way what  
16 happens to that flat duct that you had on the floor,  
17 when you go to twist it into place? You talk about  
18 coefficients, you talk about friction loss? When you  
19 compress or you twist flexible duct that's going to  
20 create an energy draw on the system, which is going to  
21 not make the duct work in compliance when it's tested.

22           So, if you're doing random tests, or drive by  
23 tests, or drive by HERS rating, you're never going to be  
24 in compliance.

25           And then, the inspector over here mentioned that

1 he has known of a contractor that did drive by HERS  
2 verifications. I'm asking, is there an ethical  
3 obligation for the building department to turn that  
4 contractor in or do you turn a blind eye because he's  
5 your buddy? And I'm not -- I'm just asking.

6 MR. MAHONEY: I'll tell you, he's definitely not  
7 my buddy.

8 (Laughter)

9 MR. MAHONEY: And I reported that contractor to  
10 the Energy Commission, the Contractors State License  
11 Board, and the HERS provider.

12 MR. BLUNK: Hi, I'm Scott Blunk. I've worked as  
13 a general contractor in the Sacramento area, a HERS  
14 Rater, an energy trainer, an energy consultant, a real  
15 estate broker, and now I work for the utility. I've got  
16 a lot of experience around all of these areas.

17 And the number one thing I want to say is it's  
18 not training. Thank you. It's not training. Every  
19 contractor out there knows they've got to pull a permit.  
20 Every contractor knows. That's not the big deal. It's  
21 not training. Let's get off that, let's not spend money  
22 on more training. Although, I'm a trainer, too, so I'd  
23 love to take your money.

24 The other thing that I think I missed, as I've  
25 worked in the field as a contractor, it is a competitive



1 disadvantage to follow the law, and that stinks as a  
2 contractor. I want to do the right thing. So, I want  
3 to do the right things for my customers. And frankly,  
4 the customer, if they're hiring me, they trust me that I  
5 am doing the right thing, so why do they want to pay me  
6 even more to get a permit? And that's true for, as  
7 we're saying, the bottom ten percent. If they're hiring  
8 you, even if you're that bottom ten percent, the  
9 homeowner trusts you because they wouldn't be paying you  
10 tens of thousands of dollars if they didn't trust you.

11           So, like why do they need a third-party person  
12 to come in and say that they're correct? That, yes, you  
13 should have trusted them, right. Like it seems -- and I  
14 would say like even on my own house why would I pay for  
15 a permit? I mean, why? What do I get out of it? And,  
16 frankly, I would say almost nothing.

17           The other thing I want to really say, comment  
18 on, and I think totally overlooked. Working in the  
19 field, as a contractor, the only jurisdiction in the  
20 Sacramento area that any one of the homeowners cared  
21 about a permit was the City of Davis. And Greg's here,  
22 and I'd like to hear more about that.

23           The City of Davis, every home I'm in or was in,  
24 it's been a while, every homeowner said did you get a  
25 permit? Did you get a permit for that? Every single

1 homeowner. Outside of Davis, nobody cared. You know,  
2 nobody cared. But in Davis they cared because they knew  
3 they had the resale inspection. Greg can tell you more  
4 about it. But they knew when they go to sell the house  
5 an inspector's going to come in and flag every single  
6 thing that's not been permitted, and they have to bring  
7 it up to code. As I understand it, right.

8           And so, every homeowner has a very vested  
9 interest in making sure permits are pulled. And I don't  
10 -- and on that, and I'll stop at this because these  
11 aren't even my comments, yet. Let's look and see what  
12 jurisdictions are being successful at -- which have  
13 higher permit pull rates than the median of ten percent  
14 or something. Let's see what is working out there.  
15 Because right now it's failing. California is a joke.

16           MS. ROBERSON: This is Judy. Can I -- you  
17 talked about training in relation to permits. I'm  
18 thinking of training more in relation to the system  
19 performance, the industry standards, like ACCA, or Air  
20 Conditioning Contractors Association. The sizing, you  
21 know, and the --

22           MR. BLUNK: Yeah, but are we here to make sure  
23 permits are pulled or make sure it's installed properly?  
24 Because you don't need to install it properly to pull a  
25 permit. Like, the two aren't the same. If you start

1 pulling permits, then you have a way and a reason for a  
2 business owner to actually train their employee.  
3 Because right now there's no reason to train because  
4 there's no permit, because there's no enforcement,  
5 there's no third-party verification. Why would I pay to  
6 have my employees trained?

7 MS. ROBERSON: If, for example, there were a  
8 market distinction because all of your technicians, for  
9 example are --

10 MR. BLUNK: No. If the contractor's being  
11 hired, the homeowner trusts you. And the homeowner  
12 trusts that the guy in the attic is trained. And I  
13 agree that the one thing the SMACNA guy kind of brought  
14 up like, you know --

15 (Laughter)

16 MR. BLUNK: Sorry. All right, sorry. Whatever.  
17 This guy, whatever this guy brought up. You know, the  
18 CSLB, as a GC I can have my GC license and I can have  
19 50,000 employees, right. That makes no sense, right.  
20 Like maybe there should be some -- if you're running a  
21 contracting business, one out of ten employees have to  
22 be licensed or one out of fifty, or some level of -- but  
23 that doesn't get to the permitting issue.

24 MR. WILLMARTH: Real quick. It's a good point.  
25 And I have found over and over, working in the industry,

1 I've been with manufacturers for 15 years now, we often  
2 have contractors who send someone to train. And I  
3 agree, we have to get permits, but we also have to have  
4 training and skill sets in the work they're doing. If a  
5 guy has been trained on heat pumps and he goes to  
6 install a chiller, you're not going to get a good  
7 chiller.

8           And one of my first experiences was a high-  
9 efficiency heat pump system and the contractor had sent  
10 a guy to training. It was all good. We show up on the  
11 site and to the startup, and that guy went to  
12 Bakersfield, and this guy who had never been to  
13 training, and was at least consistent in that he  
14 followed none of the training that we provided, nor any  
15 of the industry standard practices that we would expect.  
16 So, he was at least consistent.

17           But that contractor still had sent someone to  
18 training. That contractor still had a license. You  
19 have to have something tied to the individual  
20 technician. And that technician's got to have a reason  
21 for wanting to do it. So, there's got to be a value to  
22 him to pursue that class, the time in class, the  
23 certifications. So, I think that's something that the  
24 union schools can do, it's something that other -- NATE  
25 and IHACI can support. But let's come up with some

1 basic standards for different types of equipment so that  
2 we can promote here's at least a minimum standard.

3 MR. BLUNK: He may not have followed, but I bet  
4 there was a permit pulled and that's why we're here.

5 MR. WILLMARTH: Probably so, yeah.

6 MR. MINER: I just want to add to that real  
7 quick. I'm Tyler Miner. I also represent IHACI and I'm  
8 also a C20, C36 contractor in the State.

9 I want to tie onto that training issue. I think  
10 training definitely has its place, you know. But I  
11 think for the issue that we're in here, you know,  
12 compliance and installation, training is not going to  
13 bring compliance. Everybody knows you need to pull a  
14 permit. You have to reduce the barriers and that will  
15 bring compliance.

16 As people are trying to come into compliance,  
17 and they're not meeting compliance, business owners, the  
18 industry's going to realize that we need training. And  
19 the training's going to come in. You can't put the cart  
20 in front of the horse. The barriers are too deep to  
21 pull a permit and I'll get into those when my card ever  
22 comes up. But I just wanted -- I think it was the  
23 perfect time to make that point is training is  
24 absolutely important, but training will not bring  
25 compliance. Reduce the barriers, reset the field and

1 training will come. It's going to have to. It has to  
2 happen, it can't be forced.

3 MR. LOYER: I'm just going to interrupt here for  
4 a moment. If you may have noticed, yet again we're  
5 having a little bit more difficulties for our WebEx.  
6 And if you see upon this slide here, I've put up the  
7 meeting number. We think that may be the issue might be  
8 that the meeting number somehow got jumbled in the  
9 notice and that this is the actual meeting number that  
10 is. So, if you do get a text, please send this meeting  
11 number to them. I've sent it out on our chat box.  
12 There shouldn't be anything like a password that is  
13 necessary to be entered in. It should be password free.

14 But if you get any comments back from anybody,  
15 saying I still can't get in, even with this meeting  
16 number, please call the -- do you have your phone  
17 number?

18 MS. MATHEWS: Contact the Public Adviser's  
19 Office. So, just, if you have to text them back, say  
20 contact the Public Adviser's. It's 916-654-4489. And  
21 it's also on our website under Public Adviser's Office.  
22 So, we're trying to troubleshoot this.

23 Some people have said they cannot hear. So, I'm  
24 actually going to ask Joe to put up the toll-free number  
25 one more time, in addition to the meeting number. And

1 then, some people are not able to see this screen. But  
2 it looks like some folks can use the chat function, so  
3 we've entered the meeting number there.

4 So, if you speak to anybody and they can tell  
5 you specifically what their issue is, please let them  
6 know to contact my office to let us know that.

7 MR. LOYER: And we do apologize for  
8 interrupting. Yeah, Chris?

9 MR. WALKER: How many cards do we have left?

10 MR. LOYER: Oh, just a handful, really. We're  
11 only -- we have about an hour or so left, an hour and a  
12 half more.

13 MS. HEINEMEIER: Can I follow onto a point that  
14 you made about the barrier being that it's too hard? I  
15 did a survey with the Western HVAC Performance Alliance  
16 quite a while ago. Not entirely scientific, but we had  
17 200 and some contractors respond to it.

18 We had three simple questions. One is if your  
19 competitor took out -- did a job without taking out a  
20 permit, would he get caught? No one. You know, 90  
21 percent said either definitely not or not. So, that's  
22 the perception out there.

23 Another question was what would happen to him if  
24 he got caught? You know, 90 percent were he'd have to  
25 go get a permit or he'd get a minor fine. You know,

1 nothing catastrophic. So, that kind of --

2 But the point I wanted to make was the third  
3 question was why would he take that risk? You know,  
4 given that there's any risk at all, what are the  
5 reasons? And 70 percent of the responses about that had  
6 to do with losing the bid. You know, the forms are too  
7 hard, it's inconvenient and all that, those were minor  
8 responses. Seventy percent were I'm going to lose the  
9 bid.

10 And I think that we do need to recognize that  
11 that's one of the biggest barriers is it costs more.  
12 Customers are going to have to pay more. I think we  
13 need to wrap our heads around customers are going to  
14 have to pay more. And then, how do we envision a future  
15 in which customers are paying more?

16 They need to recognize that there's some value.  
17 Is there value? It works right. Well, the other guy  
18 told me it was going to work right. You know, I think  
19 that's a really, really big thing that we need to -- we  
20 need to help. We need to have an answer for contractors  
21 when the customer says, well, why is your bid so much  
22 higher? And you say, it's higher but it's going to be  
23 good for you because -- and I don't think we have the  
24 answer very well-articulated. The contractor certainly  
25 doesn't and they need to.



1           So, I'm not saying that those -- I mean, it  
2 certainly needs to be easier and the perception  
3 certainly is that it's very difficult but --

4           MR. MINER: And I probably am interchanging  
5 those two, hard and cost-prohibitive are probably both  
6 those reasons. And I can go through some of that when  
7 it's my turn to talk. And as a contractor, I'm doing  
8 residence replacements, you know, what we face in 30  
9 different jurisdictions. So.

10          MR. RAMIREZ: If I can add to that?

11          MR. LOYER: Yeah.

12          MR. RAMIREZ: Mark Ramirez. I am also a C20  
13 contractor. We pull permits and some of the things we  
14 have now, go to, is a lot of cities now want you to go  
15 to planning. You've got to go to planning first to get  
16 the air conditioning approved. Even though their system  
17 might have been installed in the eighties and it was  
18 approved back then, they want you to go to planning. A  
19 lot of cities want you to do that.

20                 Then, they're there for five minutes, you show  
21 them the home plan and so forth and then, \$200 because  
22 the planner came on and was there five minutes, and he  
23 stamped it and signed it. Okay, those are the costs  
24 that go up.

25                 We have other cities that want us to draw the

1 property lines from the backyard to the house, and  
2 everything, like we were adding a room addition. And  
3 it's just ridiculous what they want us to do. All we  
4 want to do is do the right thing and pull the permit.  
5 And those are the things that are challenging, those are  
6 the barriers that we're talking about.

7 City of Pasadena, two and half hours, minimum,  
8 to go and pull a permit. You've got to pay somebody to  
9 do that. That cost goes onto the consumer. Okay, so if  
10 you tell consumers, their contractor, it's going to tell  
11 you \$2,000 more to comply with the state license or with  
12 the State, there's a big issue there. And they have to  
13 see value in that, like you're saying.

14 Okay, we have to make it easier on the  
15 contractor and reduce the burden, and the cost, and make  
16 it simpler across the State lines. We know what the  
17 cost is going to be. Maybe have one flat fee, so we  
18 know what to add on our contract. But we can go from  
19 one city who charges \$200, to others that charge \$700  
20 for the same job. So, those are the barriers that we're  
21 talking about as a C contractor, C20, sorry.

22 MR. LOYER: So, you know -- okay, real quick.  
23 We do need to move on, though. All right.

24 So, I'm going to ask Eric Taylor, Energy  
25 Alliance.

1           MR. TAYLOR: Good afternoon. Thank you for  
2 having me. Oh, it's morning. Good morning. I'm from  
3 the California Energy Alliance. I'm the technical  
4 division with Dave Dias.

5           We are a group that is right in the middle of  
6 this. I would like to let the Commission know and  
7 everybody in the room that we're actually doing a  
8 compliance advocacy pilot in the Imperial Valley,  
9 Coachella Valley area.

10           And so, some of our major initiatives is to  
11 implement a streamlined, online permitting process,  
12 number one. Number two, figure out a way with that  
13 streamlined, online permitting system to enable  
14 statewide online permitting. We believe if we can do it  
15 in the Imperial Valley, we can do it anywhere because  
16 the problem is very, very bad in the Imperial Valley and  
17 the competition is pretty tough down there.

18           The other thing that I was involved in, Kristin  
19 said there's some WHPA, and we've all worked on a  
20 committee that basically I was the pro side of serial  
21 number tracking. And it was interesting because we had  
22 votes there at 11 to 1, to take to the ED, and all of  
23 the sudden serial number tracking just basically fell  
24 off the planet. And it doesn't make any sense that that  
25 happened. And I believe that the topic is as big as it

1 is, and it's going to take something as drastic as that.

2           So, one of our recommendations and what we're  
3 going to be doing in this pilot is equipment  
4 registration, much like DMV registration. To where, if  
5 there's not a sticker on the air conditioner that you,  
6 as a contractor, we're talking about culpability in the  
7 market of everybody participating, if you're a  
8 contractor and you see that there isn't a sticker,  
9 report it.

10           If there's a distributor that didn't see that  
11 there's a sticker, report it. But everybody has  
12 stickers that would be basically issued by the  
13 California Energy Commission.

14           And once we start telling on each other, as  
15 we've been all saying, nobody's going to know. So, this  
16 streamlined, online permitting system could be a place  
17 that connects with the California State Licensing Board  
18 that contractors can just tell on each other. And  
19 you're going to get a database. Technology is out there  
20 and you'll get a database of who's pulling permits,  
21 who's not pulling permits. Areas are going to be  
22 managed in a way that everybody's participating.

23           So, in this pilot program we're also wanting the  
24 Commission to change "may" to "shall" in the diagnostic  
25 section of the third-party quality control program.

1 Because doing all of this work out in the marketplace,  
2 charge, air flow, duct test and seal, it takes  
3 technology to do it. And technology has advanced such  
4 that you can track all of this stuff. GPS is put into  
5 the systems. Camcorders, all -- there's so much that  
6 can be done with technology to lighten the load that I  
7 believe that the Commission really needs to have the  
8 building departments, when an HVAC contractor wants to  
9 use a third-party quality control program, or diagnostic  
10 tools, that the building department basically says,  
11 well, it says "may" in the code, so we're not going to  
12 go that route because we don't understand it. And we  
13 don't know who a third-party quality control program is.

14 So, I believe that ACE needs to be training more  
15 about the third-party quality control program.

16 Nothing's ever said about the third-party quality  
17 control program, which gives the contractor a great  
18 benefit of a 1-in-30 inspection, lowering the cost.

19 And so, that's one of the recommendations that  
20 we would be making.

21 The other one is money. This is all going to  
22 take money. And the issues that I see in the  
23 marketplace is that the incentives are going to the  
24 wrong people, the wrong agencies, or companies. I'll  
25 give you a couple of examples.

1           The distributor gets an incentive from the  
2 utility. The utility basically gives that incentive  
3 because it's easy to do and it's -- you have a higher  
4 SEER air conditioner, here's the money to the  
5 distributor.

6           Yet, the distributors are against compliance.  
7 So, why are we motivating the distributors and giving  
8 them money, basically, I know it's for higher SEER air  
9 conditioners and it costs money to do that, but so does  
10 compliance. So, if you're installing those higher SEER  
11 air conditioners incorrectly, on bad ducting systems,  
12 what are we doing? We're just fueling the industry even  
13 more, throwing bad money at the situation.

14           So, my plan in the pilot is that we incentivize  
15 the right actors. Our building departments, they are  
16 broke. And they don't even want to hear that they have  
17 to do anything other than come to work every day. And  
18 I've been basically telling them, look, what if I can  
19 get you an incentive, you know, to implement a  
20 permitting system that is free to you? And there, of  
21 course, we would do that. It's money into our  
22 jurisdiction. And so, that's one area of incentives.

23           The others are the poor HERS Raters. They're  
24 becoming the bad guys in the industry and they're not.  
25 They're just trying to make a living and do their job.

1 So, why aren't we incentivizing the HERS Raters?

2 So, in our program what we're doing is we're  
3 working with the utility down there to incentivize, in  
4 their quality installation program, that number one  
5 making it aware by a simple brochure to the customer  
6 that these are the things that make your air  
7 conditioning more effective and this is why you should  
8 pull a permit. And here's some incentives to help you  
9 because this is important.

10 So, when we say that there's compliance, there's  
11 a compliance advocacy pilot. That's exactly what we're  
12 doing. We're starting at ground zero and by  
13 incentivizing the contractors and incentivizing the  
14 building departments, and the HERS Raters, we're seeing  
15 if the contractors will start to shift and to go, wow,  
16 this is pretty simple. We sit in our office, we pull  
17 the permit and the process just works.

18 And so, what we're doing is we've gotten  
19 feedback when we piloted this program for a couple of  
20 years, and the feedback is that the building department  
21 has an option. They can put it on automatic and let the  
22 HERS process basically take its course, which that's  
23 what it's supposed to do. That's why the Energy  
24 Commission created the HERS process. It's to help and  
25 aid with the Energy Code.

1           And so, ultimately, I do believe that there's a  
2 quicker fix. And so, with that third --

3           THE REPORTER: I lost power again, excuse me.

4           (Laughter)

5           THE REPORTER: We're back.

6           MR. LOYER: We have at least 12 people online  
7 here. You're good to go.

8           MR. TAYLOR: Okay, good. So, this is what I  
9 think needs to have happen at the Commission level, the  
10 California Energy Commission level. When I'm working  
11 with utilities, utilities think one way. Don't give me  
12 any other work to do, I've got measures that I've got to  
13 implement into the marketplace. And don't be telling me  
14 that I need to start telling contractors that they need  
15 to comply because I don't want to hear it. I don't want  
16 this to even exist in my life.

17           So, there's a 2017 guideline that the Commission  
18 put out. It's called the POU Guideline. And there's  
19 this little bit in there that basically says that: One  
20 percent of the total utility budget can go to compliance  
21 advocacy.

22           And so, if we could put a guideline out, from  
23 the Commission, get it into the hands of not just the  
24 POUs, but the IOUs, and the whole State follow this  
25 guideline of how to promote advocacy of compliance, or



1 compliance advocacy, then we're all on the same page.

2           Because one, the utilities don't know what  
3 they're -- how to calculate the measure. That's a big  
4 problem. And they need that guidance to do so.

5           And so, I believe by promoting it through a  
6 guideline and then groups, like what's in this room, can  
7 actually start to drive it into the market, everything  
8 else that everybody else said about the training and all  
9 of that will come because we're all on the same page.  
10 We're all working from the same platform. We're all  
11 getting the same guidance from the CEC.

12           And I'd like to make just one more comment and  
13 I'm done. You can tell I've been in this for a while.  
14 I'm not only frustrated with the situation, but it does  
15 need to be fixed and I believe it is fixable.

16           But the ultimate thing is that open protocols  
17 and processes in the marketplace. There's these small  
18 groups, this is a dream of mine, and then it became the  
19 dream of Art Rosenfeld. I had a very good conversation  
20 with Art way back in the day, when the third-party  
21 quality control programs came to light, where diagnostic  
22 tools could be used in the marketplace to where HVAC  
23 contractors could ultimate go out, test, and upload  
24 their data into a registry and streamline that while  
25 process, and drive the costs down.

1           And what's happening in the market now is it's  
2 being abused by manufacturers of diagnostic tools,  
3 program implementers, and they're going into utility  
4 programs, there's one in LADWP, that only certain  
5 diagnostic tools have been specified. And I believe  
6 there's huge antitrust issues in those areas because  
7 they're basically building programs by design, keeping  
8 competition out, and basically killing all the companies  
9 that have diagnostic tools.

10           So, one of the biggest problems, I believe, is  
11 that the Commission needs to put out this guideline that  
12 basically says that -- just like you're doing in open  
13 ADR, and demand response, but diagnostic tools that are  
14 used need to meet a California Energy Commission  
15 specification. And by doing that, I believe that it  
16 will foster and competition will start taking care of  
17 this problem.

18           For one, third-party quality control programs  
19 want to train the HVAC contractors on their diagnostic  
20 tools. The manufacturers of those diagnostic tools want  
21 to train the contractors.

22           So, like everybody was saying here, Bob, and  
23 Todd, I think his name is --

24           MR. MINER: Tyler.

25           MR. TAYLOR: Tyler. Training will come. It's

1 not a training issue. Everybody knows what to do,  
2 nobody knows what to do it.

3 So, my whole idea here is to, from the CEA  
4 standpoint is to pilot this concept. Keep everybody  
5 informed. You can go to the website and keep an eye out  
6 of what's going on. And if you have any ideas, we've  
7 got an antitrust statement that we talk about every time  
8 we open our meetings that it's open for the public. We  
9 don't want any grandstanding, or marketing, or anything  
10 else. We're trying to fix this problem at the CEA.  
11 That's all I have to say.

12 MR. LOYER: Thank you. I'm going to call on  
13 Scott Blunk, SMUD.

14 MR. BLUNK: Hi. I'm Scott Blunk with SMUD.  
15 Sorry for my previous outburst. I couldn't handle any  
16 more talk about training because I totally believe that  
17 like, yeah, if you get the permits being pulled,  
18 training will come.

19 But again, yeah, we need a paradigm shift in how  
20 we look at permitting. You know, we've spent millions  
21 of dollars, I'm sure already, on improving compliance  
22 and we're at 10 percent. That's failing. We should all  
23 be fired if we're working on that.

24 And like something else has to happen, like it's  
25 not working. So, I'm glad this is -- this is a good

1 start, getting these people at the table. I don't know  
2 how many real estate brokers or agents are in here, but  
3 that's certainly another piece that has to be here  
4 because they are a powerful force in the industry.

5 And if we enact something like what Davis is  
6 doing in their resale program, I would guarantee you  
7 they would block it. They would step all over it.  
8 Yeah, maybe not, but that's my -- so, we got to get them  
9 here, too.

10 So, the point -- now, in my view, working at  
11 SMUD, and I do long-term strategic planning over energy  
12 efficiency and electrification, my view at this point is  
13 that utilities should stop requiring permits to pay an  
14 incentive because it -- unless we get reimbursed for  
15 that somehow.

16 And I say that from that perspective, like right  
17 now we're giving a \$1,000 incentive if you install a  
18 heat pump water heater in your home. At a minimum, up  
19 to \$3,000, but at least \$1,000. Well, that's going to  
20 pay for 95 percent of that water heater. But you need a  
21 permit, so that permit's going to cost you 200 bucks.  
22 So, my thousand dollars that I'm giving you is now \$800,  
23 right.

24 So, that's \$200 is the cost of the permit, but  
25 now I've got to pay somebody in my office, as a GC,

1 right, from that hat, I've got to pay somebody to go  
2 down and get it, I've got to all the paperwork, I've got  
3 to do that. So, now my \$1,000 utility incentive is  
4 really something like \$600, \$500. And now, instead of  
5 paying for the vast majority of that piece of equipment  
6 that I want installed, I'm paying for just, you know, 50  
7 percent of it, which is nice. But now, it's cheaper to  
8 go and just go back and install an electric-resistance  
9 water heater and not pull a permit and be in and out.

10           And I can pull a water heater and put one back  
11 in, in a couple hours, right. But if I, the utility, I  
12 want heat pump water heaters in there, and the CEC wants  
13 heat pump water heaters in there, and the grid wants it  
14 for controllability, like there's a lot of people that  
15 want it, but that \$1,000 incentive is really not worth  
16 much and not moving the market at that point.

17           And that's all water heaters, but it all applies  
18 to HVAC. And we have a \$4,500 incentive for HVAC to  
19 install a heat pump space heater. But the same thing  
20 applies. If now I've got to pull a permit, and get a  
21 HERS Rater, and get inspectors out there, where I  
22 wouldn't before that, that \$4,500 is not worth much.

23           And I'd be curious, you know, the compliance is  
24 at 10 percent today. What would it be without utilities  
25 forcing permits to be pulled? Because I would say it

1 would be half that, right. It would be a lot lower.

2           And I'm not saying that -- I'm certainly not  
3 saying that SMUD will drop the requirement of pulling a  
4 permit to get an incentive, because I am but one voice  
5 in that. But I'm trying to bring it up to the issue  
6 that we are paying -- our incentives have to overcome  
7 the cost barrier of pulling a permit. So, a \$500  
8 incentive on an AC, you may as well not do it.

9           But again, I want to emphasize the City of  
10 Davis's program, resale program. It works.

11           The serial number tracking I think is a fine  
12 idea. To flip that on the other way, what about we  
13 track the CSLB number? Every time you go to a  
14 distributor level and you buy an HVAC, well, they write  
15 down your CSLB number.

16           I'm just flipping it out here. And it's a no,  
17 right? I see the CSLB heads waving.

18           But like at the end of the year CSLB says, well,  
19 it says here you installed or you bought 458 pieces of  
20 equipment, show me your permits. You don't have to do  
21 it on every one, right, but like some sample, random  
22 sample, right. If we're going to track serial numbers,  
23 track CSLB numbers and require that. Like this is just  
24 a different way of looking at it, tackling the problem.

25           I do think there's -- the CSLB may have their

1 hands tied, but I think they have the ability to greatly  
2 influence this problem because losing your license as a  
3 contractor is the biggest threat to a contractor.  
4 Losing your license is the number one threat you can do  
5 to a contractor. And if CSLB doesn't enforce it, due to  
6 whatever their issues are, and I'm sure they're all  
7 valid, then why pull a permit, right.

8           But I think if we can get to that issue so CSLB  
9 has some teeth that they can go after the contractor, I  
10 think that would help.

11           A statewide single permitting process would be  
12 wonderful so that every single jurisdiction doesn't have  
13 a unique one. I think the 28 pages of paperwork is  
14 ridiculous. But I don't think changing 28 pages to 25  
15 or 5 is really going to improve the number of permits  
16 pulled. That's not where the problem is.

17           The problem is that there's no enforcement on  
18 the contractor. There's no teeth in CSLB or somebody to  
19 go and actually punish the contractor for doing work  
20 illegally. Which, if you're not pulling a permit that's  
21 what it is, it's illegal.

22           The other way -- so, serial number tracking,  
23 CSLB number tracking, but also there's plenty of  
24 internet-connected thermostats now, out there, and  
25 they're becoming more and more every day. And those are

1 connected to the internet and there could easily be  
2 something that connects it to another database that  
3 tells you basically what system is installed in the  
4 house. And I see more heads shaking. But we've got to  
5 start shaking our heads and we have to be open to new  
6 ideas. Because 10 percent, like what, we're going to be  
7 here in 5 years and we're going to be at 12 percent.  
8 Right. Like that's stupid. It's a waste of my time.  
9 It's a waste of your time. We have to do something  
10 different. And we have to stop shaking our heads and we  
11 have to start like thinking outside the box. And,  
12 sorry, not a personal attack at all. But I'm just  
13 saying it, I'm passionate about it, we have to get out  
14 of the normal ways of thinking.

15 MR. DIAS: That was directed somewhat at me.

16 MR. BLUNK: I just saw your head shaking.

17 MR. DIAS: Well, on the CSLB side, when you said  
18 the -- the thing is that, A, you can buy pieces of  
19 equipment, HVAC equipment online, so there's not going  
20 to be any requirement to throw a CSLB number in there.

21 Also, at the distributor, you don't need --  
22 anybody can go down and buy one. So, unless there's a  
23 law saying that you have to have a C20 or C36, or  
24 whatever license it is -- that's what we need. And I  
25 agree with you on that.



1           And the only reason I was shaking my head is  
2 because there's actually -- that I know of, there's no  
3 actual right -- now, there's not that law. We need  
4 that. And what I said earlier about legislation.

5           And then the only other thing that I've got to  
6 say about the CSLB, and I'm protecting them a little  
7 bit, is we've got about 200 enforcement reps, I believe,  
8 in the State of California. Probably half of them are  
9 in the field. We have 58 counties. Do the math.

10           MR. BLUNK: Right, I believe you.

11           MR. DIAS: So, and I really am -- honestly, I  
12 think Davis is badass for what they did and I wish we  
13 could do that statewide.

14           MR. TAYLOR: So, one of the issues that I've  
15 seen is the utility, as been said, you're required to  
16 make sure that a permit is being pulled and closed on  
17 quality install.

18           Well, they say yes, but it's the same with the  
19 utility. And what I'm seeing with the utilities that  
20 I've worked with is that they say it in documentation,  
21 but they're not doing any follow-up audits. Did it  
22 really happen? Is there a system inside SMUD that  
23 basically follows the process of I gave an incentive,  
24 and what the contractor wrote down on the piece of paper  
25 to get that incentive, which is supposedly a permit

1 pulled, closed and inspected? What follow up?

2 I think that's where the breakdown is. And I  
3 believe the one percent of the total energy budget that  
4 goes to a utility that's the type of thing it should be  
5 going towards, for the advocacy of compliance.

6 MR. BLUNK: I don't run a permit compliance  
7 program, right. We run energy-efficiency programs. And  
8 it's kind of like the training is the red herring. We  
9 do track it. I can't say for every single program at  
10 SMUD, but I know for a few that I've had a little more  
11 hands-on work with, and working with the people who run  
12 the programs, I know they require it. They require the  
13 number, of course. But they also see to it that it's  
14 been closed. And if it's been closed, then it's,  
15 presumably, it's been done properly. Right.

16 So, I know that's the goal and I know it happens  
17 in at least some of our programs. But again, we're not  
18 the enforcement agency. Like, if you want to pay us  
19 money to -- you know, my \$1,000 incentive that's really  
20 only worth \$500 because I have to pull a permit, if you  
21 want to pay me \$500 extra then I'll -- now, my money is  
22 actually going for energy efficiency and not permit  
23 compliance.

24 MR. TAYLOR: And that's my point. That is the  
25 issue is there's these programs out there that are

1 incentivizing, for example -- I'm not saying not to  
2 incentivize the distributor, but that's the issue. And  
3 that's exactly the same comment I got from the Imperial  
4 Irrigation District, as well, is we're not in the  
5 compliance business. And we're not paid to go track all  
6 of this stuff. But at the same time, it's another one  
7 of those ignored things that the contractors just aren't  
8 doing it. So, who's getting the incentive, really, is  
9 the HVAC contractor because he is setting the price in  
10 the marketplace. So, if there's a \$600 rebate, or a  
11 \$1,000 rebate, then he's doing the pricing, then you  
12 need to incentivize the right people.

13           And if it's with ratepayer money, give it to the  
14 ratepayer. Basically, tell the ratepayer, look, this is  
15 an incentive to pull the permit. This is an incentive  
16 for the utility to qualify the energy measure to meet  
17 their energy-efficiency goals. The distributor that  
18 basically pushed his SEER up on his air conditioner,  
19 yeah, give him. But everybody pitch in that's getting  
20 money from the State and make it happen. Don't just  
21 give all the incentive to the distributor and hope for  
22 the best.

23           I'm saying incentivize the right actors in the  
24 market. And I'm not talking about some incredible  
25 amount of money. I'm talking about 50 bucks to the

1 building department would go a long ways to implement a  
2 permitting, you know, for a permitting system, which is  
3 free to them. And the HERS Rater that's taking the  
4 extra time to -- guess what they like to do? They like  
5 to help the HVAC contractor. Third-party quality  
6 control program's job is to educate the contractors,  
7 teach them how to use the diagnostic tools, teach them  
8 how to pull permits. That's one of the greatest things  
9 that I think the HERS Raters can do is educate the HVAC  
10 contractors in all of this.

11 So, those are the guys that need the money. The  
12 distributors don't.

13 MR. LOYER: So, I'm going to interrupt at this  
14 point because I feel like these points have been made  
15 and I'm going go ahead and move on to the next person.  
16 We do need to get through some of these blue cards. I'm  
17 sorry.

18 MR. TAYLOR: Okay, thank you.

19 MR. LOYER: We're running out of time.

20 So, Tom Trimberger. Welcome back, Tom.

21 MR. TRIMBERGER: Thank you, Joe.

22 Good morning, I'm Tom Trimberger, representing  
23 CALBO. Hopefully, you can hear me okay. I've been a  
24 mechanical engineer, been a mechanical consulting or a  
25 contracting company. I've been in the building

1 department business and spent a little time with the  
2 Commission, as well. And I've heard a lot of good  
3 points.

4           There are a couple points I'd like to make.  
5 There's been talk for years about the building  
6 department process being too difficult and the  
7 difference in getting permits in different places. I  
8 don't want to say that doesn't happen. I heard  
9 instances of that this morning.

10           But in our view, our applications are almost  
11 identical by law. We have a permit process that says  
12 get a permit, pay for it, call for final inspection.  
13 That's it, it's one inspection.

14           When I worked for a small contractor, there were  
15 half-a-dozen jurisdictions we had to keep track of  
16 because those are the only ones we did business in. We  
17 didn't travel a long ways to do our work.

18           A larger contractor is going to have more  
19 jurisdictions to figure out how to deal with their  
20 process, but they're going to have a higher level of  
21 sophistication to be able to do that.

22           To say the contractors can't figure that out is  
23 kind of saying my dog ate my homework. They deal with  
24 hundreds of customers, dozens of suppliers, they do  
25 payroll, they work with IRS and State for quarterly tax

1 payments. They do their marketing advertisements, they  
2 do bonds and borrow money. They're businessmen. To  
3 think they can't figure out a building permit, one that  
4 they're required to do, I don't think that has a lot of  
5 credibility.

6 Building departments are catching up with modern  
7 technology. I've done a couple informal surveys that  
8 showed about 30 percent of building departments have  
9 online capability to issue this type of permit. But  
10 since those are the larger jurisdictions, not the  
11 smaller jurisdictions, that relates to 50 percent of the  
12 homes in California.

13 So, if 50 percent -- okay, and then beyond that  
14 another 10 or 15 percent are going to allow mail-in,  
15 faxed-in permits. One jurisdiction I did work with did  
16 that 30 years ago. That's not a high-tech thing.

17 So, if 50 or 60 percent of homes can get a  
18 permit with ease, I don't think that explains 90 percent  
19 of projects that aren't getting permits.

20 There's also -- I'm a building official for two  
21 jurisdictions right now. One of which has a 20-year-old  
22 permit software that I'm trying to replace. But it has  
23 an add-on for these permits. I had a homeowner get a  
24 permit and tell me, gee, I'd never gotten a permit  
25 before. I did it in 10 minutes online. That was so

1 easy. I think contractors are able to get permits.

2 I would encourage attention to -- the best  
3 document I've seen on this was referenced already, from  
4 WHPA, by Kristin, Dr. Heinemeier, she mentioned it. It  
5 goes back, I think, to 2010. Contractors had no fear.  
6 There was no risk, perceived risk of not getting a  
7 permit. The system's broken. That's been said.

8 And I would also like, what the contractor said,  
9 is these contractors are putting food on the table for  
10 their families. Some of it has been called fraud, I  
11 agree with that. But I don't really blame people for  
12 not getting permits. If it's between putting food on  
13 their table or doing the right thing, they're going to  
14 put food on the table.

15 CSLB has what they've called a zero tolerance, I  
16 believe, movement. I would love to CSLB show, okay,  
17 we've got these 10,000 contractors that do this work,  
18 how many lost their license? How many have had  
19 significant fines? I've asked for that information and  
20 been told it wasn't available. I would love to see that  
21 the CSLB has teeth, has enforcement capability, and is  
22 using it to correct this problem in the industry.

23 Additionally, a building official does not have  
24 the time to go out looking for people doing work without  
25 permits, nor do we have authority to do anything about

1 it. We have no authority over contractors. We have  
2 authority over their work. We can't force people to get  
3 permits.

4 Similarly, there's a form to refer to CSLB.  
5 I've done that in the past, usually hearing nothing  
6 back. Sometimes I hear back, okay, you reported it,  
7 thank you. Give me these seven more supporting  
8 documents. If they're doing work without permit,  
9 they've violated their CSLB law.

10 There couple of things that have been mentioned  
11 that I'd like to talk on. HERS inspectors to be city  
12 inspectors, not going to happen. I would love to HERS  
13 inspectors that have an ICC license and I can let them  
14 do my inspection. That's my personal recommendation.

15 Kristin, or excuse me, Dr. Heinemeier said she  
16 heard from outsiders California is a joke. Well, I  
17 haven't heard that since I talked to a contractor  
18 yesterday. You mean, they want me to swear I'm going to  
19 follow the rules, and then sign that I've followed the  
20 rules, and then have someone else verify that I followed  
21 the rules? That's nonsensical to me.

22 We'd mentioned there is not legal industry  
23 standard for contractors. Well, that means the standard  
24 is zero. There's a little difference in there.

25 There's a perception for inspectors not wanting



1 to go into a house and finding more problems.  
2 Inspectors every day go into alterations to buildings.  
3 That's not something unusual, that's the norm. And the  
4 law is clear, and every inspector knows it, that if  
5 something is existing it's allowed to remain. It does  
6 not need to be brought up to code. The only time that  
7 needs to be changed is what? If it is unsafe.

8           You know, is there a couple rogue inspectors  
9 that want to do something beyond that, maybe they are.  
10 You could challenge them on that. They can only write  
11 up something if it's unsafe, not if it's against code.

12           We have millions of projects, tens of thousands  
13 of contractors, and hundreds of manufacturers. What's  
14 the easiest to deal with? The hundreds of  
15 manufacturers. So, if there were an icon on the  
16 equipment -- a serial number, tracking sounds a little  
17 Big Brotherish. But if there's a scannable icon, the  
18 homeowner or the inspector can scan that, get history.  
19 I think that will be very valuable.

20           My inspectors have smart phones. Every building  
21 jurisdiction has been burned by somebody saying, y'all  
22 didn't get this inspected, but I took pictures. But I  
23 have inspectors, 60-years-old, that I taught how to use  
24 cell phones. And they're saying, okay, you didn't do  
25 this right or you don't have your smoke detectors on

1 site. Send me a picture of the address and a picture of  
2 the smoke detector installed. I'll sign off. You don't  
3 even have to call me back. Technology's helping.

4 Here's a huge, huge thing. We have HERS  
5 registries, HERS providers, and they each have a  
6 separate registry. Get that registry combined and  
7 accessible. If I can do that -- right now, my  
8 inspectors, they've got 50 minutes to do an inspection.  
9 They don't have time to go, okay, here, I'm going to  
10 punch in this address, search, search, search, okay,  
11 it's not in that registry. Let me try another one.  
12 They can't do it.

13 If I can get that in one registry, I can get an  
14 API with my permit software, my inspector's going to go  
15 out there, looking at his permit. Okay, HERS done. No  
16 forms. None. That's not far away.

17 A couple of things legally. We got a new law  
18 for point of resale inspection for swimming pool  
19 barriers. That has to be in there. Why don't we check  
20 for building heating and air permits?

21 We have online -- we have requirements in law  
22 that tells me what I can and can't look for, for a  
23 photovoltaic unit on the roof. I can't create  
24 additional requirements.

25 We talked about sending to planning. That seems

1 really odd to me but, you know, I could see cities have  
2 legal allowance to regulate where equipment can be. It  
3 seems to me they would have a legal right to enforce  
4 that. It seems odd to me. That's never happened in a  
5 jurisdiction where I've been involved.

6           Lastly, we got a broken system. It could be  
7 fixed if that inspector had a reasonable fear of having  
8 enforcement on their license. CSLB is under-funded.  
9 They've got four people to do the State, all permits,  
10 not just heating and air permits. Something like that.  
11 I'm sorry if I'm misspeaking. But I don't want to throw  
12 them under the bus. I've heard that they are more of a  
13 licensing agency than an enforcement agency. The  
14 system's broken. Enforcement would fix it, in my  
15 opinion.

16           Those are my comments, thank you.

17           MR. LOYER: So, Bruce, you wanted to say a  
18 couple more words?

19           MS. HARO: What about the people on WebEx?

20           MR. LOYER: So far nobody's raised their hand.  
21 I haven't got anything in the chat box. So, so far.

22           MR. SEVERANCE: Thank you. First of all, my  
23 apologies to HVAC contractors in the room. I am not  
24 insulting all HVAC contractors when I say that fraud is  
25 rampant. I think that fraud is rampant.

1 I've talked to folks at CSLB, Laura McClure who  
2 left your office a while back. They're very well-aware  
3 of a statewide phenomena of HVAC contractors preying on  
4 elderly people in cold seasons. This is something  
5 that's happening. So, it's not my imagination, I'm not  
6 making that up.

7 I know of instances of that, multiple instances  
8 of that in the first person, where I've talked to  
9 clients of mine that have been defrauded in this way, in  
10 my county. So, it's not my imagination.

11 That is not an insult to all HVAC contractors.  
12 It is a clear signal that we need to rein those in who  
13 are taking advantage of the system to defraud innocent  
14 people.

15 However, that is not the bigger compliance  
16 problem. It's that we need to streamline the process  
17 for obtaining online permits. In my county, which is a  
18 tiny county, San Luis Obispo County, the county agency  
19 has created an online permitting application process  
20 specifically for HVAC. It takes 15 minutes. It costs  
21 about a hundred bucks. And we still have like less than  
22 5 percent of the HVAC contractors actually complying  
23 with that requirement.

24 There are 70 to 80 HVAC contractors countywide.  
25 And I know of about half-a-dozen of them that

1 consistently pull permits.

2 I've had conversations with HVAC contractors who  
3 have told me that they have not -- they're boastful that  
4 they have not pulled a permit in 30 years and why would  
5 they do that now, okay. That there's absolutely no need  
6 to do that. And defiant. And they know that it's the  
7 law, that they're required, that when they got their  
8 license from CSLB that that was a requirement, and they  
9 are defiant about doing that.

10 And in my mind, that is a form of fraud. That  
11 is a form of avoiding compliance with HERS requirements  
12 and health and safety requirements that are there to  
13 protect the client.

14 So, with all due respect to Scott Blunk, with  
15 SMUD, it's the one thing I disagreed with him on. The  
16 permits are there for a good reason. Inspection  
17 departments are there for -- you know, building  
18 departments are there for a good reason. They need to  
19 streamline their processes so that they're not causing  
20 the client and the contractor to trip over their own  
21 shoelaces, paying a lot of additional fees and fines  
22 that are unnecessary. We shouldn't have to draw site  
23 plans for the whole place just to put in an HVAC system.

24 However, heat load calculations, room-by-room  
25 heat load calculations, having inspectors be trained to

1 understand specifically what they're looking at, when  
2 they're looking at a set of WrightSoft drawings, and  
3 being able to really plan check that correctly.

4           And I'm of the opinion, I've been through Ford's  
5 quality control program, having worked in the automotive  
6 industry for many years, and I'm of the opinion that the  
7 HVAC contractors, quality needs to be their job, one.  
8 It's they are the guys on the assembly line. They are  
9 the guys that should own duct blasters, and all the  
10 equipment that they need to do HERS verification for  
11 themselves. And those who have an excellent track  
12 record of never having fallen out of compliance, never  
13 having done unpermitted work, we could reduce the  
14 consistency with which we check their jobs from one-in-  
15 five to one-in-ten. And reward the ones that are  
16 compliant.

17           And have the HERS Raters work for the inspection  
18 departments. Why not? I'm going to tell you why we  
19 should do this is in my county, 20 percent of the HERS  
20 Raters are doing drive by inspections, okay. And I know  
21 this. And the building department even knows who those  
22 companies are and are investigating them. Have been  
23 investigating them for two years. They don't even know  
24 what to do about the problem, okay.

25           In Los Angeles County, the quality contractors

1 that I know in that area are saying that that is really  
2 an 80 percent rate. That 80 percent of the HERS Raters  
3 are doing drive by compliance. They're falsifying  
4 paperwork. They're possibly taking bribes. I don't  
5 really know what their motivations are. Or, they're  
6 just doing that to shuffle more paperwork through and  
7 collect more money, I don't know.

8           But the system is broken. And there needs to be  
9 serious ramifications for a HERS Rater that falsifies  
10 paperwork or they need to be brought into the inspection  
11 departments and really have one HVAC inspector who is  
12 really, really thoroughly trained, has equipment, has  
13 LARS, has, you know, the Workman's Comp to allow him to  
14 go out and actually do a full inspection. A lot of  
15 inspectors aren't even allowed to bring a ladder to the  
16 jobsite, which I think is crazy.

17           But let's empower the system. Use the fines and  
18 the fees that are collected. Imagine if in a county,  
19 where you had 10,000 HVAC systems replaced a year, and  
20 100 percent permits are pulled, at a hundred bucks a  
21 shot, that's a million bucks in revenue per year just in  
22 permit fees, okay.

23           And if we have some sort of a random system for  
24 verifying and severe penalties for noncompliance that  
25 would solve the problem without really breaking the

1 system financially.

2           So, there's got to be a method to implement this  
3 that makes sense on a statewide basis.

4           Right now, on average, every house has 30  
5 percent duct leakage, okay, 30 percent duct leakage.  
6 We're spending kilowatt hours pumping air out of the  
7 building envelope, depressurizing the building because  
8 everybody closes their windows, causing all kinds of  
9 particulate infiltration at the same time that we're  
10 losing efficiency. We have, on national average, 57  
11 percent efficiency on 90-percent furnaces, according to  
12 NCI. That's a figure that applies to California just as  
13 well.

14           In my county, alone, the HERS Raters and BPI  
15 inspectors that I know have found 20 to 25 percent of  
16 the houses have some sort of carbon monoxide hazard,  
17 okay. Maybe not all the variables that would cause some  
18 sort of poisoning, but maybe one out of three variables  
19 are at play, okay. So, there's a significant amount of  
20 health and safety issues that are critical. And we owe  
21 it to the public to do something about this problem.

22           It's not just about efficiency, it's about the  
23 indoor air quality obligation that we have. And if  
24 we're going to do a television PSA that the State  
25 sponsors, the one thing that we really need to make



1 clear is that the reason people need to pull permits is  
2 because there's no other way to know that you're getting  
3 a health and safety quality standard. And you're much  
4 more susceptible to a situation where you're being taken  
5 advantage of. And that's why it's worth paying the 600  
6 bucks or the thousand dollars to get an HVAC permit.  
7 There's a really good reason for quality control in this  
8 situation.

9           And I think everybody here knows, you know, the  
10 rest of the house is pretty much easy. The HVAC is by  
11 far, it's like 10 times more complicated than everything  
12 else in a house. It's way more complicated than the  
13 consumer understands.

14           And so, they don't know that they need a permit.  
15 They don't know that they need that secondary quality  
16 control. They need to be told that that's a value and  
17 that there's a reason that the entire industry needs to  
18 work up to a quality standard and not down to a price.  
19 Okay. It's not about the lowest common denominator  
20 here.

21           And if we need to have some sort of co-  
22 financing, or programs for lower income families, et  
23 cetera, let's figure that out along the way. But let's  
24 not compromise public quality and public health. Thank  
25 you.

1 MR. LOYER: So, somebody named Chris Walker.

2 Oh, that guy, yeah.

3 MR. WALKER: Thank you. This is Chris Walker on  
4 behalf of the California Chapter of the Sheet Metal and  
5 Air Conditioning Contractors National Association.

6 I'm going to talk a little bit about the stakes  
7 of this effort, a little bit about the problem as we see  
8 it, and the solutions.

9 First of all, the stakes. It's not just Title  
10 24 compliance that we're talking about. We're also  
11 talking about global warming potential, refrigerants  
12 being off gassed into the environment. So, we have a  
13 confluence of two legislative mandates from the  
14 Legislature, not just for Title 24 compliance and energy  
15 efficiency, but also the efforts of the Energy  
16 Commission to reduce global warming-potential  
17 refrigerants, and ARB, Air Resources Board.

18 And I'll tell you, if we have less than 10  
19 percent permitting on HVAC central system swap outs, I  
20 would hate to wonder how much of those refrigerants are  
21 actually being reclaimed, as well.

22 So, the stakes of the problem are big for  
23 California between now and 2030.

24 The problem, the system is driven by the  
25 consumer. And there's no way you're ever going to

1 change that. The consumer only deals with their HVAC  
2 system at a residential level when the system goes out.  
3 And it typically goes out when it's either cold or it's  
4 hot. And it needs to be replaced yesterday. And they  
5 don't have time to consider permitting and whatnot.  
6 They're going to reach out to maybe two or three  
7 contractors, if they're smart, and get some bids. And  
8 they're going to go with the lowest-priced contractor.  
9 What kind of equipment are you going to use? Oh, it's  
10 the same equipment, but you're this much cheaper. All  
11 day long, people on fixed incomes are going to go with  
12 the cheaper price.

13 So, that's not going to change. There's nothing  
14 you guys can do to change that. So, you're going to  
15 have to change the supply. That's the demand, right,  
16 and you can try to manipulate the demand, but you really  
17 need to focus on the supply, on what's coming into that  
18 household.

19 As far as the other issue is a lot of talk about  
20 CSLB. One of my contractors, I won't name the  
21 jurisdiction, but it's here in Northern California, you  
22 know, he buys a lot of equipment from his distributor, a  
23 lot of equipment. He's a very good customer. And one  
24 day he was joking with his distributor, who's your best  
25 customer? And he said, really, do you really want me to

1 tell you? And he said, yeah, because he was expecting  
2 it to be him. And he said, it's cash. And he said,  
3 what? And it's cash.

4 And what happens is on a Friday afternoon,  
5 pickups start lining up to buy units that are installed  
6 over the weekend. And those are not licensed  
7 contractors. You can talk about going after the CSLB  
8 and licensed contractors all you want, but you're not  
9 going to stem that problem. Again, that's consumer  
10 demand, right.

11 And you can do all the PSAs you want, you can do  
12 everything else you want, price is king. You're not  
13 going to change that demand. So, you've got to focus on  
14 the supply.

15 As far as the statewide online permitting  
16 discussion, or permit streamlining, yes, that's  
17 incredibly important. And if you did have a statewide  
18 system, a single portal, that would make things simpler  
19 for a lot of people.

20 You add to that an HVAC equipment registry and  
21 you can be able to cross-reference those two databanks  
22 and people are going to say, well, you can't really do  
23 that. Gosh, it's going to be impossible. And, frankly,  
24 Cal SMACNA was one of them about eight years ago.

25 And we resisted an HVAC registry because of the

1 perceived problems that would come along with it. We're  
2 to the point now that it is the only answer. I think  
3 someone said, if there's a better answer, tell me about  
4 it. I don't agree with you that it's the last solution  
5 that needs to be dealt with. We've been talking about  
6 this for 20 years, right.

7           The Blue-Ribbon Commission, are you kidding me?  
8 No disrespect, but we've had how many people study this?  
9 In '08, the Energy Commission did a study and found that  
10 less than 10 percent were getting permitted. And if  
11 they had corrected the problem, it would reduce the need  
12 on our peak energy demand by 130 megawatts. Right. The  
13 PUC just recently did a study and found that it's less  
14 than 8 percent, and the amount of HVAC swap outs had  
15 increased to a million a year. And if those were fixed,  
16 if those were dealt with properly, it's the equivalent  
17 to 400 megawatts of energy, right.

18           This is a huge, huge problem. And we've studied  
19 it to death. We need to look at statewide permitting.  
20 We need to look at a registry to cross-reference, follow  
21 that equipment where it goes.

22           And finally, we need workforce standards for all  
23 ratepayer-subsidized work. We can't keep rewarding the  
24 wrong people. My guys spend a lot of money training  
25 their employees, putting them through their 5-year

1 apprenticeship program, also providing healthcare and  
2 retirement packages, and everything, and we're doing it  
3 right. But we can't compete in a marketplace where  
4 price is king. Because at the end of the day, if that's  
5 the case, you're going to have the unlicensed  
6 contractor, or the bottom barrel contractor beating us.  
7 Price is king. You can't get away from that.

8           So, again, we need a statewide permitting  
9 process that's easy to use. We need a registry that's  
10 easy to use. And that's possible. We can talk about  
11 all the nightmare statewide databases, and there's  
12 always examples of those, but there's examples where  
13 we've done it right and we can do it right here.

14           And finally, workforce standards. One last  
15 point. A lot of talk about legislation. There's no  
16 need for legislation. If you read this bill, that why  
17 we're here today, SB 1414, it has given the Energy  
18 Commission the ability and authority to adopt  
19 regulations to increase compliance with permitting and  
20 inspection requirements for central air conditioning and  
21 heat pumps, and associated sales and installations  
22 consistent with the plan approved pursuant to  
23 Subdivision A.

24           So, when we come up with this plan, and it's  
25 approved, Energy Commission has full authority to adopt

1 regulations to implement and enforce that. We don't  
2 need to go back to the Legislature.

3 So, on process --

4 (Off-mic comment and laughter)

5 MR. WALKER: So, anyway, this is a very big  
6 deal. We've come along in 10 years, from a point where  
7 we opposed a registry, to the point where we now support  
8 one. There is no other way to go about it. And we need  
9 workforce standards. Thank you.

10 MR. LOYER: I'm actually going to read something  
11 from the people off the WebEx, because I got the first  
12 one, the first comment. So, this is from Jeff Henning,  
13 H-E-N-N-I-N-G.

14 "When an individual takes the license test, once  
15 he passes it and receives his license, he's allowed to  
16 design and build his installations. The licensing test  
17 has no questions regarding mechanical design, procedures  
18 or requirements. Why doesn't CSLB add questioning  
19 pertaining to design, and make the test more difficult,  
20 and require that the individual testing has some  
21 training or knowledge on proper design?"

22 And so, that's the end of the comment. And if  
23 anybody would like to respond to that, as well, feel  
24 free. So, yeah.

25 So, yeah, I personally would love to work with

1 CSLB and get some more, better questions in particular  
2 in terms of energy efficiency, code requirement, you  
3 know, intelligent installation, quality installation,  
4 all of it. Yeah, why you should pull a permit, why you  
5 should be afraid, all of it. And, yeah, I think we have  
6 talked to CSLB on several occasions. And I think we are  
7 working towards that.

8           So, as far as that's concerned, yeah, I  
9 personally, yeah, we would always like to work with CSLB  
10 on licensing, always.

11           MR. DIAS: I wasn't going to chime in on this  
12 but, okay, you've got 11,500 contractors, so if you  
13 implement testing for design or whatever, now you've got  
14 the 11,501 contractor, that one contractor trained to  
15 that, but the other 11,500 aren't. So, it would have to  
16 be a retest.

17           MR. LOYER: Yeah, we just --

18           MR. DIAS: If you really want to make this --

19           MR. LOYER: -- revoke everybody's licensed and  
20 redo.

21           MR. DIAS: And they're not going to go -- I'm  
22 just throwing it out there, I just don't think that's  
23 going to happen. Hey, I'd like to see it happen but --

24           MR. LOYER: So, we'll go over here.

25           MR. MINER: Yeah, it's Tyler again. I just kind



1 of got a point over here. You know, I really do believe  
2 a lot of this, it starts with serial number tracking.  
3 That's simple. It throws everything out. If we start  
4 with the serial number tracking, you know, the supplier  
5 is required to only sell to licensed contractors, they  
6 record the serial numbers, and what that contractor went  
7 to. The HERS process, then picks up the serial numbers  
8 when that's complete, and it's all merged into a  
9 database. And every year, or whatever that process  
10 looks like, it starts out with like that's your  
11 enforcement.

12           And that just leveled the playing field. We  
13 don't care whether -- and I don't think that the  
14 building departments are all bad. They've made huge  
15 strides. But my point is it doesn't matter anymore  
16 because everybody's having to deal with that same  
17 process and it takes that excuse out of the way.

18           You've got to start in just one small spot and  
19 from there we can work better. Okay, now that we've got  
20 this process, you know, we need to -- can we streamline  
21 it, a uniform process. Oh, people aren't getting  
22 compliance. Let's look at training, let's do that. But  
23 we have to -- we can't eat the whole elephant in one  
24 time. And I really believe it starts with, you know,  
25 that tracking. That's the easiest way, in my mind, to

1 see how we can know what's going on. What's being sold?  
2 What's being installed?

3 MR. LOYER: So, yeah.

4 MR. RAMIREZ: Mark Ramirez with IHACI. So, I  
5 agree with what you were saying. I call those guys the  
6 weekend warriors. You know, I would show up to a supply  
7 house and I would see AC units being loaded up in pickup  
8 trucks, trailers, and what have you. I was surprised  
9 because I thought you always had to have a contractor's  
10 license to purchase HVAC and then I find out, no, that's  
11 just something the distributors, you know, to protect  
12 their industry started to do. But they do sell it to  
13 non-contractors.

14 But I participated in the QI program when it was  
15 around. We did over 500 jobs. You know, that required  
16 load calculation, that required a third-party verifier  
17 to come and check the refrigerant charge and so forth.  
18 So, we understand the importance of QI.

19 But none of my guys did not have to be  
20 certified, okay, so this training. So, we deliver  
21 results. I mean, if you think about it, to run flex it  
22 doesn't take a genius and it doesn't take that much  
23 training to teach somebody how to properly run flex.  
24 You don't have to run or have so many years of training  
25 on that. It's simple. In the Title 24 it tells you how

1 to connect it, what products to use. It's fairly  
2 simple.

3 I think maybe we should look that if somebody --  
4 the buck has to stop at that company. Who designed that  
5 system? Who's responsible for how that system is going  
6 to perform?

7 My installers, they install per our design.  
8 Their job is to go and put the puzzle together. Their  
9 job is not to understand static and pressure and  
10 everything. That comes with the commission report that  
11 we do, our service technicians are trained for that.  
12 And we design something for a certain static pressure  
13 and they go out and they perform.

14 We've had flexible duct systems that are at a .5  
15 static pressure. It could be done, if you know what  
16 you're doing. But my installers, they're not certified,  
17 okay. So, but they follow a certain plan.

18 So, must like if I bid a set of plans, a  
19 mechanical engineer and put everything together, and we  
20 pretty much assemble it per the mechanical engineer  
21 designs.

22 So, I think training, certification, it may be  
23 something in the future, but I think we need to start by  
24 making it easier for the contractor to pull permits.  
25 The model and serial number I think is a great idea, we

1 need to start there. You know, we need to stop these  
2 sales and also look at the online sales, as well. We  
3 know people are going to start buying online. I don't  
4 know what the CEC can do about that. But if somebody  
5 can find a loophole, they're going to find it. Thank  
6 you.

7 MR. LOYER: So, we have about ten minutes left.  
8 I'm just going to move on to the next person trying to  
9 get -- this is Barbara Henesman [sic].

10 MS. HERNESMAN: Hernesman.

11 MR. LOYER: Hernesman, sorry.

12 MS. HERNESMAN: Thank you.

13 MR. LOYER: Sure.

14 MS. HERNESMAN: My name is Barbara Hernesman.  
15 I'm here representing Western HVAC Performance Alliance.  
16 And we are an organization that provides and conducts  
17 research, education, and engagement focused on energy  
18 efficiency, and environmental equality, and  
19 sustainability.

20 Why I'm here to talk today is to -- I want to  
21 thank the person who spoke before me, thank you.  
22 Because I was sitting back there pacing about what  
23 happened to the consumer voice.

24 And one of the things I need to tell you a  
25 little bit is homeowners want affordability and

1 efficiency, and they want comfort. That's really what  
2 they want.

3           And the reason why I know this on a ground level  
4 is because I've been a contractor for 28 years.

5           One of the things that is important is cost  
6 implication in the timing. As one person said, when a  
7 unit breaks down, they're not going to worry about if  
8 it's permitted, they want it fixed so that they can have  
9 the comfort, right.

10           So, this has been talked about and talked about,  
11 I wouldn't want to say to death, but we should really  
12 talk about this and keep the consumer voice engaged.

13           So, one of the things that I see as an issue  
14 here is the collective stakeholder participation has  
15 been taking place definitely through WHPA for over ten  
16 years, now. And one of the things that we need is to  
17 make sure that the consumer is part of this conversation  
18 and a part of the solution. Without them, we have  
19 nothing. We can talk, and talk, and talk about  
20 workforce standards. We can talk about, you know, the  
21 types of equipment that should go in and out, and how  
22 it's all going to be done. But if the consumers aren't  
23 engaged, we're at a stalemate all the way across the  
24 board.

25           So, consumers can be a part of a permitting

1 process. They can be part of serial number tracking.  
2 Open it up to everyone to be engaged. That's critical.

3 The other part of it is, is that we want to have  
4 an innovative solution to market transformation. Not  
5 the same way that we've done it in the past. Not the  
6 same conversations we're having today that we had 20  
7 years ago. So, let's be innovative.

8 And I think the thing is, is we have to  
9 collaborate on what that innovation is going to look  
10 like so that not only are all of the people that you  
11 talked about today, who are engaged in this very  
12 important process of compliance is educate, also all,  
13 and include your state and local permitting agencies.

14 Over the years there has been -- WHPA has  
15 participated in compliance paperwork, white papers.  
16 Kristin was a motivator on that, and many other, Bob  
17 Barks. Bob Wiseman is here today. Dave, you've been a  
18 part of that, too.

19 I think the important part is let's support each  
20 and every element that has to participate in this  
21 because everybody was hit heavy in 2009.

22 So, when the building department has to cut its  
23 workforce in half, then how come we can't give it back  
24 to them plus? So, it's an innovative request, but I  
25 think it can be done. Thank you.

1 MR. LOYER: So, Gregg Ander.

2 MR. ANDER: Thank you. My name's Gregg Ander.

3 I'm with the California Energy Alliance and wanted to  
4 talk about -- Judy, something you had mentioned early on  
5 about value proposition.

6 We've heard a bit about some of the punitive  
7 actions that could happen in terms of losing license, or  
8 fining people, or some of the activities and challenges  
9 with the building departments.

10 I want to talk a little bit about sort of what's  
11 happening in the market in transactive energy,  
12 arbitrage, and forthcoming code cycles, particularly our  
13 2022. We talked in depth with Commissioner McAllister,  
14 Martha Brook, and others on controls and automation, and  
15 the impact on unitary equipment.

16 Obviously, there's a lot happening in California  
17 with decarbonizing various sectors, building,  
18 transportation, power sectors and, you know, whether  
19 it's the Energy Commission, ARB, PUC, the CALISO, it's  
20 top of mind for everybody these days.

21 HVAC systems are increasingly becoming part of  
22 sort of preferred resources. There's an active  
23 proceeding right now at the PUC looking at a filing that  
24 Southern California Edison put together to amp up those  
25 activities. And the assets that are part of that could

1 be and include space conditioning, distributed  
2 resources, storage, lighting, sort of all the above.

3 So, in terms of the value proposition, to the  
4 extent that you can monetize the value of these various  
5 assets and control them, there's use to make sure --  
6 there's motivation to make sure these systems work  
7 properly.

8 So, for an example, you know, when you're  
9 installing, you know, systems, HVAC system controls,  
10 automation, the various assets I talked about, they  
11 could be controlled or exercised by aggregators, like  
12 EnerNOC, or Comverge, or grid operators. It could be  
13 utilities. It could be CAISO. It could be developers.  
14 Real estate investment trust. Developers and operators  
15 of microgrids.

16 The PUC came out with a report three weeks ago  
17 that there's a 220 percent increase in microgrids from  
18 2013 to 2017.

19 So, these are systems that are HVAC systems,  
20 distributed generation. They're a portfolio of systems  
21 that are exercised from a building sector to be sort of  
22 grid-friendly, buildings-to-grid issues. So, it's  
23 something that's growing significantly.

24 The value of these has been monetized. You can  
25 aggregate these loads and put them into the wholesale



1 market. So, my point is that to the extent you can  
2 monetize the value of these and make sure that these  
3 systems are working right, like HVAC systems that are  
4 properly designed and installed, you're going to see  
5 folks that are overseeing the development and operation  
6 of these, whether it's microgrid operators, or grid  
7 operators, or real estate investment trusts, and make  
8 sure these things are working as designed.

9 I was involved in a bunch of these, I'm a former  
10 part of the senior leadership at Southern California  
11 Edison, and a licensed architect in California. We  
12 worked on a system in Southern California, in Orange  
13 County, where we had, you know, a bunch of buildings and  
14 there were split systems and, you know, had efficiency,  
15 and dispatchable loads, DR and so forth. Again, it was  
16 a portfolio but, you know, it was very clear that these  
17 things had to operate as designed. Because when you  
18 needed that load, it had to work.

19 And so, this is something that's a small part of  
20 the market right now but growing. You know, over 200  
21 percent growth in four years is significant and it's  
22 exponential, keeping track.

23 So, that's one way that you can have markets  
24 sort of help drive this, too, in terms of in my  
25 judgment, you know, quality control in installation, and

1 operating properly over time. I'll pause there.

2 MR. LOYER: Sure.

3 MR. WISEMAN: Yeah, just I know we're kind of  
4 running out of time and, unfortunately, we're going to  
5 have a plane to catch that we're going to have to leave  
6 for shortly but --

7 MR. LOYER: Okay.

8 MR. WISEMAN: -- wanted to make one other  
9 comments. And I've heard it mentioned several times  
10 about insurance. Different people have said, you know,  
11 little bits. Back when, you know, Kristin was the  
12 Chairman of the WHPA Compliance Committee, we actually  
13 went to the insurance commissioners and asked what would  
14 happen, you know, if a contractor didn't pull a permit?  
15 You know, and would there be any liability? And the  
16 answer was there's no -- there is no liability for the  
17 homeowner if the contractor does not pull a permit.  
18 There's none. There's no relationship, whatsoever,  
19 unfortunately, now.

20 I wish that was not true, quite honestly,  
21 because it would certainly pull a homeowner or an end-  
22 user into the process. But that is not the case. And  
23 it's not possible, so, at this point.

24 MS. HEINEMEIER: It could be changed.

25 MR. WISEMAN: It could be changed. It could be

1 changed, but that's how it is right now.

2 MR. TAYLOR: I've got one more comment.

3 MR. LOYER: Okay, and I'd say -- okay, real  
4 quick.

5 MR. TAYLOR: Eric Taylor, CEA. One comment I'd  
6 like to make is, is if the Commission would consider  
7 authorizing or certifying permitting systems, much like  
8 you to HERS providerships. I think that there's enough  
9 of a market out there that you would get some takers.  
10 So, a system that would integrate, making the single  
11 registry that's been talking about, that would be  
12 authorized or certified much like a providership.

13 And the same thing with the diagnostic tools  
14 that are used, that there's a single specification and  
15 guideline book that would come from the CEC to guide the  
16 rest of the industry. Thank you.

17 MR. LOYER: So, let's -- yeah, let's go ahead  
18 with you, Bruce.

19 MR. SEVERANCE: It was mentioned before -- is it  
20 on? Okay. Yeah, it was mentioned before and I think it  
21 deserves emphasis that we really need very close  
22 coordination between the CEC and CSLB. CEC is empowered  
23 by law and we don't need new legislation to do most of  
24 what was discussed today, you know. And it really is in  
25 the details of how that's executed and it's going to

1 take a lot of coordination between the agencies in order  
2 to empower everybody to do what we need to do.

3 But I'm going to say that we do need to eat the  
4 elephant. And the elephant is training. And the reason  
5 that that is so important is that there is old school  
6 and new school in HVAC. And if you look at what Rick  
7 Chitwood has done with CEC, you can get two tons of  
8 cooling out of a house that's got four tons of AC in it  
9 by following Rick Chitwood's prescription.

10 And there is clear building science that you get  
11 a better running system, better mixing, better  
12 balancing, you have to do the math. And the heat load  
13 counts are there. It's like there are ways to save  
14 energy in addition to the 30 percent duct leakage that  
15 is massive, and it's all about training. Nine-tenths of  
16 the HVAC contractors out there --

17 MR. LOYER: So, Bruce, I'm going to interrupt  
18 you there. You've made this point before and I think  
19 it's a good point, but we do need to move on.

20 MR. SEVERANCE: Okay.

21 MR. LOYER: So, Mark. I'm going to go to Mark  
22 here.

23 MR. RAMIREZ: I was just thinking, I think I  
24 would like to see if we can get maybe C20 contractors  
25 and some building officials in a room like this, and

1 talk, that can maybe understand each other's party, and  
2 to get more into compliance and so forth. I think it  
3 would be a good idea to hear -- for the building  
4 officials to hear from contractors, who are out there  
5 installing, the issues they're going through, and for us  
6 to understand the building department issues that  
7 they're having, and so forth. And I think that would be  
8 a good thing, if you can set that up, together, it would  
9 be great.

10 MR. LOYER: Thank you. Let's see, Tyler, I  
11 think it's Miner. Okay. Just two more.

12 MR. MINER: I thought I wasn't going to get the  
13 time. I'll keep it real short because, again, I think  
14 I've already said quite a bit of what I feel, and I  
15 think everybody in this room has hit a lot of that.

16 I think it's just important that, you know, as  
17 we move through this process we kind of think back to,  
18 you know, who are the real effectors of this. It's  
19 obviously the homeowner is the driving factor. You  
20 know, price is a driving factor. The contractor's a  
21 driving factor.

22 We can't make a system that is so complicated,  
23 it requires so much that it drives people off. We need  
24 to work towards that 80 percent of the people that we  
25 can influence. They're influenceable, but we have to go

1 about it the right way.

2           You know, I love Rick Chitwood's stuff, I think  
3 he has great stuff. But that doesn't apply to across  
4 the market. We can't have a mandatory everything. You  
5 know, anytime we start saying everybody, every time,  
6 it's not going to work. It's not something that's  
7 possible.

8           So, you know, I think, yeah, you're right, we  
9 need to eat the whole elephant but we've got to work our  
10 way to it. And I think, you know, as soon as -- the  
11 easiest steps to level that playing field and get people  
12 at least onto the playing field, pulling a permit and  
13 doing, everybody's having to deal with the extra \$2,000,  
14 \$2,500 in costs, the quicker we get there.

15           Everything else, I think, will start to fall in  
16 line. Because there's been lot of great points. You  
17 know, training is important, education is important, you  
18 know, and that is needed. But we have to go about it in  
19 the right direction. I think that's all I've got to  
20 say. We're already past the time so --

21           MR. LOYER: Yeah, and we're going to go a few  
22 minutes over but, yeah, I appreciate that.

23           Ted Owen. No, okay.

24           Deon? No, you're done, okay. Oh, yeah, I can't  
25 believe you're going to give Randy your -- and you're

1 up, Randy, go for it.

2 MR. YOUNG: Am I officially last?

3 MR. LOYER: Yeah, as usual.

4 MR. YOUNG: No, listening to the roundtable  
5 discussion today, a lot of great points made. I think  
6 Chris Walker was spot on when he talked about the supply  
7 and demand. I think there's got to be a way to monitor  
8 and track the units. Not so much from the distributor,  
9 but from the manufacturer.

10 And what I'm not seeing here at the roundtable  
11 are any manufacturing representatives or any  
12 distributors. A couple, okay. But no real  
13 manufacturers, right? Mitsubishi. I thought you worked  
14 for a building inspector. Okay, then I apologize.

15 MR. SEVERANCE: Mitsubishi Electric.

16 MR. YOUNG: But I do believe that they should be  
17 more at the table because we want to track. With the  
18 technology that's available today, it doesn't have to be  
19 a serial number. It could be a GPS pod that's easily  
20 placed in any unit. Once it leaves the distributor,  
21 it's tracked to a house. Again, with today's  
22 technology, it's pretty easy to find.

23 Logistically, I don't know how that would all  
24 work, but that should be something to take place.

25 Different jurisdictions have different codes,

1 they have different requirements, different processes,  
2 and I think that makes it difficult for the statewide,  
3 online permit process. I think if the entire State of  
4 California operated under the same codes and standards  
5 that might be a little bit easier. But you've got some  
6 jurisdictions working under a 2015 code, some under a  
7 '16, some under an '18. So, until they're all brought  
8 into one, I think that's going to be a huge issue.

9           Workforce standards and training needs to be  
10 applied because I don't agree with a comment that a  
11 gentleman made about it's just flex, and air, and I  
12 design the system and if the guy's not trained to put it  
13 in, it's not going to matter that much.

14           Because if you don't understand the  
15 characteristics and properties of air when it's going  
16 through that system, you designed a system, you forgot a  
17 12-inch box of flex. The guy has a 14-inch box of flex  
18 and says, I'm going to go ahead and throw that in  
19 because it's bigger, it will be better, but you're  
20 shoving that 14-inch flex in a 12-inch space.

21           I see you're shaking your head no, but I can  
22 show you pictures all the time this happens. As a  
23 contractor, I understand you want to defend that.

24           I've been on both sides. I've been a non-union  
25 installer, I've been a union installer, I've gone



1 through the apprenticeship program. I've been to the  
2 houses where I tell the customer, if you don't want to  
3 pull a permit, I can save you 500 bucks. As a  
4 contractor, a representative from the contractor that I  
5 was -- that was the training I received that was a sales  
6 call. How do you promote your sales? Don't -- it  
7 wasn't how do you put the best possible system in for  
8 the end-user, it's how do you make my company money?  
9 And once you don't make my company money, you're  
10 expendable, I don't need you anymore.

11 So, I don't agree with the statement that  
12 training is not necessary, because it is absolutely  
13 necessary, and especially with the complex systems that  
14 are going in today, the VRF systems that could  
15 potentially kill a person. And if that's not inspected  
16 properly or installed properly, and it leaks, and it  
17 displaces the oxygen in a room, that night guess who's  
18 dying? Who's going to be on the hook for that?

19 (Whereupon, Reporter has a sudden loss of power)

20 MR. WILLMARTH: This is Ruben Willmarth with LG  
21 Electronics. I've been working with VRFs for 13 years  
22 and I have personally done multiple researches. I have  
23 yet to find a single person who has been harmed.

24 However, combustion is much, much more likely to  
25 cause harm with carbon monoxide gas, et cetera. So,

1 yes, there's a risk, but we treat it with code just like  
2 we do any other type of system.

3 But I would say that that kind of focus is  
4 highly, highly overstated. And if you want to have a  
5 discussion about overall risk, that's great, but I don't  
6 think that's appropriate here.

7 MR. YOUNG: Okay, I respect your opinion.

8 MR. WILLMARTH: Thank you.

9 MR. YOUNG: And I also, like I said, I think the  
10 manufacturers should be in the room so they could have  
11 more of a say. And I appreciate that Mitsubishi's here.  
12 I didn't realize that you were a manufacturing rep. So,  
13 that's all I have, thanks.

14 MS. HARO: So, Randy, I would like to respond to  
15 that. Unfortunately, so you are correct, we do need  
16 everyone in the room. We need everybody to be a part of  
17 this conversation because otherwise it is completely  
18 lopsided and we come up with something that's not  
19 implementable if we don't have everything that's  
20 involved and affected at the table.

21 So, unfortunately, I think some were on the  
22 WebEx and may not have been able to reconnect. So, I  
23 would strongly encourage you and everyone to participate  
24 in the August workshop, to send in your analyses for --  
25 and to be a part of that discussion so that we can get

1 the ideas, the solutions out there and discuss them in  
2 August.

3 MR. LOYER: So, all right. So, you're no last,  
4 Randy.

5 MR. DIAS: No, this is really quick. Can we do  
6 something, maybe use ratepayer funds to get you guys a  
7 better IT system, so none of this drops off?

8 (Laughter)

9 MR. LOYER: We'll take it to a committee.

10 MR. PARTRIDGE: So, am I going to be last?

11 MR. LOYER: Yeah, now you're going to be last,  
12 yeah.

13 MR. PARTRIDGE: Cool. My name's Chris  
14 Partridge. I work for Rheem Manufacturing. So, we are  
15 here listening. And I've been doing just that today is  
16 listening to every comment, or everything, taking notes  
17 and stuff.

18 The one thing that everybody seems to be  
19 agreeing on is that contractors need to do a better job.  
20 Your system is broken as far as permits. I mean, that  
21 doesn't seem to be a question on there.

22 I don't see where tracking serial numbers is  
23 going to fix any of these problems. And, you know, sure  
24 you can track them, but tracking a serial number once  
25 its left is like shutting the barn after the horse

1 leaves. It's already out there, it's already been  
2 installed, so now you still have to deal with the same  
3 problem. And I'll stop there.

4 MR. LOYER: Thank you. And Mark. Good.

5 MR. RAMIREZ: I just wanted to respond. I don't  
6 think I said no training, I said no requirement for  
7 certification. Now, it depends on the quality of the  
8 company, too. Because going back to what you're saying,  
9 if they don't have a 14-inch box and they put a 12-inch,  
10 they would have to answer to me and that guy won't be  
11 working for me anymore.

12 We do in-house training. My guys do understand.  
13 But what I'm saying is they don't have to be engineers  
14 to run duct work is what I'm getting at. But they do  
15 understand that we design our duct work and if it says  
16 they've got to run 12-inch and they run anything else,  
17 they have a -- and we'll pick it up when we do our  
18 commissioning. And when our static pressure's above  
19 where we're supposed to be, we start looking into it.

20 But like I said, we've done duct work at .5  
21 static pressure with flex and we have no problem.

22 But you're right, they do have to understand  
23 because there are some companies out there that have no  
24 understanding of training, so I agree with you on that.

25 MR. LOYER: So, I've checked online. I don't

1 see anybody's hand raised online. And checked the chat  
2 box, I don't see anything in the chat box.

3 I think in -- we are over time, so I'll go ahead  
4 and make the closing remarks. All right, so closing  
5 remarks.

6 Basically, right here we have our -- this is the  
7 stakeholder next steps here. Essentially, this is our  
8 call to -- you know, call for papers, call for input.  
9 This is our website right here. Please feel free to go  
10 and peruse. There's a lot of other stuff there as well,  
11 so do look for ours in particular.

12 Let's see if I can get this to work. There we  
13 go. Come on, there we go, all right.

14 So, in preparing the analysis, please keep in  
15 mind we have a statutory requirement of what our  
16 analysis finally does have to be. I'm going to point  
17 this a little bit more towards me.

18 We have a statutory requirement of what the  
19 analysis has to be. This basically spells it out.  
20 However, if you cannot do this, if you cannot check  
21 every box, we still want to hear from you. We still  
22 want to hear your idea. We just may come back to you  
23 for ways to fill out the rest of those checkboxes, get  
24 the rest of that information.

25 Our docket is 17-EBP-01. And our compliance

1 plan is here. November -- well, let's see, the next  
2 meeting we have is a Commissioner workshop, Irwindale,  
3 August 3rd. And we promise to have a better WebEx  
4 system operating. I think, if I may be honest for a  
5 moment, I think that was my fault. I think I screwed up  
6 the numbers when I put out the notice and nobody caught  
7 it, and I didn't catch it. And my apologies, *mea culpa*.

8 But we are going to put together a proposal. We  
9 are going to meet our statutory deadline of January 1.  
10 That is our intent. And we are going to do everything  
11 we can to meet that.

12 The final thing you need to know is Judy. If  
13 you have problems, concerns, you know, mean things to  
14 say about me, contact Judy.

15 All right, and thank you very much, everybody.  
16 Don't forget to give us some written material. We  
17 appreciate it. Thank you for coming.

18 (Applause)

19 (Thereupon, the Workshop was adjourned at  
20 12:14 p.m.)

21 --oOo--

22

23

24

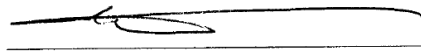
25

**REPORTER' S CERTIFICATE**

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of July, 2018.



---

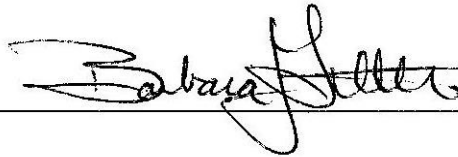
PETER PETTY  
CER\*\*D-493  
Notary Public

**TRANSCRIBER'S CERTIFICATE**

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of July, 2018.



---

Barbara Little  
Certified Transcriber  
AAERT No. CET\*\*D-520