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CALIFORNIA ENERGY COMMISSION

In the matter of:

Mechanical Acceptance Test)
Technician Implementation)
Proceedings)
_____)

Docket No. 20-ATTCP-01

STAFF WORKSHOP

REMOTE VIA ZOOM

TUESDAY, JANUARY 12, 2021

10:00 A.M.

Reported by:

Martha Nelson

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P R O C E E D I N G S

10:00 A.M.

TUESDAY, JANUARY 12, 2021

MR. LOYER: This is Joe Loyer from the California Energy Commission. It's now ten o'clock. We do seem to be getting more attendees here, so I'm just going to give that another minute or so before we really get going.

There was a comment in the Q&A about how many participants were going to be on the line today. You can -- you should be able to open up your participants window and see the number. Right now I'm at about 52 attendees and five panelists. And the panelists, mainly -- are mainly myself, Joe Loyer, Matt Haro, and then Mary Trojan, and Tajanee Ford-Walen, as well as our Court Reporter, Marlee Nelson.

So in total we have -- we just ticked up to 60. So as far as what the peak will be, I'll try to keep an eye on it. And we will report that if it's -- if we can keep track of it.

(Pause)

MR. HARO: Okay, Joe, it looks like the attendees have limited access to some of the information. They can't see the number of

1 participants on our -- on the call. So --

2 MR. LOYER: Oh.

3 MR. HARO: -- so we will try and keep --

4 MR. LOYER: That's unusual. Yeah.

5 MR. HARO: And there's another question
6 in Q&A. "Will there be a recording available of
7 this Zoom call?"

8 MR. LOYER: Yes, there will be. We'll
9 actually get into some of the details, actually,
10 kind of right now. I thought we'd go ahead and
11 start it off.

12 So I'd just like to, first and foremost,
13 welcome everybody. This is the workshop for the
14 Mechanical Acceptance Test Technician
15 Certification Implementation. I'm Joe Loyer,
16 Senior Mechanical Engineer at the California
17 Energy Commission.

18 Let's see. Make this screen work. There
19 we go.

20 So, first and foremost, we have a couple
21 of housekeeping items. We always begin with
22 housekeeping at the Energy Commission workshops.
23 And then, of course, in this situation, we are
24 all accessing things remotely. This is a remote
25 access only workshop by order of the Governor.

1 Everyone is muted on entry. We will un-mute you
2 for comments or questions.

3 So for the comments and questions -- (cat
4 meows). Go on now. Sorry. My cat is
5 interrupting. Go on. Go on. Shoe. There we
6 go. All right.

7 So for comments and questions, raise your
8 hand, or use the star nine on your cell phone.
9 We'll be using the Q&A box to submit your
10 questions. Matt Haro will be, mostly, answering
11 those questions or giving, you know, giving me a
12 heads-up when needed. You can also submit your
13 questions to the docket. Our Docket Number is
14 20-ATTCP-01. There will be a link to the docket
15 at the end of the presentation. You can also
16 find that link in the notice to this workshop.

17 We will be recording this workshop. We
18 have a court reporter on hand. After the
19 workshop is over, we will be posting the
20 transcript of the workshop, as well as the
21 recording itself.

22 To that, it is very important that when
23 you do speak you state your name and your
24 affiliation each time you're beginning your
25 comments. Otherwise, it's very difficult to

1 determine who you are and who you represent or,
2 you know, who is saying what.

3 So for the introduction here we have,
4 let's see, our agenda. Basically, we are going
5 to be going over the purpose of this workshop,
6 some background information, the requirements for
7 the industrial certification threshold, and the
8 potential impacts to industry, the Implementation
9 Plan, and then we will come to questions and
10 answers.

11 So the intent of this workshop is to
12 discuss the Energy Commission's determination to
13 require mechanical ATTs to be certified in
14 California. And what this essentially means is
15 that to perform the acceptance test for
16 mechanical systems in either newly constructed
17 buildings or additions or alterations to
18 buildings -- to non-residential buildings, I'm
19 sorry, the acceptance test must be performed by
20 an ATT that has been certified by one of our
21 acceptance test technician certification
22 providers.

23 What we will be providing here, to a
24 certain extent, and in a Staff Report is the
25 evidence that the minimum requires for the

1 threshold have been met, background information,
2 and the Implementation Plan.

3 So beginning with background information,
4 starting with the acceptance testing and the
5 basic requirements here, acceptance testing has
6 been required since the 2005 Energy Code cycle.
7 Now the acceptance testing that was required then
8 was pretty minimal but it has -- it serves as
9 history there.

10 Acceptance testing is at the final stage.
11 The equipment has been installed. And it is
12 sometimes inspected by the authority having
13 jurisdiction, the building department or AHJ.
14 The technician then performs the acceptance test
15 as prescribed by the Energy Code. And these are
16 a set of procedures that the Energy Code has
17 outlined in the appendices. They're in
18 Nonresidential Appendices NA-7. They typically
19 start with a construction inspection and then
20 move on to a functional test.

21 So one of the things that kind of
22 continually comes up is you have a technician who
23 did the installation work now doing instruction
24 inspection. Does that make them an inspector?
25 And the answer is, no, they are not an inspector.

1 They work for the builder. So they are doing an
2 inspection to verify that what has been installed
3 -- what is required to be acceptance tested has
4 been installed and is ready to be acceptance
5 tested, and that installation is compliant with
6 the Energy Code.

7 So each acceptance test includes a
8 construction inspection prior to functional
9 testing. The construction inspection includes
10 verification that the design documents are
11 available to the technician and that the device
12 or construction element is in place and ready to
13 be tested.

14 Functional testing is a step-by-step
15 instruction for actively testing the installation
16 as prescribed in Code. Typically, testing
17 control systems is a simple matter of verifying
18 that the controls respond appropriately.

19 The goal for design compliance and
20 functionality, the goal of acceptance testing is
21 threefold. First, verify the installation is
22 complete with the approved design. And that's a
23 point that a lot of people do miss. This is --
24 the acceptance test is to take into consideration
25 the approved design and make sure that what is

1 installed is compliant with that approved design.
2 This is where the ATT must review the
3 nonresidential certification of compliance, or
4 NRCC, that it's the project the applicant
5 submitted to the AHJ for approval when the AHJ
6 approved the permit application. The NRCCs are
7 approved, as well, and represent compliance with
8 the Energy Code. So the ATT must first verify
9 that the installation was installed to design
10 requirements.

11 Secondly, the installation must be
12 functional. The goal is that the installation
13 must be functional appropriately and meet the
14 requirements of the design. The mechanical
15 installations -- for mechanical installations
16 this means passing the inspection and functional
17 testing, typically delivering the minimum air
18 required to -- you know, required in the NRCC.
19 And that's primarily for the outdoor air
20 acceptance test.

21 Thirdly, the installation must be tested
22 in accordance with the functional testing
23 required in the Energy Code. The installation
24 can be additional tested to the manufacturer
25 requirements but must be tested in accordance

1 with the Code. So as far as the Code is
2 concerned, you have to do the functional testing
3 that the Code requires but you can do more if the
4 manufacturer requires you to do more.

5 So performance and documentation by the
6 installing technician, so this is one of the
7 areas where the ATTCP Program and acceptance
8 testing very much diverges from the HERS world.
9 In the HERS world, acceptance testing or the
10 installation testing, or field verification or
11 diagnostic testing, as it's accurately called, is
12 performed by a third party. Acceptance testing
13 is performed by the installing technician. It
14 has always been the responsibility of the
15 installing technician and remains so. However,
16 it is permissible to use a third party in this
17 instance.

18 When we do eventually pull the trigger,
19 and for right now lighting controls is required
20 to be an acceptance test technician certification
21 to perform those acceptance tests, if the
22 installing technician does not have the
23 certification, they can go to a third party who
24 does that certification to perform the acceptance
25 test for them. But this is, you know, not in

1 keeping with the intent, original intent, but it
2 is allowable.

3 The acceptance is signed by the
4 technician and the responsible person. The
5 responsible person is typically an engineer,
6 architect, general contractor, or project owner.
7 The responsible person is responsible for making
8 the acceptance test compliance document, the
9 NRCD, available to the AHJ. However, this can be
10 delegated to the technician as well.

11 So the ATTCP Program, Acceptance Test
12 Technician Certification Provider Program -- it's
13 a mouthful, definitely -- it was established in
14 the 2013 Energy Code. The purpose of the program
15 is to improve acceptance test compliance. It is
16 limited to lighting controls and mechanical
17 systems. It does not include acceptance tests
18 for envelope or covered processes. In the actual
19 Code the sections that cover lighting controls is
20 Section 130.4. And for mechanical, it's Section
21 120.5. And those two sections dictate exactly
22 what acceptance tests are covered under the
23 mechanical ATTCP and what are covered under the
24 lighting controls ATTCP. But there are more
25 acceptance tests than just those. There is

1 envelope, as I said, and covered processes as
2 well.

3 Private organizations are approved by the
4 CEC. Right now there are six total ATTCPs
5 approved, two are lighting controls and four are
6 mechanical. They provide the training
7 certification and oversight for the ATTs and
8 their employees, the ATT/ATEs, acceptance test
9 employer.

10 The oversight includes a significant
11 quality assurance program that each ATTCP is
12 responsible for performing. It has, basically,
13 three levels of Q&A.

14 First level is the data entered into the
15 system is screened for being an appropriate value
16 to enter into a particular field.

17 The second level is a paper or desk audit
18 where the ATTCP uses the NRCCs that the -- that
19 must be submitted, as well, to verify that the
20 acceptance test that is eventually filed by the
21 ATT lines up with the NRCCs.

22 The third level is an onsite audit.
23 Mechanicals typically do what's called a shadow
24 audit. They will show up unannounced to the
25 project site as the acceptance test is being

1 performed and shadow the ATT to verify that they
2 not only know what they're doing but are,
3 essentially, caught in the act of doing the job
4 right.

5 To make sure that all of this works, each
6 of the ATTCPs, all six, in fact, use an internal
7 database forms tracking system. Now, again, this
8 is different than what the HERS Program uses.
9 They use what is called a data registry. And a
10 data registry is a different animal entirely from
11 a database forms tracking system. The data
12 registry has to comply, to be simply about it,
13 the data registry must comply with all
14 requirements in Appendix JA-7, Joint Appendix
15 JA-7. This is a significant undertaking. It
16 requires -- well, not to go too deep into what it
17 really requires, but it is a significant
18 undertaking that is not required for the database
19 forms tracking system.

20 This forms tracking system is tied
21 directly to the Quality Assurance Program that
22 allows the ATTCP to enforce the requirements.
23 Only ATTs are allowed access to the database to
24 complete the NRCAs (phonetic). One completed,
25 these NRCAs are issued to the ATTs -- or issued

1 from the ATTCP with its watermark and logo to
2 await enforcement by the AHJs.

3 So these are the six ATTCPs that have
4 been approved by the Energy Commission. The two
5 lighting controls, National Lighting Contractors
6 Association of America, NLCAA, California
7 Advanced Lighting Controls Training Program,
8 CALCTP. And then the four mechanicals are the
9 California State Pipe Trades Council, CSPTC, the
10 National Energy Management Institute Committee,
11 NEMIC, the National Energy Balancing Bureau,
12 NEBB, and the Refrigeration Service Engineers
13 Society, RSES.

14 MR. HARO: Joe, we do have a couple of
15 questions here before we --

16 MR. LOYER: Sure.

17 MR. HARO: -- get too far away.

18 MR. LOYER: Yeah.

19 MR. HARO: One is, "Is it the expectation
20 for the ATT and CXP be separate?" I don't --

21 MR. LOYER: One more time.

22 MR. HARO: "Is it the expectation for the
23 ATT and CXP be separate?" The CXP --

24 MR. LOYER: Oh, commissioning --

25 MR. HARO: -- (indiscernible).

1 MR. LOYER: Yeah. So there is no
2 expectation of the interaction. We're not
3 dictating the interaction between the
4 commissioning agent and the ATT. That's up to
5 however each project wants to make that work.

6 Commissioning agents are one of the
7 industry professionals that are eligible for ATT
8 certification. So you can sign up for the
9 training as a commissioning agent. And once they
10 have -- one the ATTCP has verified your
11 experience, they can accept you into their
12 program and give you the training to be an ATT.

13 As far as what your interaction is meant
14 to be or is intended to be, the way we personally
15 see this is on the projects that are large enough
16 to require a commissioning agent, we think that
17 the commissioning agent probably will maintain a
18 certain level of control of who is doing what
19 acceptance testing on the project site. So
20 that's the way we expect it probably will run.
21 But as far as it being a mandatory to be that,
22 that is not the case at all.

23 MR. HARO: And we do have one more
24 question that came in. "Will the shadow
25 oversight only be present during the

1 certification or can they arrive after the
2 certification process is complete, say six months
3 later?"

4 MR. LOYER: Oh, so the shadow audit is
5 only done during the acceptance test. So I'm
6 guessing that certification means during the
7 acceptance test. So it is done as it is being
8 completed by the ATT on the project site. And we
9 are well aware that this actually presents a
10 pretty significant problem for the ATTCPs. We
11 have had a lot of discussions about this. So I
12 hope that that answers that question. Okay.

13 All right, so we'll go ahead move on
14 here.

15 So the industry certification thresholds,
16 these are the conditions that the Energy
17 Commission must verify have been met in order to
18 make the certification mandatory for performing
19 mechanical acceptance tests. So there are two.
20 And everybody is always confused about the second
21 one here.

22 So the first one, so before the Energy
23 Commission can require ATT certification to
24 perform mechanical acceptance testing the CEC
25 must find that the following two are met, and

1 this is from Section 10-103.2(b), "There are a
2 minimum of 300 certified ATTs statewide," and
3 that's considering all ATTCPs, so the -- it's not
4 just each ATTCP has to have 300, it's all in
5 total have to be 300 or more, "and all eligible
6 professionals must have reasonable access to the
7 requisite training to become a certified ATT."
8 And the regulations do go in a little bit as to
9 what constitutes being reasonable. And it
10 basically is, is it within a reasonable
11 geographic limitation?

12 And that's usually where the confusion
13 comes up. This is are eligible professionals, do
14 they have access to the training, not do builders
15 have reasonable access to the ATTs? And that's
16 the confusion that usually comes up with this
17 second requirement. This is for the eligible
18 professionals to go and get their certification.
19 Do they have reasonable access?

20 So the evidence of the threshold
21 compliance, essentially, the results are we have
22 more than 350 certified ATTs. And we have access
23 for all eligible professionals to the training.
24 Essentially, Staff required all necessary
25 information from the mechanical ATTCPs to verify

1 that the threshold requirements have been met.
2 These reports are all available in our docket, by
3 the way. There are currently, I believe the
4 exact number was, 365 when I originally started
5 this, I suspect there are probably more at this
6 point, capable of performing all the required
7 acceptance tests.

8 All eligible professionals have
9 reasonable access to certification training while
10 NEMIC and CSPCT are restricted to membership.
11 NEBB and RSES are not. Even so, NEMIC has
12 identified that they have many professionals,
13 actually, all the professions represented in the
14 requirements available to be able to take their
15 certification training.

16 So the Staff Report, when the Staff
17 Report is made publicly available, it will be
18 attached to the docket, as well. And again, that
19 is Docket 20-ATTCP-01.

20 So the second element here is the
21 potential impacts to industry. And this is, to
22 be clear, this is not a restriction in Code. The
23 Code requirements are the prior slide here, these
24 two requirements, 350 certified ATTs and eligible
25 professionals having access to the ATT training.

1 That's what is required in Code. However, the
2 Energy Commission does have a duty to actually
3 look at and consider impacts to industry whenever
4 we do anything.

5 So the concerns, we've had several
6 workshops where these concerns were raised. We
7 had one in February of 2017 and one in July of
8 2019. And we basically boil it down to these
9 four concerns.

10 So access to the ATTs. Now this is not
11 to be confused with the, again, the training
12 availability. This is the builders access to
13 ATTs. So the way we originally looked at this,
14 we looked at every county in California should
15 have access to an adequate number of ATTs to
16 perform their required mechanical acceptance
17 tests. The Staff Report goes into a significant
18 detail regarding this issue.

19 The workload and workforce are depicted
20 on graphics which demonstrate the majority of
21 both are focused in the Los Angeles area and Bay
22 Area. So, currently, builders outside of these
23 areas must address technician availability right
24 now, regardless of ATT certification.

25 The real concern is how this

1 certification requirement affect that existing
2 condition? The Staff Report shows that the
3 individual mechanical installers operate all over
4 California with very little differential pay.
5 Since there is -- since these same installers
6 work in build centers, Los Angeles and Bay Area,
7 as well as outside these areas, they will need
8 the ATT certification. Since the ATT
9 certification is good statewide, there should be
10 very little impact to the current availability of
11 technicians outside of the builder areas.

12 So the second concern, too few
13 technicians are seeking certificate. This is
14 definitely a concern. So current, there are too
15 few technicians seeking certification because it
16 is not yet a requirement. And it's sort of a
17 Catch 22. Staff and the providers have been
18 advising industry for four years, actually
19 rolling on to five years now, that ATT
20 certification would be required. There has not
21 been a mad dash of technicians seeking ATT
22 certification because the CEC has not been able
23 to verify that the minimum thresholds have been
24 met.

25 The common wisdom is that the CEC makes

1 ATT certification mandatory, that when we do
2 there will be a mad dash. The Staff Report
3 recognizes this issue and recommends that the CEC
4 set a hard date for enforcement. However, the
5 only hard date that Staff can recommend is the
6 date that the CEC finds that the threshold
7 conditions have been met, which, for right now,
8 our intent is that that be at the March business
9 meeting.

10 However, there are suggestions that the
11 Energy Commission may decide that the
12 implementation date will be different from the
13 March business meeting determination that the
14 threshold conditions have been met. And that is
15 being considered by the Commission at this point.
16 I have no heard back from the Commissioner in
17 regard to that. We did have several meetings
18 discussing it but he has not given me a
19 definitive answer.

20 So smaller building centers may delay
21 Implementation Plan. This one, you have to kind
22 of go along with this logic on but it, actually,
23 isn't wrong. Stakeholders are concerned that CEC
24 may delay the implementation of certification
25 requirements if small counties that don't have a

1 significant amount of nonresidential construction
2 are not prepared, even when larger building
3 markets in California may be ready to proceed.

4 So if we take the position that we are --
5 the Energy Commission should not move forward
6 until everybody's ready to go, then, yeah, places
7 like Alpine County, which doesn't have a lot of
8 nonresidential construction, would be, basically,
9 holding up L.A. County. And that's, of course,
10 something that is probably unreasonable.

11 When Staff investigated this issue, as
12 well as the issue of access to ATTs across the
13 state, Staff found that the common business
14 practice of mechanical installations essentially
15 resolves this issue. So the same logic that
16 resolves the access to ATTs across California
17 also resolves this.

18 The lack of AHJ enforcement.
19 Stakeholders are concerned that some local
20 jurisdictions will not enforce the certification
21 requirement, which would put those contractors
22 who are certified at a disadvantage during the
23 bid process. Staff is preparing an educational
24 outreach effort for all 560-plus AHJs in
25 California. This effort will consist of a quick-

1 start training to demonstrate the simplest means
2 of enforcement and encourage the AHJ to question
3 the ATT, as well as demonstrate the acceptance
4 test as documented.

5 Additionally, Staff will prepare a simple
6 field sheet for the AHJ inspectors to look for
7 telltale signs of falsified NRCAs, and what logos
8 and watermarks the CEC approved. Staff will
9 provide email blasts to all AHJs to offer the
10 field sheets and quick-start training
11 individually, and through larger venues as they
12 are available. Staff is also going to be putting
13 on training and sending that invitation out to
14 the AHJs, as well. We haven't quite gotten that
15 together yet but we are in the process of
16 approving all the training. And once we get them
17 to a certain point we will be working, reaching
18 out to our providers to make sure that they are
19 onboard with everything that we are presenting.

20 Staff will also publish fact sheets and
21 blueprint articles. These are typically reviewed
22 by AHJs. We will also -- the ATTs are also
23 offering free training to AHJ inspectors,
24 approximately four hours, and include actual
25 laboratory demonstrations of the acceptance test.

1 So, finally, additionally, Staff will
2 reach out to industry, again advising them of the
3 implementation date and requirements. Staff will
4 work with its sister agency to email to
5 California licensed contractors, engineers and
6 architects. Staff will offer the same or very
7 similar training for industry.

8 So at this point, I can only make two
9 recommendations. We, essentially, can
10 acknowledge that the threshold has been met. And
11 we can bring this to a CEC business meeting. And
12 we can implement the Outreach and Education Plan.
13 But the recommendations that I can make at this
14 point are to set a hard date for enforcement
15 which, right now, is the business meeting. As
16 I've said, I am still waiting on the Commissioner
17 to give me direction on as to exactly what date
18 or if he wants to engage with a six-month delayed
19 implementation, which, actually, was a
20 recommendation that I supported as well.

21 Let's see, so the Implementation Plan --
22 hang on. Let me just get this right there. There
23 we go.

24 So Staff will begin its outreach effort
25 three months prior to the March 2021 business

1 meeting. We plan to start that in January.
2 However, at this point, it's probably going to be
3 late January. Staff will combine -- we'll use a
4 combination of statewide and local focus to
5 promote its educational and outreach efforts.
6 The statewide focus, we'll be using the
7 blueprinted fact sheets, listservs and email
8 services.

9 Staff will ensure -- (clears throat)
10 excuse me -- Staff will -- oh, shoot. Oh, okay.

11 Staff will ensure -- will work with
12 Energy Code, ACE, California utility training
13 venues, the CSLB, the Contractors State Licensing
14 Board, and other sister agencies to notify
15 licensed engineers, architects and contractors of
16 the enforcement date requirements and provide
17 training opportunities. Staff will work with the
18 ATTCPs, CALBO, local RENs, that's R-E-N, and
19 others to arrange large training venues and
20 membership advisements.

21 The local focus, Staff will contact the
22 local counties to arrange small venue
23 opportunities for outreach to small building
24 departments. This can go down to even the one-
25 man shops that we're more or less familiar with

1 in Northern California in the upper left and
2 upper right-hand corner of California. So we
3 will work with these partners to define -- to
4 refine tools, as needed, for them especially to
5 address special or difficult issues regarding ATT
6 training and enforcement. Staff will seek our
7 local promotional opportunities for builders and
8 local contractors, as well as AHJs.

9 So the intended audience is, initially,
10 going to be the building departments. However,
11 we will be reaching out to licensed HVAC
12 contractors, as well as other contractors,
13 licensed engineers, and architects. To the
14 extent possible, we'll also be including
15 builders' realtors where those opportunities
16 exist.

17 So the getting started -- hand on just a
18 second. So the getting started training is a
19 short presentation that includes the explanation
20 of acceptance testing, the ATTCP Program, the
21 ATTCP responsibilities, enforcement strategies
22 that AHJs can use, the logos that will appear on
23 the acceptance test forms. It would also include
24 resource links to the CEC and ATTs, including the
25 ATTs' four-hour training.

1 The counter cards, these are cards that
2 are typically put at the counter of the building
3 department so that when a contractor or an
4 engineer or an architect or their representatives
5 come in, these counter cards are available for
6 them to take away. And it's meant to be just a
7 quick information and resource link to more
8 detailed information for them. They will be
9 given to all the AHJs to display on their permit
10 application counters. They will be geared towards
11 contractors, technicians, engineers, architects,
12 or whomever is submitting a permit application
13 with the AHJ. They announce the program, the
14 ATTCP Program, for both lighting controls and
15 mechanical -- we want to tell them about
16 everything -- the enforcement date for both, the
17 available resources for further information.

18 The inspector sheet, this will be
19 exclusively for AHJ inspectors. They will carry
20 basic information regarding the ATTCP Program, as
21 well as the logos. It also helps them with
22 identifying when an acceptance test is to be
23 expected on a project. So in many instances what
24 we've been running into is that an inspector has
25 gone out to a project and found that somebody has

1 approved a project with no acceptance test when
2 there definitely should be one.

3 And, Art, I'm just going to come to you
4 here and see if I can get this to work. Now
5 let's see, I need to switch to that. Let me see
6 if I can find you, Art. Well, you'd think this
7 would put you right on top.

8 MR. HARO: I've got him, Joe. Do you
9 want me to un-mute him?

10 MR. LOYER: Ah. Thank you. Yeah.
11 Please.

12 MR. HARO: Okay. Okay, Art, you're un-
13 muted. I believe you have to un-mute yourself
14 now.

15 MR. PHEND: I am concerned you may have
16 the wrong Art.

17 MR. HARO: I'm sorry. I saw an Art with
18 his hand raised.

19 MR. PHEND: Oh, let me lower my hand.
20 Sorry.

21 MR. LOYER: All right then. Good.

22 And as everybody can tell, yeah, anytime
23 that we get a question, we are more than happy to
24 stop and answer that question. A lot of times
25 it's just easier to do that rather than go to the

1 very end and then try to remember back to where
2 we were.

3 So the inspector field sheets, basically,
4 these are going to carry the basic information
5 for the program and the logos. But, as well,
6 they are also going to carry the information to
7 identify when these projects do require an
8 acceptance test, as well as what some of the
9 exceptions to the requirement are.

10 The fact sheets, the fact sheets and
11 blueprint articles, we will be issuing both of
12 them as enforcement -- as the enforcement date
13 gets closer. They will describe the program,
14 the requirements, the training opportunities, and
15 the enforcement date.

16 The in-depth training that the ATTCPs are
17 offering to the AHJs, for the most part, these do
18 follow the similar -- a similar training that the
19 ATEs, the acceptance test employers, do get as
20 well. However, there are some definite
21 differences. The main difference is that these
22 are geared towards the inspector, essentially
23 giving them the inside look as to what to look
24 for when they are seeing an acceptance test
25 performed, what to look for on the acceptance

1 test sheet to make sure that it is legitimate,
2 what good questions to ask of the ATT that should
3 be onsite to answer these questions.

4 So the training is approximately, about,
5 four hours long. They are, most commonly are
6 going to integratable into a learning management
7 system. But they include a basic overview of the
8 most common acceptance tests with advice on
9 sample enforcement tactics.

10 Now, let's see here, so the process,
11 approval process from this point, the Staff
12 Report will be published. I don't know when. It
13 was to be published about, I believe, the first
14 week of December. But as is common this year
15 with COVID and just everything else that's going
16 on, things, essentially, have gotten delayed a
17 little bit. I have not gotten an approved Staff
18 Report back from the review process yet. And
19 when I do I will release that report. I will
20 send out notification. And I will extend the
21 comment period, which is the third bullet here.
22 The comment period will not end on January 28th.

23 The intended business meeting right now
24 is March 17th. But if the Staff Report gets
25 delayed much further, then we will move that to

1 April and, hopefully, not further than that.

2 Let's see. And that is it. We are at
3 the question and answers period.

4 I should also just quickly say that we
5 have comments and contact. Again, our Docket
6 Number is 20-ATTCP-01. And we also have this e-
7 comments available. This presentation will be
8 posted on our website, so you can find this and
9 use this link to get right to the comment page.

10 So with that, yeah, if we have any
11 questions?

12 MR. HARO: Okay. I see a raised hand
13 here from Christopher Ruch. I'm going to allow
14 you to talk. Please go ahead and un-mute
15 yourself.

16 MR. RUCH: Hi. This is Chris Ruch with
17 National Energy Management Institute Committee.

18 Joe, I just want to thank you for your
19 work here. I want to thank you for this
20 presentation and the work that CEC Staff has
21 done. I know you've got a lot of things to --
22 concerns to juggle and take into consideration
23 here. Of course, I encourage the Staff Report to
24 come out as soon as possible. But NEMIC is ready
25 to move on this, and with our partners.

1 Thank you.

2 MR. LOYER: Thank you, Chris.

3 MR. HARO: All right. We have next --

4 MR. LOYER: Thanks Joe. I appreciate
5 that. I stumbled over a couple of words and
6 phrases there. I hope it wasn't too bad.

7 MR. HARO: We do have another hand raised
8 here, Philip Wilbur.

9 I'm going to allow you to un-mute
10 yourself, so if you could do that, please, and go
11 ahead and talk?

12 MR. WILBUR: How you doing, Joe? I've
13 got a couple questions.

14 MR. LOYER: Yeah.

15 MR. WILBUR: One is, could you go over
16 the process, just so we have -- at least I have a
17 better idea, from cradle to grave, of how the
18 test goes as it's taken, you know, from the
19 responsible party, it goes through the

20 MR. LOYER: Oh, sure. Like on a project
21 site?

22 MR. WILBUR: Right. And then the other
23 would be on the AHJs. Do they have to witness
24 the entire test or is it the discretion of that
25 department? Because if you have multiple

1 projects going, does the AHJ have to stay there
2 for an hour or for every test to watch it, or
3 does he just or she just determine, based on
4 their experience, and sign off on the document?

5 MR. LOYER: So let's take that last one
6 first because that's the easiest one. There is
7 no chance that, as a regular course of business,
8 the AHJs are going to have an inspector oversee
9 an acceptance test, or even an acceptance test.

10 Now the intent there is that the
11 inspector could come to the ATT and just say, you
12 know, take the form from them, look at the
13 acceptance test and say, this is great, I'd like
14 you to run it again in front of me. They are
15 allowed to do that and they have that authority
16 anytime they want to use it. And we do encourage
17 them to do that if they want to see that test
18 done.

19 However, most of the time, and most of
20 the time being 99.9 percent of the time, the
21 AHJ's intention is to rely upon the ATTCP
22 Program. So once they get the form they verify
23 that the form is legitimate, that it's got its
24 watermarks, that hasn't been tampered with any
25 way, that it is a legitimate form.

1 And there are means by which they can
2 verify that through the ATTCP. If they want to
3 take it to that particular second step, they can.
4 If they, even beyond that, want to make sure that
5 this ATT action knows their business, then they
6 can go that extra step.

7 But, as a common practice, they won't be
8 doing that. I can't imagine anyone. They simply
9 do not have that time. That's what's been
10 reported to us.

11 So as this is meant to go from cradle to
12 grave at a project site, so when we go from a
13 project conception to its property controls to
14 the initial design, when we finally get to the
15 point of putting together compliance documents,
16 and these are the -- these are going to be the
17 plans that are going to be submitted to the AHJ
18 for a permit to build, construction permit, those
19 plans, those documents, include NRCC, the
20 nonresidential certificate of compliance. And
21 this is -- right now, this is an electronic
22 document that the Energy Commission provides
23 through our partner, Energy Code Ace. This will,
24 to a certain extent, help the designer, the
25 engineer, the architect complete this form. It

1 will sort of lead you through it. And at the
2 bottom of this form, once it's complete, it will
3 actually list out the acceptance tests that are
4 required to be performed.

5 So those acceptance tests are what the
6 contractor, the HVAC contractor or the lighting
7 controls contractor or any of the contractors,
8 are essentially going to be taking into
9 consideration when they submit their bids. They
10 have to perform these acceptance tests. These
11 acceptance tests have to be performed today.

12 The change that we're talking about here
13 is that you have an ATT certification to perform
14 those acceptance tests. That's the change. The
15 acceptance tests right now have to be performed
16 today.

17 So you have this initial document, NRCC,
18 that is submitted with the permit documents to
19 the AHJ. When the AHJ does eventually approve
20 and issue a permit to construct, they have
21 approved the NRCC as well. Even if they don't do
22 it specifically, they have approved it with those
23 documents.

24 So at that point the ATT or, you know,
25 the contractor -- typically the contractor plays

1 the role of the employer, the ATE, and has a
2 technician who is an ATT on staff. So the
3 employer will bid against the job, hopefully win
4 it.

5 And then once they get to the point of
6 installing the equipment and getting it ready to
7 be acceptance tested, they then bring on their
8 ATT who will go through, verify that everything
9 complies with the construction inspection and
10 with the project design and is ready to be sent
11 through the functional testing, and then perform
12 the functional testing.

13 Now if at any point during that
14 construction inspection or functional testing
15 something fails or goes wrong, the ATT does not
16 submit that to the ATTCP. They don't submit that
17 in terms of paperwork. They go and they fix that
18 problem. And then, once they've got the problem
19 fixed and the system passes, then they go to the
20 point of actually documenting that with the
21 ATTCP.

22 The ATTCP goes through its initial QA and
23 will, eventually, sign up some of these
24 acceptance tests for the desk audit. And, even,
25 some of these will be signed up for the onsite

1 audit. And how the onsite audit essentially
2 works is, for the ATTCP and the employer, they
3 have to actually enter in that they expect
4 themselves to perform the acceptance tests. And
5 they have to renew those about 24 hours ahead, as
6 well. So the ATTCP communicates regularly with
7 the employer and the technician to verify that,
8 hey, you've told me you're going to be doing an
9 acceptance test tomorrow, is this true? And they
10 are required to respond.

11 The ATTCP uses this information to
12 dispatch their onsite QA personnel. Those
13 persons then go to the point of showing up on the
14 site and doing the shadow audit. And this only
15 happens about one percent of the acceptance test,
16 so it's not every acceptance test, not by a long
17 shot, but it's enough.

18 So once the ATT actually does complete
19 the acceptance test and has submitted that
20 information to the ATTCP, the provider, the
21 provider goes through the process of verifying
22 the document as it's -- or the information as
23 it's coming in, produces the acceptance test
24 documentation with their watermarks and logos,
25 and makes that available in a .pdf for the

1 technician to use.

2 That .pdf is submitted to the project
3 owner for a responsible person's signature and
4 then, once signed, is given to the building
5 department in whatever form that the building
6 department wants it. Most building departments
7 now are getting pretty sophisticated. They wall
8 want these kind of documents electronically.
9 They don't want to receive them on paper. But
10 there are still some that want to see it on
11 paper. So that's why it's in a .pdf, it can be
12 printed.

13 And, essentially, that's the end of the
14 interaction with the ATTCP Program. It all
15 hinges on the ATT, really, so there is,
16 essentially, one touch.

17 Now you might think, okay, what about
18 this NRCC document that we have to do at the
19 beginning? You have to do that now. That's a
20 requirement now. You're supposed to be doing
21 that. So that doesn't, as far as the Energy
22 Commission is concerned, that doesn't count as
23 something new. That just may be something new to
24 you. But you are required to do that. And this
25 program, actually, is going to gently nudge you

1 into doing it.

2 So I think, you know, after that point,
3 you'd get your final inspections. And then once
4 you pass your final inspections you will,
5 eventually, get your certificate of occupancy.

6 And that's about it. I hope that helps
7 there, Phil.

8 And I see two more questions here. So
9 Matthew Schultz, so it has been clarified -- or,
10 "Has it been clarified whether a sampling of
11 spaces will require testing, like lighting
12 acceptance testing, rather than the current
13 language of 100 percent temperature zonal areas
14 must be tested?"

15 So for mechanical, generally speaking,
16 sampling has not ever been introduced in Code.
17 For lighting, it has. And this goes right
18 through the entire Code. So this has nothing to
19 do with acceptance testing, per se. this is just
20 the way the Code has been put together at this
21 point.

22 So we are not proposing to change
23 anything in regard to sampling for mechanical
24 installations.

25 And let's see, all right, do we have any

1 more questions; Matt? I see you're busily
2 answering questions on the Q&A.

3 MR. HARO: The ones that you had just
4 answered, I was trying to. And I don't see any
5 other hands raised at the moment here. So I
6 think unless this -- yeah.

7 MR. LOYER: Oh. Okay.

8 MR. HARO: I don't see anything else. I
9 don't know if --

10 MR. LOYER: All right, if there's no
11 other questions, I'm going to go one more time
12 over -- let's see. I might just get this. I
13 have too many windows open at the moment. Let's
14 see.

15 MR. HARO: (Indiscernible.)

16 MR. LOYER: Oh, go ahead, Matt. Sorry.

17 MR. HARO: I was going to say, just real
18 quick while you're -- before you do that, with
19 regards to the question we got at the beginning,
20 we have about -- we had about 70 attendees today.

21 MR. LOYER: Yeah. I've got 72.

22 MR. HARO: Yeah.

23 MR. LOYER: And give on the panel.

24 MR. HARO: Oh, we did have one more
25 question coming through the Q&A box. The

1 question is, "So the AHJ is responsible for
2 contacting the CEC commissioning agent; correct?"

3 MR. LOYER: No. The AHJ is not
4 responsible for any of this. The AHJ may contact
5 the provider to verify the documents that they're
6 seeing are real. And there's a means by -- each
7 provider has a sort of different approach to it
8 but they're all, basically, the same. You
9 contact the provider, give them the critical
10 information, and they'll tell you over the phone
11 or via email whether those documents are real.
12 So they're not responsible for it.

13 The only thing that they're responsible
14 for is collecting the form and verifying that it
15 is visually real, that it hasn't been altered,
16 that it has the logos and the watermarks on it as
17 appropriate.

18 So the CEC formal approval requirement
19 here, we will be bringing this to a business
20 meeting either in March or April, hopefully
21 March. The Staff Report will be published,
22 hopefully, later in January. We have the public
23 workshop today.

24 We will be taking comments now. The
25 comment period will not end on January 28th. It

1 will be extended. But we will -- if you do want
2 to submit written comments, either supporting
3 this effort or with further concerns for us to
4 address, please feel free to do so. We'll take
5 both. Actually, we like both. And remember, our
6 Docket Number is 20-ATTCP-01.

7 And so we have plenty of time here. If
8 we have no other questions here and no other
9 hands raised --

10 MR. HARO: We just got one more hand
11 raised here.

12 MR. LOYER: Okay.

13 MR. HARO: Tony Barbano, I am going to
14 allow you to talk. Please go ahead and un-mute
15 yourself.

16 MR. BARBANO: Yeah. Can you guys hear me
17 okay?

18 MR. LOYER: Yeah. Go ahead, Tony.

19 MR. BARBANO: Okay. I just wanted to
20 expand on the other question about the
21 commissioning agent. So I know you went over it
22 but I think it missed it. How exactly do they
23 know to show up at a certain job? Like who is
24 the one that calls them and lets them know?

25 MR. LOYER: Oh, so it's not the

1 commissioning agent I think you're asking about.
2 And definitely stay un-muted, Tony, so let me
3 make sure I got this right.

4 MR. BARBANO: Yeah.

5 MR. LOYER: So you're not really asking
6 me about the commissioning agent. You're asking
7 me about the QA agent.

8 MR. BARBANO: Yeah. Yeah. Sorry. I
9 apologize.

10 MR. LOYER: Okay. All right. Yeah.
11 Good. Good.

12 So it seems a little complex because it
13 is. It's more complex than what it has been.
14 But each ATT and their employer has to bid on a
15 job. And once they bid on that job, they have to
16 actually disclose that they've won a job to the
17 ATTCP, who keeps this information extremely
18 private. They don't tell anybody this
19 information that they've got.

20 But at that point, once they tell the
21 ATTCP they've got this job, they have to actually
22 predict when they're going to do the acceptance
23 testing. So the ATTCP has a date by which they
24 expect an acceptance test to be performed on that
25 date. Now as that date draws closer, of course,

1 you know, nothing goes to plan originally --

2 MR. BARBANO: Right.

3 MR. LOYER: -- in any project. I've
4 never seen any project go, you know, right down
5 to a date six months -- you know, predicted six
6 months earlier. That's nutrients. But as you
7 get closer and closer to that date the ATTCP,
8 basically, reminds you that, hey, we have this
9 date coming up. And they have a 24-hour ahead
10 reminder saying tomorrow, you've told me that
11 tomorrow, you're going to be doing an acceptance
12 test. And that's all they ask. They just ask
13 you to verify that tomorrow you are doing an
14 acceptance test. And if, basically, regardless,
15 if you say, no, then they take -- they ask you
16 for a new date and they register that new date.

17 But if you don't reply or if you reply,
18 yes, then your project is now in the pool that
19 could go to an onsite inspection.

20 MR. BARBANO: Got it.

21 CHAIR LE MONS: And that's when the QA
22 agent may be dispatched to your locale.

23 MR. BARBANO: Got it. Thank you.

24 MR. LOYER: No problem.

25 MR. HARO: Okay, we did have one more

1 question come in through the Q&A box. It says,
2 "The Title 24 acceptance testing is just that,
3 acceptance testing. You used the term functional
4 testing. And I'm not sure why as commissioning
5 is different than acceptance testing."

6 MR. LOYER: Yeah, there is, definitely,
7 this sort of confusion of terms between
8 commissioning and acceptance testing.

9 Very traditionally commissioning -- well,
10 it's hard to say traditionally with
11 commissioning. Commissioning has really not been
12 a part of the lexicon that long. And neither has
13 acceptance testing, for that matter. But,
14 basically, these two ideas sort of, you know,
15 overlap pretty significantly.

16 So we should really start with what we
17 see as commissioning. We see commissioning as a
18 commissioning agent that completes the required
19 documentations for commissioning, which there are
20 some. Many people don't know that. So we do
21 have commissioning forms that must be completed
22 prior to the project being -- even submitting
23 documents to the AHJ.

24 So the commissioning agent, basically,
25 goes from the -- takes the project from cradle to

1 grave to verify to make sure that the compliance
2 plan for -- or the plan for complying with the
3 state regulations is followed and modified as
4 need be throughout the project life.

5 Now part of that can be that the
6 commissioning agent can perform the acceptance
7 testing. And that can be -- the acceptance
8 testing, in terms of what is required in code,
9 consists of the two parts, the construction
10 inspection and the functional test. But in a lot
11 of respects the commissioning agent is
12 continually doing construction inspection. And
13 so a lot of the times what has happened is the
14 commissioning agent performs the construction
15 inspection throughout the entire process and
16 then, in some instances we perform a functional
17 test, if not the state-required functional test.

18 So there is this definite confusion of
19 when that is to happen and what is to happen.
20 But, when it comes to lighting controls and
21 mechanical installations, the requirement will be
22 for both, that you have an ATT certification to
23 perform or to document, may be a better way to
24 think about it, to perform the acceptance test
25 and to document those results through the ATTCP.

1 So right now, an ATT is not allowed to
2 delegate the responsibility of performing the
3 acceptance test to another person. That has to
4 be the ATT that performs that acceptance test.
5 So if you are a commissioning agent, your
6 experience can qualify you to be an ATT.

7 So with that, you can also -- I should
8 also say that the commissioning agent can be the
9 acceptance test technician, the ATT. It can also
10 be the acceptance test employer, the ATE. And
11 they can be both in the same person, so both can
12 -- both -- one person can hold both an ATE and an
13 ATT certification. And that's important just
14 because of who has responsibility to do what?
15 But the commissioning agent can do the functional
16 testing as long as they're certified to do it.

17 So, yeah, there is a little bit of
18 confusion because it's a little bit confusing.

19 MR. HARO: Okay, Joe, that takes care of
20 all the Q&A boxes. And I see no more hands
21 raised at this time.

22 MR. LOYER: Oh, shoot. We're not going
23 to be late enough for the Staff meeting. Darn
24 it. We have an 11 o'clock Staff meeting.

25 So I guess with that, we can go ahead and

1 end this workshop, unless anybody has any further
2 questions?

3 MR. HARO: Yeah. We have a hand raised.

4 Lori Schiavo, I apologize if I butchered
5 your name. I'm going to allow you to talk.
6 Please go ahead and un-mute yourself.

7 MS. SCHIAVO: Hi. Sorry for the last
8 minute. Just one quick question.

9 You said we're going to be able to
10 receive a reporting. Is this something we can
11 post to our Title 24 informational section on our
12 websites?

13 MS. LOYER: Absolutely.

14 MS. SCHIAVO: And then --

15 MR. LOYER: I think probably the better
16 way to go is link to it. But --

17 MS. SCHIAVO: Perfect.

18 MR. LOYER: -- I don't think you can
19 actually copy it off our website, but I'm not 100
20 percent sure. But, yeah, either way is fine.

21 MS. SCHIAVO: Thank you. Sorry.

22 MR. LOYER: That's okay.

23 So we'll be sending out, basically, a
24 notification when the Staff Report is available
25 and when this reporting has been posted.

1 Okay, yeah, and Amber has got her hand
2 raised.

3 And when the transcript is posted, as
4 well.

5 MR. HARO: Hey, Joe, I'm having
6 trouble --

7 MR. LOYER: Oh.

8 MR. HARO: -- un-muting. Oh, did we lose
9 her?

10 MR. LOYER: Let's see.

11 MR. HARO: I lost the hand raise.

12 MR. LOYER: Oh, okay. Okay, let's see,
13 it seems -- well, you'd think there was an easy
14 way to do this.

15 MR. HARO: Yeah. You just have to scroll
16 around to try to find any raised hands. I don't
17 see Amber anymore. But I do see Art, Art Phend.
18 Just give me a second here.

19 Okay, Art, please go ahead and un-mute
20 yourself.

21 MR. PHEND: Yes. Thank you so much for
22 taking my question. I did intentionally raise my
23 hand this time.

24 I wonder if third-party acceptance
25 testing falls within the intent of the acceptance

1 program. Because I have done -- been doing
2 acceptance testing for some time for small mom-
3 and-pop shops that are doing individual PIs. And
4 they don't have the ability to get certified,
5 really, or have the equipment to do their own
6 testing. And it seems like there's a real need
7 for that. So as a third-party tester, I've been
8 a HERS tester for some time, I've been providing
9 that service to my clients.

10 MR. LOYER: So -- and I can tell you in
11 lighting controls there are more than one
12 company, I should say, that that's all they do is
13 provide third-party acceptance testing for
14 lighting controls. I expect that there will be
15 something similar happening for mechanical. The
16 provision is that it's not required under Code.
17 So it can still be the first party of the
18 technician who performed the installation. They
19 can still do their acceptance testing if they
20 want to do that.

21 But we don't have a restriction against
22 going through a third party if a company looks at
23 their bottom line, like you say, a mom-and-pop
24 shop that decided that, well, we just don't want
25 to send -- we can't afford to send somebody to

1 acceptance testing training and then have them
2 potentially walk away, or maybe they just cannot
3 afford the time away for that person from the
4 business of running the business.

5 So in those situations, yeah, it's
6 perfectly acceptable and legitimate to go and get
7 an ATT as a third party, absolutely.

8 MR. PHEND: So may I ask a second related
9 question?

10 MR. LOYER: Sure.

11 MR. PHEND: In a case like that, who
12 would be expected to be the responsible party and
13 who would be, in your opinion, would be
14 responsible for payment? Who is actually your
15 employee when you're the third-party acceptance
16 tester?

17 MR. LOYER: That's a really good
18 question. It depends. So employee-employer
19 relationship really depend on who hired who for
20 what job. So if a mom-and-pop shop hired the ATT
21 themselves just to say, okay, we're just going to
22 have this relationship with this particular
23 individual, when we need acceptance testing,
24 we're going to call their shop and have them send
25 somebody over, that's a contractual relationship

1 between them.

2 If the project site, basically, wants a
3 particular shop to do acceptance testing for them
4 as a third party, then the general contractor or
5 the engineer or architect, whoever hired them for
6 that purpose, they're the employer.

7 Now, who is the responsible party?
8 That's a completely different question. And that
9 requires who is actually eligible to be the
10 responsible party? The responsible party --

11 MS. SCHIAVO: Right.

12 MR. LOYER: -- is typically the
13 architect/engineer on larger projects. But it
14 can be the contractor on very small projects who
15 is -- basically, it's whomever has put together
16 the NRCC documents that are approved or the
17 permit application documents that are approved by
18 the AHJ. That is typically who is going to be
19 the responsible party. Oh, and it can also be
20 the property owner.

21 MS. SCHIAVO: Excellent. Thank you for
22 that clarification. Appreciate it.

23 MR. LOYER: Oh, my pleasure. Yeah, I
24 know that responsible party, these terms can be a
25 little confusing with these -- with the forms.

1 MS. SCHIAVO: So in general, you would
2 say the responsible party is either the
3 mechanical engineer or the contractor?

4 MR. LOYER: Well, in general, for the
5 larger projects, we're looking at the architect
6 and the engineer. Either one of them can play the
7 role of the responsible party. But in smaller
8 projects it can be the contractor. In larger
9 projects the contractor is usually not the
10 responsible party.

11 MS. SCHIAVO: Right. Scope of the
12 project has a big factor in determining who is
13 the responsible party then?

14 MR. LOYER: That's right, exactly right.

15 MS. SCHIAVO: Thank you again.
16 Appreciate this presentation.

17 MR. LOYER: No problem. Thank you, Art.

18 So I'm not seeing any more hands raised.
19 And I don't see any more comments in the Q&A.

20 Matthew?

21 MR. HARO: Just the second you said that,
22 Chris Walker spoke up. We have -- if you open
23 your Q&A box, it's a little long.

24 MR. LOYER: Yes. Yeah. All right, fine,
25 I'll read this here.

1 "So nonresidential" -- spelled wrong --
2 "is different than residential when it comes to
3 third-party verification discussions. In
4 residential service the balance of interest is
5 not always as sophisticated as nonres and a third
6 party may be appropriate. In nonres it's 100
7 percent the financial interest of both the
8 contractor and the owner that the systems are
9 installed properly and function as designed.
10 Third-party verification isn't necessary."

11 And that's true. It's 100 percent true.
12 Yeah, third-party verification isn't necessary,
13 isn't required, but it is allowable.

14 MR. HARO: Okay, I see no more hands
15 raised. And the Q&A box is cleared.

16 MR. LOYER: All right. Very good. All
17 right. So I guess that will be the end of this
18 workshop. I want to thank everybody for
19 participating in this, and especially the
20 questions I got. There were a lot of really good
21 questions. In fact, I think all the questions
22 were really good, so I very much appreciate your
23 interaction.

24 And I will remind everybody that the
25 Staff Report will be out later in January,

1 hopefully, knock on wood. And we will,
2 hopefully, get a lot of these remaining issues,
3 there's only one or two left, before we start our
4 outreach program with the -- starting with the
5 AHJs.

6 Additionally, if anybody has any kind of
7 group meeting of any kind that they feel that
8 group would benefit from a presentation such as
9 this, we are more than happy to engage with you
10 and come to those meetings and make those
11 presentations. So, please, if you do have
12 anything that you feel that we should be alerted
13 to in terms of a presentation opportunity, please
14 let us know.

15 And with that, we will go ahead and end
16 this meeting. All right. Thank you everybody.

17 (The workshop concluded at 11:13 a.m.)

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CERTIFICATE OF REPORTER

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of January, 2021.



MARTHA L. NELSON, CERT**367

CERTIFICATE OF TRANSCRIBER

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

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

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



MARTHA L. NELSON, CERT**367

January 20, 2021