Final Transcript September 4, 2019/1:00 p.m. PDT

**STATE OF CA-DEPARTMENT OF GENERAL SERVICES:**

**CALGreen Public Stakeholder Meeting**

**SPEAKERS**

Ida Clair

Peter Strait

Dana

Enrique Rodriguez

Alice

Cory Boltz

Hannah Goldsmith

Bob Raymer

Francesca Wahl

Josh Jacobs

Pat Long

Cassidee Kido

Yirui Liang

Denise Youmans

**PRESENTATION**

Moderator Ladies and gentlemen, thank you for standing by. Welcome to the Cal Green Public Stakeholder Meeting. At this time, all participants are in a listen-only mode. Later, we will conduct a question and answer session. [Operator instructions]. As a reminder, this conference is being recorded.

 I would now like to turn the conference over to our host, Ms. Ida Clair. Please go ahead, ma’am.

Ida Thank you, Greg. I’d like to welcome you all to our Green Code Forum for K-12 public schools and community colleges. This is the intervening code cycle and I think it’s fairly new for us in the Green Code, usually we do the [indiscernible]. But, we do know that the Green Code changes quickly. Technology always changes quickly so we want to make sure that we’re abreast of all the requirements and it makes it easier for everyone to comply.

 Again, this is the Green Code Development for K-12 public schools and community colleges for DSA. We have three provisions on the agenda. Prior to getting started I’d like to do introductions in the room, and on the phone. I am Ida Clair, I’m the Acting State Architect, and the Principal Architect for here at DSA, and currently.

Peter My name is Peter Strait. I’m with the California Energy Commission, part of our Building Standards Team and I’m here to answer any questions about the provisions that are adopted by or drafted by the California Energy Commission.

Dana Dana [Indiscernible] with the California Air Resources Board.

Enrique Enrique Rodriguez, California Building Standards Commission.

Alice Alice [speaker off-mic].

Cory Cory Boltz [ph] with the Electric Vehicle Charging Association.

Hannah Hi, Hannah Goldsmith with the California Electric Transportation Coalition.

Ida That’s who we have in the room. Is there anyone on the phone? Please introduce yourselves.

Bob Bob Raymer with California Building Industry Association.

Francesca Francesca Wahl at Tesla.

Josh Josh Jacobs from Underwriters Laboratories, UL.

Pat Pat Long, California Air Resources Board.

Cassidee Cassidee Kido, Energy Solutions.

Yirui Yirui Liang, California Air Resources Board.

Ida Do we have any attendants on the phone? Anyone else? Thank you. We will be introducing each of these provisions individually, the three. The Building Standards Commission does have other provisions that they are moving forward but we are only presenting today those that we co-adopt. For K-12 public schools and community colleges these provisions are requirements for mandatory measures for electric vehicle charging, light pollution reduction, and carpet systems and resilient flooring systems.

 The voluntary measures, just to remind you, is for California K-12 public schools and community colleges, we have select mandatory measures; we don’t adopt all of them for non-residential construction. Those that we don’t adopt, schools can choose to voluntarily adopt those to provide more greener, sustainable environment. And then of course the voluntary measures can also be adopted and used. So, if you have questions on those today, we do have staff here. I’m joined again by Enrique Rodriguez with the California Building Standards Commission, who is in charge of the Green Code, and with Peter Strait, with the California Energy Commission because they are here to assist me today. These are actually standards that are proposed by BSC that we’re co-adopting so they will be able to answer a lot of your questions.

 That being said, I’d like to acknowledge two comments that I received in writing since we sent out this notice. One is from Josh Jacobs, with Underwriters Laboratories. Josh, I believe you’re on the phone. And also we received comments from Wes Sullens, the US Green Building Council. So, we have those documents in our record, and I just wanted to acknowledge that we have received those comments.

 To not delay any further, we’re going to start with the requirements for electric vehicle charging. Can you bring up the EV charging requirements, Sean, please? So the requirements actually increase the requirements from 6% to 8% of number of EV charging spaces required. In summary, BSC, Building Standards Commission, and of course DSA, in this co-adoption, is proposing to increase the percentage of EV capable parking space infrastructure for inclusion in the 2019 Cal Green Code for mandatory and voluntary measures. I wanted to call the attention that this is for new construction only. For schools, it is also the addition of any new parking areas in which this applies.

 BSC is proposing an allowance of the code for an energy management system for EVSC which will allow for charging more vehicles with less power usage. This will alleviate the burden for non-residential parking garages and other occupancies with large parking lots to comply with the current code that requires full capacity charging at 40 amps per vehicle. Allowing the vehicles to be charged at less than full capacity or less than 40 amps per vehicle via an energy management system for EVSC is a good option for promoting wide-spread adoption by business owners. These amendments will add consistency between mandatory and voluntary provisions.

 Additional changes include a note stating that future electric vehicle charging spaces shall be considered parking spaces and for total parking spaces required by the local enforcing agencies, which will alleviate confusion that sometimes require extra parking stalls and not counting the future EVSC spaces in the total parking calculation.

 With that, we will take comments in the room. Dana?

Dana Well, CARB staff definitely supports advancing these [background noise] provisions in the Cal Green Code. We actually provided comments to Building Standards Commission during the August 20th public workshop. We do recognize there is still going to be a gap in the amount of infrastructure needed statewide to meet the demand for the number of vehicles that are going to be on California’s roads by 2025. We are actually proposing that the percent requirement be 10% as the mandatory, minimum mandatory threshold, and then 15% and 20% as the voluntary tiers. That would be consistent with the multi-family provisions and also meet the needs to help fill that gap in the EV charging infrastructure.

 But what we’re actually seeing is that only about 30% of these EV capable spaces are being converted to actual charging stations. What we really need over time are not just EV capable spaces but the actual chargers. So, we are also asking for a second proposed change for installation of at least one level 2 charger.

 And then third, if we rely on this infrastructure to only go in new construction, then we will be missing out on all the existing buildings around and we do need infrastructure in those existing buildings as well. And there are a couple of cost-effective trigger points where you can install that infrastructure in existing buildings. One being new parking, one being if you’re going to be repaving a parking lot it’s pretty easy to put the infrastructure in place at that time. And then third, if you are upgrading your panel that is another cost-effective trigger point to go ahead and put in the panel capacity at that time. We wouldn’t be asking for the [indiscernible] with the panel capacity upgrade but at least the panel capacity for 10% of the parking spaces as the minimum mandatory requirement.

 So, we’re asking for those three proposed code changes for DSA is consistent with what we’re asking for the Building Standards Commission. We are working on a technical analysis to support these code changes that we would be happy to share with you.

Ida Thank you, Dana. Cory?

Cory I would just like to align myself with a few things that Dana was pointing out in particular the 10%, 15% to 20% percentages. What she was referencing on the shortfall is actually an Energy Commission calculation and we’re projecting these with various construction modeling tools and they’re projecting 8,000—or we will be 80,000 chargers short of our 2025 goal. And our goal is 250,000 chargers. So, that’s why we feel we obviously aggressively support trying to get as much infrastructure out there as possible.

 I’d like to align with her comment on alteration or existing infrastructure requirements or when you’re conducting retrofits. We think this is going to be in line, actually, with legislation that could be soon signed by the governor, 8684 [ph] by Assembly Member Levine. It has no opposition at this point and calls for [indiscernible] system infrastructure standards on the EV Readiness Measures side. So, we think that will actually be in line with that legislation if it does get signed and I’m [indiscernible].

Ida Thank you, Cory.

Hannah I would also like to align my comments with Dana and Cory. We prefer the 10% minimum [background noise], and 20% for the voluntary tiers.

 I did want to touch on the energy management language as well. So, we are uncomfortable with that exception the way that it is currently worded because there is no minimum amperage that would be required to be serving each of the parking stalls which could in essence result in a very low amperage and that would be a really horrible customer experience if their car is not charged in the way that they expect it to be charged. So we would like to work with you further on that, and we agree that it’s time to address existing developments.

 We’re actually working on a study right now in partnership with Tesla and ChargePoint to look at the cost-effectiveness of installing EV capable requirements when you retrofit or [speaker off-mic] and compared to retrofitting those existing developments just to put in EV charging. It’s much more cost-effective to do that when you’re replacing the parking or re-paving or during certain [speaker off-mic]. But, it’s not across the board and that’s what we wanted to look into to ensure that the triggers are appropriate. So, we’d be happy to discuss that study with you as well and we’d be happy to [speaker off-mic] draft right now. And so those are our main comments as well.

Ida Thank you, Hannah.

M I’ll just follow on supporting increasing the percentages to 10%, 15%, 20%, respectively, [indiscernible] ChargePoint. And then yes, as Hannah mentioned, we are working on the study that I think supports trying to focus on potential upgrades for existing buildings because I think that’s going to be an important gap, like [indiscernible] ambitious goals is EV infrastructure by 2025. So I think it’s critical that we look at existing buildings as well where possible.

 The only thing that I’d flag that might be a little bit different for ChargePoint, from ChargePoint’s perspective that it would be great if we would include at least one charger that would be a Smart Network charger, and that’s going to be really critical for managing load and thinking about the future of where the technology is going. We want to be sure that the customer experience is considered in this, so having a Smart Network charger would make it easier for customers as well as for the site.

Ida Thank you. Cory?

Cory Just jumping back in, Hannah reminded me a thing that she touched on related to amperage requirements that exception, that is also a concern for us. I intentionally [ph] want to drive home this idea of the driver experience or the customer experience. The way we see the language written right now the amperage requirements become low, or so low, because you have no minimum there. It potentially creates a scenario where a driver plugs in and then it could take a couple days to charge, basically would get no charge out of their time at that building. We think that’s a disservice for them as a driver and their interest in adopting EV. So, I’ll just add on to that.

Ida Thank you, Cory. We’ve had someone else join us in the room. Would you like to introduce yourself please?

Denise Sure. My name is Denise Youmans, I’m with LCA Architects.

Ida Thank you, Denise. Denise, we just made the presentation on the electric vehicle charging, increasing the requirement from 6% to 8%. We are also requiring energy management systems to regulate the load. Do you have any comments on this provision before we move to the phones?

Denise No.

Ida Thank you. For those on the phone, Greg, before you release the lines, I do want to remind individuals on the phone to please introduce yourself again prior to making your comment. There is a transcript provided with this service on the teleconference and so it’s very important that your name is captured and that you speak clearly. Greg, could you please release the lines for anyone who has comments on the phone?

Moderator Thank you, Ms. Clair. All lines are now open.

Bob We support the DSA proposal. Given the testimony that was provided when the Building Standards Commission had the related hearing, with regards to the capacity exceptions and all that, we recognize there may need to be some fine-tuning of the language. We’re certainly open to that. Anyway, that’s my comments. We support the proposal.

Ida Thank you, Bob. Is there anyone else on the phone that has a comment with regard to this provision?

Francesca I just wanted to echo the comments around the language on the load management piece. I think we’re in a similar position where we have concerns with the provision lacking any sort of minimum requirement so we would also look to work on that particular language and ensure to actually achieve the goals that it’s intended to achieve rather than lowering and having any unintended consequences in terms of the existing requirement.

Ida Thank you, Francesca. Do we have any additional comments from the telephone?

Cassidee I would also like to echo support for the 10%, 15% and 20% levels and the requirement for at least one EVSC installed onsite.

Ida Thank you, Cassidee. Are there any additional comments on the phone? Hearing none, we will close this topic for discussion.

Enrique I have a question, and maybe for both for Alice [ph] and Francesca. If the recommendation is to have at least one installed charger, one of the comments is a Smart charger. Can you explain how that works?

W Yes, it’s just having a charger that’s networked [speaker off-mic] charger that you just plug it in and there’s no connection to a network and app. So, I can see a charge-like model [ph] where we’ll have an app to see where there’s available chargers that’s out there that [speaker off-mic] waiting list if you want to get into one. And that’s for public chargers.

 So for private ones, you would have a screen that’s showing you how much time you have, what the charge is, etc. It’s a network so the [speaker off-mic], utilities, etc., are able to get feedback on the energy usage, time of day, when they’re using it. And [speaker off-mic] can also change pricing to time of use rates, things like that.

Enrique Does that come with the—

W [Speaker off-mic] yes. And then also for private usage there’s also one for public usage. There’s varying technologies that you can get with them.

Enrique That’s good. We’re also gathering information looking at some of these proposals from the industry.

 The other question was the comment that one, install at least one, and what comes to mind, especially for DSA is as soon as you install one, it has to be van accessible. And so I guess the question is, is the [indiscernible] community going to have an issue or is there going to be an issue with that one that isn’t installed has to be fully accessible and will you have competing folks trying to get to that one?

Ida So at this time, anything that’s under four is open for access already. So, if a reserved van accessible stall does not tick in until there are five or more, so it does need to meet van accessibility requirements but it is unreserved at this time if there are less than four provided. So, it would be handled essentially the same way. It’s generally handled in terms of time extension that it takes to charge. It’s not reserved for parking unlimited. None of those provisions apply to electric vehicle charging.

Enrique So let’s say you had where you require ten chargers, I guess, or as you get to the larger numbers, would the proposal still be to only have one? Would there be an issue with only having one once you get to the larger numbers and they need a dedicated, one with an—

Ida Right. So, the accessibility provisions apply once the chargers are installed. Even though there may be enough capacity to charge ten and you’re planning ten, if you’re only installing one, it’s universal access. In other words, it’s not reserved. Once you install five, once you’re at five, one of the accessible stall needs to be reserved and then there’s an additional stall that’s accessible that can share an access aisle that’s unreserved.

 So, there are requirements that come in, but they’re only when chargers are installed.

Enrique Right, but this would require, the proposal would be to require one.

Ida Right. The requirements would need to be—it would need to be van accessible.

W Are you envisioning [speaker off-mic] where’s 100, 200 spots and you want to require more than one—

Enrique Well, yes, I’m just looking at is there issue with DSA meeting DSA’s provisions if Cal Green, if they decide to go that way.

W Yes.

Enrique What are the ramifications or unforeseen consequences of proposing something like that?

Ida Yes, and I don’t see that there are just because the regulations at this time only address when chargers are installed based on the charger number. In our current development for access code for intervening sub-cycle [ph], we are planning to address performance [ph] features of the unit, but it’s only ones provided, ones provided to everyone. It’s just when you’re getting more variety in how you’re applying your charging and more chargers, there may be an issue there in our current development proposals. But, we’ll have to see how they move together to make sure that it’s covered.

Hannah I think as [speaker off-mic] mentioned, we’re also supportive of the at least one charger being installed concept. On that issue, [speaker off-mic] has long been supportive of both Smarts and [background noise]. We’ve been supportive of both so that’s something that will [speaker off-mic] have a recommendation right now but there are benefits to both options. We’ll need to think through that.

 And we’d also like to maybe have a separate meeting with you on some of the overlap between this code and access.

Ida Thank you. Are there any other comments in the room regarding this provision? Once again, I’d like to open the phone up again to see if there’s any additional comments based on what was recently commented again in the room. Anyone?

Francesca Just to piggyback on the comment around the charger requirement, I would echo Hannah’s sentiment there. To some extent, I think it’s very use-case dependent, so perhaps it’s a performance-based line or something like that in terms of what you’re looking for. But, I would be careful in terms of setting certain technology requirements and going too deep in that in a code versus staying more true to a performance pathway. So, happy to also brainstorm a little bit more on that and what that could look like.

Ida Any other comments on the phone regarding electric vehicle charging infrastructure? Sean, if you could bring up the second provision, thank you.

 So, this next provision is in Section 5.106.8, mandatory measures light pollution reduction, applicable to new construction. I’ll give you a minute so that they can capture my words without [overlapping voices]. Thanks for coming.

 So, 5.106.8 light pollution reduction, also applicable to new facilities, and the requirements—Peter, why don’t I give you the opportunity perhaps to explain what this provision change requires.

Peter Sure, so this is mainly a clarifying change. We’ve done two things. One, we brought over a scoping limitation that was in Part 6 and to Part 11 related to BUG requirements, which was a lumen threshold. And this is an update to a threshold of a previously wattage threshold that has been around since the beginning, the first adoption of these. So, the original threshold was 150 watts, translated into lumens it was roughly 5,500 lumens. Accounting for lumen maintenance, therefore, we put a line of 6,200 initial lumens, below which you aren’t required to worry about BUG rating.

 Now this was in Part 6. Part 11 did not include that but it did include some provisions that said the light was accepted by Part 6 is similarly accepted under Part 11. So, we want to true up that language and make sure that everything that Part 6 is exempt from—BUG light requirements is similarly stated as exempt in Part 11.

 The second change that we did is that the table that’s in that section had two footnotes, footnote 3 and footnote 5. The language in these was unclear and it made it unclear when backlight restrictions and glare restrictions became applicable to a luminaire. And, whether the way that the orientation could be—the way the luminaire is oriented affected whether and which increased backlight glare ratings would apply to the unit.

 So, we took that language and moved it into section language and made it clearer when they apply. We don’t see this as being a substantive change, in that it hopefully better reflects the intent of the original authors and of the provision language itself. This does have the effect, though, of clarifying that when a luminaire is located near property boundaries that it should be faced away from that boundary and backlight requirements are going to apply. And that if it’s nonetheless [indiscernible], if there’s still a property boundary that extends in front of that luminaire, that’s when glare requirements apply.

Ida Thank you, Peter. In the room, are there any comments? No comments here in the room. Let’s open the phone up to comments. Any comments on the phone regarding this issue with light pollution reduction and the BUG requirements? Hearing no comments, we’ll come back to the room. Enrique?

Enrique I just wanted to comment on this. Since our August 20th meeting, we’ve had communication or affirmation from the folks that made original comments to this and had suggestions and were involved, did reach out to Peter stating that they’re very pleased with this proposal and that it has really cleared up a lot of the concern that they had and confusion out there by the industry.

Ida Thank you, Enrique. That being said, we’ll close this item with no further comment and move on to our third and final comment that is for the mandatory measures required for K-12 public schools and community colleges. We will have an opportunity to comment on the voluntary measures if you so desire. Thank you, Sean.

 So, the next issue is, for the mandatory measures, 5.504.4.4, carpet systems. This change is changing the compliance specification to the standard methods for the testing and evaluation of volatile organic chemical emissions from indoor sources using environmental [indiscernible], 1.2 2017, and then also in Section 5, changing the requirement to California High Performance—is that what it’s [overlapping voices] for criteria 2019.

W [Speaker off-mic].

Ida Are there any comments with regards to this change to carpet flooring systems in the room? Hearing none, on the phone.

Bob We support the updating of the reference standards. Thanks.

Ida Thanks, Bob.

Josh Again, thank you for the chance to comment. We sent in written comments very similar to the ones for the August 20th meeting of BSC, so you’ll notice that they’re very similar, so hopefully these things get aligned.

 We do support updating to the latest CDPH/EHLB/Standard Method 1.2. That is a very good move for the standard being that it has been updated, the chemical limits and everything.

 The only issue we do have is how currently written for this section could be fairly confusing to architects, designers, specifiers, builders, building owners and operators and schools because a couple of the listed certification or standards or databases that you have don’t actually have any carpets in them. Again, we detailed this in the letter so you can have it all written down there. But again, there are standards that are being listed that do not currently have carpets in them. So, again, they’re referencing other listed requirements in here, it’s duplicative. So, we hope that gets cleaned up for ease of use because again it can be very confusing when you go to a listed standard and you’re looking for carpets, and there are none. Again, that is our first concern.

 The second thing we do propose some other updates similar to what we sent in to the BSC. We hope that those are heard obviously for the overall code. We believe that they’re also able to be met by the schools and the community colleges, so K-12 schools and community colleges. So, there should be no worry in terms of finding products for those proposed changes. We hope that there’s an opportunity to work with CARB and other stakeholders in the State of California on those potential changes.

 Again, thank you very much and any questions I can certainly answer them at any time. Thank you.

Ida Thank you, Josh. Enrique, did you have a question for Josh?

Enrique Josh, you’re proposing to maybe just have one reference about these CDPH standards? Is that accurate?

Josh Believe it or not, there’s two. Number one and number two are probably—number one, number two and number three are probably your pathways. So, number one is the Carpet and Rug Institute’s Green Label Plus program. It’s actually the most utilized product emission standard on the planet. And, it actually meets and exceeds the CDPH standards, so I think that would be fine. The CDPH standard does have a carpet concept in it. Most carpets, like I mentioned, go through number one.

 Number three is the State of California through DGS actually requires all carpeting in the State of California to meet NSF 140, which has a requirement in its upper levels as listed here to meet basically the Green Label Plus program. So, those three, I think, would be fine.

 Again, as I detail in my comments, number four, that program that you list doesn’t have any carpets certified to it. So, listing it, I think is quite confusing.

 Number five, the CHPS score criteria, it simply says to do Green Label Plus. So, you’re duplicatively listing and then you give a database that there are no carpets in. So again, I think four and five might be duplicative of what you’re already listing in the top three.

Enrique Would that be consistent for carpets and also resilient flooring systems?

Josh The resilient flooring systems, I apologize, I’m having some trouble with my computer at the moment, so I’m not able to directly look at the proposal. So, my apologies. Give me one second here as I try and load something.

 Yes, so again, in the Zero Docs [ph] program, the CDPH standard, again it’s a little bit better with the resilient flooring program there. Again, the CDPH standard is simply under the CHPS score criteria. It literally just says do the CDPH/EHLB/Standard Method. And again, listing under the Zero Docs or the database that you list, there are only four resilient flooring products there. And those four products actually got on there by simply giving the test method that is number one.

 So again, that may be some of the duplication that may be confusing at the moment.

Enrique So, for resilient flooring, they would be looking at item number four, three and four?

Josh Four is the GREENGUARD Gold program, so one is FloorScore, which simply says test the CDPH. Number four, GREENGUARD Gold actually has the most certified products to it and as we detail in the letter, actually goes above and beyond the CDPH standard. It actually is more protective of indoor environments. So, I definitely wouldn’t take that out from a standpoint.

 We’re working with CARB on their review. And GREENGUARD Gold is actually already listed in numerous areas of Cal Green at the moment.

Enrique You have that articulated in your proposed changes or your comments?

Josh I should, yes. I did strike through and underline all the code. I work for UL so code language is in our blood, so strike through and underline was the words of the day.

Enrique Thanks a lot, Josh.

Josh Not a problem.

Ida And you said that the letters were similar but the comments that you made were the same in both letters, correct?

Josh They were fairly similar. There were little changes here and there between the two changes, but again, we would obviously like them to match for everything.

Ida We’ll share the letter you shared with us with BSC so that we’re sure we’re capturing. I’m assuming the letter you sent to DSA was changes that were better for more recommendations than what you sent to BSC. Correct?

Josh A little bit.

Ida So then we’ll share the letter with Enrique. Are there any other comments on the phone with regard to the changes of standards for carpets and resilient flooring?

 Hearing none at this time, Enrique, correct me if I’m wrong, for the voluntary measures, which we are not—which are not necessary that we discuss today because they’re not mandatory requirements for DSA, however they are voluntary measures that people can engage in using. I believe the same thing is the standards that were changed and that was it.

Enrique Yes. Pretty much they’re duplicative, just as a different percentage of the material and not the standards. So, whatever changes we make in mandatory will be reflected in voluntary. For DSA, I’m assuming if they wanted to go beyond the DSA mandatory requirements they can use those tier options as well and they would be consistent with mandatory and voluntary language.

Ida Thank you, Enrique. Barring any additional comments from the room, are there any additional comments? Are there any additional comments on the phone regarding any of the provisions?

 Hearing none, I’d like to thank you all for your time today in this public meeting. We will get together with BSC as I’ve stated, these are co-adopted provisions. Thank you, Peter, for your input as well, and we will coordinate to ensure that all the comments that were made at both meetings are actually going to be considered in the changes.

 I thank you all for your participation, and we look forward to formal rule-making activity. Thank you, all. Greg, this is the end of our call. Thank you.

Moderator Thank you, Ms. Clair. Ladies and gentlemen that does conclude our conference for today. Thank you for using AT&T Executive TeleConference Service. You may now disconnect.