

**CALIFORNIA BUILDING STANDARDS COMMISSION
MEETING MINUTES**

December 14, 15, and 16, 2021

Tuesday, December 14, 2021

Agenda Item 1. CALL TO ORDER

Chair Julie Lee called the meeting of the California Building Standards Commission (CBSC) to order at 9:02 a.m. This meeting held remotely, consistent with Assembly Bill 361, (Rivas, Chapter 165, Statutes of 2021) to improve and enhance public access to state agency meetings during the COVID-19 pandemic.

ROLL CALL: CBSC Staff Member Pamela Maeda called the roll.

Commissioners Present: Undersecretary, Julie Lee, Chair
Elley Klausbruckner
Erick Mikiten
Kent Sasaki
Rajesh Patel
Peter Santillan
Juvilyn Alegre
Aaron Stockwell
Laura Rambin

CBSC Chair Julie Lee stated that a quorum was present. She led the Commission in the Pledge of Allegiance and gave instructions regarding teleconferencing and public comments

Chair Julie Lee discusses one special request for Agenda Items 13a, b, and c. CBSC received a request that in the event agenda items 1 through 12c completed before end of day, Wednesday, December 15th that agenda items 13a, b, and c, heard on Thursday, 9:00 am, December 16th.

Motion: Chair Julie Lee entertained a motion to hold Agenda Items 13a, b, and c to be heard no sooner than 9 a.m., Thursday, December 16th. Commissioner Sasaki moved to approve. Commissioner Rambin seconds. Moved and seconded that the Agenda Items 13a, b, and c heard no sooner than 9 a.m. on Thursday, December 16th. Motion carried with 8 yes, 0 no, and 0 abstain, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 2. REVIEW AND APPROVAL OF MEETING MINUTES

Item 2a): Commissioner Santillan stated that he was not present at the November 5, 2020, meeting; is he okay to vote on this Agenda Item?

Viana Barbu, Counsel for CBSC, responded Commissioner Santillan should refrain from voting due to his nonparticipation in the meeting.

Item 2a): November 5, 2020

Motion: Chair Julie Lee entertained a motion to approve the November 5, 2020, meeting minutes. Commissioner Patel moved to approve. Commissioner Sasaki seconded. Moved and seconded that the November 2020 meeting minutes accepted without amendment. Motion carried with 7 yes, 0 no, and 1 abstain, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Alegre, Stockwell, and Rambin. The following Commissioner abstained from voting: Santillan

Item 2b): February 18, 2021

No comments made from the February 18, 2021, meeting minutes.

Motion: Chair Julie Lee entertained a motion to approve the February 18, 2021, meeting minutes. Commissioner Mikiten moved to approve. Commissioner Klausbruckner seconded. Moved and seconded that the February 2021 meeting minutes accepted without amendment. Motion carried with 8 yes, 0 no, and 0 abstain, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 2c): April 22, 2021

Commissioner Mikiten did not attend this meeting on April 22, 2021. No other comments made from the April 22, 2021, meeting minutes.

Motion: Chair Julie Lee entertained a motion to approve the April 22, 2021, meeting minutes. Commissioner Santillan moved to approve. Commissioner Stockwell seconded. Moved and seconded that the April 2021 meeting minutes accepted without amendment. Motion carried with 7 yes, 0 no, and 1 abstain, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin. The following Commissioner abstained from voting: Mikiten

Agenda Item 3. COMMENTS FROM THE PUBLIC ON ISSUES NOT ON THIS AGENDA

Chair Julie Lee stated comments not on agenda discussed briefly by the public, but no action taken by the Commission.

Questions or Comments from the Public:

There were no questions or comments from the public.

Agenda Item 4. EXECUTIVE DIRECTOR REPORT

Executive Director Mia Marvelli discussed the plans for the upcoming Code Cycle. For the last 11 months, the CBSC staff have been administering more than the 40 Code packages from the various State Agencies that have authority to propose or adopt building standards for Title 24.

The Commissioners will take action on approximately 20 rulemakings of the total 45 rulemakings submitted to the BSC. In January, the Commissioners will meet again for three days and take action on the remaining Code packages.

After filing all of the approved final express terms with the Secretary of State, staff collaborates with the various publishers to get the 2022 Edition of Title 24 published by July 2022.

The rulemakings from all the State Agencies for the Supplement will be due to BSC next December 1, 2022, and information provided to the Commissioners regarding deadlines.

Executive Director Marvelli concluded her Executive Report and stated she was available for any questions from the Commissioners.

Commissioner Sasaki began by expressing his great thanks to Executive Director Marvelli and everyone involved in getting to the present point.

Chair Julie Lee thanked Commissioner Sasaki for his comments and echoed them as well. She then opened the item for discussion and stated she would call on each Commissioner individually.

Questions or Comments from the Commissioners:

The following Commissioners had no comment other than echoing Commissioner Sasaki's thanks and appreciation to the staff involved: Patel, Klausbruckner, Mikiten, Santillan, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Agenda Item 5. 2021 TRIENNIAL CODE ADOPTION CYCLE, ADOPTING STATE AGENCY RULEMAKINGS

Chair Julie Lee states Agenda Item 5 contains amendments to the 2022 California Administrative Code, Part 1 of Title 24, and the 2022 California Energy Code, Part

6 of Title 24. As an adopting agency, the California Energy Commission (CEC) approved these regulations at their August 11, 2021, at CEC's commission meeting.

Chair Lee requested the representative from the CEC present himself and explain the proposal for Item 5.

Agency Representative Will Vicent, Manager of the Building Standards Office, representing the CEC gave an overview of the Energy Commission's 2022 Building Energy Efficiency Standards, also known as the California Energy Code, for CBSC approval in Title 24, Parts 1 and 6. The Energy Commission concluded through this process and adopted standards to meet the 9-point criteria enumerated in the Health and Safety Code Subsection 18930(a). He gave an overview of the costs and efficiency standards, along with the highlights of the 2022 Energy Code and the completion of an Environmental Impact Report and extensive transparent public processes between April 2019 and today. CEC requested approval of the 2022 Energy Code.

Questions or Comments from the Commissioners:

Commissioner Mikiten spoke and pointed out a typo in the proposal, section 140.10 and an = sign in between the two sentences in that paragraph, as well as had questions regarding the 70% solar access threshold and the exceptions 1-5, industry standards and references used.

Will Vicent requested Subject Matter Expert Maziar Shirakh to answer the questions. Maziar Shirakh explained the 70% solar access threshold that is industry standards and cost effective. If the solar access drops below 70% then the PV will not be cost effective, and it was historically in 2013. When CEC developed the solar access criteria is for the roof that 70% identified back in 2013 standards.

Commissioner Klausbruckner made a comment regarding Form 399 attachments that the cost per square foot that is on page four does not differentiate between small businesses and larger businesses but good for the industry.

Commissioner Santillan made a comment and question regarding Form 399 on questions 4 and 6 specific about job loss.

Peter Strait answered this question stating jobless estimate comes from the figure primarily from a proposal related to updating and lighting power allowances and the proposal that we received included a worst-case estimate of jobs impacted, based on a simple calculation.

Commissioner Sasaki commended the Energy Commission's efforts and then went onto make comments regarding the proposal and the Commissioners' responsibilities. The proposing state agencies have commission action matrix tables that show the code changes and went through the building standards process with the Code Advisory Committee (CAC). The Energy Commission has

authority to own their rulemaking process because they are an adopting agency.

Mia Marvelli responded Commissioner Sasaki summarized it well. CEC is an Adopting Agency and have authority to run their own rulemaking process and their commission needs to approve the rulemaking before submitted to CBSC. She read the Health and Safety code 18930.

Viana Barbu, Counsel for CBSC, commented, Mia summarized it well. The purpose of coming to CBSC is for publication purposes only.

Commissioner Rambin complimented the Energy Commission on their very robust proposal details.

Commissioner Mikiten had one more question regarding reformatting the table for accessibility.

Peter Strait answered and stated they are working on the nested tables navigating through the accessibility issues.

The following Commissioners had no comment: Patel, Alegre, and Stockwell.

Questions or Comments from the Public:

Laura Petrillo-Groh representing the Air Conditioning, Heating, and Refrigeration Institute (AHRI) commented. AHRI is the National Trade Association of 333 manufactures of residential and commercial heating, ventilation, and air conditioning equipment, water heaters and commercial refrigeration equipment. She thanked everyone for their efforts, but did request disapproval of Title 24, Part 6, and send it back to the Energy Commission to address the Health and Safety code and other criteria. This implementation does not permit a builder to select products needed it focuses on establishing energy efficient building codes. The proposal exceeds that authority by eliminating access to equipment, rather than addressing the efficiency of that equipment.

Amy Rider representing Building Decarbonization Coalition, membership-based nonprofit, commented regarding the CEC proposal, as well as thanked everyone for their work. This is the first code in the nation to set heat pump technology baseline and requiring electric readiness measures to reduce retrofit barriers. It is the first to recognize the health dangers of fossil gas by requiring higher ventilation requirements for gas stoves with two Automated Demand Response (ADR) points for all electric design. These measures will set a strong incentive for all electric design, especially when combined with the near 150 million in, build funding, while being voluntary and preserving choice for builders.

Jonny Kocher, an associate of Oakland office of RMI's Carbon-Free Buildings Program, independent nonprofit, commented this new code will reduce the state's carbon emission by more than 30,000 metric tons and that would have a cumulative reduction of 1.1 million metric tons of CO₂ by 2030. He voiced his

support for the approval of the 2022 Energy Code.

Tom Kabat from Menlo Park, an environmental mechanical engineer who is a member of the Environmental Quality Commission, commented on implementing the 2022 Energy Code and voiced his support.

Matt Gough commented on behalf of the Sierra Club that there are cost benefits to builders and homeowners and these updated standards on average is cheaper to build all electric new buildings \$5,000 for single family homes and \$1.5 thousand per unit on multifamily buildings. We strongly support the adoption of current version of Title 24 into the 2022 California Energy Code.

Pierre Delforge, Senior Scientist, and a representative of the National Resources Defense Council (NDRC) commented that this code is a model policy for how to build cheaper, faster, and cleaner, doing its share to help alleviate California housing affordability crisis and climate crisis. He and NDRC voiced their support in adoption of this proposal.

Jack Anderson, Building Official with the California State University (CSU) System had a question regarding exceptions for the required solar rays on roof can be on the ground. This would help with maintenance issues on roofs in the future.

Sven Thesen as a father, engineer, and business owner of Net Zero Home, commented on his own behalf regarding support of all-electric homes, which are cheaper to build and operate. In preparation for the next 18-month code cycle request to be all electric. He voiced his support of the approval of this proposal.

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented and voiced their neutral position and non-opposition of the proposal. He thanked the Energy Commission especially Commission McAllister and they will continue to work with the Energy Commission in the next set of regulations.

Alanna Torres with Energy Solutions representing the California Statewide Utility Codes and Standards Enhancement (CASE) team. CASE voiced their support of the adoption of the 2022, California Energy code regarding the proposal.

Ben Davis representing the California Solar and Storage Association representing solar companies across California. He commented on the building energy efficiency standards and the number of components that are truly landmark, the PV requirement for commercial buildings, high rise multifamily storage requirement, and the electrification baseline. We are in full support of this proposal.

Joe Cain representing the Solar Energy Industries Association and Director of Codes and Standards voiced their support on approval of the proposal. California has shown leadership in energy codes and other parts of the United States. The ASHRAE Standard 90.1 commercial energy code does as well.

Chair Lee concluded the public comment portion and turned Item 5 back over to the Commissioners and asked for any further comments.

Commissioner Sasaki commented and requested the Energy Commission address the public's comments about the regulations conflicting with federal energy regulations.

CEC Chief Counsel Linda Barrera provided in detail one specific criteria of the 740 license exceptions to the Federal Preemption, and the question whether to enter the code prohibits the use of certain federally covered equipment. Builders can choose to comply with the energy code via either that prescriptive or performance pathways. There is nothing in federal or state law that requires the prescriptive pathway to list any particular product, including federally covered product. CEC requested approval of the 2022 energy code.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 5; CEC request for approval of their rulemaking process for the 2022 California Administrative Code and the California Energy Code. Commissioner Sasaki moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 6. 2021 TRIENNIAL CODE ADOPTION CYCLE, ADOPTING STATE AGENCY RULEMAKINGS

Chair Julie Lee states Agenda Item 6 contains amendments to the 2022 California Building, Residential, Electrical, Mechanical, Plumbing and Green Building Standards Codes, Parts 2, 2.5, 3, 4, 5 and 11 of Title 24. As an adopting agency, the CEC approved these regulations at their September 30th, 2021, business meeting.

Chair Lee requested the representative from the CEC present and explain the proposal for Item 6.

Agency Representative Will Vicent, Manager of the Building Standards Office, representing the CEC presented Energy Commission's 2022 Building Energy Efficiency Standards, a portion of California's Green Building Standards Code, also known as CALGreen, proposed for codification in Title 24, part 11. Adopted by the Energy Commission on September 30, 2021, using an open and transparent public process with CEC commission hearings held on July 27th, and August 6th, of 2021. CEC requested approval of the proposed amendments to the Energy Code.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten,

Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 6; CEC request for approval of their rulemaking process for the 2022 California Building, Residential, Electrical, Mechanical, Plumbing and Green Building Standards Codes, Parts 2, 2.5, 3, 4, 5 and 11 of Title 24. Commissioner Klausbruckner moved to approve. Commissioner Rambin seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 7. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Chair Julie Lee states Agenda Item 7 contains Department of Water Resources (DWR) Rulemaking (DWR 01/21) proposed adoption of amendments to the 2019 California Plumbing Code for incorporation into the 2022 California Plumbing Code, Part 5, Title 24.

Chair Lee requested the representative from the Department of Water Resources present and explain the proposal for Item 7.

Agency Representative Nancy King, Engineer with Department of Water Resources, Division of Regional Assistance in the Water Use Efficiency branch, and Retired Agency Representative Richard Mills presented the DWR amendments that added clarity. One substantial change was in Section 1505.4, which currently does not allow any direct connection of potable water reclaimed water systems. State law has passed, requiring that the water board adopt requirements, allowing a changeover device, or a swivel ell, to allow use of potable water when there is an interruption of reclaimed water supplies from a municipal wastewater treatment plant. The DWR amendment to 1505.4 allows the use of the changeover device to align with waterboard requirements. DWR requested the approval of the proposal.

Questions or Comments from the Commissioners:

Commissioner Klausbruckner had a question regarding 1501.2 how they produced certain changes?

Nancy King responded and explained by limiting to the plumbing contractor was too onerous and they wanted to open it up to other professionals.

Commissioner Santillan had questions regarding reclaimed water in the plumbing code, as well as the enforcing entity.

Nancy King and Richard Mills responded to his questions and explained, they have been in the code since 2010 and before that in Appendix J. The enforcing building departments or local health officials at the local city, county, and town level. Agencies that deliver recycle water are proactive in reviewing on site plumbing, as part of protecting their own distribution systems.

Commissioner Sasaki had a question since the current extreme drought conditions and regarding usage of recycled water both residential and non-residential has usage gone up?

Nancy responded that DWR previously had done surveys as well as the state board on the use of recycled water. DWR did not participate in the last survey and the categories changed so DWR cannot compare the surveys. The State Water Board took over the research on this. Regarding the issue with droughts, which does increase the usage of recycled water.

The following Commissioners had no comment: Patel, Mikiten, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

Mark Tettemer, Recycle Water Development Manager for Irvine Ranch Water District, commented on Chapter 15 of the plumbing code, pertaining the use of recycled water in buildings, defined in Title 22 and stated their support and opposition of different portions of the proposed amendments. Comments on the inclusion of above ground and subsurface irrigation directed by Assembly Bill 371, which appears to expand on DWR's authority. Support the change in 1501.2. Opposed the requirement for Operation and Maintenance Manual in 1501.6, the restatement of allowed uses for recycled water in the plumbing code as stated in 1505.1.1, Title 22 of the California Code of regulations and the inclusion of above ground and subsurface irrigation and 1505.1. A request that the language in 1505.4 exception 4 to revised to state, potable water permitted used as an auxiliary water supply consistent with Title 17. This is based on the fact that the State Water Board is in the process of development of a cross connection Control Policy Handbook.

Charles LaSalle, from WaterReuse California, commented, echoing the comments of Mark Tettemer, as well as addressed recycled water use as brought up by the Commissioners previously. We believe these changes and comments to be in Title 22.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 7; the Department of Water Resources proposed adoption of amendments to the 2019 California Plumbing Code for incorporation into the 2022 California Plumbing Code, Part 5, Title 24.

Commissioner Sasaki requested DWR respond to the public comment before voting.

Nancy replied and addressed the issues brought up. These changes are just consolidating amendments requiring an operation and maintenance manual. DWR included a reference to Title 22 regulations.

Commissioner Rambin had a question about the irrigation that goes into building in urban environments, does DWR still oversee those systems when those controllers are located within the building?

Nancy responded and stated that if there is no piping coming into the building, then they would not be under the plumbing code.

Commissioner Patel appreciated DWR's explanation and commented on the irrigation that goes into buildings because oftentimes in urban environments there are landscape controllers located in the building. It sounds like that would still be in DWR's purview because the system controllers are located within the building.

Nancy responded if no piping is coming into the building, then DWR would not be under the plumbing code.

Chair Julie Lee entertained a motion to consider Agenda Item 7; the Department of Water Resources proposed adoption of amendments to the 2019 California Plumbing Code for incorporation into the 2022 California Plumbing Code, Part 5, Title 24. Commissioner Klausbruckner moved to approve. Commissioner Stockwell seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 8. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Item 8a): Chair Julie Lee states Agenda Item 8a), CBSC Rulemaking (BSC 01/20) proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24.

Chair Lee requested the representative from the Building Standards Commission (BSC) introduce themselves and present Item 8a).

Beth Maynard an Architectural Associate with the BSC presented the amendments and proposal of the 2020 National Electrical Code into the 2022 California electrical code. The majority of the amendments are editorial in nature and requested the approval of the proposal.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

Robert Glass with Goodman Manufacturing Company speaking on behalf of AHRI commented regarding the adoption of the proposed changes. Mr. Glass had comments on agenda items 8a, 9a, 10a, 11a, and 12a regarding the 2020 NEC electrical code Section 210.8(F) related to the ground fault circuit interrupter (GFCI) breaker for outdoor receptacles, which includes the electrical connections for HVAC equipment. Comments submitted to SFM, OSHPD, HCD, DSA, BSC. All Agencies Final Statement of Reasons rejected comment; none of which addresses the issue of 210.8(F) of nuisance tripping. Asks the Commission to return the 2020 NEC to various agencies to address this section, failure to do so would result in nuisance tripping of GFCI associated with HVAC and use non GFCI breaker.

Chair Lee turned back to any questions or comments from the Commissioners, who requested BSC address the issues brought up by Robert Glass.

Beth responded, this is substantive comment and BSC will address it during the intervening code cycle and workshops to look at Robert Glass's comments.

Commissioner Patel had a question regarding sections of the Code affected by the proposed changes. This is actually a model code revision; this is not a state code amendment? correct? Beth stated that is correct.

Commissioner Patel: From a process perspective, at this point, if we did not adopt the electrical code amendments, it would not really impact us, since BSC is not proposing to amend that Section 210.8(F)? Beth stated that is correct.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 8a); CBSC Rulemaking (BSC 01/20) proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24. Commissioner Santillan moved to approve. Commissioner Patel seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 8b): Chair Julie Lee states Agenda Item 8b), CBSC (BSC 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24.

Chair Lee requested the representative from the CBSC introduce themselves and provide an overview of Item 8b).

Agency Representative Enrique Rodriguez an Associate Construction Analyst with

BSC presented the proposal. The majority of BSC's amendments are editorial and key changes under Item 2 in Chapter 1 referencing a recently enacted statute, relative to building permit expiration, consistent with other title 24 proposals. In Chapter 4 section 401.1 occupied spaces pertaining to ventilation air to repeal the reference to the California Energy code. Most other actions found in Items 3, 4, and 6 through 11 proposed to adopt or not adopt model code, and to carry forward existing California amendments as noted. Enrique requested the approval of the proposal.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Ramin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 8b); CBSC (BSC 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24. Commissioner Sasaki moved to approve. Commissioner Alegre seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Ramin.

Item 8c): Chair Julie Lee states Agenda Item 8c), CBSC Rulemaking (BSC 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code (CPC), Part 5, Title 24.

Chair Lee requested the representative from the BSC introduce themselves and present Item 8c).

Agency Representative Beth Maynard an Architectural Associate with BSC and Staff Services Manager, Kevin Day was available to present. Beth presented the proposal and stated that the majority of the BSC amendments are editorial. Chapter 1 proposed an amendment referencing a recently enacted statute relative to building permit expiration, consistent with other title 24 proposals. In Chapter 15 and 16 applicable to the alternate non portable water systems, which includes co adopted language with three agencies have coordinated appropriate editorial amendments. The BSC proposal heard by the Plumbing, Electrical, Mechanical and Energy (PEME) CAC in March of 2021, which recommended further study on section 1603.5 regarding minimum water quality for rainwater capture systems. BSC accepted this recommendation and made further editorial modification and coordination, with HCD. During the PEME CAC meeting an amendment to section 1503.2.4 was withdrawn in favor of UPC model code language. BSC received public comments during the 45-day public comment period that ran from May 28,

2021, through July 12, 2021, both of which requested adoption of UPC Appendix M during the 2022 intervening code cycle. BSC requested approval for the 2022, California plumbing code.

Questions or Comments from the Commissioners:

Commissioner Patel had a question regarding Appendix M moving forward in the intervening cycle assuming that the local jurisdictions would adopt Appendix M that they could? Beth stated that is correct.

Commissioner Rambin stated she appreciated the alignment on the occupant load factor calculations for the minimum plumbing facilities in Table 422.1. Why the decision was made to refer to both California Building Code or Table 4-1 in the plumbing code or the occupant load factor calculations.

Beth responded this was a reformatting from the 2019 Intervening Code Cycle to modify the Table A to Table 4-1 to identify fixture counts.

Staff Service Manager Kevin Day responded during the 2019 Intervening Code Cycle during the plumbing code workshop dedicated to this section, stakeholders provided feedback and the jurisdictions could make a determination of the possibility to use Table A calling it Table 4-1, when determining occupant load factor for function of space, so the intent of allowing the option for the table.

Commissioner Rambin stated she still felt it was confusing, but she accepted that explanation.

The following Commissioners had no comment: Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 8c); CBSC Rulemaking (BSC 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24. Commissioner Santillan moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Chair Lee stated there would be a one-hour lunch break at this time.

Chair Lee reconvened the meeting and moved on to Agenda Item 9a).

Agenda Item 9. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Item 9a): Chair Julie Lee states Agenda Item 9a), DSA Rulemaking (DSA-SS/CC 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24.

Chair Lee requested the representative from the DSA (DSA) introduce themselves and present Item 9a).

Agency Representative Eric Driever, Principal Architect with DSA, and his associate, Paul Johnson, DSA senior electrical engineer available to present to the commission. Eric gave an overview of the proposal for the amendments to the regulations of the 2022, California Electric Code for K-12 public schools and community colleges for the 2021 triennial code cycle to adopt the 2020 National Electric Code and carry forward the amendments into the 2022 California Electrical Code.

Paul proceeded to present the proposal on Item 1 updating the references from the 2019 to the 2022 code. In Item 2, adopting article 90 without amendment. Adopting Item 3, Chapter 1, Item 4, Chapter 2, Item 5, Chapter 3, Item 6, Chapter 4, Item 7, Chapter 5, Item 8, Chapter 6, Item 9, Chapter 7, Item 10, Chapter 8, Item 11, Chapter 9, all without amendments. And then, item 12 the annexes to not adopt a b c d e f g h i and j. DSA asked for the approval of the amendments in the proposal.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 9a); DSA Rulemaking (DSA-SS/CC 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24. Commissioner Rambin moved to approve. Commissioner Stockwell seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 9b): Chair Julie Lee states Agenda Item 9b), DSA Rulemaking (DSA-SS/CC 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24.

Chair Lee requested the representative from the DSA introduce themselves and present Item 9b).

Agency Representative Eric Driever, Principal Architect with DSA, and his associate, Tav Commins, DSA senior mechanical engineer, available to present. DSA proposes to update the general title statement reflecting adoption of the 2021 uniform mechanical code. Propose to carry forward existing amendments in Chapter 1 – 17 and Item 18, not adopting Appendix A, B and C, Item 19, adopting Appendix D, Item 20, not adopting Appendix E, R, N, and G. DSA asked for the approval of the amendments in the proposal.

Questions or Comments from the Commissioners:

Commissioner Patel had a question regarding Chapter 15 solar energy systems and its adoption in the 2019 California Mechanical Code previously.

Tav Commins and BSC's Deputy Executive Director, Michael Nearman researched the 2019 code and did find that DSA did adopt it in the previous code.

Commissioner Patel stated that BSC does not adopt Chapter 15. Tav from DSA responded that is correct.

The following Commissioners had no comment: Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 9b); DSA Rulemaking (DSA-SS/CC 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24. Commissioner Sasaki moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 9c): Chair Julie Lee states Agenda Item 9c), DSA Rulemaking (DSA-SS/CC 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24.

Chair Lee requested the representative from the DSA introduce themselves and present Item 9(c).

Agency Representative Eric Driever, Principal Architect with DSA, and his associate, Tav Commins, DSA senior mechanical engineer, presented DSA's proposals to update the general title statement, reflecting adoption of the 2021

uniform plumbing code for K 12 public schools and community colleges. Proposed to carry forward existing amendments in Chapter 1 division 1, adopt chapter 2 of the 2021 UPC and carry forward existing amendments, adopt the entire chapters 3, 4, 5, 6, 7, 8, 9, 11, and 12, without amendments, and carry forward amendments in the 2021 UPC. DSA proposed not to adopt Chapter 13, adopted by the Office of State Fire Marshal, and amended by Office of Statewide Health Planning and Development. Proposed to adopt Chapter 15, 16, and 17, entire chapters to carry forward existing amendments in the 2021 UPC. Item 15, DSA proposed to continue adoption of appendix chapters, A, B, D, H, and J. Item 16 DSA proposes to continue adoption of appendix Chapter I.

Questions or Comments from the Commissioners:

Commissioner Patel had a question regarding Appendix M for future adoption, the peak water demand calculator.

Tav and Eric responded that they will be taking that up in the Intervening Code Cycle.

Commissioner Sasaki stated he had the same question as Commissioner Patel, already answered, no further comment.

Commissioner Rambin spoke and thanked the representatives for their consideration of the proposed amendments.

The following Commissioners had no comment: Klausbruckner, Mikiten, Santillan, Alegre, and Stockwell.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 9c); DSA Rulemaking (DSA-SS/CC 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24. Commissioner Patel moved to approve. Commissioner Alegre seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 10. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Item 10a): Chair Julie Lee states Agenda Item 10a), HCD (HCD 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24.

Chair Lee requested the representative from the HCD (HCD) introduce themselves and present Item 10a).

Agency Representative Tom Martin, District Representative for the HCD, proceeded to outline the proposed amendments. HCD proposed the adoption of the 2020 National Electrical Code as directed by Health and Safety Code Section 17922 with new amendments for the California electrical code were minimal. Request for comments from stakeholders submitted to HCD by January 5, 2021. Three comments received and the Express Terms submitted to the CAC for review and recommendation. HCD withdrew one proposed amendment based on the recommendation from the CAC, and then revised Express Terms and made available to the public for 45-day comment period from May 28 to July 12 in 2021 and acknowledged these comments in the final statement of reasons. HCD requested approval of the proposal.

Questions or Comments from the Commissioners:

Commissioner Mikiten had questions regarding section 406.9(c), Item 6 of FSOR provisions that disallows outlets in a bathroom within three feet from the tub and a toilet on the opposite side of the room. This seems problematic with smaller affordable housing and multifamily projects that might have only 36 inches or even 30 inches of countertop space and the toilet on the opposite side of the room. In order to be able to have grab bars on the side and the rear. Suggestion to send back for further study.

Tom responded and explained the proposed changes are the requirements in the National Electrical Code (NEC) and was a model code change. HCD is to adopt by state law and Health and Safety code. This will be a design issue and brought to HCD's attention late in the rulemaking process. HCD required to adopt model code changes.

Emily Withers, respond and explained further, Tentative agreement with NFPA but we do not know the status. HCD asked if the TIA was approved.

Jerry Desmond with Plumbing Manufacturers International, spoke on the TIA status. He stated that it was still in the approval process.

Commissioner Patel asked if this is the electrical code TIA 1598. Jerry confirmed.

Mia Marvelli, Executive Director of BSC, spoke and stated that the code before the commission is as is and does not include any TIAs from the NFPA group. After the commission meeting the state agencies can look at the different TIA's and address them in the intervening code cycle, or if they are emergencies through the NEC process. If there is an urgency and there is a finding of emergency justified as an emergency regulation. This could also be brought to the attention through an information bulletin to alert the design professionals and local jurisdictions that these TIA's have corrections at the national level, and they can choose to use these at the local level.

Commissioner Klausbruckner asked if we adopt as is, would it give the local jurisdictions time to locally amend their codes.

Mia commented, yes, correct. The code will be published on July 1, 2022, and at that time the local jurisdictions will be developing their local ordinances and they could include amendments at that time.

The following Commissioners had no comment: Patel, Klausbruckner, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

Robert Glass with Goodman Manufacturing Company speaking on behalf of AHRI commented, NFPA has published concerning 210.8f requirement which is TIA 20-13 released by NFPA in August 2021 addressing the 210.8f requirement and has a delay in implementation until January 1, 2023. A comment made during the presentation of the 2022 Title 24, section 6 of the energy code had expanded the use or requirement for heat pumps in order to meet energy requirements and it implemented without change to the 2020 NEC code will cause a nuisance to the California Residents due to problems with the heat pumps tripping out. Encouraged the commission to adopt the TIA 20-13.

Mia Marvelli with BSC stated they would take a break at this point due to technical issues.

Chair Lee resumed the meeting and public comment on Item 10a).

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented and voiced their support of the proposed changes. Regarding the Electrical code, we are aware of the issues regarding ground fault circuit interrupters and other issues and look forward to working with HCD and agencies during the intervening code cycle.

Commissioner Mikiten commented that TIA 1598 does not address the issue that we discussed earlier, it does not allow for the fixture or allowance for the vanity. It only refers to the exception for the electronic toilet or personal hygiene devices. Propose adoption of the package with the exception that 406.9c sent for further study.

Commissioner Klausbruckner stated that TIA 1598 and is in agreement with Commissioner Mikiten, it is only addressing hygiene devices.

Tom Martin with HCD responded stating that the Electrical Code does have a requirement that electrical outlet be 2 feet from the sink there will be design issues and the designers will need to meet that requirement.

Commissioner Mikiten voiced further concerns about it becoming a design issue that would enlarge restrooms and bathrooms in smaller units to a point 2 feet

larger than would be otherwise to meet this requirement.

Emily Withers with HCD responded to those comments and stated that the local agency has discretion to approve alternative methods and materials so if it is a hardship case, and the compact size bathroom is an issue, they can work ahead with the local enforcing agency and get the alternate method approved.

Commissioner Mikiten responded as an architect have not gone through that process in the past with multiple jurisdictions, would not want to just leave something to that process because of its difficulty, and confusion.

Deputy Director Kyle Krause from HCD responded to Commissioner Mikiten's concerns and He just reminded the Commissioners, that as Tom Martin pointed out HCD is required to adopt the most recent additions of the model codes. HCD also did not discuss this with our stakeholders during any focus group meetings, and therefore were unable to request withdraw of this item. The CAC approved it to go forward, and HCD wants to make sure that HCD comply with state directives by the legislature to adopt these codes, and HCD will flag this for the next Intervening code adoption cycle.

Commissioner Sasaki asked were these provisions of the model code? Correct?

Tom Martin did state is part of the model code.

Viana Barbu, Counsel for CBSC, commented. A point of order an action of further study does require in writing and does not meet one of the nine-point criteria and 18930. That is something that the commission should consider whether or not that HCD needs to address taking the item out of the National Electrical Code and moving forward the rest of the regulations, if that poses a material change as a whole because what was vetted with the stakeholders was the code as a whole, so if it's missing a piece is that going to cause a material change and with that need to go back for a full rulemaking review.

Commissioner Mikiten commented, this is a valid point that there may be related aspects, but we are looking at one provision. If HCD could review this issue further and propose later as an emergency measure or in the intervening code cycle.

Tom Martin did confirm that HCD will be looking at these provisions.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 10a); HCD 01/20 Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24. Commissioner Sasaki moved to approve. Commissioner Patel seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 10b): Chair Julie Lee states Agenda Item 10b), HCD Rulemaking (HCD 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24.

Chair Lee requested the representative from the HCD introduce themselves and present Item 10b).

Agency Representative Emily Withers, Codes and Standards Administrator II, representing the HCD, proceeded to outline the proposed amendments for adoption directed by Health and Safety Code Section 17922 and carrying forward the 2019 amendments from the 2019 California mechanical code (CMC) new amendments for the CMC with minimal HCD repeal of 2019 amendments providing references to the California Energy code. Request for comments from stakeholders submitted to HCD by January 5, 2021. No comments received. The express terms presented to the CAC for review and recommendations. HCD withdrew one proposal related to use of refrigerants. The balance of the proposals recommended for approval by the CAC. HCD then made documents available for 45-day public comment period from May 28 to July 12, 2021, no public comments received, and no changes made to the Express terms.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 10b); HCD (HCD 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24. Commissioner Mikiten moved to approve. Commissioner Santillan seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 10c): Chair Julie Lee states Agenda Item 10c), HCD Rulemaking (HCD 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24.

Chair Lee requested the representative from the HCD introduce themselves and present Item 10c).

Agency Representative Emily Withers, Codes and Standards Administrator II,

representing the HCD, proceeded to outline HCDs proposal for adoption in the 2021 Uniform Plumbing Code as directed by Health and Safety Codes Section 17922 and carrying forward existing and new amendments discussed at a combined HCD, BSC and Department of Water Resources focus group meeting held on December 11, 2020. The comments received changed the express terms text and submitted to the CAC for review and recommendations on March 24th through 26th, 2021. Challenged during the CAC meeting was Appendix M, peak water demand calculator, which provides a method for estimating the demand load for the building water supply and principal branches for single and multiple family dwellings with water conserving plumbing fixtures, fixture fittings and appliances. HCD is also in receipt of a formal petition to consider adoption of Appendix M during the 2022 intervening code adoption cycle that the statewide utility codes and standards team submitted petition, and HCD responded to the petitioners on November 30. HCD then made the revised express terms available for 45-day public comment period public comment period from May 28 to July 12, 2021. The public comments received was a request for consideration of adoption of Appendix M during the 2022 intervening code adoption cycle.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 10c); HCD Rulemaking (HCD 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24. Commissioner Rambin moved to approve. Commissioner Klausbruckner seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Chair Julie Lee stated they would now take a break.

Chair Julie Lee called the meeting back to order.

Agenda Item 11. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Item 11a): Chair Julie Lee states Agenda Item 11a), Office of Statewide Health Planning and Development (OSHPD 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24.

Chair Lee requested the representative from the Office of Statewide Health Planning and Development introduce themselves and present Item 11a).

Agency Representative Bill Gow, Senior Electrical Engineer for OSHPD, proceeded to outline the proposed amendments for the 2020 National Electrical Code carrying forward and modifying the existing OSHPD amendments to clarify the code. The proposed amendments presented to the Hospital Building Safety Board (HBSB) code and process committee on November 5, 2020, and January 14, 2021. HBSB approved all proposed amendments and presented to GREEN PEME CAC on March 24 and 25, 2021. The CAC requested further study on Item 109 requested OSHPD to review the proposed I17.123 code language for nurse call device mounting requirements with DSA and they confirmed it was acceptable. CAC approved the remaining items. OSHPD made minor CAC editorial changes to 102, and 110. OSHPD received 3 comments during the 45-day public comment period May 28 through July 12, 2021. OSHPD accepted, two of these comments regarding using the latest American National Standards Institute (ANSI) IES lighting standards in 517.22B.

Questions or Comments from the Commissioners:

Commissioner Sasaki commented regarding the 399 few typos extra zeros underestimated cost item B number one. The same in item C estimated benefits. Then in item D which a summary.

Bill Gow responded and explained, that the 34 million is over the lifetime and the 3.4 million is a per year cost and the same of the other numbers.

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 11a); Office of Statewide Health Planning and Development (OSHPD 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24. Commissioner Sasaki moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 11b): Chair Julie Lee states Agenda Item 11b), Office of Statewide Health Planning and Development Rulemaking (OSHPD 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code (CMC), Part 4, Title 24.

Chair Lee requested the representative from the Office of Statewide Health Planning and Development introduce themselves and present Item 11b).

Agency Representative Larry Enright, Senior Mechanical Engineer for OSHPD, proceeded to outline the proposed amendments. OSHPD will add a definition for zone Chapter 2, amend section 407.5 for variable air volume, adding a new section 407.6 for economize and adding a new section 420 for air distribution devices. These proposed amendments presented to the HBSB codes and process committee, on November 5, 2020, and January 14, 2021. The committee and OSHPD approved all proposals. Presented to the GREEN PEME CAC on March 23rd and 24th. One item for further study on item 4. OSHPD did an editorial change to 407.6 to provide additional clarification. This change went through the 45-day public comments with no additional comments. The remaining amendments went through a 45-Day public comment period on May 28th through July 12th. OSHPD received comments pertaining to item 407.153 was to approve as amended and made no additional changes.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 11b); Office of Statewide Health Planning and Development (OSHPD 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24. Commissioner Mikiten moved to approve. Commissioner Rambin seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 11c): Chair Julie Lee states Agenda Item 11c), Office of Statewide Health Planning and Development (OSHPD 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code (CPC), Part 5, Title 24.

Chair Lee requested the representative from the Office of Statewide Health Planning and Development introduce themselves and present Item 11c).

Agency Representative Larry Enright, Senior Mechanical Engineer for OSHPD, proceeded to outline the proposed amendments. CPC key proposed amendments include med gas standard adoption coordination with CFC that med gas source location exception and adding ANSI Reference Standard to table 1701.1. These proposed amendments presented to the HBSB codes and process committee and

the committee, approved all proposed amendments. Part 5 presented to GREEN PEME CAC on March 23rd and 24th. All items approved as submitted also went through the 45-day public comment period, and received comments pertaining to the items 17, appendices and does not apply to health care facilities, but for residential activities, so no additional changes, provided.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 11c); Office of Statewide Health Planning and Development (OSHPD 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24. Commissioner Mikiten moved to approve. Commissioner Klausbruckner seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 12. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Item 12a): Chair Julie Lee states Agenda Item 12a), Office of the State Fire Marshal (SFM 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24.

Chair Lee requested the representative from the Office of the State Fire Marshal introduce themselves and present Item 12a).

Agency Representative Greg Andersen, Chief of Code of Development and Analysis for the State Fire Marshal's office, proceeded to outline the proposed amendments for the 2022 Code. The items for article, 89, our editorial. SFM did changes to the elevator work group, and core corresponding changes to title 8 for ventilation and in the hoist way. SFM made changes in item 8.2, removing, or prohibited because it should be over in Title, 8. This is what the model code states and Cal/OSHA.

Questions or Comments from the Commissioners:

Commissioner Patel had a question regarding is the work between the State Fire Marshal's office and Cal/OSHA on elevators?

Greg Andersen replied, yes, SFM and Cal/OSHA working together.

The following Commissioners had no comment: Klausbruckner, Mikiten, Santillan, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 12a); Office of the State Fire Marshal (SFM 01/20) Proposed adoption of the 2020 National Electrical Code with amendments for incorporation into the 2022 California Electrical Code, Part 3, Title 24. Commissioner Klausbruckner moved to approve. Commissioner Sasaki seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 12b): Chair Julie Lee states Agenda Item 12b), Office of the State Fire Marshal (SFM 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24.

Chair Lee requested the representative from the Office of the State Fire Marshal introduce themselves and present Item 12b).

Agency Representative Greg Andersen, Chief of Code of Development and Analysis for the State Fire Marshal's office, explained and outlined the proposed amendments. SFM had editorial changes in the administrative chapter and doing the same changes to match the other parts of Title 24. In item 11.1 SFM active work group on the A2Ls, is being debated at the national level. One public comment on HRI on this to suggest cleaner language which SFM adopted and ran a 15-day comment period.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented and voiced their support of this proposal. As Greg indicated there was a lively discussion on the A2L issue. It is my understanding that IAPMO at the national level is actively working to address the issues for larger system. The State Fire Marshal's Office

has addressed a smaller unit.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 12b); Office of the State Fire Marshal (SFM 01/21) Proposed adoption of the 2021 Uniform Mechanical Code with amendments for incorporation into the 2022 California Mechanical Code, Part 4, Title 24. Commissioner Mikiten moved to approve. Commissioner Alegre seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 12c): Chair Julie Lee states Agenda Item 12c), Office of the State Fire Marshal (SFM 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24.

Chair Lee requested the representative from the Office of the State Fire Marshal introduce themselves and present an overview of Item 12c).

Agency Representative Greg Andersen, Chief of Code of Development and Analysis for the State Fire Marshal's office, outlined the proposed amendments. Editorial package, besides the adoption of the model code. Pointed out Chapter 6 had guidance for plumbers to install fire sprinklers allowed per statute. But that statute had a sunset clause and is no longer valid. SFM removing them because plumbers can no longer install fire sprinklers.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 12c); Office of the State Fire Marshal (SFM 02/21) Proposed adoption of the 2021 Uniform Plumbing Code with amendments for incorporation into the 2022 California Plumbing Code, Part 5, Title 24. Commissioner Rambin moved to approve. Commissioner Klausbruckner seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Chair Julie Lee concluded the meeting and would reconvene on Thursday morning, December 16th, at 9 a.m. to discuss Agenda Item 13a) through 13c).

**CALIFORNIA BUILDING STANDARDS COMMISSION
MEETING MINUTES
December 14, 15, and 16, 2021**

Wednesday, December 15, 2021

On December 14, 2021, the California Building Standards Commission (CBSC) heard and took action on agenda items 1 through 12c. The agenda items were heard and completed sooner than expected.

As a result, no items were heard on Wednesday, December 15, 2021, due to a request for accommodation for public comment and a related motion approved by the CBSC to continue Agenda Item 13.

The CBSC meeting will resume on Thursday, December 16th, 2021, at 9:00 a.m. with Agenda Items 13a) through 13c).

CALIFORNIA BUILDING STANDARDS COMMISSION
MEETING MINUTES
December 14, 15, and 16, 2021

Thursday, December 16, 2021

Chair Julie Lee called the meeting of the CBSC to order at 9:04 a.m. This meeting held remotely, consistent with Assembly Bill 361, (Rivas, Chapter 165, Statutes of 2021) to improve and enhance public access to state agency meetings during the COVID-19 pandemic.

ROLL CALL:

CBSC Staff Member Pamela Maeda called the roll.

Commissioners Present: Undersecretary Julie Lee, Chair
Elley Klausbruckner
Erick Mikiten
Kent Sasaki
Rajesh Patel
Peter Santillan
Juvilyn Alegre
Aaron Stockwell
Laura Rambin

CBSC Chair Julie Lee stated that a quorum was present.

Chair Lee gave instructions regarding teleconferencing and public comments.

Chair Lee stated this meeting would proceed from the closing point on Tuesday, December 14th. At the meeting on the 14th, the agenda items through 12c) were heard and completed. As previously agreed, the Commissioners will now hear proposals starting with Agenda Item 13a).

Agenda Item 13. 2021 TRIENNIAL CODE ADOPTION CYCLE, PROPOSING STATE AGENCY RULEMAKINGS

Item 13a): Chair Julie Lee states Agenda Item 13a), CBSC (BSC 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Code, Part 11, Title 24.

Chair Lee requested the representative from the CBSC introduce themselves and present Item 13a).

Agency Representative Enrique Rodriguez an Associate Construction Analyst with

the CBSC gave an overview and proceeded to present the proposal. Building Standards law Health and Safety Code 18930.5 authorizes BSC to propose Green Building Standards for non-residential occupancy and no other state agency has authority to propose Green Building Standards. Health and Safety Code also authorizes BSC and other state agencies that propose building standards to allow for input by state agencies that have expertise in Green Building subject areas, for example, the California Air Resources Board significantly contributed to the rationale in the documents relied upon for the electric vehicle charging proposed code changes. The majority of BSC's proposed code changes for non-residential occupancy are related to electric vehicle (EV) charging. But there are other Green Building Standard Code changes. Enrique asked the Commission to present the non-EV charging first. The commission approved.

These proposed changes are non-substantive for the non-electric vehicle related Final Express terms; items 4,10,11,13,15,16 and 17.

- Item 4: pertains to urinal hybrid definition in chapter two, renamed from urinal hybrid to non-water urinal drain cleansing action.
- Item 10: relocate the requirement for thermal insulation from the voluntary Tier 1 to a new mandatory code.
- Item 11: relocate the requirement for acoustical ceiling and wall panels and related sub section for verification of compliance from the voluntary measure to mandatory.
- Item 13: amend the voluntary codes for Tier 1 and Tier 2 for clean air vehicles to simplify the application by using a percentage, instead of the current clean air vehicle tables.
- Item 15: amendments to rename the title for non-water supply urinals, to non-water urinals.
- Item 16: proposed to relocate voluntary thermal insulation Tier 1 to mandatory new code section found in item nine. Thermal insulation Tier 2 has been re-numbered to A5.504.4.8, with the Tier 2 moving to Tier 1, and then the verification of compliance renumbered within this section.
- Item 17: proposed to relocate acoustical ceiling and wall panels and related subsection and verification of compliance from the voluntary measures to the new code section found in item 10.

Enrique requested that the Commission approve the amendments outlined in the proposal for items 4,10,11,13,15,16 and 17.

Questions or Comments from the Commissioners:

Commissioner Sasaki commented and had a question regarding site development and parking Tiers under item 13. There is Tier 1 and Tier 2 for parking spaces of 17% now it is 35%. How does those parking spaces relate to EV charging stations?

Enrique Rodriguez responded stating in CALGreen an EV space counts as a clean air vehicle space. BSC proposed to repeal all the clean air provisions and keep the current clean air vehicle provisions as voluntary and only keep Tier 1 and Tier 2 so jurisdictions can adopt them if they would like.

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

Matthew Hargrove representing the commercial real estate industry, California Business Properties Association, its members, and ICSC commented regarding their support in approval.

Vanessa Warheit, employed by Acterra and co-lead of EV Charging Access for All coalition, commented and asked what document used for this presentation.

Enrique explained where to locate the Final Express Terms on BSC's website.

Mia Marvelli, Executive Director with BSC. We will not be monitoring the Q & A in Zoom.

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented and in strong support on the non-EV items.

Mr. Weston with the California Properties Association commented, and voiced support of this proposal.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 13a) on items 4,10,11,13,15,16 and 17; CBSC (BSC 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Code, Part 11, Title 24. Commissioner Sasaki moved to approve. Commissioner Klausbruckner seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Chair Julie Lee moved back to items under Agenda Item 13a) and requested the representative from the CBSC introduce themselves and present items under 13a) 1, 2, 3, 5, 6, 7, 8, 9, 12, 14, 18, and 19; considered for approval.

Agency Representative Enrique Rodriguez an Associate Construction Analyst with the CBSC proceeded to present the proposal for approval. Provided context for the development of the BSC EV proposals:

- i. The objectives of the proposed amendments are further advanced EV preparedness and provide clarity for the code user.
- ii. BSC proposed Green Building Standards to support the Governor's executive orders B-16-2012, B-48-2018 and N 79-20. This is to achieve a benchmark for having over 1.5 million Zero Emission Vehicles (ZEV) on

California roadways by 2025, 5 million ZEVs by 2030 and 100% sales of electric vehicles by 2035. California Energy AB 2127 commission report provided in the initial statement of reasons.

- iii. BSC conducted a CALGreen and stakeholder workshops on January 7, 2021, and March, 30 202. On April 28, and 29, 2021 BSC conducted a Green Building CAC public meeting in which staff presented the proposed EV code changes, along with other CALGreen code changes. At the CAC meeting, the EV access for all coalition group submitted a comment providing public testimony requesting BSC to consider their EV alternative compliance path which proposed 30% EV ready spaces with a 5% Level 2 EVCS. The CAC further study recommendation stated to not delay the code cycle, but if there was time, consider the alternative compliance pathway (ACP), prior to 45-day public comment period. BSC reviewed the ACP proposal, but due to the untimely submission of a substantive proposal BSC did not have sufficient time to fully vet the proposed code changes done during the pre-cycle, workshops.
- iv. BSC conducted a 45-day formal public comment period from August 13 through September 27, 2021. There were no additional modifications to the 45-day Express terms. There is a reference to the agency's response in the final express terms regarding the public comments. In late October BSC was notified that the ACCESS and GREEN 45-day public comment web page was missing over 2000 public comments, BSC staff collaborated with representatives from organizations, and added these comments to BSC's web page and forward to the commission.

BSC's proposed to the amend CALGreen, for EV regulations as follows:

- Item 1 – New definition: automatic load management system.
- Item 2 – New definition: EV capable spaces.
- Item 3 - proposed Chapter 2 definitions for low emitting and add fuel-efficient vehicle by renaming it to zero and high efficient vehicles.
- Item 5 - proposed Chapter 2 definitions by adding a new term off street loading spaces used as part of the proposed EV regulations for medium and heavy-duty vehicles.
- Item 6 - proposed retaining the definition for van pool vehicles.
- Item 7 - proposed repealing designated parking for Clean Air vehicle requirements.
- Item 8 - amend Section 5.106.5.3 through Section 5.106.3.3.2 for electric vehicle charging with specific amendments.

This concluded the electric vehicle proposed code changes for non-residential occupancy and is only for light duty electric vehicles.

Chair Julie Lee and opened the floor to questions by the Commissioners.

Questions or Comments from the Commissioners:

Commissioner Mikiten requested Enrique address concerns raised in 13a), 13b), and 13c) regarding safety of EV plug-in receptacles.

Enrique responded BSC is not proposing EV ready which would be a plug-in receptacle. BSC proposed the installed charger Level 2 or direct current fast chargers EVCS. HCD proposed EV ready.

Commissioner Mikiten had further questions regarding response to previous amendments passed for accessible spaces for EV in 2017.

Enrique replied and explained. BSC did not receive any comments. BSC has the tables that tell you how many the installations, have to provide and depending on how many chargers are installed is going to trigger more installation of accessible EV stalls. The tables right now for the new proposed code changes, do not conflict with the current codified tables in 11B. It is just adding more as required based on the number of installed chargers.

Commissioner Rambin echoed Commissioner Mikiten's questions about accessibility requirements. Regarding the challenges that the local jurisdictions have in recognizing that those count towards the total number.

Enrique clarified further by stating, they do not count towards the number, exempted altogether for the automated parking. BSC's proposal to repeal the cleaner vehicle provisions is going to help in the increased number of installed chargers and how that affects the parking lot for accessibility and take that into consideration.

Commissioner Rambin also questioned regarding one of the tables and the calculations and how these were arrived at, regarding the table, 5.106.5.3.1, and the calculations for the required number of EV capable spaces and why was it not a straight percentage for any parking space.

Enrique stated that it was not to burden the small parking lot of the smaller buildings. This table is trying to achieve the installed chargers would have 5% of the total number of parking spaces. It is a formula to keep that consistency between the different ranges of parking.

Commissioner Sasaki had questions regarding the same table for the number of spaces required for electric vehicles and the calculations to arrive at the required number of spaces for nonresidential construction, apply to office buildings, retail, non-residential occupancy, would exempt OSHPD, is that correct?

Enrique responded, yes, OSHPD, HCD and DSA.

Commissioner Sasaki asked this would apply to for example a grocery store, correct? And how did BSC produce these numbers? This code goes into effect, January 1, 2023, for three years.

Enrique responded, yes. The infrastructure for 17 provided and yes code goes in effect, January 1, 2023.

Commissioner Sasaki explained that the intervening code, updated every 18

months there is a rulemaking cycle, correct?

Enrique responded, yes that is correct.

Commissioner Sasaki questioned looking at the table number 4 of 100 parking spaces seems too low and added at a later time.

Enrique answered stating that the California Air Resources Board did an analysis, and BSC used different reports and these numbers similar to the numbers that were being requested by the other advocacy groups like EV Access for All. This started out as requiring zero installed chargers, for the first time in California's history to actually require the installation of these and at 5% is monumental. In the final express terms page 12 of 25, which is the Tier 1 Table A5.106.5.3.1, if a local jurisdiction adopts a Tier 1, it will require locals to provide from 15% previously to 30% of the total parking spaces have to be EV capable. Of those 30%, 33% of those need to have installed chargers.

Commissioner Mikiten had a follow up question regarding Commissioner Sasaki's question; In Building Standard Commission experience with Green building code Tiers, do jurisdictions, pick just from Tier 1 requirement, as opposed to adopting all of Tier 1. This is pretty common, correct?

Enrique responded, yes, jurisdictions will say they are adopting Tier 1 and the jurisdictions, look at the Tiers and select the ones that they feel would benefit their local jurisdiction.

Commissioner Klausbruckner question on items, 8 and 9, sections 5.106.5.3 and 5.106.5.4 with an exception 1C and both of them that say where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements related to the implementation of Section 5.106.5.3 may adversely impact that construction cost of the project.

Enrique responded, BSC will take those comments into consideration

Commissioner Patel commented, agreeing with Commissioner Klausbruckner, and further commented regarding clarification on these items up for approval. The way the exception is written, it speaks to evidence substantiating that additional local utility infrastructure design requirements related to the implementation may adversely impact the construction costs and permeability official that means the local utility is saying that they got to bring in transformers to upgrade the surface of the grid to provide the power for the development.

Commissioner Rambin had a question regarding the requirements in these items, on the table, HCD has a provision about triggering implementation with alterations and renovations, is there any language from BSC with this language? Second question is there any regulatory requirement that would trigger changing EV capable to actually adding the actual charging equipment, other than demand?

Enrique answered, Currently, the tables are set, you have to increase the

percentage of EV capable spaces with the added requirement of actually installed chargers. If you have a parking lot, that is between 26 and 50. You have to install at least 2 electric vehicle supply equipment. BSC decided to pursue the installed chargers at this time for this rulemaking cycle and will consider moving forward into the next cycle.

Chair Julie Lee moved on covering sub-items 9 through 18. Enrique responded and presented these items to the Commissioners.

- Item 9 - proposed to add the mandatory requirement in Section 5.106.5.4 for EV charging medium duty and heavy-duty vehicles, along with the sub sections. The proposed new code section includes a mandatory to install additional infrastructure to support later edition of chargers, up to 400 KWZ fueling in new warehouses grocery stores and retail buildings with off street loading spaces that will support the future edition of chargers for medium and heavy-duty vehicles.
- Item 12 - proposed to amend definition for low and fuel efficient vehicles by renaming it to zero-emitting and high efficient vehicles for consistency with a proposed definition in the amendments in Item 3.
- Item 14 - proposed amendments to Tier 1, and Tier 2 to increase the percentages for EV capable spaces and require a higher percentage for the installation of EVCS. Tier 1 amended to increase the percentage for EV capable spaces from 15% to 30%, and the addition of a new column for the requirement of electric vehicle charging spaces, which require that 33% of the EV capable spaces, provided with Level 2 EVCS for Tier 2. The table amended to increase the percentages for EV capable spaces from 20 to 45% and the addition of a new column for the requirement of EVCS, which require that 33% of the EV capable spaces, need to be provided with level two, EVSC chargers.
- Item 18 - proposed to update table sections A5.601 to include the proposed mandatory and voluntary code changes and shown in items, 1 through 17 as applicable to the affected code sections shown in the table.
- Item 19 - BSC proposed to update the verification guidelines tables in sections starting on page 16 in the FET to include the proposed mandatory and voluntary proposed code update as shown in items 1 through 17.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Chair Julie Lee opened the floor to questions from the public on Agenda Item 13a), sub-items 1, 2, 3, 5, 6, 7, 8, 9, 12, 14, 18, and 19, which is the balance of the items left over from the previous vote.

Questions or Comments from the Public:

Vanessa Warheit, employed by Acterra and co-lead of EV Charging Access for All, commented regarding these above items and concerned regarding the code

asked to approve today is an improvement over the current CALGreen but falls far short of what is necessary to address the climate emergency and fails to meet California goals for accelerating light duty EV adoption. Requesting the commissioners to pass that at least 50% of employee parking spaces and new non-residential parking EV ready.

Bryce Nesbitt commented on the EV charging requirements and encouraged the commission to consider small housing, and where that EV charging should be for non-traditional layouts that do not have a garage or a driveway.

Megan commented regarding rapid charging needs on equity purposes, it is important to accommodate all in order to take advantage of an electric vehicle. Large units that have many families, just one or two stations is not going to provide adequate charging. In rural counties there are very few towns that have EV charging.

Alma Asay from Electrify America commented regarding their support for these EV charging amendments. Electrify America owns and operates the largest ultra-fast trading network in the United States and is committed to supporting the rapid transition to electric vehicles.

Enrique made clarifying statement, regarding commenters support comment to the EV proposal, once an electric vehicle charging equipment installed at least one has to be Level 2, because we know that not all existing vehicles can accommodate Level 3.

Linda Hutchins-Knowles with Acterra commented and asking the commissioners to pass at least 50% of employee parking spaces and new non-residential parking EV ready.

Matthew Hargrove with the California Business Properties Association (CBPA). They represent commercial real estate over 10,000 companies in the state of California. They are in support and stated that this is the first time in history of the code, where the State will be requiring the private sector to install fully functioning EV charging equipment at newly constructed commercial buildings.

Sven Thesen, co-leader with the EV Access for All coalition, commented. He voiced his agreement with the comments made by Matthew Hargrove, Vanessa, and Linda previously and also agreed with the comments that EV ready at 50% needed for employees right now.

Guy Hall with the Electric Auto Association, and Board Member, commented regarding a request for the Commissioners to address minimum requirements for non-residential. The requirement raised toward having 50% for noncommercial, nonresidential at this time.

Noelani Derrickson representing Tesla. In support of this proposal. This is an essential next step in providing new nonresidential buildings such as grocery stores and shopping malls, the necessary direction to prepare for EVs and avoid

costly retrofits. Tesla asked that BSC consider EV capable requirements for existing commercial buildings in the intervening cycle, similar to the requirements that HCD has proposed for existing multi-unit dwelling buildings.

Julia Rege with the Alliance for Automotive Innovation commented and offered their support of these amendments.

Elon Jaffe on behalf of the Electric Vehicle Charging Association commented and voiced support. They acknowledge the need to increase these minimum levels in future code cycles. They are in support for DC fast charging compliance pathway that provides new nonresidential buildings the option to meet compliance with charging.

Gopal Shanker a renewable energy consultant based in Napa for Recolte Energy. Agree with commentors before him. The infrastructure for EV charging needs increased.

Dwight McCurdy worked at SMUD for 30 years in their electric vehicle area. Toyota announced that it is going to have 30 electric vehicles available by 2030. Expressed that a more aggressive position for those people living in multifamily housing. The 50% goal for employees, and the signage, make it clear that it is for employees, because they are going to compete with members of the public.

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented and voiced their support of this proposal. They are asking to increase 50% goal. The industry is well aware that this number is going to increase.

Rex Hime with the California Properties Association commented and echoed the comments of Matthew Hargrove and Bob Raymer. They are supporting and in favor of the proposals.

Chair Julie Lee moved for a break at this time.

Chair Julie Lee reconvened the meeting with turning Item 13(a) back over to the Commission for any questions or comments.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 13a); CBSC (BSC 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Code, Part 11, Title 24. These are items not included in the first vote, which includes Items 1 through 19 not previously voted on. Chair Lee requested any further questions by the Commissioners.

Commissioner Sasaki requested staff explain where things are currently in the approval cycle and what can be done from this point in regard to further study.

Mia Marvelli responded there is four actions that commission can take approve or

disapprove, approved as amended, and Enrique with BSC requested to approve as amend. There was an addendum showing the correct request from the state agency and it is a correction and a non-substantive change. The other one is further study. Hearing that this a substantive change, and it would require us to go out for a workshop and cost analysis, also there will be a need for another 45-Day comment period. The Commission is bound by building standards law and the Administrative Procedure Act (APA).

Viana Barbu, Counsel for CBSC, added clarification to the further study requires a finding where one of the nine-point criteria and the Health and Safety Code not met.

Commissioner Patel commented and reiterated his thanks to everyone. In agreement that the demand for electric vehicle charging is only going to increase, this is a substantial step forward that we make this step forward and hopefully in the interviewing code cycle would be able to do even more.

Commissioner Mikiten commented and expressed his thanks as well and asked to clarify the timeline for the 50% and other elements that where studied.

Enrique clarified as stated in the initial statement of reasons. The alternate compliance pathway (ACP) proposal submitted as a comment, came into our office on April 16, and the CBSC Green CAC meeting, held on April 28th. The CAC asked for further study which did not allow for enough time for a 45-day public comment period. The other issue was the technical issues with ACP proposal, to comply with the BSC proposal in terms of the percentages for EV capable Low-level plugins. The other items were the 5% missing from the proposal that did not have the column for EV capable spaces required. The ACP proposal was missing the EV capable column and then regarding the 50% was not part of the proposal presented to the CAC.

Commissioner Sasaki commented regarding employee parking spaces; regarding the table in the current proposal is there no distinction between employee parking spaces? Enrique responded, No.

Commissioner Mikiten commented in follow up, stating that the proposal that CAC decided to move forward with was the proposal that was already on the table from BSC, not the newly presented proposal.

Enrique responded, that is correct. There was discussion, and an agreement by the CAC, based on percentages but did not change what went out for 45-day. CAC entertained the motion to do a further study to review on the ACP proposal.

Commissioner Patel had a question related to the future cost-effective studies. The requests need to be in early for the study by CARB. Correct?

Enrique responded: Yes. That cost analyst document done by CARB published on BSC's website for the public to see.

Commissioner Klausbruckner had a question regarding the goals for years to come and meeting the needs and demands of EV charging. We know several code cycles happen between now and then, by 2035. Will there be long term goals on how these EV charging stations are going to increase to reach the expected goal here in California?

Enrique responded. Currently, the California Public Utilities Commission (CPUCs) have produced a revised cost analysis report that is projecting those numbers on how to get there and how long. The Energy Commission has recent reports as well. BSC will coordinate with those agencies and crafting proposals to align with the projected numbers.

Mia Marvelli responded regarding the discussion about what happened during the code cycle, there was excellent work and cost benefit analysis that came from the public stakeholders during the workshop phase. These stakeholders have been engaged for quite some time. There is also the APA and the Building Standards Law that we have to follow which restrict us from continuing to make significant changes throughout the process. BSC anticipates that in the next code cycle, all of these public comments, and the comments heard will help shape the next edition of the EV regulations.

Motion: Chair Julie Lee entertained a motion to open public comment. Commissioner Sasaki moved to approve. Commissioner Klausbruckner seconded and moved to approve. Motion carried with a roll call vote of 4 yes, 4 no, with Chair Julie Lee casting the deciding vote to reopen public comments.

The following Commissioners voted "Yes": Klausbruckner, Sasaki, Alegre, Rambin and, Chair Lee.

The following Commissioners voted "No": Mikiten, Patel, Santillan, and Stockwell.

Questions or Comments from the Public:

Vanessa Warheit, employed by Acterra and co-lead of EV Charging Access for All, commented further regarding the items up for approval and public comments. She stated her concerns regarding the process and how they were not aware of the cost analysis posted on BSC's website. Thousands of comments submitted during the public comment period, lost then found and included in the public record the week of this meeting.

Linda Hutchins-Knowles commented and requested the Commissioners return the proposed Code update to the HCD with the recommendation to study and incorporate the alternative compliance pathway (ACP) for non-residential charging requirements. We followed the code process since December of last year and eight letters sent to HCD and BSC during and in between every public comment period, those letters submitted again, on December 4, January 14, February 19, April 5, April 16, and 27, October 28 and December 7. A request made to return the proposed code update to the HCD with the recommendation to further study

and incorporate the alternative compliance pathway for residential or, in this case non-residential charging requirements submitted on April 17 by the charging Access for all Coalition and the recommendation for BSC to act upon the building standards, this code cycle.

Sven Thesen commented; reiterating the comments made by Vanessa and Linda. Comments submitted for non-residential on January 14th that are in the package that is 163 pages long with details in support of peninsula clean energies and community choice energy. The reach code that they have developed for multiple cities. Need EV ready.

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented. Regarding the process and as a veteran, of code adoption hearings, at the national and state level, and as one of the members on CBSC CAC and this recent process related to EV for both residential and nonresidential has been incredibly thorough, with the exception of a couple rulemaking by the Energy Commission, over the last 40 years. To make a change it would send it back for further study, at which point is going to take 18 months. The important thing now is to get something in place, have that in the code so the industry can start ramping up, for the next code cycle.

Laura Rosenberg stated that EV for everyone and every parking space should be EV ready.

Sven Thesen commented stating it is critical to understand that 55% of our carbon emissions come from transportation and most come from light duty vehicles. He requested the Commissioners to review their 163-page packet of research.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 13a); CBSC (BSC 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Code, Part 11, Title 24. These are items not included in the first vote, which includes Items 1 through 19 not previously voted on. Commissioner Patel moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Item 13b): Chair Julie Lee states Agenda Item 13b), DSA (DSA-SS/CC 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Standards Code, Part 11, Title 24.

Chair Lee requested the representative from the DSA introduce themselves and present Item 13b).

Agency Representatives Eric Driever, Principal Architect at DSA, Ida Clair, State Architect, Tav Commins, Paul Johnson, and Michelle Golden presented the amendments to the regulations of the 2022 Green Building Standards code for K-12 public schools and community colleges for the 2021 triennial code cycle. DSA proposes to adopt the amendments to the 2019 Green Building Standards code for incorporation into the 2022 Green Building Standards code. This addressed equity for faculty and students, and advanced California climate action goals. The regulations presented triggered by new campus construction, new building construction additions to existing buildings and new site construction.

Paul Johnson, a senior electrical engineer with DSA, presented items 1, 2, 2.1, 3, 4, and 6. These items are co adopted with BSC, and approved. Item 1, adding a definition of automatic load management systems. Item 2, adding a definition of electric vehicle capable spaces. Item 2.1, changing the definition of zero meeting and high efficient vehicles. Item 3, updating the definition of non-water urinals with drain cleansing action. Item 4, adding the definition of off-street loading spaces. Item 6, changing the electric vehicle charging space regulations to include, installing EV chargers, and adding additional EV capable spaces for future chargers.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, and Stockwell.

Commissioner Ramin commented and thanked DSA for expanding the CO2 detection requirement to all classrooms, not just classrooms where there's napping.

Michelle Golden, senior architect with DSA, presented items 7, 8 and 9. Item 7, proposed amendments to the current requirements for shade trees to provide clarity to the regulations. Section 5.106.12.1 change the exception to allow chain structures with appropriate roofing or photovoltaics in lieu of shade tree plantings and parking areas. Section 5.106.12.3 to clarify the exception to allowing shade structures at walkways and hard scape areas, to allow them in lieu of shade tree plantings, and also, with designated marked play areas would exempt them from the total area calculations to determine those shade tree plantings. Item 8, proposed to co adopt with BSC, the new mandatory measures for thermal installation for K-12 public schools and community colleges. Item 9, proposed to co adopt with BSC, the new mandatory measures for acoustical ceiling tiles and wall panels for K-12 public schools and community colleges.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell and Ramin.

Agency Representative Tav Commins, senior mechanical engineer with DSA, presented Item 10. This is a new requirement with a carbon dioxide monitoring

sensor in each new classroom, for K through 12 schools. These permanently attached 3 to 6 feet above the floor, and at least 5 feet away from doors and operable windows. Display indication should meet the 1100 ppm value. These sensors need to record in 15-minute intervals and that these recordings must last for a minimum of 30 days. The sensor used to measure carbon dioxide levels, needs to be able to record, down to 400 ppm and up to 2000 ppm and the manufacturers need to certify that at 1000 ppm is accurate within 75 ppm, and they do not need to be recalibrated more than once every five years.

Questions or Comments from the Commissioners:

Commissioner Patel had a question regarding specific exceptions regarding any exception that use of electrical heating is the concern for CO2 or is it just the indoor air quality in general?

Tav Commins responded it is for indoor air quality in general, there has been studies that show that school classrooms do not often bring in enough outdoor air. We can look at the CO2 in the room to determine whether outdoor air brought in or not.

The following Commissioners had no comment: Klausbruckner, Mikiten, Santillan, Sasaki, Alegre, Stockwell and Rambin.

Questions or Comments from the Public:

There were no questions or comments from the public.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 13b); DSA (DSA-SS/CC 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Standards Code, Part 11, Title 24. Commissioner Mikiten moved to approve. Commissioner Rambin seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted "Yes": Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

At this time, Chair Julie Lee moved for an hour lunchtime break.

Chair Julie Lee reconvened the meeting and moved to the next item on the agenda.

Item 13c): Chair Julie Lee states Agenda Item 13c), HCD (HCD 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Standards Code, Part 11, Title 24.

Chair Lee requested the representative from the HCD introduce themselves and

present an overview of Item 13c).

Agency Representative Emily Withers, Codes and Standards Administrator II, representing the HCD, Kyle Krause, Deputy Director, and Tom Martin, District Representative and resident electrician gave an overview of the proposed amendments and explained the Health and Safety Code Section 18941.10 subsection A2 which directed HCD to the proposed mandatory building standards for the installation of future EV charging infrastructure for parking spaces in multifamily dwellings. HCD's proposal includes carrying forward existing 2019 CALGreen provisions, with and without modifications, new provisions, and repeal of existing provisions. Non substantial items 1, part of 2, 5, 6, 7, 8, 9, 10, 12, 13, 14, and 15.

Item 15, Appendix A4 division A4.6 under Tier 1 and Tier 2 category on the checklist, which is at the back of CALGreen, if the commission would like to keep in this grouping.

Commissioner Klausbruckner and Commissioner Mikiten commented on Item 15, stated they would like that item presented separately due to the grouping related to EV charging on the checklist.

Chair Lee thanked Emily Withers for the proposal and opened the floor to more questions by calling on each Commissioner individually. This is questions on Items 1, 2, 5, 6, 7, 8, 9, 10, 12, 13, and 14.

Questions or Comments from the Commissioners:

The following Commissioners had no comment: Patel, Santillan, Sasaki, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

River, a deaf listener, commented regarding the closed caption and whether a recording be available. Mia Marvelli responded the YouTube video recording stays live in will remain on the page.

Dave Shukla resident of Long Beach commented in favor equitable access for EV charging for everyone. As an operations Director of a small climate science and climate justice, nonprofit. 70% of our building stock built before 1970. We need to have the best available codes now to start transition.

Willard Aldus EV driver from the Santa Cruz area, commented regarding availability of charging stations.

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, commented and voiced support of these Items.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 13c); HCD (HCD 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Standards Code, Part 11, Title 24, Items 1, 2, 5, 6, 7, 8, 9, 10, 12, 13, 14. Commissioner Sasaki moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

At this point, Chair Julie Lee turned the floor back over to the HCD for an overview of Items 3, 4, 11, and 15.

Agency Representative Emily Withers, Codes and Standards Administrator II, representing the HCD, outlined the proposed amendments under Items 3, 4, 11, and 15. EV charging provisions developed through a coordinated process between HCD, California Air Resources Board and the commission. HCD had advice and input from the governor's office, CEC, and stakeholders. HCDs proposed action will support the implementation of the governor's executive orders, B16-2012, B48-2018 and N-79-20. Focus group meetings held on December 17, 2020, and on February 12, 2021. Comments received from stakeholders for Level 1 charging and level 2 charging since Level 1 charging may not be suitable for long distance commuters or larger batteries or may require longer charge times. Stakeholders placed a significant emphasis to have immediate access to EV charging. An additional briefing meeting held on April 12, 2021, to inform stakeholders of HCDs proposal. The express terms documents and other rulemaking documents reviewed by CAC on April 28, 2021, they recommended further study for items, and to consider the alternative compliance pathway, but not to delay and to continue to move ahead with the HCDs proposal. The revised rulemaking documents made available for the 45-day public comment period from August 13 to September 27, 2021. 170 public comments received. An additional 15-day public comment period offered from October 3rd through the 28th 2021. 11 public comments received also included 132 comments sent to HCD in December 2021.

Commissioner Sasaki requested a brief summary.

Commissioner Mikiten would like more detail, only where the items differ from previously presented.

Emily Withers clarified to use the express terms dated November 3, 2021.

- Chapter 2 definitions approved, only for the urinal definition.
- HCD proposed new definitions related to the electric vehicle charging.
- Electrical EV charging receptable.
- New provisions clarifying the application of EV charging related to additions or alterations of existing parking lots, or addition of new parking spots to existing multifamily dwellings and clarification. Emily requested any questions from the Commissioners at this time.

Questions or Comments from the Commissioners:

Commissioner Rambin regarding Item 3, adding another bedroom to unit, it may not be increasing the parking space requirement. How do you know how many additional EV charging spaces are affected by that?

Emily responded: For example, if you have an apartment house with 100 parking spaces and then their adding 50, this will apply to the 50 that added.

Commissioner Rambin So, you are looking at a significant addition not just like an incremental. Does not apply to multifamily. Looking at projects like single family home.

Emily responded: Regarding accessory dwelling units, an exception in Chapter 4, an accessory dwelling unit added but then are not additional parking facilities, adding at the same time, and would not be subject to the electric vehicle charging requirements.

Kyle Krause, Assistant Deputy Director from HCD commented: For additions and alterations, the trigger would not initiate for the addition of multifamily dwelling units, but triggered for addition of parking space, new parking facilities at the multifamily residential building or significant alterations such as the addition of a solar parking structure over an existing parking facility. HCD will collaborate with stakeholders regarding additions, alterations and triggers that could require installation of EV infrastructure.

Commissioner Patel had a question, regarding single family residential, adding a bedroom on an existing older house, if they did not touch the attached garage, then EV charging capable requirement would not apply?

Kyle Krause responded: that is correct

Emily Withers further explained: HCD is responding to the directives and the governor's executive orders to support this transition to zero emission vehicles, also his veto message on Assembly Bill 684, back in 2000. This directive addressed bringing EV charging to existing buildings and he directed the HCD to develop and propose a building standard that would increase the availability of EV charging infrastructure of existing multifamily properties while limiting costs for affordable housing which was his veto message.

Commissioner Sasaki voiced his slight confusion at this time and asked clarifying questions. Is this only for multifamily?

Emily Withers responded. In the veto message was for multifamily only.

Commissioner Sasaki had further questions.

Emily Withers responded it is related to multifamily dwelling units and connected

to the requirement in Chapter 4, section 4.106.43 and on page 11 of 19.

Kyle Krause responded: A new bathroom added to an existing building comply with CALGreen, but it would not trigger EV charging requirements. The requirements proposed for alterations and additions, specifically applies to multifamily in Chapter 3 and Chapter 4 as the language in the express terms indicates.

Commissioner Klausbruckner had a question regarding requirement triggers. If you have 50 parking spots altered and taking away two spots, not required by code, would this trigger the requirements in this section?

Kyle Krause replied, no, it would not, the alteration does not relate to the parking facility itself, or the parking facility electrical.

Emily Withers went on to explain the proposed amendments further. Chapter four, is the mandatory residential provisions, including remembering and reformatting existing and adding new requirements for EV charging and multifamily dwellings and hotels and motels. Retaining the existing requirement for 10% of the EV capable parking spaces in the multifamily, and for the hotels and motels 6% with this proposal it increases the EV capable spaces, from 6% to 10%. HCD requiring adding new requirements for 25% of parking spaces to have low power Level 2 receptacles to be installed, and the requirement is for EV ready spaces, low power Level 2 receptacle is defined in Chapter 2, to 208 or 40-volt, 20-amp minimum branch circuit and receptacle for EV charging, adding requirements for 5% of parking spaces to have Level 2 chargers, and this is for buildings with more than 20 units multifamily buildings and hotels and motels. This requirement is also for EV ready spaces Level 2, electric vehicle supply equipment defined in Chapter 2, as to 208 to 40 volt, 40-amp branch circuit, and EV charging connectors attachment plugs and other equipment to charge or transfer energy to electric vehicles. Requiring signage, which would be in compliance with Caltrans Traffic Operations policy directive 1301 with specific dimensions. HCD including references to Chapter, 11b for accessibility for public housing, requested by Division of State Architect (DSA). Item 11, this includes the Tier measures and the voluntary measures for CALGreen. HCD is repealing Tier 1 and Tier 2, replacing them with actual Tier 1 with 35% for Tier 1 low power Level 2 receptacles, and then spaces to be quick charges more than 20 units and increase for Tier 2 to 40% EV ready, 15% for chargers.

Questions or Comments from the Commissioners:

Commissioner Klausbruckner had a question on Item 4, HCD has replaced the \$400 per dwelling unit to language similar to BSCs. One is addressing the cost per dwelling unit, and the other one is substantiating the additional local utility infrastructure design requirements. Is it more difficult for smaller owners of smaller dwelling units to substantiate versus the simple math of \$400 per dwelling unit?

Emily Withers answered. The \$400 developed when HCD first adopted the mandatory measures back in July 2015. HCD knows that the cost is not relevant and should be much greater than that. Kyle Krause could provide more information.

Kyle Krause, Assistant Deputy Director from HCD responded: This is in response to guidance from the CAC, they too felt that the \$400 threshold has come and gone as the code has evolved and the intent here is really different than what it was before, because now we're talking about, much larger projects with multifamily mandatory EV charging provisions that can have significant complications based on available utility infrastructure than the ability of the utility companies to provide power to the property where this installation might occur.

Commissioner Mikiten stated that he asked the HCD representatives to speak further regarding the process before opening the floor to public comments and the 220 outlets available for public use and safety concerns.

Emily Withers responded with HCD had focus group meetings that was related to the EV charging that where significant changes were made. The stakeholders expressed the need for Level 1 charging, and HCD accommodated that. EV drivers who have longer commute distances or larger battery sizes in EVs. This would result in longer charge times related to the Level 1 charging. The alternative compliance method provided, on April 16th and the CAC meeting was April 28th. Regarding the 220 outlets, this covered by the Electrical Code on the weather proofing and other safety measures built in to protect outdoor exposure of receptacles.

Tom Martin stated that the California Electrical Code would cover any of the safety issues with the 220 outlets, being outdoors and would have to be a weatherproof receptacle.

Kyle Krause, Deputy Director, HCD commented: On a significant issue about billing or charging multifamily residential tenants for the use of the electrical power provided for EV charging via receptacles. Building owners, California Building Industry, voiced concern whether it was monthly fees included in their rental amount, or if they were going to pay via an app.

Commissioner Sasaki question about terminology on page 7 EV ready on BSC's table talks about electrical vehicle charging station under the HCD regs it shows EV ready, what is the difference?

Emily Withers responded BSC does not have the receptacle that would be a space with a charger. HCD's EV charging station is charger put in. The EV ready could have a charger or just the receptacle.

Kyle Krause commented that the EV ready is going to be a receptacle and the EV owner to plug in their cord directly into the receptable. The EV charging station installed is a full Level 2 charger.

Tom Martin commented that EV capable is just the infrastructure, EV ready you can charge out of that space or through a charging station that you just plug into your car.

The following Commissioners had no comment: Patel, Santillan, Alegre, Stockwell, and Rambin.

Questions or Comments from the Public:

Chris Chavez, Deputy Policy Director at Coalition for Clean Air, commented and asked to be more ambitious in BSC's proposal. 80% of California smog forming pollutants is from the transportation sector as are 50% of the state's greenhouse gas emissions. California just hit the 1 million electric vehicles sold in the state recently and stays committed to the 1.5 million electric vehicles in 2025 and 5 million by 2030.

Jared Johnson, Senior Manager of Policy for Acterra, commented on not by only adopting these codes today but expanding access to EV charging to everyone in this cycle update. Thanked the commission for changing the EV ready this code cycle to include a receptacle and increasing the overall charge and requirements to cover up to 40% of spaces and new multifamily buildings however to accurately meet the state's climate and clean air goals, including 5 million EVs on the road by 2030. The new multifamily construction must provide EV charging to all new residential units.

Marc Geller, member of the EV Charging Access for All Coalition and co-founder and current Vice-President of Plug in America, commented on that his organization has been working to accelerate the adoption of electric vehicles since 2006. It is time to mandate access to power for EV charging for all in new multifamily construction nearby unregulated fast charging a two to three times the cost of power at home is not an equitable alternative. Vendors already exist that have receptacle EV charging products.

Vanessa Warheit, employed by Acterra and co-lead of EV Charging Access for All, commented on advocating for equity in residential CALGreen new EV building codes for over a year. California Air Resources Board Chair Leanne Randolph recently told the world that states and countries "must address non-financial barriers to installing chargers including best practices and building parking and fire code requirements to accelerate the installation of residential commercial and workplace charging." Eight months ago, in response to an early draft of the code an alternative compliance pathway proposal, both for nonresidential and residential, which the Green CAC recommended for further study and inclusion in the code. Housing and Community Development (HCD) declined to follow this guidance. During the public comment period three months later, the vast majority of the comments received demanded equitable access for multifamily housing. We would like to record on the record to state that over 2000 comments submitted were lost during the public comment period.

Sam Houston, Senior Analyst at the Union of Concerned Scientists (UCS),

commented on that they were a signatory to the EV charging for all coalition letters. Representing the UCS members and supporters whose comments on this docket were among the more than 2000 lost, and not included in the final revised statement of reasons. They asked the commission to align the CALGreen code with California's climate goals and requiring EV ready parking for every new multifamily unit with parking in this current code cycle update.

Wendy Cho a resident of San Mateo County, a scientist, a renter, and EV driver, commented and asked the commission to uphold equity and climate leadership in California, and specifically to require EV ready parking for new multifamily construction, ideally in this code cycle update as an EV owner who charges at home regularly with Level 1 charging.

Sven Thesen, co-leader with the EV Coalition Charging for All Access and personal EV driver, commented on his support of moving the current multifamily housing 25% requirement to 85%, thereby providing access to charging for all. We have learned that 70% plus EV drivers charge at home and we need to provide access to power and access for everyone.

Linda Hutchins-Knowles with the EV Coalition Charging for All commented expansively on that HCD given direction by the CAC to consider alternative compliance pathway, and that recommendation was disregarded. The Health and Safety Code, Chapter 3 sections 18930-18934.9 powers of the commission, referencing 18933a, it says the commission may rewrite edit amend, or adopt and approve the building standards consistent with the intent of this part, and in accordance with the APA. We ask to provide equity for California for multifamily residents.

Lauri Ann Barber from Cotati, California, and EV driver, commented on as an owner of an EV and live in a special type of multifamily co-housing. She emphasized that it is extremely important that the infrastructure for EV charging installed at the time of construction and retrofitting is so expensive. We ask that the staff change the 25% EV ready to make access for everyone.

Steve Douglas, with The Alliance for Automotive Innovation, commented on the support of the proposal and recommend the commission approve the proposal. Governor Newsom's executive order calls for 100% electric vehicles electrics by 2035 and in six months the California Air Resources Board plan a hearing to make that requirement legally binding. President Biden has set a target of 50% electric vehicles by 2030. A year ago, the California Public Utilities Commission approved up to \$15,000 to retrofit a single charger. For residential study from the Energy Commission from National Renewable labs, assume that 80 to 90% of charging will occur at home, and we completely agree that home charging is far cheaper. Having a receptacle installed at 240 volts is critically important.

Kristian Corby, Deputy Executive Director for California Electric Transportation Coalition, commented on that the building code needs to be ambitious in its increase in charging access. They support the proposal and its adoption but continue to recommend that the Commission be ambitious in their future code

proposals.

Noelani Derrickson, representing Tesla, stated that Tesla supports the proposed increases for EV capable, EV ready and EV supply equipment installed for building codes for multifamily dwelling units while acknowledging the need for more. Tesla strongly supports HCD's proposal to trigger a 10% EV capable requirement.

Philip Kobernick, EV Programs Manager for Peninsula Clean Energy, commented on future code updates, highly encourage HCD staff and other staff to meet with EV programs stakeholders across the state.

Betsy Thagard, realtor from Berkley, commented on how this is an equity issue and only people who can afford to buy single family homes in California are the extremely wealthy.

Dwight McCurdy, who previously worked in an electric vehicle program, commented on that He has been working in the EV SMUD program from 1989, until last year. He thanked the commissioner, BSC and HCD and all the other stakeholders for their arduous efforts to bring about good standards and codes to support EV adopted as we needed in the future.

Guy Hall, Board Director for Electric Auto Association, commented on the residents, recognize that the inconvenience, insecurity, and the poor economics of public charging prevents them from adopting clean transportation, keep in mind that 100% of new family homes constructed since 2015 have charging infrastructure, but not true for multifamily dwellings. The EV ready requirements should be a low Level 2, or higher, and not restricted. We urge the commission to adopt a more aggressive code and address the inequities around multifamily housing.

Luke Horton energy consultant and affiliated with the California Association of Building Energy Consultants, commented on incorporating EV charging into all multifamily parking spaces. Many people on fixed income, but considering EVs, in particular the cheap electric vehicles in the form of golf carts, to do daily errands. They would run an extension cord with a golf cart brand extension cord from their apartment then told by the landlord that he could not do that. Encouraging low level chargers installed in 100% of spaces.

Laura Rosenberger commented on equity issues and encouraging that there be chargers installed in 100% of spaces.

Bob Raymer representing the California Building Industry Association, California Apartment Association, Building Owner's and Manager's Association of California, and the California Business Properties Association, In support of the proposed changes. Legislature will be actively moving this forward and recommended that stakeholders be involved in the process.

Ann Hardy family physician, commented on California's climate and equity goals

by requiring EV charging access for all parking spaces in multifamily buildings, not just single-family homes.

A volunteer leader with “Mothers Out Front” a grassroots movement mobilizing political climates for all children and have 36,000 plus members in California commented on the proposed CALGreen code update by requiring EV ready charging with prominent signage for 100% of the multifamily housing units of parking. In fact, on December 9, 2021, The Washington Post published an excellent article titled without access to charging stations, Black and Hispanic communities left behind in the era of electric vehicles.

Commissioner Klausbruckner had a question for Bob Raymer regarding builders will build the minimum for the next few years, or building more EV charging capable parking spots, then required?

Bob Raymer responded by saying that many are going above code at the local level, there's local jurisdictions that are pushing builders in that direction. The Energy Commission and the legislature through a budget augmentation is going to be providing money for the inclusion of EV charging equipment for both new construction, and existing construction.

Chair Lee commented again on the Q & A function in Zoom not monitored during this meeting and staff will not be able to answer those questions. Chair Lee concluded this public comment portion and called for a 15-minute break.

Chair Lee recalled the meeting to order.

Commissioner Sasaki requested clarification on the Health and Safety Codes and clarification on the action that the commission can make, any changes and establishing a committee to move the code forward.

Viana Barbu, Counsel for CBSC, clarified the complex set of laws that interplay with each other and summarized the details under the Health and Safety Code sections that the Commission adopts regulations for administrative purposes. Part 1, Chapter 1 the administrative section, the APA, which is a part of the Government Code, also mandates that regulations be adopted so then there is the California Code of Regulations that implements all of those Government Code sections that comprise the APA. This all means that just citing one section of the Health and Safety Code is not sufficient and cannot adopt regulations with amendments spontaneously here at this meeting because the rest of the regulations and APA requires going through a whole rulemaking process, in order to allow the public further comment on the new proposed amendments.

Commissioner Sasaki responded if sent back to further study, would changes be done, for the 2022 codes?

Mia Marvelli stated it would be necessary to redo the cost benefit analysis, potentially conducting a workshop to discuss and if it were a substantive change it would have to go through a 45-day public comment period and back to

Department of Finance and completed in a few months to be published by July 1, 2022.

Commissioner Mikiten commented and appreciated all the hard work by the staff, the stakeholders and how they have come to voice their concerns.

As an architect focused on affordable multifamily housing for 25 years, and as an owner of an EV that only has an 80-mile range, and do not have a driveway or garage at home to charge it. I understand all of the concerns that heard about the proposed standards. BSC, DSA, HCD and everybody involved, look deeply at the comments and are open to continuous review and discussion during the intervening code cycle. There is a balance with the housing crisis and the environmental crisis at the same time.

Commissioner Patel supporting the comments made by both public, stakeholders and agencies and the clarification about the process. Thanked everyone for all the hard work. To put this into context the rulemaking process for all the codes, not just the CALGreen code and EVC elements but also all the other codes that are for fire life safety building, residential electrical, mechanical plumbing, all managed at the same time.

Motion: Chair Julie Lee entertained a motion to consider Agenda Item 13c); HCD (HCD 03/21) Proposed adoption of amendments to the 2019 California Green Building Standards Code for incorporation into the 2022 California Green Building Standards Code, Part 11, Title 24, Items 3, 4, 11, and 15. Commissioner Sasaki moved to approve. Commissioner Mikiten seconded and moved to approve. Motion carried with a unanimous roll call vote of 8 yes, 0 no, per roll call vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Agenda Item 14. FUTURE AGENDA ITEMS

Questions or Comments from the Commissioners:

There were no questions or comments from the Commissioners.

Agenda Item 15. ADJOURN

Motion: Chair Julie Lee entertained a motion to adjourn. Commissioner Mikiten moved to adjourn the meeting. Commissioner Klausbruckner seconded. Motion carried with 8 yes, 0 no, and 0 abstain, per simultaneous voice vote.

The following Commissioners voted “Yes”: Klausbruckner, Mikiten, Sasaki, Patel, Santillan, Alegre, Stockwell, and Rambin.

Chair Julie Lee adjourned until the next meeting on January 18th through the 20th, 2022.