



International Energy Conservation Code E4C-HVACR Subcommittee

Meeting Agenda

August 17, 2023

12:30 PM EDT to 2:00 PM EDT

[Webex](#) Link

Committee Chair: John Bade, representing the California Investor Owned Utilities

Committee Vice Chair: Blake Shelide, Oregon Department of Energy

1. **Call to order**-Chair or vice-chair

2. **Meeting Conduct.** Staff

- a. Identification of Representation/Conflict of Interest
- b. ICC [Council Policy 7](#) Committees: Section 5.1.10 Representation of Interests
- c. ICC [Code of Ethics](#): ICC advocates commitment to a standard of professional behavior that exemplifies the highest ideals and principles of ethical conduct which include integrity, honesty, and fairness. As part of this commitment, it is expected that participants shall act with courtesy, competence and respect for others.

3. **Roll Call** – Establish Quorum- John Bade

	First Name	Last Name	Category	Company
<input checked="" type="checkbox"/>	John	Bade	Utility	2050 Partners
<input type="checkbox"/>	Drake	Erbe	Standards Promulgator	ASHRAE
<input checked="" type="checkbox"/>	Henry	Ernst	Manufacturer	Daiken
<input checked="" type="checkbox"/>	Gary	Heikkinen	Utility	American Gas Assoc.
<input checked="" type="checkbox"/>	Mark	Heizer	Gov. Regulator	Oregon Bldg Codes Div
<input checked="" type="checkbox"/>	Gary	Klein	User	Self
<input type="checkbox"/>	Jeff	Kleiss	Manufacturer	Lochinvar (AO Smith)
<input type="checkbox"/>	Benjamin	Levie	Consumer	UCSF
<input checked="" type="checkbox"/>	Dick	Lord	Manufacturer	Carrier
<input checked="" type="checkbox"/>	Frank	Morrison	Manufacturer	Baltimore Aircoil
<input checked="" type="checkbox"/>	Christopher	Perry	Gov. Regulator	US DOE
<input type="checkbox"/>	Daniel	Nall	Gov. Regulator	Dan Nall Consultant/ AIA
<input type="checkbox"/>	Laura	Petrillo-Groh	Manufacturer	AHRI
<input checked="" type="checkbox"/>	Kevin	Rose	Public Segment	NEEA
<input type="checkbox"/>	Shannon	Corcoran	Utility	American Gas Assoc.
<input checked="" type="checkbox"/>	Blake	Shelide	Gov. Regulator	Oregon Dept of Energy
<input type="checkbox"/>	Amin	Tohmaz	Gov. Regulator	City of San Antonio
<input checked="" type="checkbox"/>	Doug	Tucker	Manufacturer	Mitsubishi
<input type="checkbox"/>	Jeremy	Williams	Gov. Regulator	US DOE
<input checked="" type="checkbox"/>	James	Yeoman	Gov. Regulator	City of Orem

4. **Review of Notes** from the July 28, 2023 meeting. Per staff direction, subcommittees do not have minutes, but notes. These do not need a vote.

5. **Approval of Agenda**

- Likely 3 items for next week. John B. proposes to move final item on today's agenda (CE2D-77) to next week.
- No objections, agenda accepted

6. Old Business – none

7. Overview of the comments assigned to the IECC HVACR and Water Heating Subcommittee.

8. Review and possibly vote on the following public comments

Comment #	Proponent	Section	Purpose
CED2-25-23	Johnson, Greg	C403.7.8	Delete the list of spaces eligible for occupied-standby controls
CED2-20-23	Lord, Richard	TABLE C403.3.2(8)	Update the reference from AHRI 1230-2014 to AHRI-1230-2020
CED2-21-23	Lord, Richard	TABLE C403.3.2(9)	Update the reference from AHRI 1230-2014 to AHRI-1230-2020
CED2-18-23	Lord, Richard	Table C403.3.2(3)	Add some missing capacities for chiller classes
CED2-15-23	Lord, Richard	Table C403.3.2(1)-(16)	Remove any columns that will be outdated in 2024.
CED2-11-23	Lord, Richard	Table C403.3.2(1)	Remove the text that refers to dates before 1/1/23
CED2-14-23	Lord, Richard	C403.3.2	Do not call out 90.1 and refer to the IECC table numbers. Note: they are already in the first sentence.
CECD2-1-23	Lord, Richard	C403.4.6	Add an exception for HVAC DR requirements for thermal storage.
CECD2-2-23	Lord, Richard	C403.4.1.2	Increase the stringency of thermostat deadband requirements.
CED2-77-23	Ahee, Bryan	References	Add AHRI 1430

CED2-25-23

- We took action on this section last week, so it has generally already been addressed and fixed.
- No more fixes are really needed. Proponent of this comment agreed with what was done last week
- Motion Blake Shelide to disapprove, seconded Gary Heikkinen
- Reason: to stay consistent with what the committee already approved. Action already taken on concerns to address this section.
- Motion passes 8-0-2

CED2-20-23

- Explanation of table updates
- Skip Ernst motion to approve, Frank Morrison second
- Motion to approve passes 8-0-2
- Reason: to eliminate dates prior to the publication of 2024 IECC, to harmonize with ASHRAE 90.1 and regulations

CED2-21-23

- Same text as -20, but this comment applies to table 9 instead of table 8

- Skip Ernst motion to approve, Mark Heizer second
- Motion to approve passes 8-0-2
- Reason: to eliminate dates prior to the publication of 2024 IECC, to harmonize with ASHRAE 90.1 and regulations

CED2-18-23

- Discussion about how all tables that were posted for comment were intended to be updated to match ASHRAE tables, but some didn't
- Gary Heikkinen motion to approve, Dick Lord second
- Motion passes 9-0-2
- Reason: see the reason statement and other text in the comment.

CED2-15-23

- Sort of an omnibus comment to remove any references to 2023
- Passing this would be authorization for ICC staff to go through text and remove all requirements and references to 2023 dates
- Mark Heizer move to approve, seconded Dick Lord
- Motion passes 8-0-2
- Reason: good idea to remove references to outdated dates

CED2-11-23

- John Bade: This is a little bit of a mixed bag. Part of comment includes an update to the footnote, which we already approved last week. We may want to remove this.
- John Bade made amendments to call out tables C403.3.2(1) and (2).
- Remove the word "are" in the footnote for grammar reasons
- Skip Ernst move to approve as modified, seconded by Dick Lord
- Motion passes 9-0-2

CED2-14-23

- There actually is a change to the text for this one. Comment suggests not calling out ASHRAE 90.1-2022, but call out specific tables.
- Specific tables are already called out in the beginning of the table, and we've already removed the last sentence here.
- Dick Lord motion to approve, seconded by Mark Heizer
- Reason: sentence already eliminated in a prior action and the referenced tables are already called out in the first sentence.
- Motion to disapprove passes 9-0-2

CECD2-1-23

- Some edits have been made since we first discussed this in the SC, bringing it back now
- Wanted to allow thermal or battery storage to serve as an exception. Not a lot of technical analysis that went into the 25% load reduction specification
- Steve Rosenstock: suggestion to add "not less than" before 25%. SC agreed this made sense. Also add "not less than" before 3 hours. Suggested to also add "heating and cooling" to qualify the load – does 25% only apply to heating/cooling loads, or to whole building. Ultimately SC did not add heating/cooling as a qualifier to the load.
- Kevin Rose asked for more supporting documentation, if available, for 25% peak load and 3 hour thresholds in the proposed language
- Steve Rosenstock: this language for the exception probably asks for more in terms of peak load reduction than what you'd have to do if you met the requirement (setback requirement). Exception asks for more than if you were just cutting back the thermostat by a few degrees.
- John Bade: if you're going through the effort to install this storage, you're probably grid-connected as well
- Gary Heikkinen, move to approve as modified. Gary Klein second;
- Motion passes 8-0-2

- Reason: Encourages the use of thermal energy storage by providing an additional technology option for reducing demand.

CECD2-2-23 (CECD2-6-23)

- Dick Lord: found that in many hotels, there are single setpoint thermostats. So if you have 4 degree changes, it may launch the unit into the other mode back and forth, which is exactly what we don't want to happen
- New language clarifies that when an operator is making an adjustment, it is apparent that they are either changing the heating or cooling setpoint and the other one doesn't change (except as needed to maintain deadband).
- SC discussion that in the comment proposal, C403.3.4.1.4 and C403.3.4.1.4.5 are identical. Should we delete the .5 paragraph?
- John Bade suggestion. Did we incorporate ISC? Dick Lord, yes, that is the intent. But suggestion to table until next week to make sure we're ready.
- Kevin Rose: are there any compelling reasons why this shouldn't go through? Why we should push it back, if there are any concerns?
- Steve Rosenstock: no concerns, but suggested to put Celsius degrees in parentheses.
- Chris Perry: also noted that "an" should be "and" in item 2
- Dick Lord: going to double check the ISC and hospital application
- Kevin Rose: noted informative notes in the parentheses in 403.4.1.4 that are an informative, non-exhaustive list that may not be appropriate. Suggested edits to "mechanical or software means"
- John Bade will double-check with ISC
- No action taken in this meeting

CED2-77-23

- Moved to next week
- Comment was only to add this standard to the reference list, but it is not anywhere in the body of the code currently. Concerns that adding it to the body of the code may be adding stringency that the industry may not expect.

Next week

9. **Updates on other public comments.** Reports from subcommittee response leads on progress working with commenters.

10. Other business.

- Members to bring up any new business

11. Upcoming meetings.

- a. August 24, 2023 12:30 EDT to 2:00 EDT

12. Adjourn.

Motion to adjourn Dick Lord, seconded by Skip Ernst

FOR FURTHER INFORMATION BE SURE TO VISIT THE ICC WEBSITE:

[ICC Energy webpage](#)
[Code Change Monograph](#)

FOR ADDITIONAL INFORMATION, PLEASE CONTACT EITHER

- John Bade, Subcommittee Chair at johnbade@2050partners.com.
- Blake Shelide, Subcommittee Vice-Chair at blake.shelide@energy.oregon.gov