



International Energy Conservation Code E4C-HVACR Subcommittee

Meeting Agenda

February 10, 2022
11:30 AM EST to 1:30 PM EST (2 hours)

[Webex Link](#)

Committee Chair: Shaunna Mazingo, Mazingo Code Group LLC

Committee Vice Chair: Blake Shelide, Oregon Department of Energy

Meeting notes are blue text

1. **Call to order**-Chair. [Called to order at 11:34 EST](#)

2. **Meeting Conduct.** Staff

- [Chair reminded members to identify themselves and whom they represent when speaking. Also asked members to be brief. Asked those who are in opposition to voice their opinion so that we know why we have “no” votes. Need to add roll call to the minutes.](#)
 - 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- Vice-Chair

	First Name	Last Name	Category	Company
X	Christopher	Arnold	Consumer	Grand forks Public Schools
X	John	Bade	Utility	2050 Partners
X	Ellen	Eggerton	Gov. Regulator	City of Alexandria
X	Drake	Erbe	Standards Promulgator	ASHRAE
X	Henry	Ernst	Manufacturer	Daiken
X	Mark	Heizer	Gov. Regulator	Oregon Bldg Codes Div
X	Adrian	Jones	Gov. Regulator	City of Lawrence
X	Gary	Klein	User	Self
<input type="checkbox"/>	Jeff	Kleiss	Manufacturer	Lochinvar (AO Smith)
X	Benjamin	Levie	Consumer	UCSF
X	Dick	Lord	Manufacturer	Carrier
<input type="checkbox"/>	Frank	Morrison	Manufacturer	Baltimore Aircoil
X	Shaunna	Mozingo	User	Mozingo Code Group
X	Christopher	Perry	Gov. Regulator	US DOE
X	Daniel	Nall	Gov. Regulator	Dan Nall Consultant/ AIA
X	Laura	Petrillo-Groh	Manufacturer	AHRI

<input type="checkbox"/>	Kevin	Rose	Public Segment	NEEA
X	Thomas	Schultz	Utility	Spire and American Gas Assoc.
X	Blake	Shelide	Gov. Regulator	Oregon Dept of Energy
<input type="checkbox"/>	Amin	Tohmaz	Gov. Regulator	City of San Antonio

X	Doug	Tucker	Manufacturer	Mitsubishi
<input type="checkbox"/>	Jeremy	Williams	Gov. Regulator	US DOE
X	James	Yeoman	Gov. Regulator	City of Orem

4. **Approval of Minutes** Approval of January 27, 2022 Minutes. [Moved by John Bade. Seconded by Adrian Jones. Approved 14-0-0](#)

5. **Approval of Agenda Jim motion, Mark Heizer 2nd.**

- [John Bade suggest moving CEPI-14 ahead of CEPI-98 because 14 has definitions that would affect 98. The chair agreed.](#)
- [Nick O’Neil asked to move up CEPI-97 because he has to leave early.](#)
- [Request to move CEPI-76 because proponent is not available. Removed from the agenda.](#)
- [Request to move CEPI-101 to be moved to the next meeting to be heard by 108. Done.](#)
- [John Bade noted that CEPI-93 VRF should be removed since it is out for public comment for ASHRAE 90.1. Proponent Steve Rosenstock asked that it be kept on the agenda and all his table proposals be heard as a group.](#)

6. **Old Business**

- a. [Items forwarded to other committees for review or completion. Nothing new to report.](#)

7. **Action Items.** [\(We will hear as many of these as possible. Any proposal not heard in this meeting will be moved to the first items on the next meeting’s agenda\)](#)

a. **CEPI-088-21**, HVAC Table Updates, Proponent- Steve Rosenstock (previously tabled)

- [CEPI-88, -90, -91, -92, -93, and -94 were discussed as a group.](#)
- [Steve Rosenstock suggested that the subcommittee reject the proposals to allow the tables to be updated during public comment.](#)
 - [Drake Erbe supports this position.](#)
 - [Dick Lord spoke in favor](#)
 - [John Bade asked if disapproval meant that the tables would not be open for public comment.](#)
 - [Kris Stenger said that the entire document will be open for review.](#)
- [Mike Kennedy noted that the values in ASHRAE that show starting in 2023 would not be appropriate. Chair suggested that dates that are pre-2024 can be edited after the public comment.](#)
- [Nick O’Neil spoke about CEPI-93](#)
 - [Showed updated proposal with values agreed upon by the working group.](#)
 - [For commercial boilers the values align with current DOE regulations.](#)
 - [Showed two options – natural and forced draft boilers now have the same value for DOE regulation. One option shows them combined and the other keeps them separated but with the](#)

same values.

- Laura Petrillo-Groh said that DOE has been ordered by the federal courts to review their analysis. She believes that the values should match the lower values in ASHRAE 90.1.
 - The chair stated that we need to vote up or down.
 - Mark Heizer said that we should vote the same way.
 - Mark Heizer suggested that we at least need to make sure that the expired effective dates are removed.
 - Nick O'Neil expressed concern about what would happen if ASHRAE does not update. Chair noted that proponents can bring back the same proposals.
 - Laura Petrillo-Groh said that if DOE does not change the numbers for boilers AHRI would support using the federal values rather than the ASHRAE values.
 - Motion to disapprove by Mark Heizer, seconded by Drake Erbe Passed 16-0-2 Chris Perry, Kevin Rose abstaining.
- b. **CEPI-090-21**, Heat Pump Table Updates, Proponent- Steve Rosenstock (previously tabled)
- See actions as a group under CEPI-88. Motion to disapprove by Mark Heizer, seconded by Drake Erbe Passed 16-0-2
- c. **CEPI-091-21**, CEPI-091-21, Furnace Table Updates, Proponent- Steve Rosenstock (Previously approved by subcommittee but brought back to go with the rest)
- See actions as a group under CEPI-88. Motion to disapprove by Mark Heizer, seconded by Drake Erbe Passed 16-0-2
- d. **CEPI-092-21**, Boiler Table Updates, Proponent- Steve Rosenstock (approved by committee but tabled moving it to consensus committee until hearing CEPI-093 revision)
- See actions as a group under CEPI-88. Motion to disapprove by Mark Heizer, seconded by Drake Erbe Passed 16-0-2
- e. **CEPI-093-21**, Boilers Min Efficiency Req Gas and Oil, Proponent- Nicholas O'Neil (previously tabled)
- See actions as a group under CEPI-88. Motion to disapprove by Mark Heizer, seconded by Drake Erbe Passed 16-0-2
- g. **CEPI-094-21**, Variable Refrig Air Conditioners Table, Proponent- Steve Rosenstock
- See actions as a group under CEPI-88. Motion to disapprove by Mark Heizer, seconded by Drake Erbe Passed 16-0-2
- h. **CEPI-095-21**, Package electric heat cool equipment, Proponent-Mike Kennedy
- Mike Kennedy brought a modified version
 - Ellen Eggerton object to including alterations in the exceptions. Also questioned the exemption for unstaffed wireless facilities.
 - John Bade suggested exempting room air conditioners
 - Mark Heizer said that wireless facilities don't need heating above 25 °F. He thinks the proposal needs some more work.
 - Dick Lord
 - Terms should be aligned with those used for data centers
 - No units available over 20 tons
 - PTACs would not be able handle condensate
 - Changed heating mode to heat pump mode.
 - Blake Shelide – asked whether the term should be heat-pump only. Mike

- Kennedy said ER heating is needed for defrost.
 - Nick said that many heat pumps
 - Mike Kennedy
 - GE and Frederickson run to low temps.
 - Laura Petrillo-Groh only aware of one manufacture that can go to twenty-five degrees. Is concerned about single-packaged vertical units on equipment buildings or modular classrooms
 - Mark Heizer all the discussion has been about small units. He is concerned that this equipment does not exist above 20 tons.
 - Chair asked Mike Kennedy to confirm the as modified version is what he wants.
 - John Bade suggested that vote to disapprove means that it will not appear in the draft.
 - The chair asked Kris Stenger if this would show up in the public draft if disapproved by the E4C. He said it would not.
 - Amanda Hickman asked that Kris confirm that we will not see disapproved items in the draft. He confirmed
 - Skip Ernst said that reversing valves reduce cooling efficiency and heat pumps do not necessarily save energy
 - Ellen Eggerton is in favor of approval with getting rid of alterations.
 - Moved for disapproval, seconded by Jim Yoeman (sp?) Roll call vote.
 - Disapproved 9-8-1
 - No voters: John Bade, Ellen Eggerton, Gary Klein, Ben Levie, Shaunna Mazingo, Kevin Rose, Blake Shelide, Jim Yoeman
 - Abstain: Chris Perry
- i. CEPI-096-21, HVAC Reversing Valve Requirement, Proponent-Glory O'Brien**
- Proponent not at the meeting.
 - Chair read a statement by Frank Morrison stating that calling out a reversing valve is inappropriate, say
 - Motion to disapprove by Skip Ernst, seconded by John Bade.16-0-1. Chris Perry abstained.
- j. CEPI-076-21, HVAC Total System Performance, Proponent – Jeremy Williams**
- Removed from the agenda (proponent not available)
- k. CEPI-014-21, Dedicated Outdoor Air Systems, Nicholas O'Neil**
- Nick O'Neil presented
 - John Bade suggested several changes. Need to list them.
 - Laura Petrillo-Groh noted that DOE will come out with new definitions for DX-DOAS that can be added at public comment.
 - Motion to approve as modified, seconded by Kevin Rose 14-1-0 opposed: Dick Lord
 - Skip Ernst expressed asked about DDX vs. DX. Nick said we can fix in public comments if DOE comes out with the change.
- l. CEPI-098-21, Dedicated Outdoor Air Systems, Mark Lyles**
- Held over until the next meeting. This one will be first.
- m. CEPI-086-21, Fault Detection, Bill Faye**
- Held over until the next meeting.
- n. CEPI-073-21, Flex Facilities, Megan Hayes**
- Held over until the next meeting.

- o. **CEPI-097-21**, Boiler Controls, Nicholas O’Neil
 - Held over until the next meeting.
- p. **CEPI-099**, Grid Integrated Thermostats, Kimberly Cheslak
 - Held over until the next meeting.
- q. **CEPI-101-21**, Occupied Standby Controls, Emily Toto
 - Held over until the next meeting.

9. Other business.

- Chair noted that there are no meetings scheduled during the public comment period. Proponents will receive the HVAC&R proposal tracking spreadsheet so they have some idea when they are coming up.
 - Noted that E4C kicked back CEPI-111. The subcommittee needs to work on the wording for parking garage section.
 - We are keeping an interested parties list. Please send a request to the chair if you wish to be added to the mailing list..
 - Discussed extending to three hours, starting 30 minutes earlier and going 30 minutes later. Straw poll showed people in favor. **Going forward, meetings of the HVAC&R Subcommittee will start at 11:00 a.m. and end at 2:00 p.m.**
- a. Discuss order for hearing proposals for next meeting
 - b. Identify and schedule discussion dates for proposals that were sent to us from other subcommittees, if applicable.

11. Upcoming meetings.

- a. Second and fourth Thursday of each month, 11:30am – 1:30pm Eastern Time
Next meeting is February 24, 2022.

12. Adjourn. Motion: John Bade, seconded by Blake Shelide.

FOR FURTHER INFORMATION BE SURE TO VISIT THE ICC WEBSITE:

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

FOR ADDITIONAL INFORMATION, PLEASE CONTACT Shaunna Mazingo, Subcommittee Chair at sdmazingo@mazingocodegroup.com or Blake Shelide, Subcommittee Vice-Chair at blake.shelide@energy.oregon.gov