



International Energy Conservation Code Consensus Committee-Commercial

Meeting Agenda

January 26, 2022

2:30 PM EST to 4:30 PM EST (2 hours)

[Webex Link](#)

Committee Chair: Duane Jonlin
Committee Vice Chair: Emily Hoffman

1. Call to order.
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 – Hoffman
4. Approval of Agenda
5. Approval of Minutes
6. Administrative issues.
7. Action Items.
 - a. Code Change Proposals

CEPI-206-21	(Modeling, Metrics SC disapproval 17-0)
CEPI-208-21	(Modeling, Metrics SC approve 14-0)
CEPI-12-21 Part I	(Elect Power SC as modified 13-4-1)
CEPI-185-21	(Elect Power SC approve 12-0-1)
CEPI-32-21	(Envelope SC as modified 18-1-1)
CEPI-68-21	(Envelope SC approve 19-0)
CEPI-91-21	(HVACR SC as modified unanimously)
CEPI-100-21	(HVACR SC as modified unanimously)
8. Subcommittee & Temporary Work Group reports

- a. Construction Cost & LLC- Tillou
- b. Envelope and Embodied Energy- Culp
- c. Electrical Power, Lighting, and Renewables-Jouaneh
- d. HVACR & Water Heating-Mozingo
- e. Modeling, Whole-Building Metrics, Zero Energy-Eades

9. Other business.

- a. Public comment on any matters discussed at the meeting (Please limit comments to 2 minutes. Further comments can be directed to the Secretariat following the meeting to be considered at a future meeting.)

10. "3 Minutes of Fame." Speakers TBD

11. Upcoming meetings.

12. Adjourn.

FOR FURTHER INFORMATION BE SURE TO VISIT THE ICC WEBSITE:

IECC Commercial Consensus Committee Webpage

<https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/iecc-commercial-consensus-committee/>

ICC Energy webpage

<https://www.iccsafe.org/products-and-services/codes-standards/energy/>

Code Change Proposal Submittals

<https://energy.cdpass.com/login/>

Energy Complete Monograph

[Monograph](#)

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

Kristopher Stenger, AIA, Director of Energy Programs

International Code Council

kstenger@iccsafe.org



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-206-21 Performance Source energy
CDP ID #	531
Code	IECC CE
Code Section(s)	C407.2 New Section n
Location	base
Proponent	James Ranfone jranfone@aga.org
Proposal Status	SC rev
Subcommittee	CE Model, Metrics
Subcommittee Notes	CEPI-206 and CEPI-207 should have been submitted as a single CCP. The source energy multipliers discussed in CEPI-206 will be addressed in a revised version of CEPI-207.
Recommendation	Reject
Vote	0-Accept, 17-Reject, 0-Revise
Recommendation Date	1/3/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ ✓ _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-208-21 Add Insulation Sections to Table
CDP ID #	372
Code	IECC CE
Code Section(s)	C407.2 Table New Section n
Location	base
Proponent	Marcin Pazera mpazera@pima.org
Proposal Status	SC rev
Subcommittee	CE Model, Metrics
Subcommittee Notes	The modeling SC unanimously agreed to additional insulation requirements (suspended ceilings, staggered joints and skylight curbs) to Table C407.2.
Recommendation	Accept
Vote	14-Accept, 0-Reject, 0-Revise
Recommendation Date	1/18/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee ____ ✓ _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-012-21 Part I Biomass definition
CDP ID #	248
Code	IECC CE
Code Section(s)	C202 New Section n
Location	base
Proponent	Diana Burk diana@newbuildings.org
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	
Recommendation	<p>APPROVED AS MODIFIED</p> <p>Organic non-fossil material of biological origin that is a byproduct or a discarded product. Biomass waste includes municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural crop byproducts, straw, and other biomass solids, liquids, and biogases; but excludes wood and wood-derived fuels (including black liquor), biofuel, feedstock, biodiesel, and fuel ethanol.</p> <p>(note deletion of comma between 'biofuel' and 'feedstock'.</p> <p>Reason: This proposal ensures that virgin material of unknown origin does not count as a renewable energy resource.</p>
Vote	13-4-1 CNV
Recommendation Date	January 10, 2022
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee <u> X </u>
Consensus Committee	

Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-185-21 Lighting Horticulture
CDP ID #	192
Code	IECC CE
Code Section(s)	C405.4 New Section n
Location	base
Proponent	Diana Burk diana@newbuildings.org
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	
Recommendation	AS SUBMITTED Reason: Cost effective increase in energy efficiency.
Vote	14-1-0, CNV
Recommendation Date	January 10, 2022
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee <u> X </u> _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-032-21 Air Barrier terminology
CDP ID #	58
Code	IECC CE
Code Section(s)	C402.1, C402.5 New Section n
Location	base
Proponent	Theresa Weston holtweston88@gmail.com
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	Reason: adds definition and clarifies usage of the term "air leakage" throughout the code. Modification removes unnecessary extra language from definition.
Recommendation	<p style="text-align: center;">Approve as modified as follows:</p> <p>AIR LEAKAGE. The uncontrolled air flow through the building thermal envelope caused by pressure differences across the building thermal envelope due to factors such as wind, inside and outside temperature differences, stack effect, and imbalance between supply and exhaust air systems. Air leakage can move <u>be</u> inward (infiltration) or outward (exfiltration) through the building <u>thermal</u> envelope.</p> <p>...</p> <p>C402.5.3 Building thermal envelope testing.</p> <p>... Alternatively, portions of the building shall be tested and the measured <i>air leakages</i> [hard to see, but editorially remove "s"] shall be area weighted by the surface areas of the <i>building thermal envelope</i> in each portion. ...</p> <p><i>(rest of proposal unchanged)</i></p>
Vote	18-0-1 CNV
Recommendation Date	1/6/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ X _____
Consensus Committee	

Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-068-21 Envelope testing dwelling and sleeping unit
CDP ID #	520
Code	IECC CE
Code Section(s)	C402.5.2 New Section n
Location	base
Proponent	Aaron Gary aaron.gary@texenergy.org
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	Reason: Brings the selection of dwelling units for air leakage testing more in alignment with industry standards for sampling in multifamily buildings.
Recommendation	Approve as submitted
Vote	19-0-0 CNV
Recommendation Date	1/6/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ X _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-091-21 furnace table updates																														
CDP ID #	60																														
Code	IECC CE																														
Code Section(s)	C403.3.2(5) table New Section n																														
Location	base																														
Proponent	Steven Rosenstock srosenstock@eei.org																														
Proposal Status	SC rev																														
Subcommittee	CE HVACR & WH																														
Subcommittee Notes	Modified by committee to make corrections to typos in 2 nd and 4 th lines changing “less than” (<) signs to “greater than or equal to” (>=) signs.																														
Recommendation	<p>Approved as modified. See below for committee revision: TABLE C403.3.2(5) WARM-AIR FURNACES AND COMBINATION WARM-AIR FURNACES/AIR-CONDITIONING UNITS, WARM-AIR DUCT FURNACES AND UNIT HEATERS—MINIMUM EFFICIENCY REQUIREMENTS^a</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 25%;">EQUIPMENT TYPE</th> <th style="width: 15%;">SIZE CATEGORY (INPUT)</th> <th style="width: 15%;">SUBCATEGORY OR RATING CONDITION</th> <th style="width: 20%;">MINIMUM EFFICIENCY</th> <th style="width: 25%;">TEST PROCEDURE^b</th> </tr> </thead> <tbody> <tr> <td>Warm-air furnace, gas fired for application outside the US</td> <td>< 225,000 Btu/h</td> <td>Maximum capacity^c</td> <td>80% AFUE (nonweatherized) or 81% AFUE (weatherized) or 80% E_t^d</td> <td>DOE 10 CFR 430 Appendix N or Section 2.39, Thermal Efficiency, ANSI Z21.47</td> </tr> <tr> <td>Warm-air furnace, gas fired</td> <td>< 225,000 Btu/h ≥ 225,000 Btu/h</td> <td>Maximum capacity^c</td> <td>80% E_t^d before 1/1/2023 81% E_t^d after 1/1/2023</td> <td>Section 2.39, Thermal Efficiency, ANSI Z21.47</td> </tr> <tr> <td>Warm-air furnace, oil fired for application outside the US</td> <td>< 225,000 Btu/h</td> <td>Maximum capacity^c</td> <td>83% AFUE (nonweatherized) or 78% AFUE (weatherized) or 80% E_t^d</td> <td>DOE 10 CFR 430 Appendix N or Section 42, Combustion, UL 727</td> </tr> <tr> <td>Warm-air furnace, oil fired</td> <td>< 225,000 Btu/h ≥ 225,000 Btu/h</td> <td>Maximum capacity^c</td> <td>80% E_t^d before 1/1/2023 82% E_t^d after 1/1/2023</td> <td>Section 42, Combustion, UL 727</td> </tr> <tr> <td>Electric furnaces for applications</td> <td>< 225,000 Btu/h</td> <td>All</td> <td>96% AFUE</td> <td>DOE 10 CFR 430</td> </tr> </tbody> </table> <p>Reason: Remove information that will be obsolete after publication, align with 90.1 and federal rule, and correct sign errors.</p>	EQUIPMENT TYPE	SIZE CATEGORY (INPUT)	SUBCATEGORY OR RATING CONDITION	MINIMUM EFFICIENCY	TEST PROCEDURE ^b	Warm-air furnace, gas fired for application outside the US	< 225,000 Btu/h	Maximum capacity ^c	80% AFUE (nonweatherized) or 81% AFUE (weatherized) or 80% E _t ^d	DOE 10 CFR 430 Appendix N or Section 2.39, Thermal Efficiency, ANSI Z21.47	Warm-air furnace, gas fired	< 225,000 Btu/h ≥ 225,000 Btu/h	Maximum capacity ^c	80% E_t^d before 1/1/2023 81% E _t ^d after 1/1/2023	Section 2.39, Thermal Efficiency, ANSI Z21.47	Warm-air furnace, oil fired for application outside the US	< 225,000 Btu/h	Maximum capacity ^c	83% AFUE (nonweatherized) or 78% AFUE (weatherized) or 80% E _t ^d	DOE 10 CFR 430 Appendix N or Section 42, Combustion, UL 727	Warm-air furnace, oil fired	< 225,000 Btu/h ≥ 225,000 Btu/h	Maximum capacity ^c	80% E_t^d before 1/1/2023 82% E _t ^d after 1/1/2023	Section 42, Combustion, UL 727	Electric furnaces for applications	< 225,000 Btu/h	All	96% AFUE	DOE 10 CFR 430
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Vote	As modified pass unanimously. Chris Perry abstain.																														
Recommendation Date	1/13/22																														
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee <input checked="" type="checkbox"/> _____																														
Consensus Committee																															

Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	CEPI-100-21 HVACR start and stop
CDP ID #	111
Code	IECC CE
Code Section(s)	C403.4.2.3 New Section n
Location	base
Proponent	Emily Toto etoto@ashrae.org
Proposal Status	SC rev
Subcommittee	CE HVACR & WH
Subcommittee Notes	All instances of “automatic” changed to “optimum”. Add “dwelling and sleeping units... of Group R...” to exception language.
Recommendation	<p>Approved as modified.</p> <p>Revise as follows:</p> <p>C403.4.2.3 <u>Automatic Optimum</u> start and stop <u>Controls</u>.</p> <p><u>Automatic Optimum</u> start and stop controls shall be provided for each HVAC system with direct digital control of individual zones. The <u>optimum</u> automatic-start controls shall be configured to automatically adjust the daily start time of the HVAC system in order to bring each space to the desired occupied temperature immediately prior to scheduled occupancy.</p> <p>Automatic stop controls shall be provided for each HVAC system with direct digital control of individual zones. The <u>optimum</u> automatic stop controls shall be configured to reduce the HVAC system’s heating temperature setpoint and increase the cooling temperature setpoint by not less than 2°F (-16.6°C) before scheduled unoccupied periods based on the thermal lag and acceptable drift in space temperature that is within comfort limits.</p> <p><u>Exception: Dwelling units and sleeping units of Group R occupancies are not required to have automatic optimum start and stop controls.</u></p> <p>Reason statement: Changes are necessary to align with ASHRAE 90.1 and to clarify the exception.</p>
Vote	Motion passed unanimously, no opposition
Recommendation Date	1/13/22

Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee <u> X </u>
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	