International Energy Conservation Code
Consensus Committee-Commercial

Meeting Agenda (Draft 3/9)

March 16, 2022
2:00 PM EST to 5:00 PM EST (3 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.
   a. Introduction of new consensus member Michael Waite, ACEEE
   b. Election of HVACR & Water Heating Subcommittee Chair
   c. Progress indicators

7. Action Items.
   a. Construction Cost & LCC Update- Tillou
   b. Code Change Proposals

CECPI-1-21 (EV combined proposal)	(Elect Power approve 10-4-4)
CEPI-147-21 (Lighting Control Edits)	(Elec Power approve 14-0-1)
CEPI-149-21 (Lighting Luminaire)	(Elec Power deny 14-0-2)
CEPI-154-21 (Light reduction controls)	(Elec Power approve 12-2-1)
CEPI-156-21 (Lighting Dimming control)	(Elec Power as modified 15-2-2)
CEPI-161-21 (Daylight Control Exception)	(Elec Power approve 16-0-2)
CEPI-163-21 (Daylight Responsive Controls	(Elec Power approve 16-0-2)
CEPI-166-21 (Daylight Zones)	(Elec Power approve 16-1-1)

CEPI-256-21 (Decarbon Constr Waste)	(Modeling approve 12-3-2(modify))
CEPI-17-21 Part I (Roof Replacement)	(Envelope approve 19-1-1)
CEPI-19-21 Part I (Insulation mark install)	(Envelope as modified 19-0-1)
CEPI-41-21 (Insulation Installation)	(Envelope as modified 19-0-1)x
CEPI-42-21 (Roof Insulation joints)	(Envelope as modified 19-0-2)
CEPI-47-21 (Roof Insulation thickness)	(Envelope as modified 20-0-1)
CEPI-50-21 (Cool Roofs)	(Envelope deny 12-8-3)
CEPI-222-21 (Roof Replacement)	(Envelope deny 15-0-1)
CEPI-223-21 (Roof Replacement)	(Envelope deny 14-1-2)
CEPI-224-21 (Roof Membrane)	(Envelope deny 10-0-5)
CEPI-225-21 (Roof Replacement)	(Envelope as modified 14-1-3)
CEPI-73-21 (Flexible Facilities)	(HVACR deny 12-2-0)
CEPI-86-21 (Fault Detection and Diagnostic)	(HVACR as modified 12-0-1)
CEPI-98-21 (Dedicated Outdoor Air Systems)	(HVACR deny 14-0-2)
CEPI-109-21 (Demand Control Ventilation)	(HVACR deny 16-0)
CEPI-110-21 (HVAC Demand Control Vent)	(HVACR as modified 13-0-3)

8. Subcommittee & Temporary Work Group reports
    a. Envelope and Embodied Energy- Culp
    b. Electrical Power, Lighting, and Renewables-Jouaneh
    c. HVACR & Water Heating-Shelide
    d. Modeling, Whole-Building Metrics, Zero Energy-Eades
    e. Construction Cost & LCC Update- Tillou

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. March 23, April 13

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.cdpaccess.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 #	CECPI-1-21 combined EV proposal
CDP ID #	
Code	IECC CE
Code Section(s)	New Section y
Location	base
Proponent	Electrical Power, Lighting, and Renewables Subcommittee
Proposal Status	SC rev
Subcommittee	Electrical Power, Lighting, and Renewables Subcommittee
Subcommittee Notes	
Recommendation	Approve as submitted
Vote	10-4-4
Recommendation Date	1/24/22
Next Step	To Subcommittee_____ To Advisory Group_____ To Consensus Committee_____X_____
Consensus Committee	
Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____

Date	

CECPI-1-21 Elec Subcommittee Combine EV proposal (589)

IECC®: SECTION 202 (New), C405.13 (New), C405.13.1 (New), Table C405.13.1 (New), C405.13.2 (New), C405.13.3 (New), C405.13.4 (New), C405.13.4.1 (New), C405.13.5 (New), C405.13.5.1 (New), C405.13.6 (New), UL Chapter 06 (New)

Proponents:

2021 International Energy Conservation Code

Add new definition as follows:

AUTOMOBILE PARKING SPACE. A space within a building or private or public parking lot, exclusive of driveways, ramps, columns, office and work areas, for the parking of an automobile.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, EVSE, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electic current.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). Equipment for plug-in power transfer including the ungrounded, grounded and equipment grounding conductors, and the *electric vehicle* connectors, attachment plugs, personal protection system and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*.

ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED SPACE (EVSE space). An *automobile parking space* that is provided with a dedicated *EVSE* connection.

ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE). A designated *automobile parking space* that is provided with electrical infrastructure, such as, but not limited to, raceways, cables, electrical capacity, and panelboard or other electrical distribution equipment space, necessary for the future installation of an *EVSE.*

ELECTRIC VEHICLE READY SPACE (EV READY SPACE). An *automobile parking space* that is provided with a branch circuit and either an outlet, junction box or receptacle, that will support an installed *EVSE.*

Add new text as follows:

C405.13 Electric Vehicle Power Transfer Infrastructure.

New parking facilities shall be provided with *electric vehicle* power transfer infrastructure in compliance with Sections C405.13.1 through C405.13.6.

C405.13.1 Quantity.

The number of required *EV spaces*, *EV capable spaces* and *EV ready spaces* shall be determined in accordance with this Section and Table C405.13.1 based on the total number of *automobile parking spaces* and shall be rounded up to the nearest whole number.

- 1.

  Where more than one parking facility is provided on a building site, the number of required *automobile parking spaces* required to have *EV* power transfer infrastructure shall be calculated separately for each parking facility.

- 2.

Where one shared parking facility serves multiple building occupancies, the required number of spaces shall be determined proportionally based on the floor area of each building occupancy.

- 3.

  EVSE spaces that exceed the minimum requirements of this section may be used to meet minimum requirements for *EV ready spaces* and *EV capable spaces*.

  Installed

- 4.

  EV ready spaces that exceed the minimum requirements of this sectin may be used to meet minimum requirements for *EV capable spaces*.

  Installed

- 5.

  EV ready spaces, requirements for *EVSE spaces* for R-2 occupancies shall not apply.

  Where all (100%) parking serving R-2 occupancies are

- 6.

  , *EV ready spaces* and *EV capable spaces* shall be counted toward meeting minimum parking requirements.

  EVSE spaces

- 7.

  EVSE spaces, *EV ready spaces* and *EV capable spaces* shall be porportionally distributed between non-staff or visitor and staff parking areas.

  Where staff parking is designated,

- 8.

  Requirements for a Group S-2 parking garage shall be determined by the occupancies served by that parking garage. Where new automobile spaces do not serve specific occupancies, the values for Group S-2 parking garage in Table C405.13.1 shall be used.

Exception: Parking facilities, serving occupancies other than R2 with fewer than 10 automobile parking spaces.

Table C405.13.1 REQUIRED EV POWER TRANSFER INFRASTRUCTURE

OCCUPANCY	EVSE SPACES	EV READY SPACES	EV CAPABLE SPACES
GROUP A	10%	0%	10%
GROUP B	15%	0%	30%
GROUP E	2%	0%	5%
GROUP F	2%	0%	5%

GROUP H	1%	0%	0%
GROUP I	2%	0%	5%
GROUP M	10%	0%	10%
GROUP R-1	20%	5%	75%
GROUP R-2	20%	5%	75%
GROUP R-3 AND R-4	2%	0%	5%
GROUP S exclusive of parking garages	1%	0%	0%
GROUP S-2 parking garages	1%	0%	0%

C405.13.2 EV Capable Spaces.

Each *EV capable space* used to meet the requirements of Section C405.13.1 shall comply with all of the following:

- 1.

  EV capable space and a suitable panelboard or other onsite electrical distribution equipment.

  A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the

- 2.

  Installed raceway or cable assembly shall be sized and rated to supply an minimum circuit capactiy in accordance with C405.13.5

- 3.

  The electrical distribution equipment to which the raceway or cable assembly connects shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker or set of fuses.

- 4.

  electric vehicle supply equipment (EVSE)."

  The electrical enclosure or outlet and the electrical distribution equipment directory shall be marked: "For future

- 5.

  EV capable space.

  Reserved capacity shall be no less than 4.1 kVA (20A 208/240V) for each

C405.13.3 EV Ready Spaces.

Each branch circuit serving EV ready spaces used to meet the requirements of Section C405.13.1 shall comply with all of the following:

- 1.

  EV ready space it serves.

  Terminate at an outlet or enclosure, located within 3 feet (914 mm) of each

- 2.

Have a minimum circuit capacity in accordance with C405.13.5.

- 3.

  The panelboard or other electrical distribution equipment directory shall designate the brach circuit as "For electric vehicle supply equipment (EVSE)" and the outlet or enclosure shall be marked "For electric vehicle supply equipment (EVSE)."

C405.13.4 EVSE Spaces.

An installed *EVSE* with multiple output connections shall be permitted to serve multiple *EVSE spaces*. Each *EVSE* installed to meet the requirements of Section C405.13.1, serving either a single *EVSE space* or multiple *EVSE spaces*, shall comply with all of the following:

- 1.

  Have a minimum circuit capacity in accordance with C405.13.5.

- 2.

  Have a minimum charging rate in accordance with C405.13.4.1.

- 3.

  EVSE space it serves.

  Be located within 3 feet (914 mm) of each

- 4.

  Be installed in accordance with Section C405.13.6.

C405.13.4.1 EVSE Minimum Charging Rate.

Each installed EVSE shall comply with one of the following:

- 1.

  Be capable of charging at a minimum rate of 6.2 kVA (or 30A at 208/240V).

- 2.

  EVSE spaces and controlled by an energy management system providing load management, be capable of simultaneously charing each *EVSE space* at a minimum rate of no less than 3.3 kVA.

  When serving multiple

- 3.

  EVSE spaces allowed to have a minimum circuit capacity of 2.7 kVA in accordance with C405.13.5.1 and controlled by an energy management system providing load management, be capable of simultaneously charging each *ESVE space* at a minimum rate of no less than 2.1 kVA.

  When serving

C405.13.5 Circuit Capacity.

The capacity of electrical infrastructure serving each *EV capable space*, *EV ready space*, and *EVSE space* shall comply with one of the following:

- 1.

  EV ready space or *EVSE space* it serves.

  A branch circuit shall have a rated capacity not less than 8.3 kVA (or 40A at 208/240V) for each

- 2.

  The requirements of C405.13.5.1.

C405.13.5.1 Circuit Capacity Management.

The capacity of each branch circuit serving multiple EVSE spaces, EV ready spaces or EV capable spaces designed to be controlled by an energy management system providing load management in accordance with NFPA 70, shall comply with one of the following:

- 1.

  Have a minimum capacity of 4.1 kVA per space.

- 2.

  EV ready spaces or *EVSE space* for R-2 occupancies when all (100%) of the automobile parking spaces designated for R-2 occupancies are designed to be *EV ready spaces* or *EVSE spaces*.

  Have a minimum capacity of 2.7 kVA per space when serving

- 3.

  EV ready spaces or *EVSE spaces* for a building site when all (100%) of the automobile parking spaces are designed to be *EV ready* or *EVSE spaces*.

  Have a minimum capacity of 2.7 kVA per space when serving

C405.13.6 EVSE Installation.

EVSE shall be installed in accordance with NFPA 70 and shall be listed and labeled in accordance with UL 2202 or UL 2594. *EVSE* shall be accessible in accordance with International Building Code Section 1107.

Add new standard(s) as follows:

UL	UL LLC 333 Pfingsten Road Northbrook IL 60062
UL 2202-2009	*Electric Vehicle (EV) Charging System- with revisions through February 2018*
UL	UL LLC 333 Pfingsten Road Northbrook IL 60062
UL 2594-2016	*Standard for Electric Vehicle Supply Equipment*

Reason:
Consensus proposal combines four EV proposals provided this cycle and will improve the effective use of energy supplied to a building by providing electrical connections for automobile spaces
Cost Impact:
The code change proposal will increase the cost of construction.
The code change proposal will increase the cost of construction

International Energy Conservation Code
Code Change Proposal Tracking Sheet

Proposal #	CEPI-147-21 Lighting Control edits
CDP ID #	76
Code	IECC CE
Code Section(s)	C405.2 New Section n
Location	base
Proponent	Glenn Heinmiller glenn@lampartners.com
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	Removes an unnecessary compliance pathway.
Recommendation	As Submitted.
Vote	14 - 0 - 1
Recommendation Date	February 28, 2022
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-149-21 Lighting luminaire lighting controls
CDP ID #	489
Code	IECC CE
Code Section(s)	C405.2 New Section n
Location	base
Proponent	Michael Jouaneh mjouaneh@lutron.com
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	Proponent requested disapproval.
Recommendation	Disapproval
Vote	14 - 0 - 1
Recommendation Date	February 28, 2022
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-154-21 Light reduction controls exception
CDP ID #	433
Code	IECC CE
Code Section(s)	C405.2.3 New Section n
Location	base
Proponent	Harold Jepsen harold.jepsen@legrand.us
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	Deleted unnecessary exception based on current state of technology.
Recommendation	As Submitted
Vote	12 - 2 - 1
Recommendation Date	February 28, 2022
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-156-21 Lighting Dimming controls
CDP ID #	243
Code	IECC CE
Code Section(s)	C405.2.3, C405.2.3.1 New Section n
Location	base
Proponent	Jack Bailey jbailey@oneluxstudio.com
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	To match current technology by providing dimming controls giving additional energy efficiency and controllability to general lighting.
Recommendation	As Modified: **C405.2.3 Dimming controls.** Dimming controls complying with Section C405.2.3.1 are required for *general lighting* in the following space types: 1. Classroom / lecture hall / training room. 2. Conference / multipurpose / meeting room. 3. In a dining area for bar/lounge or leisure, family dining. 4. Laboratory. 5. Lobby. 6. Lounge / Break Room. 7. Offices. 8. Gymnasium / fitness center. 9. Library reading room. 10. In a health care facility for imaging rooms, exam rooms, nursery, and nurses' station. 11. Spaces not provided with occupant sensor controls complying with Section C405.2.1.1. **Exceptions:** 1.Luminaires controlled by daylight responsive controls complying with Section C405.2.4. 2.Luminaires controlled by special application controls complying with Section C405.2.5. **C405.2.3.1 Dimming control function.** Spaces required to have dimming control shall be provided with *manual* controls that allow *light*s to be dimmed from full output to ~~less than 20~~ 10

	percent of full power or lower with continuous dimming, as well as turning lights off. *Manual* control shall be provided within each room to dim lights. ~~Exception: *Manual* control is not required where lights are controlled by a programmable dimming system which allows lights to be set to one or more pre-programmed (dimmed) levels.~~ Exception: *Manual* dimming control is not required where lighting controls have a *high-end trim* setting and have undergone functional testing in accordance with C408.3.1.4. C202 HIGH-END TRIM. A lighting control setting which limits the maximum power to individual luminaires or groups of luminaires in a space. **C408.3.1.4 High-end trim.** Where lighting controls are configured for *high end trim*, verify the following: 1. That *high-end trim* has been set. 2. That the calibration adjustment equipment is located for *ready access* only by authorized personnel. 3. That lighting controls with *ready access* for users cannot increase the lighting power above the maximum level established by the *high-end trim* controls.
Vote	15 - 2 - 2
Recommendation Date	February 28, 2022
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-161-21 Daylight Control Exceptions
CDP ID #	83
Code	IECC CE
Code Section(s)	C405.2.4 New Section n
Location	base
Proponent	Glenn Heinmiller glenn@lampartners.com
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	Removes an unneeded exception that is no longer needed due to lighting advances.
Recommendation	As Submitted
Vote	16 - 0 – 2
Recommendation Date	2/28/22
Next Step	To Subcommittee_____ To Advisory Group_____ To Consensus Committee_____
Consensus Committee	
Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____
Date	February 28, 2022

International Energy Conservation Code
Code Change Proposal Tracking Sheet

Proposal #	CEPI-163-21 Daylight Responsive controls exception
CDP ID #	532
Code	IECC CE
Code Section(s)	C405.2.4 New Section n
Location	base
Proponent	Michael Jouaneh mjouaneh@lutron.com
Proposal Status	SC rev
Subcommittee	CE Elec, Light
Subcommittee Notes	Identical proposal to CEPI-161-21
Recommendation	Follow recommendation of CEPI-161-21. Vote taken concurrently. As submitted
Vote	16-0-2
Recommendation Date	2/28/22
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-166-21 Daylight Zones
CDP ID #	381
Code	IECC CE
Code Section(s)	C405.2.4.2, C402.4.1.1 New Section n
Location	base
Proponent	Jack Bailey jbailey@oneluxstudio.com
Proposal Status	SC rev
Subcommittee	CE Electrical Power, Lighting, and Renewables
Subcommittee Notes	Makes necessary editorial corrections in this section.
Recommendation	As Submitted
Vote	15 - 1 - 1
Recommendation Date	February 28, 2022
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-256-21 Decarbonization Construction Site Waste
CDP ID #	475
Code	IECC CE
Code Section(s)	X New Section y
Location	appendix
Proponent	Hope Medina hmedina@coloradocode.net
Proposal Status	SC rev
Subcommittee	CE Model, Metrics
Subcommittee Notes	The SC was supportive of this proposal, however, some of the commenters questioned whether or not construction site waste management is within the IECC scope.
Recommendation	Accept CCP as presented in the monograph
Vote	Accept-12, Reject-3, Revise-2
Recommendation Date	2/7/22
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-017-21 Part I Roof Replacement
CDP ID #	357
Code	IECC CE
Code Section(s)	C202 New Section n
Location	base
Proponent	Marcin Pazera mpazera@pima.org
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement:** clarification was needed that replacement was down to the roof deck and it is also clarifying to bring in the definition of roof assembly. It also uses terminology more consistent with IBC.
Recommendation	**Approve as submitted.**
Vote	Approve as submitted 19-1-1
Recommendation Date	2/17/22
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-019-21 Part I Insulation mark installation
CDP ID #	339
Code	IECC CE
Code Section(s)	C303.1.1, C303.1.2 New Section n
Location	base
Proponent	Darren Meyers dmeyers@ieccode.com
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement:** Clarification; the code requires labeling; the standard specifies how the product is to be labeled
Recommendation	**Approved as modified**. Original proposal in black, Modification in red: **Exception:** For roof insulation installed above the deck, the *R-value* shall be labeled as ~~required~~ specified by the material standards ~~specified~~ in Table 1508.2 of the *International Building Code*.
Vote	Approved as modified 20-0-1
Recommendation Date	2/17/22
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-041-21 insulation installation
CDP ID #	358
Code	IECC CE
Code Section(s)	C402.1.4.1, C402.1.4.1.1 New Section n
Location	base
Proponent	Marcin Pazera mpazera@pima.org
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement**: Reformatting of section removes redundancy. Change does not modify any requirements but improves clarity.
Recommendation	**Approved as modified**. Original proposal in black, Modification in red: C402.1.4.1 Roof/ceiling assembly. The maximum roof/ceiling assembly U-factor shall not exceed that specified in Table C402.1.4 ~~based on construction materials used in the roof/ceiling assembly~~. Insulation shall be installed in accordance with ~~the requirements of~~ Section C402.2.1.2 through C402.2.1.5.
Vote	Approved as modified: 19-0-1
Recommendation Date	2/17/22
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-042-21 Roof insulation joints staggered
CDP ID #	342
Code	IECC CE
Code Section(s)	C402.1.4.1.3, C402.2.1.4 New Section n
Location	base
Proponent	Darren Meyers dmeyers@ieccode.com
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement:** The proposed language cleans up the language and clarifies the intent.
Recommendation	**Approved as modified**. Modification: Continuous~~, above-deck~~ insulation board located above deck shall be installed in not less than two layers, and the edge joints between each layer of insulation shall be staggered, except where insulation tapers to the roof deck at a gutter edge, roof drain or scupper.
Vote	Approved as modified: 19-0-1
Recommendation Date	2/17/22
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-047-21 Roof insulation thickness
CDP ID #	344
Code	IECC CE
Code Section(s)	C402.2.1.1, C402.2.1.2 New Section n
Location	base
Proponent	Darren Meyers dmeyers@ieccode.com
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement:** This change improves the clarity of the requirement by indicating that it applies only to tapered insulation.
Recommendation	**Approved as modified**. Modification – remove redundant word. The ~~minimum~~ thickness of tapered, above-deck roof insulation at its lowest point, gutter edge, roof drain or scupper, shall be not less than 1 inch (25 mm).
Vote	Approved as modified 21-0-1
Recommendation Date	2/17/22
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-050-21 Cool Roofs
CDP ID #	189
Code	IECC CE
Code Section(s)	C402.3, TABLE C402.3 New Section n
Location	base
Proponent	Kim Cheslak kim@newbuildings.org
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement:** There is concern about negative impact to energy savings in CZ 4&5, as well as concerns about cost effectiveness. There is also a concern about durability and maintenance in colder climates.
Recommendation	**Disapprove**.
Vote	Disapprove 12-8-3
Recommendation Date	2/17/22
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-222-21 Roof Replacement exception
CDP ID #	362
Code	IECC CE
Code Section(s)	C503.1, C503.1.1 New Section n
Location	base
Proponent	Bill McHugh bill@mc-hugh.us
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement**: to be consistent with action taken on CEPI-225
Recommendation	**Disapprove**.
Vote	Disapprove 15-0-1
Recommendation Date	2/17/22
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-223-21 Roof replacement
CDP ID #	355
Code	IECC CE
Code Section(s)	C503.1, C503.2.1 New Section n
Location	base
Proponent	Darren Meyers dmeyers@ieccode.com
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement**: to be consistent with action taken on CEPI-225
Recommendation	**Disapprove**
Vote	Disapprove 14-1-2
Recommendation Date	2/17/22
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-224-21 Roof Membrane Peel Replacement
CDP ID #	345
Code	IECC CE
Code Section(s)	C503.1.1 New Section n
Location	base
Proponent	Bill McHugh bill@mc-hugh.us
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement**: This method could be used indefinitely to never update insulation to current requirements
Recommendation	**Disapprove**.
Vote	Disapprove 10-0-5
Recommendation Date	2/17/22
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-225-21 Definitions and Roof Replacement
CDP ID #	397
Code	IECC CE
Code Section(s)	C503.2.1 New Section n
Location	base
Proponent	Marcin Pazera mpazera@pima.org
Proposal Status	SC rev
Subcommittee	CE Envelope
Subcommittee Notes	**Reason statement**: Adds in some checks about who conducts the design and how it is documented. Clarifies the approved source for use of an expert in the subject matter
Recommendation	**Approve as modified**. Original proposal shown in black, modification shown in red. Section C202 **APPROVED SOURCE.** An independent person, firm or corporation, approved by the *building official*, who is competent and experienced in the application of engineering principles to materials, methods or systems analyses. **CONSTRUCTION DOCUMENTS.** Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of a project necessary for obtaining a building *permit*. **Revise as follows:** C503.2.1 Roof replacement, insulation entirely above deck. *Roof replacements* shall comply with Section C402.1.3, C402.1.4, C402.1.5 or C407 where the existing roof assembly is part of the *building thermal envelope* and contains insulation entirely above the roof deck. ~~In no case shall the R-value of the roof insulation be reduced or the U-factor of the roof assembly be increased as part of the roof replacement.~~ **Exception:** Where compliance with Table C402.1.3, Table C402.1.4 or Table C402.1.5 cannot be met due to limiting conditions on an existing roof, the

	following shall be permitted to demonstrate compliance with the insulation requirements: 1. *Construction documents* that include a report by a~~n~~ registered design professional or other *approved source* documenting details of the limiting conditions affecting compliance with the insulation requirements. 2. *Construction documents* that include a roof design by a ~~n~~ registered design professional or other *approved source* that minimizes deviation from the insulation requirements. Insulation shall be installed in accordance with the requirements of Sections C402.2.1.2 through C402.2.1.5. ~~In no case shall the Rvalue of the roof insulation be reduced or the U-factor of the roof assembly be increased as part of the roof replacement.~~
Vote	Approve as modified 14-1-3
Recommendation Date	2/17/22
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-073-21 Flexible Facilities
CDP ID #	169
Code	IECC CE
Code Section(s)	C403 New Section Y
Location	base
Proponent	Megan Hayes Megan.Hayes@nema.org
Proposal Status	SC rev
Subcommittee	CE HVACR & WH
Subcommittee Notes	The committee understood the good intent of the proposal, but discussed that it belongs in the IMC. In addition, it does not provide enforceable requirements. For example, there is a requirement for the building systems to react when indoor contaminants exceed an undefined value, but neither the pollutants nor the threshold values are defined.
Recommendation	Disapprove Reason: This proposal should be presented to the IMC with enforceable requirements
Vote	12-2-0
Recommendation Date	2/24/2022
Next Step	To Subcommittee_____ To Advisory Group_____ To Consensus Committee __X_____
Consensus Committee	
Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____

International Energy Conservation Code
Code Change Proposal Tracking Sheet

Proposal #	CEPI-086-21 Fault Detection and Diagnostic
CDP ID #	328
Code	IECC CE
Code Section(s)	C403.2.3, C406.11 New Section n
Location	base
Proponent	William Fay bill@energyefficientcodes.org
Proposal Status	SC rev
Subcommittee	CE HVACR & WH
Subcommittee Notes	The subcommittee discussed that this proposal will improve clarity and enforceability of this code section.
Recommendation	Approve Reason statement: Good clarifications that will improve enforcement.
Vote	12-0-1
Recommendation Date	2/24/2022
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-098-21 Dedicated Out Air Systems
CDP ID #	387
Code	IECC CE
Code Section(s)	C403.3.5 (New), C403.3.5.1 (New), C403.3.5.2 (New), C403.7.4, C403.7.4.3 (New), C406.1 New Section y
Location	base
Proponent	Mark Lyles markl@newbuildings.org
Proposal Status	SC rev
Subcommittee	CE HVACR & WH
Subcommittee Notes	The subcommittee discussed concerns about the "one size fits all" nature of this proposal and also expressed concerns that the proposal is too limiting.
Recommendation	Disapprove Reason: the proposal is too encompassing for too many climate zones and is limiting of system types.
Vote	14-0-4
Recommendation Date	2/24/2022
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-109-21 Demand Control Ventilation
CDP ID #	435
Code	IECC CE
Code Section(s)	C403.7.1 New Section n
Location	base
Proponent	Jeremy Williams jeremy.williams@ee.doe.gov
Proposal Status	SC rev
Subcommittee	CE HVACR & WH
Subcommittee Notes	CEPI-109 and CEPI-110 were similar and were combined by proponents into a common proposal (in CEPI-110) for subcommittee consideration. CEPI-110 was approved as modified, so CEPI-109 is no longer needed since it has been incorporated into CEPI-110.
Recommendation	Disapprove Reason statement: CEPI-109 has been incorporated into CEPI-110.
Vote	Unanimous
Recommendation Date	2/24/2022
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-110-21 HVAC Demand control ventilation
CDP ID #	202
Code	IECC CE
Code Section(s)	C403.7.1 New Section n
Location	base
Proponent	Mike Kennedy mikekennedy@energysims.com
Proposal Status	SC rev
Subcommittee	CE HVACR & WH
Subcommittee Notes	CEPI-109 and CEPI-110 were similar and were combined by proponents into a common proposal (in CEPI-110) for subcommittee consideration
Recommendation	Approve as Modified. Please refer to attached modification. Reason: This proposal clarifies where demand-controlled ventilation (DCV) is required. It also improves the exceptions related to energy recovery.
Vote	13-0-3
Recommendation Date	2/24/2022
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

CEPI-110-21 AS MODIFIED

IECC®: C403.7.1

2021 International Energy Conservation Code

Revise as follows:

C403.7.1 Demand control ventilation. Demand control ventilation (DCV) shall be provided for each of the following:

1. Spaces with ventilation provided by ~~all~~ single-zone systems where an air-side economizer is provided ~~required to comply~~ in accordance with Section~~s~~ C403.5. ~~through C403.5.3 and~~
2. Spaces larger than ~~500~~250 square feet (~~46.5~~23.2 m^2) in climate zones 5A, 6, 7 and 8 and spaces larger than 500 square feet (46.5 m2) in other climate zones ~~and~~ which have ~~with an average~~ a design occupant load of 15 people or greater per 1,000 square feet (93 m^2) of floor area, as established in Table 403.3.1.1 of the International Mechanical Code, and are served by systems with one or more of the following:

   ~~1~~2.1. An air-side economizer.

   ~~2~~2.2. Automatic modulating control of the outdoor air damper.

   ~~3~~2.3. A design outdoor airflow greater than 3,000 cfm (1416 Lis).

Exceptions:

1. Spaces served by systems ~~Systems~~ with energy recovery ~~complying~~ in accordance with Section C403.7.4.2 and that have floor area less than:
   - 1.1 6000 square feet (2600 m2) in climate zone 3C .
   - 1.2 2000 square feet (190 m2) in climate zones 1A, 3B, and 4B.
   - 1.3 1000 square feet (90 m2) in climate zones 2A, 2B, 3A, 4A, 4C, 5 and 6.
   - 1.4 400 square feet (40 m2) in climate zones 7 and 8.
2. Multiple-zone systems without direct digital control of individual zones communicating with a central control panel.
3. Spaces served by multiple- ~~Multiple~~ zone systems with a system design outdoor airflow less than 750 cfm (354 Lis).
4. Spaces where more than 75 percent of the space design outdoor airflow is required for makeup air that is exhausted from the space or transfer air that is required for makeup air that is exhausted from other spaces.
5. Spaces with one of the following occupancy classifications as defined in Table 403.3.1.1 of the *International Mechanical Code*: correctional cells, education laboratories, barber, beauty and nail salons, and bowling alley seating areas.