



## International Energy Conservation Code Consensus Committee-Residential

### Draft Meeting Agenda (2/3 posting)

[Webex Meeting Link](#)

February 10, 2022  
2:00 PM EST to 4:30 PM EST (2.5 hours)

**Committee Chair:** JC Hudgison, CBO, Assoc. AIA

**Committee Vice Chair:** Bridget Herring & Robin Yochum, LEED Green Associate

1. Call to order.
2. Meeting Conduct.
  - 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.
4. Approve Agenda
5. Approval of Minutes
6. Administrative issues-staff
7. Action Items
  - a. Code Change Proposals

REPI-119-21	(Econ Modeling SC disapprove unanimously)
REPI-120-21	(Econ Modeling SC as modified 14-2-3)
REPI-55-21	(Envelope SC as modified 14-1)
REPI-48-21	(Envelope SC disapprove 14-2-1)
REPI-49-21	(Envelope SC disapprove 16-2)
CEPI-218-21 Part II	(Existing Bldgs SC disapprove unanimously)
REPI-145-21	(Existing Bldgs SC disapprove 7-1)
REPI-151-21	(Existing Bldgs SC approve 5-3)
REPI-152-21	(Existing Bldgs SC approve 8-0)
CEPI-13-21 Part II	(Consistency, Admin SC disapprove 4-0)

8. Subcommittee Reports
  - Subcommittee guidance
  - a. Consistency and Administration
  - b. Economics, Modeling, and Whole-Building Metrics
    1. Cost Effectiveness
  - c. Electrical Power, Lighting, Renewables, and Storage
  - d. Envelope and Embodied Energy
  - e. Existing Buildings
  - f. HVACR and Water Heating
9. Other business.
10. Upcoming meetings. Feb 24 at 2 pm Eastern
11. Adjourn.

FOR FURTHER IECC Residential INFORMATION BE SURE TO VISIT THE ICC WEBSITE:  
[IECC Residential Website](#)

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

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International Code Council  
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## International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-119-21 Mandatory Tables
CDP ID #	168
Code	IECC RE
Code Section(s)	R405.2 table, TABLE R406.2 New Section n
Location	base
Proponent	Jay Crandell jcrandell@aresconsulting.biz
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	
Recommendation	Disapproval at request of proponent
Vote	unanimously
Recommendation Date	1/26/22
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 #	REPI-120-21      Performance and ERI tables
CDP ID #	447
Code	IECC RE
Code Section(s)	R405.2 table, TABLE R406.2    New Section n
Location	base
Proponent	Robby Schwarz      robby@btankinc.com
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	
Recommendation	As modified
Vote	14-2-3
Recommendation Date	1/26/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ X _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	

# **REPI-120-21**

IECC®: TABLE R405.2, TABLE R406.2

**Proponents:** Robby Schwarz, BUILDTank, Inc., representing BUILDTank, Inc. (robby@btankinc.com)

## **2021 International Energy Conservation Code**

**Revise as follows:**

**TABLE R405.2 (TABLE N1105.2) REQUIREMENTS FOR TOTAL BUILDING PERFORMANCE**

SECTION <sup>a</sup>	TITLE
<b>General</b>	
R401.2.5	Additional energy efficiency
R401.3	Certificate
<b>Building Thermal Envelope</b>	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors
<u>R402.2.8</u>	<u>Basement Walls</u>
<u>R402.2.8.1</u>	<u>Basement wall insulation installation</u>
<u>R402.2.9.1</u>	<u>Slab-on-grade floor insulation installation</u>
R402.2.10.1	Crawl space wall insulation installations
R402.4.1.1	Installation
R402.4.1.2	Testing
<u>R402.4.2</u>	<u>Fireplaces</u>
<u>R402.4.3</u>	<u>Fenestration air leakage</u>
R402.4.4	<u>Rooms containing fuel burning appliances</u>
<u>R402.4.5</u>	<u>Recessed Lighting</u>
<u>R402.4.6</u>	<u>Electrical and communication outlet boxes (air sealed boxes)</u>
R402.5	Maximum fenestration U-factor and SHGC
<b>Mechanical</b>	
R403.1	Controls
<u>R403.2</u>	<u>Hot Water boiler temperature reset</u>
R403.3, including R403.3.1, except Sections R403.3.2, R403.3.3 and R403.6	Ducts
R403.4	Mechanical system piping insulation
R403.5.1	Heated water circulation and temperature maintenance systems
R403.5.3	Drain water heat recovery units
R403.6	Mechanical ventilation
R403.7	Equipment sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9	Snow melt and ice systems
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
<b>Electrical Power and Lighting Systems</b>	
R404.1	Lighting equipment
R404.2	Interior lighting controls

a. Reference to a code section includes all the relative subsections except as indicated in the table.

**TABLE R406.2 (TABLE N1106.2) REQUIREMENTS FOR ENERGY RATING INDEX**

SECTION <sup>a</sup>	TITLE
General	
R401.2.5	Additional efficiency packages
R401.3	Certificate
Building Thermal Envelope	
R402.1.1	Vapor retarder
R402.2.3	Eave baffle
R402.2.4.1	Access hatches and doors
<u>R402.2.8</u>	<u>Basement walls</u>
<u>R402.2.8.1</u>	<u>Basement wall insulation installation</u>
<u>R402.2.9.1</u>	<u>Slab-on-grade floor insulation installation</u>
R402.2.10.1	Crawl space wall insulation installation
R402.4.1.1	Installation
R402.4.1.2	Testing
<u>R402.4.2</u>	<u>Fireplaces</u>
<u>R402.4.3</u>	<u>Fenetrations air leakage</u>
<u>R402.4.4</u>	<u>Rooms containing fuel burning appliances</u>
<u>R402.4.5</u>	<u>Recessed lighting</u>
<u>R402.4.6</u>	<u>Electrical and communication outlet boxes (air sealed boxes)</u>
Mechanical	
R403.1	Controls
<u>R403.2</u>	<u>Hot water boiler temperature reset</u>
R403.3 <del>except Sections R403.3.2, R403.3.3 and R403.3.6</del>	Ducts
R403.4	Mechanical system piping insulation
R403.5.1	Heated water calculation and temperature maintenance systems
R403.5.3	Drain water heat recovery units
R403.6	Mechanical ventilation
R403.7	Equipment sizing and efficiency rating
R403.8	Systems serving multiple dwelling units
R403.9	Snow melt and ice systems
R403.10	Energy consumption of pools and spas
R403.11	Portable spas
R403.12	Residential pools and permanent residential spas
Electrical Power and Lighting Systems	
R404.1	Lighting equipment
R404.2	Interior lighting controls
R406.3	Building thermal envelope

a. Reference to a code section includes all of the relative subsections except as indicated in the table.

**Reason:** Performance paths R405 and R406 really are the same in terms of how the energy model compares the as built home is modeled against a reference home. One's metric of compliance is energy cost and one is an ERI score but both have to be better than. The objective of the different compliance paths is to offer flexibility to trade off components of the building thermal envelope. Primarily R-values and U-values. Section R405 and R406 allow some greater trade off opportunities which increases flexibility in choosing building assemblies and R-values and U-values primarily.

The intent however is that how the IECC calls out for things to be installed is consistent throughout the compliance path options. The pre 2021 IECC prescriptive and mandatory approach did not make this clear enough so the word requirements was adopted and these tables were created to

demonstrate that the requirements pertained to all compliance approach choices.

This proposal fills out the table to better ensure parity between the different compliance approaches. Eave baffles was the main example used in the 2021 code development cycle. Just because one can trade off the R-value if attic insulation does not mean that you don't have to install attic eave baffles in a ventilated attic assembly. In the same way the requirements added to the tables in this proposal all have to do with an installation requirement not an R-value or U-value that can be traded. These types of requirements need to be the same regardless of the compliance path chosen.

**Cost Impact:** The code change proposal will neither increase nor decrease the cost of construction.

This proposal does not increase cost but rather ensures that requirements of the IECC are equally required regardless of the compliance path option chosen.





## International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-055-21     Air barrier rim joist
CDP ID #	252
Code	IECC RE
Code Section(s)	R402.4.1.1, TABLE R402.4.1.1     New Section n
Location	base
Proponent	Vladimir Kochkin     vkochkin@nahb.org
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	Subcommittee debated both sides, first voted to dismiss, then motion to amend and approve
Recommendation	<p>Recommendation to disapprove: noble attempt not ready and creates confusion rather than clarification. Removal of last sentence seems problematic for enforcement. Failed 11-4</p> <p>Motion to approve as amended: provides clarity to the section. 16-1</p>
Vote	16-1
Recommendation Date	1/19/2022
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 #	REPI-048-21     Air Sealing Floors
CDP ID #	367
Code	IECC RE
Code Section(s)	R402.4.1.1 table    New Section n
Location	base
Proponent	Robby Schwarz     robby@btankinc.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	subcommittee debated
Recommendation	Recommendation to disapprove: creates confusion for manufactures and increases cost
Vote	14-2; 1 abstain
Recommendation Date	1/19/2022
Next Step	To Subcommittee _____ To Advisory Group <input checked="" type="checkbox"/> _____ To Consensus Committee _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



## International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-049-21    Air Sealing general
CDP ID #	376
Code	IECC RE
Code Section(s)	R402.4.1.1 table    New Section n
Location	base
Proponent	Robby Schwarz    robby@btankinc.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	motion to disapprove
Recommendation	Motion to disapprove: Reason cumbersome and adds additional language that causes confusion - passes
Vote	16-2
Recommendation Date	1/19/2022
Next Step	To Subcommittee _____ To Advisory Group: <b>X</b> _____ 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-218-21 Part II Alterations fuel gas pipe testing
CDP ID #	284
Code	IECC RE
Code Section(s)	R502.1.1, R503.1.1 New Section y
Location	base
Proponent	Sean Denniston sean@newbuildings.org
Proposal Status	SC rev
Subcommittee	RE Existing Bldg
Subcommittee Notes	Already addressed in the current code and does not add value to the energy code. Notes the proposal could reduce energy usage but belongs in the fuel gas code. We already spend a lot of money odorizing gas - therefore adding a time limit to testing this equipment could add concerns from homeowner, basically its well-intentioned but already covered elsewhere. The energy code doesn't govern fuel gas codes. Because it is in the wrong place if we put it in the energy code - it is already covered in another area of code - supported by staff notes
Recommendation	Jim Zengel - motion to disapprove - Paul Demers - second. No further discussion amongst members.
Vote	7-0 motion carries
Recommendation Date	1/25/2022
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 #	REPI-145-21 Alterations duct leakage testing
CDP ID #	287
Code	IECC RE
Code Section(s)	R502.3.2, R502.3.2.1, R503.1.2, R503.1 New Section y
Location	base
Proponent	Sean Denniston sean@newbuildings.org
Proposal Status	SC rev
Subcommittee	RE Existing Bldg
Subcommittee Notes	While the committee did agree that duct leakage in existing homes is an issue the current proposal only requires the ducts to be tested and report given to the owner and the code official. There were no requirements as to what would happen if the duct leakage was more than the current code allowed or if at a certain duct leakage any repairs would have been needed.
Recommendation	Jim Z motion to disapprove Paul D second
Vote	6-1 motion carries
Recommendation Date	1/25/2022
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 #	REPI-151-21 Alterations hvacr equipment sizing
CDP ID #	280
Code	IECC RE
Code Section(s)	R503.1.2, R503.1.2.2 New Section y
Location	base
Proponent	Sean Denniston sean@newbuildings.org
Proposal Status	SC rev
Subcommittee	RE Existing Bldg
Subcommittee Notes	Committee generally agreed that oversizing of heating and cooling appliances in existing homes was an issue. The proposed exception does allow the HVAC contractor to evaluate the existing system and propose an appliance that is compatible with the existing system components.
Recommendation	Robbie motion to approve as submitted Seth W. second
Vote	5 for, 3 against, motion carries
Recommendation Date	1/25/2022
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee ____2/10/2022____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____  To Subcommittee _____
Date	



## International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-152-21 Alterations HVAC controls
CDP ID #	407
Code	IECC RE
Code Section(s)	R503.1.2.1 New Section y
Location	base
Proponent	Sean Denniston sean@newbuildings.org
Proposal Status	SC rev
Subcommittee	RE Existing Bldg
Subcommittee Notes	"Friendly amendment" on terminology – reword from "Control" to "Thermostat" or further define "Control" as it pertains to heating/cooling equipment. This amendment was not adopted at this time.
Recommendation	Robbie motion to approve as written. Micheal Brown proposes amendment "cooling equipment that are part of the alteration shall be comply with Section R403.1 and R403.2". Amendment accepted Mike B. second to approve as modified: "New heating and cooling equipment that are part of the alteration shall comply with Sections R403.1 and R403.2"
Vote	7-0 motion carries
Recommendation Date	1/25/2022
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-013-21 Part II      Conditioned Space
CDP ID #	411
Code	IECC RE
Code Section(s)	R202    New Section n
Location	base
Proponent	Robert DeVries rdevries@nuwool.com
Proposal Status	SC rev
Subcommittee	RE Admin
Subcommittee Notes	Proposal adds additional confusion to language
Recommendation	Disapproval
Vote	4-0-1
Recommendation Date	2/1/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee <u>  X  </u> _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	