



International Energy Conservation Code Consensus Committee-Residential

Draft Meeting Agenda (3/11 posting)

[Webex Meeting Link](#)

March 17, 2022

2:00 PM EST to 5 PM EST (3 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. Economics, Modeling, and Whole-Building Metrics Subcommittee-Ian Finlayson, Subcommittee Chair
 1. Cost Effectiveness Tool
 - b. Code Change Proposals

REPI-32-21 (Low Slope Roof R U Table)	(Envelope deny 15-1)
REPI-67-21 (Air Barrier Boxes)	(Envelope deny 15-1)
REPI-146-21 (Roof Replacement)	(Existing Bldg deny unanimous)
REPI-116-21 (Perf. Path Renewables)	(Econ/Modeling as modified 12-5)
REPI-133-21 PI (ERI renewable 5 percent)	(Econ/Modeling disapprove 10-8-1)
REPI-133-21 PII (ERI renewable 5 percent)	(Econ/Modeling disapprove 10-8-1)
REPI-134-21 (ERI renewable 5 percent)	(Econ/Modeling disapprove 10-8-1)

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REPI-122-21 (Performance Path) (Econ/Modeling disapprove 10-9)
REPI-123-21 (Perf. Mechanical tradeoff) (Econ/Modeling disapprove 11-7-1)
REPI-54-21 (Air Sealing Windows, Skylights)(Envelope disapprove 13-6)
REPI-37-21 (Crawl Space Walls) (Envelope as modified 15-0-1)
REPI-43-21 (Air Leakage testing reference) (Envelope as modified 15-0-1)
REPI-58-21 (Air Leakage exception) (Envelope as modified 12-4)
REPI-59-21 (Air Leakage testing) (Envelope disapprove 10-4-1)
REPI-61-21 (Air Leakage testing multifamily)(Envelope approve 8-7)
REPI-101-21 (Lighting Antimicrobial) (Elec. Pwr/Light as modified 11-1)
REPI-105-21 (Exterior Lighting) (Elec. Pwr/Light approve 10-0-2)
REPI-108-21 (Lighting interior controls) (Elec. Pwr/Light as modified 9-1)
REPI-109-21 Part I (Lighting exterior control)(Elec. Pwr/Light disapprove 8-1-3)
REPI-109-21 Part II(Lighting exterior control)(Elec. Pwr/Light disapprove 8-1-3)
REPI-110-21 (Lighting exterior controls) (Elec. Pwr/Light disapprove 11-0-1)

8. Subcommittee Reports

9. Other business.

10. Upcoming meetings. March 24 at 2 PM EST

11. Adjourn.

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

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

Kristopher Stenger, AIA, CBO
Director of Energy Programs
International Code Council
kstenger@iccsafe.org



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-032-21 Low Slope Roof in R U Tables
CDP ID #	393
Code	IECC RE
Code Section(s)	R402.1.2 table, TABLE R402.1.3, R402.2.1, R402.2.2 New Section n
Location	base
Proponent	Darren Meyers dmeyers@ieccode.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	Unintended erratum in table to be corrected. Lessening insulation higher U factors/lower R-values for some roofs sourced from commercial code; point made that the typical configuration of residential buildings is different from large commercial buildings.
Recommendation	Motion to approve with intent to modify (modification adapted based on comments), Amy Schmitt; Charlie Allen seconded (1-14 motion fails) Motion to <u>disapprove</u> by Chris Mathis; Alison Lindberg seconded. Reason: residential and commercial roof provisions are different for a good reason; roofs have greater effect on overall envelope performance on residential buildings. no reason to relax residential to match commercial provision.
Vote	15 yes 1 no motion carries
Recommendation Date	2/16/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____XX_____
Consensus Committee	
Committee Response	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-067-21 air barrier boxes
CDP ID #	20
Code	IECC RE
Code Section(s)	R402.4.6 New Section n
Location	base
Proponent	Robert DeVries rdevries@nuwool.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	
Recommendation	
Vote	Disapproval 15-1
Recommendation Date	2/16/22
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 #	REPI-146-21 Roof replacement
CDP ID #	356
Code	IECC RE
Code Section(s)	R503.1 New Section n
Location	base
Proponent	Darren Meyers dmeyers@ieccode.com
Proposal Status	SC rev
Subcommittee	RE Existing Building
Subcommittee Notes	Reason; the accompany code change for commercial was disapproved and the proponent asked the sub-committee to disapproved
Recommendation	Paul Demers – Made the motion to disapprove Jim Zengal - Second
Vote	Unanimous, motion passes
Recommendation Date	
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-116-21 Performance Path Renewable tradeoffs
CDP ID #	127
Code	IECC RE
Code Section(s)	R405.1, R405.2, TABLE R405.4.2(1) New Section n
Location	base
Proponent	Rob V. Salcido jeremy.williams@ee.doe.gov
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Proponent submitted a significant modification at prior meeting. Proposal modified to reduce trade-off for renewables.
Recommendation	Approve as Modified Motion by Gayathri Vijayakumar 2 nd by Rob Salcido
Vote	Approve as Modified: 12 - 5
Recommendation Date	2-23-22
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-133-21 Part I ERI renewable 5 percent
CDP ID #	559
Code	IECC RE
Code Section(s)	R406.4 New Section n
Location	base
Proponent	Craig Conner craig.conner@mac.com
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Proposal to allow ERI path to be partially met with onsite renewable energy
Recommendation	Motion for Disapproval by Ben Edwards 2 nd by Amy Boyce
Vote	Disapprove 10-8, 1 abstain
Recommendation Date	2-23-22
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-133-21 Part II ERI renewable 5 percent
CDP ID #	582
Code	IRC
Code Section(s)	N1106.4 New Section n
Location	base
Proponent	Craig Conner craig.conner@mac.com
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Motion for disapproval and Vote consistent with prior action on REPI 133 part 1
Recommendation	Disapproval Motion by Ben Edwards 2 nd by Amy Boyce
Vote	Disapproval 10-8, 1 abstain
Recommendation Date	2-23-22
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 #	REPI-134-21 ERI renewable 5 percent
CDP ID #	472
Code	IECC RE
Code Section(s)	R406.4 New Section n
Location	base
Proponent	Joe Cain JoeCainPE@gmail.com
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Discussion and vote similar to prior action on REPI-133 parts 1 & 2.
Recommendation	Disapproval as submitted
Vote	Disapproval 10 – 8, 1 abstain
Recommendation Date	2-23-22
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 #	REPI-122-21 Performance Path
CDP ID #	178
Code	IECC RE
Code Section(s)	R405.2, R405.4, R405.4.1, R405.4.2, TABLE R405.4.2(1) New Section n
Location	base
Proponent	Vladimir Kochkin vkochkin@nahb.org
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Proposal would reduce the energy performance of the baseline in R405, thus making it easier to meet the % improvement in the proposed design.
Recommendation	See modified language below Motion to disapprove as modified by Ben Edwards 2 nd Rob Salcido
Vote	Disapprove As modified 11-8
Recommendation Date	2/23/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ X _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	

Proposed modification by Proponent 3.8.22

REPI-122-21

IECC®: TABLE R405.4.2(1)

Proponents: Vladimir Kochkin, NAHB, representing NAHB (vkochkin@nahb.org)

2021 International Energy Conservation Code

Revise as follows:

R401.2.5 Additional energy efficiency. This section establishes additional requirements applicable to all compliance approaches to achieve additional energy efficiency.

1. For buildings complying with Section R401.2.1, one of the additional efficiency package options shall be installed according to Section R408.2.

~~2. For buildings complying with Section R401.2.2, the building shall meet one of the following:~~

~~2.1. One of the additional efficiency package options in Section R408.2 shall be installed without including such measures in the proposed design under Section R405; or~~

~~2.2. The proposed design of the building under Section R405.3 shall have an annual energy cost that is less than or equal to 95 percent of the annual energy cost of the standard reference design.~~

~~3. 2.~~ For buildings complying with the Energy Rating Index alternative Section R401.2.3, the Energy Rating Index value shall be at least 5 percent less than the Energy Rating Index target specified in Table R406.5.

The option selected for compliance shall be identified in the certificate required by Section R401.3.

Revise as follows:

R405.2 Performance-based compliance. Compliance based on total building performance requires that a proposed design meets all of the following:

1. The requirements of the sections indicated within Table R405.2.

2. The building thermal envelope greater than or equal to levels of efficiency and solar heat gain coefficients in Table R402.1.1 or R402.1.3 of the 2009 International Energy Conservation Code.

~~3. The proposed total building thermal envelope UA, which is the sum of U factor times the assembly area shall be less than or equal to the UA of the building thermal envelope using the prescriptive U factors from Table R402.1.4 multiplied by 1.15 in accordance with Equation 4-1.~~

~~Equation 4-1: $UA_{\text{proposed design}} \leq 1.15 \times UA_{\text{prescriptive reference design}}$.~~

~~3.~~ An annual energy cost that is less than or equal to **90 percent** of the annual energy cost of the standard reference design. Energy prices shall be taken from a source approved by the code official, such as the Department of Energy, Energy Information Administration's State Energy Data System Prices and Expenditures reports. Code officials shall be permitted to require time-of-use pricing in energy cost calculations.

TABLE R405.4.2(1) (TABLE N1105.4.2(1)) SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS

Portions of table not shown remain unchanged.

Building Component	Standard Reference Design	Proposed Design																		
Heating Systems ^{d, e, i, k}	For other than electric heating without a heat pump: as proposed. Where the proposed design utilizes electric heating without a heat pump, the standard reference design shall be an air source heat pump meeting the requirements of Section C403 of the IECC—Commercial Provisions. Capacity: sized in accordance with Section R403.7.	As proposed																		
	Fuel Type/Capacity: Same as proposed design	As proposed																		
	Product class: Same as proposed design	As proposed																		
	Efficiencies:	As proposed																		
	Heat pump: Complying with 10 CFR §430.32 (2021)	As proposed																		
	Non-electric furnaces: Complying with 10 CFR §430.32 (2021) except where a condensing furnace is used in the proposed design the efficiency shall be modeled at 90% AFUE	As proposed																		
	Non-electric boilers: Complying with 10 CFR §430.32 (2021) except where a condensing boiler is used in the proposed design the efficiency shall be modeled at 90% AFUE	As proposed																		
Cooling Systems ^{d, f, k}	As proposed. Capacity: sized in accordance with Section R403.7.	As proposed																		
	Fuel Type: Electric	As proposed																		
	Capacity: Same as proposed design																			
	Efficiencies: Complying with 10 CFR §430.32 (2021)	As proposed																		
Service water Heating ^{d, g, k}	As proposed. Use, in units of gal/day = 25.5 + (8.5 × N_{br}) where: N_{br} = number of bedrooms.	As proposed Use, in units of gal/day = 25.5 + (8.5 × N _{br}) × (1 – HWDS) where: N _{br} = number of bedrooms. HWDS = factor for the compactness of the hot water distribution system.																		
		<table border="1"> <thead> <tr> <th colspan="2">Compactness ratio¹ factor</th> <th>HWDS</th> </tr> </thead> <tbody> <tr> <td>1 story</td> <td>2 or more stories</td> <td></td> </tr> <tr> <td>> 60%</td> <td>> 30%</td> <td>0</td> </tr> <tr> <td>> 30% to ≤ 60%</td> <td>> 15% to ≤ 30%</td> <td>0.05</td> </tr> <tr> <td>> 15% to ≤ 30%</td> <td>> 7.5% to ≤ 15%</td> <td>0.10</td> </tr> <tr> <td>< 15%</td> <td>< 7.5%</td> <td>0.15</td> </tr> </tbody> </table>	Compactness ratio ¹ factor		HWDS	1 story	2 or more stories		> 60%	> 30%	0	> 30% to ≤ 60%	> 15% to ≤ 30%	0.05	> 15% to ≤ 30%	> 7.5% to ≤ 15%	0.10	< 15%	< 7.5%	0.15
	Compactness ratio ¹ factor		HWDS																	
	1 story	2 or more stories																		
	> 60%	> 30%	0																	
	> 30% to ≤ 60%	> 15% to ≤ 30%	0.05																	
	> 15% to ≤ 30%	> 7.5% to ≤ 15%	0.10																	
	< 15%	< 7.5%	0.15																	
Fuel Type: Same as proposed design	As proposed																			
Rated Storage Volume: Same as proposed design	As proposed																			
Draw Pattern: Same as proposed design	As proposed																			
Efficiencies: Uniform Energy Factor complying with 10 CFR §430.32 (2021)	As proposed																			
Tank Temperature: 120° F (48.9° C)	Same as standard reference design																			

g. For a proposed design with a nonstorage type water heater, a 40-gallon storage type water heater having the prevailing federal minimum energy factor for the same fuel as the predominant heating fuel type shall be assumed. For a proposed design without a proposed water heater, a 40-gallon storage type water heater having the prevailing federal minimum efficiency for the same fuel as the predominant heating fuel type shall be assumed the following assumptions shall be made for both the proposed design and standard reference design.

Fuel Type: Same as the predominant heating fuel type

Rated Storage Volume: 40 Gallons

Draw Pattern: Medium

Efficiency: Uniform Energy Factor complying with 10 CFR §430.32

j. For a proposed design with electric resistance heating, a split system heat pump complying with 10 CFR §430.32 (2021) shall be assumed in the standard reference design.

k. For heating systems, cooling systems, or water heating systems not included in Table R405.4.2(1), the standard reference design shall be the same as proposed design.

Add new standard(s) as follows:

CHAPTER 6 [RE] REFERENCED STANDARDS

DOE

10 CFR, Part 430—2021: Energy Conservation Program for Consumer Products: Energy and Water Conservation Standards and their compliance dates.



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-123-21 Performance mechanical tradeoff
CDP ID #	300
Code	IECC RE
Code Section(s)	R405.4.2(1) table New Section n
Location	base
Proponent	Amanda Hickman amanda@thehickmangroup.com
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Similar action to prior action on REPI-122
Recommendation	Motion to disapprove by Ben Edwards 2 nd Amy Boyce
Vote	Disapproval 11-7, 1 abstain
Recommendation Date	2-23-22
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 #	REPI-054-21 Air Sealing Windows, Skylights, Doors
CDP ID #	406
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	The majority of the subcommittee found proposal unnecessary and some of the language confusing. Some were happy with the modifications made by the proponent with confusing terminology removed.
Recommendation	Ultimately, voted to Disapprove.
Vote	Disapprove 13 yes / 6 no
Recommendation Date	2/2/2022
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	

	Component	Air Barrier Criteria	Insulation Installation Criteria
As submitted	Windows, skylights and doors	The space between framing and skylights, and the jambs of windows and doors, shall be <u>air sealed</u> .	<u>Insulation installed in framing around windows, skylights and doors shall be cut to fit the cavity or shall be filled with insulation that on installation readily conforms to the available cavity space.</u>
Alt Mod #1	Windows, skylights and doors	The space between framing and skylights, and the jambs of windows and doors, shall be <u>air sealed</u> .	<u>Framing cavities around windows, skylights and doors shall be completely filled with insulation</u>
Alt Mod #2	<u>Fenestration</u>	The space between framing and skylights, and the jambs of windows and doors, shall be <u>air sealed</u> .	<u>Framing cavities around fenestration shall be completely filled with insulation</u>



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-037-21 Crawl space walls
CDP ID #	117
Code	IECC RE
Code Section(s)	R402.2.10, R402.2.10.1 New Section n
Location	base
Proponent	Robby Schwarz robby@btankinc.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	<p>Suggestions for editorial changes, eliminated horizontal application of the insulation; interest in maintaining four feet inspection; gaps for termite inspection.</p> <p>End of meeting: Charlie Allen checks information and notes the data he cited earlier in the meeting was incorrect with potential to affect outcome.</p>
Recommendation	<p>1st Motion: Disapprove as submitted - because it reduces length of insulation and conflicts with Table 402.1.2 and should be coordinated. Charlie Allen, Amy Schmidt seconded.</p> <p>-----</p> <p>NEW Motion to <u>table</u> and reconsider at next meeting. Chris Mathis; second Charlie Allen– voice vote</p> <p>---</p> <p>Charlie Allen motions to approve as amended, Chris Mathis seconds Reason: need new motion based on revised misinformation.</p>
Vote	15-0
Recommendation Date	3/2/22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee <u> X </u> _____
Consensus Committee	

Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____
Date	

Modification for REPI-37-21

R402.2.10 Crawl space walls. Crawl space walls shall be insulated in accordance with Table R402.1.3.

Exception: Crawl space walls associated with a crawl space that is vented to the outdoors and the floor overhead is insulated in accordance with Table R402.1.3 and Section R402.2.7 [Floors](#).

R402.2.10.1 Crawl space wall insulation installations.

~~Where [C](#)rawl space wall insulation [is installed](#), it shall be permanently fastened to the wall and shall extend downward from the floor to the finished grade elevation and then vertically or horizontally for not less than an additional 24 inches (610 mm). Comply with the following:~~

1. ~~Where~~ exterior crawl space wall insulation [is installed](#), it shall be permanently ~~fastened~~ [attached](#) to the wall and extend downward from the sill plate ~~to not less than~~ the base of the foundation ~~system~~ [wall](#).
2. ~~Where~~ interior crawlspace wall insulation [is installed](#), it shall be permanently ~~fastened~~ [attached](#) to the foundation wall and extend downward from ~~on top of~~ the sill plate at the top of the foundation wall to ~~not less than~~ the interior floor of the crawlspace.

Exposed earth in ~~vented or unvented~~ crawl space foundations shall be covered with a continuous Class I vapor retarder in accordance with the *International Building Code* or *International Residential Code*, as applicable. Joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend not less than 6 inches (153 mm) up stem walls and shall be attached to the stem walls

Reason Statement

- **Modifications** in blue to the original proposal originated from discussion in the envelope subcommittee.
 - Floors was removed in R402.2.10 to follow more conventional code language.
 - Section R402.2.10.1 charging language has been made more concise.
 - Point 1 and 2 have been made more precise that they are options
 - Termite inspection was brought up as a concern but was deemed to be an issue primarily associated with the IRC and one that is not currently addressed in this section of the code and not needed at this time because it is being addressed locally.
- Purpose: This proposal offers direction for installation of foundation insulation that performs, and which makes enforcement easier and more straight forward. The standing language does not address insulating from the outside and ambiguously speaks to insulating the rim joist or “the depth of the floor”.
- Language that has been stricken is not enforced and is confusing creating situations where the crawl foundation wall may not be fully insulated especially at the top next to the sill plate connection and at the bottom connection with footings or soils. Performance and efficiency will be increased through consistent application which will benefit jurisdictions and the homeowner by ensuring continuous thermal envelopes that avoid thermal bridging.
- There may be a perception that the removal of the requirement to insulate horizontally for 2’ over the dirt floor is a reduction in the stringency of the IECC, however, energy modeling has determined that the horizontal application of insulation inward for 2’ over the crawl dirt vapor retarder does not improve the energy performance of the home. This currently required detail is rarely enforced and or applied in the field. Proposals need to address cost of application and this proposal reduces cost by removing ineffective application.
- The IECC has never specifically addressed the application of insulation on the exterior so this proposal clarifies that insulation shall extend above grade to the sill plate and below grade to the footing in this application. Frost protected shallow foundations that are constructed with horizontal insulation extending away from the foundation on the outside of the building are not prohibited by this change in language. As demonstrated in the Bibliography, this type of insulation technique takes the insulation horizontally from the bottom of the installed vertical installed insulation which in this case would be at the bottom of the foundation wall on the exterior.
- Regardless of if the crawl space is vented or unvented, exposed earth needs to be covered with a class I vapor retarder. This proposal ensures that there is no confusion about this sound building durability and building science point.

Bibliography and Access to Materials (as needed when substantiating material is associated with the amendment proposal):

<https://www.huduser.gov/publications/pdf/fpsfguide.pdf>

Cost:

This proposal will not increase cost and should decrease cost as it is eliminating the requirement to install insulation 2' horizontally on the interior of the foundation wall over the vapor retarder on the dirt floor.



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-043-21 Air Leakage testing reference
CDP ID #	75
Code	IECC RE
Code Section(s)	R402.4, Chap 6 New Section n
Location	base
Proponent	Theresa Weston holtweston88@gmail.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	ASTM E3158 added as air leakage testing option. Was seen as a friendly addition. Typo also removed and "ASTM" prior to E3158 was left off.
Recommendation	Typo also corrected and "ASTM" prior to E3158 was left off. Reason: this method for air leakage testing should be allowed in the code. Chris Mathis motion to approve, Drumheller seconded
Vote	15-0-1
Recommendation Date	3/2/2022
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 #	REPI-058-21 Air Leakage exception
CDP ID #	304
Code	IECC RE
Code Section(s)	R402.4.1.2 New Section n
Location	base
Proponent	William Fay bill@energyefficientcodes.org
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	Edits to air leakage exception language. Editorial changes, no technical changes, reorders for legibility
Recommendation	Recommended by working group. Reason: increases legibility of this code. Chris Mathis motion to approve, Alison Lindberg seconds
Vote	12-4
Recommendation Date	3/2/2022
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 #	REPI-059-21 Air leakage testing
CDP ID #	416
Code	IECC RE
Code Section(s)	R402.4.1.2 New Section n
Location	base
Proponent	Robby Schwarz robby@btankinc.com
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	Air Leakage testing modification to eliminate redundancy in testing protocol.
Recommendation	Chris Mathis motion to approve, Alison Lindberg seconds. Motion fails. Changes still need to be made so motion to disapprove. Reason: this proposal needs further work. Motion to disapprove Chris Mathis; Alison Lindberg seconds
Vote	10-4-1
Recommendation Date	3/2/2022
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-061-21 Air leakage testing multifamily units
CDP ID #	516
Code	IECC RE
Code Section(s)	R402.4.1.2, R402.4.1.3, R402.4.1.4 (New) New Section y
Location	base
Proponent	Aaron Gary aaron.gary@texenergy.org
Proposal Status	SC rev
Subcommittee	RE Envelope
Subcommittee Notes	Air leakage test sampling proposal had mixed response. Was debate on both sides of this. Not consistent with what's in the commercial code. Edits have improved proposal. Significant weakening of testing provision by allowing sampling.
Recommendation	Reason: sampling increase efficiencies Drumheller motions to approve as modified, Hickman seconds
Vote	8-7
Recommendation Date	3/2/2022
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 #	REPI-101-21 Lighting Antimicrobial
CDP ID #	389
Code	IECC RE
Code Section(s)	R404.1 New Section n
Location	base
Proponent	Mike Moore mmoore@statorllc.com
Proposal Status	SC rev
Subcommittee	RE Elec, Light
Subcommittee Notes	<p>If a fixture can do both anti-microbial and lighting for a space, what does it cover? covers only the antimicrobial part. good modification but will this still be a thing in 9 years for new buildings? Is it a thing? already exempted in the code pre-pandemic. commercial language in the chat, “commercial side: Antimicrobial lighting used for the sole purpose of disinfecting a space.” accept that as a friendly modification but what about the “space” part...would that cause confusion. this may exempt lighting shining on an appliance versus appliance lighting. withdraw, motion to approve as modified, “Antimicrobial lighting used for the sole purpose of disinfecting”</p> <p>Do we have a definition of “antimicrobial lighting”? No, but language matches the commercial side. new part in article 410, added in group A, interior environments that point to UL standards. Guidance in the IBC and NEC</p>
Recommendation	<p>“Antimicrobial lighting used for the sole purpose of disinfecting”</p> <p>Approve as modified</p>
Vote	Vote 10-2-0
Recommendation Date	
Next Step	<p>To Subcommittee_____</p> <p>To Advisory Group_____</p> <p>To Consensus Committee_____</p>
Consensus Committee	

Committee Response	
Vote	Affirmative_____ Negative_____ Table_____ To Subcommittee_____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-105-21 Exterior lighting
CDP ID #	244
Code	IECC RE
Code Section(s)	R404.1.1, R404.1.2, R404.1.3, R404.1.4, R404.1.5 New Section n
Location	base
Proponent	Vladimir Kochkin vkochkin@nahb.org
Proposal Status	SC rev
Subcommittee	RE Elec, Light
Subcommittee Notes	Discussion on modifying the numbers through public comment or send back to proponents. we should consider other zones
Recommendation	Approve as submitted
Vote	Motion to approve 10-0-2
Recommendation Date	
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-108-21 Lighting interior controls
CDP ID #	394
Code	IECC RE
Code Section(s)	R404.2 New Section n
Location	base
Proponent	Steven Rosenstock srosenstock@eei.org
Proposal Status	SC rev
Subcommittee	RE Elec, Light
Subcommittee Notes	<p>first 4 edits are not required. Motion to modify MR, 2nd by MJ AM - clarification BH - this is linked to 106 and 107, they should go back SH - agree, send it back AM - this is editorial and independent. Not the same and should be voted separately. Motion to 9-1-0</p>
Recommendation	<p>R404.2 (N1104.2)Interior lighting controls.Permanently installed lighting fixtures shall be controlled with either a dimmer, an occupant sensor control or other control that is installed or built into the fixture.</p> <p style="padding-left: 40px;">Exception: Lighting controls shall not be required for the following lighting fixtures:</p> <p style="padding-left: 80px;">1. Bathrooms lighting.</p> <p style="padding-left: 40px;">1. 2. Hallways lighting.</p> <p style="padding-left: 40px;">2. 3. Exterior lighting fixtures.</p> <p style="padding-left: 40px;">3. 4. 3. Lighting designed for safety or security.</p> <p style="padding-left: 40px;">4 3.</p> <p>approve as modified</p>
Vote	9-1-0
Recommendation Date	
Next Step	<p>To Subcommittee _____</p> <p>To Advisory Group _____</p> <p>To Consensus Committee _____</p>

Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-109-21 Part I Lighting Exterior controls
CDP ID #	484
Code	IECC RE
Code Section(s)	R404.3 New Section n
Location	base
Proponent	Michael Jouaneh mjouaneh@lutron.com
Proposal Status	SC rev
Subcommittee	RE Elec, Light
Subcommittee Notes	Allows for solutions using astronomical clocks that know what daylight hours are everyday to control lighting. It seems like there is no change in requirements, during daylight hours and when daylight is present seems the same. Daylit areas, do we need to define daylight hours? We know it means different times during the year.
Recommendation	
	Disapprove
Vote	Motion to disapprove 8-1-3
Recommendation Date	
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-109-21 Part II Lighting Exterior controls
CDP ID #	580
Code	IRC
Code Section(s)	N1104.3 New Section n
Location	base
Proponent	Michael Jouaneh mjouaneh@lutron.com
Proposal Status	SC rev
Subcommittee	RE Elec, Light
Subcommittee Notes	Allows for solutions using astronomical clocks that know what daylight hours are everyday to control lighting. It seems like there is no change in requirements, during daylight hours and when daylight is present seems the same. Daylit areas, do we need to define daylight hours? We know it means different times during the year.
Recommendation	Disapprove
Vote	Motion to disapprove 8-1-3
Recommendation Date	
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____

Date	
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International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-110-21 Lighting Exterior controls
CDP ID #	396
Code	IECC RE
Code Section(s)	R404.3 New Section n
Location	base
Proponent	Steven Rosenstock srosenstock@eei.org
Proposal Status	SC rev
Subcommittee	RE Elec, Light
Subcommittee Notes	<p>Adding the exception for solar-powered lighting fixtures. doesn't think its should be required here. agree with Shane, exterior solar lighting not permanent. What about battery powered fixtures? Why not promote solar-powered lighting fixtures? It may not be normal now but could be in the future. It would promote this, but not the purpose of this committee or the book to promote certain technologies. Not connected to any electrical service and low voltage, not permitted and could be used everywhere. No permit required. This is not needed. Opposed to the proposal, we don't want an AHJ controlling this but what if the solar powered lighting is connected to the service? Solution to a problem that doesn't exist. would make more sense if it was an exception for low power lighting fixtures. At what point would a solar-powered light fixture need an automatic light switch or control? in CA, we are aware of emerging tech, nice lighting fixtures that have no connection to the grid. Communities in the SW that have dark sky amendments where at a certain time of the evening lights need to turn off. Maybe an amendment to "solar-powered lighting." an exception already that exists in the 2021 IECC for solar-powered lighting 404.1.1. what about other renewable power lighting, microgrid or wind powered? not wanting to future proof, this technology exists. REPI-102 was approved so fixture should be changed to "luminaire." May be a better solution. Li-on battery powered lighting exists today. Could open a can of worms. this neither helps or hurts. We could align with R404.1.1 language, "Solar-powered lamps..." approve as modified straw poll 3-8</p>
Recommendation	Disapprove
Vote	Vote to deny 11-0-1
Recommendation Date	

Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	