



International Energy Conservation Code Consensus Committee-Residential

Draft Meeting Agenda (3/17 posting)

[Webex Meeting Link](#)

March 24, 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. Code Change Proposals
 - 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)
 - 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)

CEPI-24-21 Part II (Performance Path)	(Admin as modified 5-0-1)
REPI-153-21 (Zero Energy Appendix Scope)	(Admin approve 4-0-1)
REPI-156-21 (Zero Energy Appendix Reorg)	(Admin approve 3-0-3)
REPI-159-21 (Above Code Program)	(Admin as modified 5-0-1)
REPI-166-21 (Decarbonization Site Waste)	(Admin approve 5-0-1)
REPI-65-21 (Gas Fireplace Efficiency)	(HVACR neutral 6-6-0)
REPI-87-21 (Pipe Insulation Protection)	(HVACR as modified 11-0-0)
REPI-92-21 (ERV multifamily)	(HVACR disapprove 11-0-0)
REPI-94-21 (Sensible Recovery Efficiency)	(HVACR as modified 9-0-1)
REPI-116-21 (Perf. Path Renewables)	(Econ/Modeling as modified 12-5)
REPI-131-21 (ERI Air Exchange Rate)	(Econ Modeling as modified 18-0-3)
REPI-132-21 (ERI Airflow Rate)	(Econ Modeling disapprove)

8. Subcommittee Reports

Subcommittee guidance

a. Economics, Modeling, and Whole-Building Metrics

1. Cost Effectiveness

9. Other business.

10. Upcoming meetings. April 7 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-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	



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	

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	<p>To Subcommittee _____</p> <p>To Advisory Group _____</p> <p>To Consensus Committee <u> X </u> _____</p>
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 <u>X</u> _____
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 #	CEPI-024-21 Part II Performance Path
CDP ID #	573
Code	IECC RE
Code Section(s)	R401.2.2, R405 New Section y
Location	base
Proponent	Amy Boyce amy.boyce@imt.org
Proposal Status	SC rev
Subcommittee	RE Admin
Subcommittee Notes	
Recommendation	Approval
Vote	5-0
Recommendation Date	3/1/22
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-153-21 Zero Energy Appendix Scope
CDP ID #	503
Code	IECC RE
Code Section(s)	RC101, RC101.1 New Section n
Location	appendix
Proponent	Patricia Chawla patricia.chawla@austinenergy.com
Proposal Status	SC rev
Subcommittee	RE Admin
Subcommittee Notes	
Recommendation	Approval
Vote	4-0
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-156-21 Zero Energy Appendix Reorg
CDP ID #	533
Code	IECC RE
Code Section(s)	RC102, RC102 (New), SECTION RC103 (New), RC102.1, RC102.2, TABLE RC102.2 New Section y
Location	appendix
Proponent	Patricia Chawla patricia.chawla@austinenergy.com
Proposal Status	SC rev
Subcommittee	RE Admin
Subcommittee Notes	
Recommendation	Approval
Vote	3-0-2
Recommendation Date	3/1/22
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-159-21 Above Code Program definition
CDP ID #	535
Code	IECC RE
Code Section(s)	RC102.1.1 (New) New Section y
Location	appendix
Proponent	Patricia Chawla patricia.chawla@austinenergy.com
Proposal Status	SC rev
Subcommittee	RE Admin
Subcommittee Notes	
Recommendation	Approval
Vote	5-0
Recommendation Date	3/1/22
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-166-21 Decarbonization Construction Site Waste
CDP ID #	473
Code	IECC RE
Code Section(s)	X New Section y
Location	appendix
Proponent	Hope Medina hmedina@coloradocode.net
Proposal Status	SC rev
Subcommittee	RE Admin
Subcommittee Notes	
Recommendation	Approval
Vote	5-0
Recommendation Date	3/1/22
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-065-21 Gas Fireplace efficiency
CDP ID #	82
Code	IECC RE
Code Section(s)	R402.4.2.1 New Section y
Location	base
Proponent	Nicholas O'Neil noneil@energy350.com
Proposal Status	SC rev
Subcommittee	RE HVACR & WH
Subcommittee Notes	This proposal was presented and voted on twice 2/7 and 3/7- both times the vote to approve was a tie with no resolution -
Recommendation	The recommendation of the subcommittee is for the proposal to move on to the Consensus committee for voting as we have voted twice without a consensus to approve or deny
Vote	Tied no resolution in subcommittee
Recommendation Date	3/14/2022
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee ___yes_____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-087-21 Pipe insulation protection
CDP ID #	36
Code	IECC RE
Code Section(s)	R403.4.1 New Section n
Location	base
Proponent	Howard Ahern howard.ahern@airexmf.com
Proposal Status	SC rev
Subcommittee	RE HVACR & WH
Subcommittee Notes	Howard Ahern presented on 3/7/2022 during the regular subcommittee call Motion made to approve and second motion carried – I will update vote count when I locate it
Recommendation	Recommendation from HVACR subcommittee is to approve with the friendly amendment presented and voted on by the subcommittee
Vote	approved (I will update the vote count when I have it)
Recommendation Date	approve
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee ___ yes _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-092-21 ERV Multi-family
CDP ID #	321
Code	IECC RE
Code Section(s)	R403.6.1 New Section y
Location	base
Proponent	Mike Moore mmoore@statorllc.com
Proposal Status	SC rev
Subcommittee	RE HVACR & WH
Subcommittee Notes	Vote taken on 3/7/2021 subcommittee after the proposal was presented by Mike Moore
Recommendation	Recommend to deny the proposal – this came from the proponents and the subcommittee agreed
Vote	All agree to deny the proposal
Recommendation Date	3/7/2022
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee__ submit to CC for vote _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-094-21 Sensible Recovery Efficiency
CDP ID #	410
Code	IECC RE
Code Section(s)	R403.6.1 New Section n
Location	base
Proponent	Mike Moore mmoore@statorllc.com
Proposal Status	SC rev
Subcommittee	RE HVACR & WH
Subcommittee Notes	vote taken on 3/7/2022 motion to approve and vote carried Provided updated language for the proposal and a reference to REPI 069 – Kristopher to update the Monograph document
Recommendation	<p>REPI-094 modification</p> <p>R403.6.1 Heat or energy recovery ventilation. Dwelling units shall be provided with a heat recovery or energy recovery ventilation system in Climate Zones 7 and 8. The system shall be a balanced ventilation system with a sensible recovery efficiency (SRE) of no less than 65 percent at 32°F (0°C) at an airflow greater than or equal to the design airflow. The SRE shall be determined from a listed value or from interpolation of listed values.</p> <p><i>Note: REPI-094 merged with the RCC-approved REPI-069 would look like this:</i></p> <p>R403.6.1 Heat or energy recovery ventilation. Dwelling units shall be provided with a heat recovery or energy recovery ventilation system. The system shall be a balanced ventilation system with a sensible recovery efficiency of no less than 65 percent at 32°F (0°C) at an airflow greater than or equal to the design airflow. The SRE shall be determined from a listed value or from interpolation of listed values.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Dwelling units in single and two-family buildings in Climate Zones 0-6. 2. Dwelling units in Group-R occupancies that comply with Section C403.7.4.1. <p>Vote to approve</p>
Vote	all in favor with 1 abstention
Recommendation Date	3/7/2022



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

REPI-116-21

Residential Renewable Tradeoffs for Performance Path (127)

IECC®: R405.1, TABLE R405.4.2(1)

Proponents: Jeremy Williams, representing U.S. Department of Energy
(jeremy.williams@ee.doe.gov)

2021 International Energy Conservation Code

Revise as follows:

R405.1 (N1105.1) Scope. This section establishes criteria for compliance using total building performance analysis. Such analysis shall include heating, cooling, mechanical ventilation, and service water-heating, and on-site renewable energy only.

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

Portions of table not shown remain unchanged.

BUILDING COMPONENT	STANDARD REFERENCE DESIGN	PROPOSED DESIGN
<u>On-site renewable energy</u>	<u>As-Proposed</u>	<u>As-Proposed</u>

Reason: This proposal seeks to clarify how renewable energy should be handled as part of Section 405 performance calculations. Onsite renewable energy sources, particularly PV and energy storage systems, play a critical role in decarbonizing the building sector. However, these technologies are not clearly recognized within the scope of Section 405 and in performing whole-building energy calculations for the purposes of demonstrating code compliance. This has sometimes led to confusion in application, as Section 405 is portrayed as representing “total building performance” yet is silent on this significant aspect of whole-building energy consumption, particularly as more people are looking to the performance path in pursuit of advanced energy and climate goals. In addressing the important role of onsite renewable energy sources in reducing net onsite energy consumption, and clarifying their role via Section 405, it’s also critical that resulting tradeoffs between energy efficiency and renewable energy be handled appropriately. Mechanisms must exist that avoid eroding cost-effective energy efficiency measures, particularly those with a long measure-life, and which ensure a more energy efficient and lower energy building, overall. Renewables are therefore handled in a way similar to equipment tradeoffs, which ensures that energy loads which are not historically regulated by building energy codes cannot be traded against cost-effective efficiency measures. ~~The proposal also retains the existing energy efficiency “backstop” while updating that specification based on the 2015 IECC, which has been demonstrated cost effective by DOE and others and adopted as such by a number of U.S. states and local governments.~~

Cost Impact: The code change proposal will neither increase nor decrease the cost of construction. The proposed change does not increase or decrease the required stringency of the Standard Reference Design, and therefore there is no direct cost impact. Section R405 is an optional compliance path that allows trade-offs of prescriptive requirements at the discretion of the designer. This proposal is intended to provide clearer guidance on how renewables should be handled in whole-building performance calculations, but does not affect the stringency of the mandatory or prescriptive requirements.



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-131-21 ERI Air Exchange Rate
CDP ID #	293
Code	IECC RE
Code Section(s)	R406.4 New Section n
Location	base
Proponent	Vladimir Kochkin vkochkin@nahb.org
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Removes prescribed ventilation rates in ERI path, to better align with ICC/RESNET standard 301
Recommendation	Approve as Modified Motion by Vladimir Kochkin 2 nd by Gayathri Vijayakumar
Vote	Approve as Modified 18 – 0 unanimous
Recommendation Date	3-9-22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ X _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	

REPI-131-21 – MOD1

IECC®: R406.4

Proponents:

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

2021 International Energy Conservation Code

Revise as follows:

R406.4 (N1106.4) Energy Rating Index.

The Energy Rating Index (ERI) shall be determined in accordance with RESNET/ICC 301 ~~except the air exchange rate in RESNET/ICC 301 shall be in accordance with items (1) and (2) as follows:~~

- ~~1. Air exchange rate for the Energy Rating Reference Home in RESNET/ICC 301 Table 4.2.2(1) shall be replaced by the air exchange rate for the Standard Reference Design as defined in Table R405.4.2(1) of this code.~~
- ~~2. Air exchange rate for the Rated House in RESNET/ICC 301 Table 4.2.2(1) and Table 4.3.1(1) shall be replaced by the air exchange rate for the Proposed Design as defined in Table R405.4.2(1) of this code.~~

~~Buildings designed in accordance with this code shall not be required to meet the RESNET/ICC 301 air exchange rates or mechanical ventilation rates used for the purpose of determining the ERI.~~

~~The mechanical ventilation rates used for the purpose of determining the ERI shall not be construed to establish minimum ventilation requirements for compliance with this code.~~

~~for buildings covered by the International Residential Code, the ERI reference design ventilation rate shall be in accordance with Equation 4-2.~~

~~Ventilation rate, CFM = (0.01 × total square foot area of house) + [7.5 × (number of bedrooms + 1)] (Equation 4-2)~~

Reason Statement:

The purpose of this proposal is to fix an inadvertent error that was introduced in the 2018 IECC during an effort to coordinate the ERI calculation procedure with the residential ventilation rates. The change in 2018 IECC resulted in a significant increase in the ERI scores. That was never the intent of the change as was confirmed by the original proponent, and it was the result of using terms that were not fully coordinated with the specific terms in Standard 301. Proposals and public comments attempted to fix this issue in 2021 IECC, but in the end none of them were approved. The proposed amendment resolves the issues in accordance with the original intent by requiring the calculation of air exchange rate in Standard 301 be aligned with IECC Table R405.4.2(1) used in the performance path calculations. This amendment will coordinate the ERI procedure with the residential mechanical code provisions on this subject. The proposed amendment also makes it clear that IECC buildings rated using the ERI are not required to meet the Standard 301 air exchange and ventilation rates -- this is added because Standard 301 uses the terms "required dwelling unit total exchange rate" and "total required ventilation rate." It's noted that the coordination between Standard 301 and this code should be done such that there is a single ERI index for buildings complying with the IECC.

Cost Impact:

The code change proposal will neither increase nor decrease the cost of construction.

This proposal fixes an error. There is no impact on construction practices. The change will allow designers to calculate correct ERI scores.



International Energy Conservation Code Code Change Proposal Tracking Sheet

Proposal #	REPI-132-21 ERI airflow rate
CDP ID #	296
Code	IECC RE
Code Section(s)	R406.4 New Section n
Location	base
Proponent	Mike Moore mmoore@statorllc.com
Proposal Status	SC rev
Subcommittee	RE Econ, Model, Metric
Subcommittee Notes	Proponent had coordinated with Vladimir Kochkin and Ryan Meres and so supported disapproval based on prior action on REPI-131
Recommendation	Disapproval Motion by Ben Edwards 2 nd by Ryan Meres
Vote	Disapproval 17-0 unanimous
Recommendation Date	3-9-22
Next Step	To Subcommittee _____ To Advisory Group _____ To Consensus Committee _____ X _____
Consensus Committee	
Committee Response	
Vote	Affirmative _____ Negative _____ Table _____ To Subcommittee _____
Date	

