

National Association of Home Builders

# 2016 ICC cdpACCESS Online Voting Guide

*ADMIN, IECC, IRC, IFC, STRUCTURAL*

[NAHB.org/CodeDevelopment](http://NAHB.org/CodeDevelopment)

**Nov. 8 – Nov. 22, 2016**



**National Association  
of Home Builders**

# NAHB's Voting Recommendations for the Most Important Code Change Proposals

The National Association of Home Builders urges all Governmental Member Voting Representatives to support the housing industry on the following code change proposals. This voting guide will assist you in supporting only those code change proposals that are necessary and will result in the construction industry being able to build sustainable homes that are also safe and affordable.

This voting guide provides you with all the information you need to know on how to vote using the online governmental consensus ballot. The code change proposals are listed in numerical order, include our recommended vote, a brief description of the proposed change, followed by NAHB's reason statement in the far right column of each row. NAHB has also identified **critical** code changes (shown in bold) that will have a serious impact on the enforcement and adoptability of the codes.

How to use this guide- Once you have logged into cdpACCESS, you will see a list of proposals on the left hand of the screen. When you select the proposal, a screen similar to the one below will open and you will be able to cast your vote on the proposal. With this guide, you can see that our recommended vote on CE43-16 is "Disapprove", as indicated by "Disapprove" in the recommended vote column.

The screenshot displays the voting interface for proposal E2-15. At the top, the proposal number "E2-15" is shown in a dark header, with a "Vote" button below it. A navigation bar contains tabs for "PCH Results", "Original Proposal", "ROCAH", "Public Comments", and "Videos". The main content area on the left lists the proposal details: "E2-15", "CAH Results: Disapprove", "PCH Results: Disapprove", "PCH1 Results: Disapprove", "Support: 86%(107) Oppose: 14%(17)", "PCH2 Results: None", "Proponent: Russell Kendzior, The National Floor Safety Institute (NFSI), representing National Floor Safety Institute (russk@nfsi.org)", "No Change to Code Text", and "Add new standard(s) as follows:" followed by two links to ANSI/NFSI standards. On the right, a "Vote" section offers two options: "As Submitted" (2/3 Majority) and "Disapprove" (Simple Majority). A red warning message states: "You need to be either a Government Member or an Honorary Member to cast an OGC vote." Below the voting options are links for "Voting Matrix Information" and "Voting Instructions". At the bottom right, an "Important Documents" section lists: "PCA", "Monograph", "CAH Results", "ROCAH", "PCH Results", and "CP 28".

**Note: This Voting Guide includes a comprehensive list of positions NAHB feels are important to the housing industry and homebuyers. Those highlighted in **blue** are most critical to the housing industry!**

## ADMINISTRATION

Prop #	Recommended Vote	Proposal Description	Reason Statement
ADM94 - ASCE7	Disapprove	ADM94-16 – Referenced Standards Update – ASCE 7-16 – This proposed code change updates the existing reference for the ASCE 7 standard, Minimum Design Loads for Buildings and Other Structures, to the 2016 edition.	The new 2016 edition of ASCE 7 will significantly increase the cost of construction in some several regions of the country due to increases in roof uplift pressures, seismic ground motions, and/or ground snow loads. Additional seismic design or detailing requirements for stairs, ceilings, and floor diaphragms in multifamily buildings and for adjacent site walls and fences also apply. The ASCE 7 committee often does not consider affordability or other concerns of the residential industry in its deliberations.
ADM94 - ICC A117.1	Disapprove	Referenced Standards Update – ICC A117.1-15. This proposed code change updates the existing reference for the ICC A117.1 standard, Accessible and Usable Buildings and Facilities, to the 2015 edition.	ICC A117.1 has undergone dramatic changes during its current cycle which has not yet been completed. There has not been time to determine the correlation issues which will certainly come to light and submit any necessary code change proposals. For these reasons, it is imperative that more time is given to code officials and builders to study the final document before it is referenced throughout the I-Codes.
ADM31	As Submitted	This proposal clearly identifies the option of using either the IEBC or IRC for repair, alteration, change of occupancy, addition to and relocation of existing 1&2 family dwellings and townhouses.	This change clarifies that the use of the IEBC is not mandatory and the IRC can be used for additions, alterations, repairs and relocation of buildings as an option to the IEBC.
ADM42, Part 1	As Submitted	This proposal modifies the intent section to imply that onsite generation is part of the energy code	It needs to be understood that on-site generation is already part of the energy code. As the code becomes more stringent on-site generation will become a more important component of compliance. There are already many requirements that are currently not cost-effective in the code. This change will clarify that generation is part of the code and provide flexibility for builders and designers to include generation in order to meet the energy consumption targets defined by the code.
ADM42, Part 2	As Submitted	This proposal modifies the intent section of the IECC to clarify that onsite generation is part of the energy code.	It needs to be understood that on-site generation is already part of the energy code. As the code becomes more stringent on-site generation will become a more important component of compliance. There are already many requirements that are currently not cost-effective in the code. This change will clarify that generation is part of the code and provide flexibility for builders and designers to include generation in order to meet the energy consumption targets defined by the code.
ADM43, Part 1	As Submitted	This proposal modifies the intent section to imply that onsite generation is part of the energy code	This proposal is compatible with ADM 42.2, it more clearly states that "production" of energy should be included, but coupled with ADM 42.2 it will state "Net Energy Use", "Conservation", and "Production" which covers all the bases necessary for an energy efficient building.
ADM43, Part 2	As Submitted	This proposal modifies the intent section to imply that onsite generation is part of the energy code	This proposal is compatible with ADM 42.2, it more clearly states that "production" of energy should be included, but coupled with ADM 42.2 it will state "Net Energy Use", "Conservation", and "Production" which covers all the bases necessary for an energy efficient building.

## ADMINISTRATION

Prop #	Recommended Vote	Proposal Description	Reason Statement
ADM45, Part 1	As Submitted	This proposal modifies the intent of the IECC by removing the unquantifiable phrase "over the life of the building".	This code change will delete "over the useful life of each building" from Section C103 Intent. This current language is ambiguous and is subject to be interpreted differently by different people. The term useful is not good mandatory code language and needs to be removed from the code. Keeping this terminology could increase cost beyond a reasonable payback period.
ADM45, Part 2	As Submitted	This proposal modifies the intent of the IECC by removing the unquantifiable phrase "over the life of the building".	This code change will delete "over the useful life of each building" from Section C103 Intent. This current language is ambiguous and is subject to be interpreted differently by different people. The term useful is not good mandatory code language and needs to be removed from the code. Keeping this terminology could increase cost beyond a reasonable payback period.
ADM46, Part 1	As Submitted	This proposal modifies the Above Code Program section of the code to remove the need for all Mandatory items to be done in addition to the above code program	Requiring all "Mandatory" to be met is saying "OK you've picked a program that by itself is more efficient than the base IECC by itself. Now do more and add more materials and costs that were not needed to exceed the code." Why do the above code program at all?
ADM46, Part 2	As Submitted	This proposal modifies the "Above Code Program" section of the IECC by removing the requirement for all "Mandatory" items to be met, in addition to the Above Code Program requirements.	Removing the requirement for mandatory items to be included along with Above Code Programs will provide more latitude for code officials to determine if an energy efficiency program meets the intent of the code and be able to accept a program certificate as direct evidence of compliance.
ADM50	As Submitted	This proposal modifies 102.5, Application of residential code, item #2, which clarifies how the IRC and the IFC interact and how the IFC may apply to one- and two-family dwellings and townhouses.	This change clarifies that the IFC only regulates those systems in townhouses and detached 1&2 family dwellings and their accessory structures when a reference in the IRC sends the user to the IFC.
ADM52	Disapprove	This proposal modifies R102.7 Existing structures, by adding a cross reference to the IEBC.	These references to the various other codes are unnecessary. Adding additional references to more codes may be interpreted as a requirement. The IRC is a stand-alone code and should be maintained as such. The IRC has all provisions for alteration and additions to existing 1&2 family dwellings and townhouses. Prefer NAHB ADM31 proposal.

## INTERNATIONAL ENERGY CONSERVATION CODE - COMMERCIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
CE38, Part 1	Disapprove	This proposal by SEHPCAC to C102.1.1 is to delete the reference to the "Mandatory" provisions of this section on above code programs.	This proposal will delete the original reference to the required prescriptive term Mandatory. Replacing the term with a reference to a new table. The challenge will to determine which sections reference the table, checking the table and then finding the next section. With the reference to Mandatory being deleted actually makes it harder to determine compliance and requires continued reference back and forth to the table and back to the section.
CE38, Part 2	Disapprove	This proposal by SEHPCAC will delete the original reference to the required prescriptive term Mandatory. Replacing the term with a reference to a new table.	This proposal will delete the original reference to the required prescriptive term Mandatory. Replacing the term with a reference to a new table. The challenge will to determine which sections reference the table, checking the table and then finding the next section. With the reference to Mandatory being deleted actually makes it harder to determine compliance and requires continued reference back and forth to the table and back to the section.
CE43	Disapprove	<b>This proposal increases the stringency of the commercial performance path by five percent and the prescriptive path by five percent.</b>	<b>This 5% increase in stringency is arbitrary and will be in addition to all other increases which get approved this cycle. The change is not justified. No cost effectiveness analysis was performed, no data was provided to indicate these additional requirements are necessary.</b>
CE54	Disapprove	This proposal modifies tables for thermal envelope R-values and U-factors of the Commercial section by increasing the requirements when ASHRAE 90.1 is more stringent than the IECC and leaving the values the same if already more stringent than ASHRAE 90.1.	This proposal cherry picks higher prescriptive table R-values that ASHRAE 90.1 has adopted under the assumption that the values are cost effective; however, the proponent does not propose to reduce the R-values that ASHRAE was unable to cost justify.
CE60, Part 2	Disapprove	This proposal creates a new column in the residential prescriptive table dedicated to garage doors when part of a thermal envelope.	Attached garages for residential dwellings are almost always unconditioned spaces and the attached garage envelope has no thermal requirements. This proposal will likely mislead many users into thinking that because the garage door is in the "Insulation and Fenestration Table" then it probably needs an energy efficient garage door.
CE66	Disapprove	This proposal adds a footnote requiring testing of all insulation at three different temperatures and selecting the lowest R-value.	Insulation test standard C518 instructs how to test insulation. It references a 75 degree mean temperature. This proposal wants the entire industry to test at 3 different mean temperatures. This is a huge problem and has the potential to cause confusion with the Federal Trade Commission R-value labeling requirement.
CE92	Disapprove	This proposal to the commercial prescriptive table increases the stringency of the SHGC requirements in climate zones 4 through 6.	This proposal does not consider that in cold climate for many types of buildings the sun provides passive heat in the winter and reduces the heating load. Also, the proponent does not provide any actual cost analysis and indicates that the change is FREE- this is inconsistent with other proposals that lower the SHGC.

## INTERNATIONAL ENERGY CONSERVATION CODE - COMMERCIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
CE105	Disapprove	This proposal requires building air-tightness testing for most commercial and multi-family buildings.	Mandating blower door testing for most commercial and multi-family buildings is premature. Most areas of the country have little or no experience in doing commercial and multi-family building tightness testing. The referenced test standard is not clear on how to test many types of buildings. The DOE justification had an assumed simple payback of over 19 years for the testing- meaning the cost to run the test will take 19 years of energy savings to pay for the test.
CE107	Disapprove	This proposal to to the commercial portion of the energy code requires air barrier commissioning for the first time.	This proposal would require commissioning of the air barrier, which is not currently required. Commissioning is essentially defined as an additional special inspection; the wall system, insulation, vapor retarders and air barrier materials are already being inspected by the code official. Evidence of any problem or failure was not shown for the requirements currently in the code.
CE114, Part 2	Disapprove	This proposal modifies the residential section for Rooms containing fuel burning appliances and is a substantial rewrite.	A Pacific Northwest National Laboratory (PNNL) study determined this section as being "Not Applicable to Residential Energy Efficiency" and does not save energy. The re arrangement of the wording is confusing and could be interpreted to require sealed combustion units to also be enclosed in the room. This is bad code language. CE114, Part 2 should be disapproved and RE92 should be approved as submitted which removes the entire section.
CE115, Part 1	As Submitted	This proposal deletes the section C402.5.3 addressing Rooms containing fuel-burning appliances.	In determining contribution of changes from the 2012 to the 2015 IECC for energy efficiency, Pacific Northwest National Laboratory (PNNL) performed a study for DOE and classified C402.5.3 Rooms containing fuel burning appliances as "Not Applicable to Residential Energy Efficiency", meaning the section does not save energy! It is not cost justifiable and no data was ever supplied to show a problem. This section should not be in the energy code.
CE218	Disapprove	This proposal adds new sections that require energy metering and monitoring.	The cost for the proposed energy metering and monitoring requirement could be in excess of \$100,000 for a typical hotel. This would rarely, if ever, pay for itself. A scenario where this could save energy- monitoring equipment is installed, problem exists, someone looks at the data, the problem that exists is identifiable through the data and corrected. When ASHRAE approved this Addendum, their justification was an article that showed significant savings- no research, no cost justification, no percentage of buildings that could be impacted - a case study magazine article.
CE225	Disapprove	This proposal adds new sections and a table that require electrical wiring and gas piping to be installed in a manner to facilitate the possible future energy metering and monitoring that may be needed.	Installing wiring and piping to systems for possible circumstances to monitor various electric and gas uses within a building using sub-meters is very expensive and in nearly all cases will not provide a payback. This proposed special pre-wiring/piping assumes wireless or networked energy consuming devices will not be used in the future and all costs associated with this proposal will potentially be wasted.

## INTERNATIONAL ENERGY CONSERVATION CODE - COMMERCIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
CE232	<b>Disapprove</b>	This proposal doubles requirements for Additional Efficiency Package Options by requiring 2 to be chosen rather than 1. Justification was based on outdated information.	Proposal not cost-justified. It is also an unbalanced increase in stringency that only applies to the prescriptive path and not the performance path.
<b>CE251</b>	<b>Disapprove</b>	<b>This proposal limits the credit for On-site Renewable to 5%.</b>	<b>The limiting of PV is not a way to handle efficiency going forward. The envelope is being pushed past the level of cost effectiveness and credit for on-site generation should not be limited as efficiency levels increase.</b>
CE272, Part 1	<b>Disapprove</b>	This proposal attempts to move all commercial and residential multi-family requirements into one new Chapter of the IECC.	There are significant differences between low-rise multi-family buildings which are much more like single family homes than hi-rise multi-family buildings which are built more like commercial buildings. The combining of both types of buildings does not occur without many conflicts in the proposed chapter. There are changes to fenestration where there are differences in requirements as well as basic construction differences. There has been no data shown to indicate a problem exists or confusion exists. This combination goes far beyond energy and combining all of the requirements for multi-family construction into one generic chapter does not work.

## INTERNATIONAL ENERGY CONSERVATION CODE - RESIDENTIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
RE10	Disapprove	This proposal adds requirement for commissioning whole house mechanical ventilation systems.	This is commissioning of a fan- this is not an energy efficiency issue. If this requirement belongs anywhere, it belongs in the mechanical section of the IRC and/or IMC. There are no fan flow requirements in the IECC.
RE15	As Modified	This proposal adds a section to allow for test sampling of dwellings and zoned building tightness testing for multi-family buildings.	Multi-family buildings with multiple stories with each floor the same as the other. It is not necessary to test each unit on each floor, only to find that all are within the required tightness level. Sampling will give the information needed saving cost and time for construction. Sampling is a reasonable, used in many industries, way to perform quality assurance.
RE17	As Submitted	This proposal adds ICC-400 as an alternative to the IECC for the thermal envelope for Log Homes	The ICC-400 has log home wall requirements along with all other building thermal envelope provisions that are appropriate for log homes. The ICC 400 Standard for Log Homes was developed by an ICC Consensus Committee and participating members, it is recognized as an American National Standard by ANSI and it provides the minimum design requirements for the construction of log homes.
RE18	Disapprove	This proposal to the prescriptive table would increase floor insulation R-values for Climate Zone 2, and Climate Zone 4 except Marine.	This proposal to Table R402.1.2 would require a 30 to 50 percent increase in insulation value in floors above unconditioned spaces for Climate Zones 4 and 2. The proponent states that the savings are only 1% and 1.8% with thier calculations. Other computer simulations show closer to a 0.3 to 0.8% savings amounting to as little as \$4 a year which does not justify the increase. No actual cost data documentation provided to support the increases.
RE26	Disapprove	This proposal adds two columns in the prescriptive table for different wall insulation techniques, some of which require the use of 2x8 wall construction.	This proposal increases the complexity of the table as well as the code. The suggested change is not a practice that is frequently used in residential construction. Instead of cluttering the existing table, the designer can use Table R402.1.4 for Equivalent U-factors and accomplish the same results. Additionally because of the infrequency of this type of construction Section R102 Alternative Materials, Design and Methods of Construction and Equipment can also be used. This appears to be a product driven proposal.
RE27	Disapprove	This proposal to Table R402.1.2 would provide an option for insulation methods in roof/ceilings.	This proposal increases the complexity of the table as well as the code. The suggested change is not a practice that is frequently used in residential construction. Instead of cluttering the existing table, the designer can use Table R402.1.4 for Equivalent U-factors. Additionally because of the infrequency of this type of construction Section R102 Alternative Materials, Design and Methods of Construction and Equipment can also be used. This appears to be a product driven proposal.
RE30	As Modified	This proposal modifies the prescriptive table to offer an insulation option when using commonly available R-19 insulation and advanced wall framing methods.	Using R-19 batts slightly compressed function as R-18 in a 2x6 wall. By reducing the framing factor to 24 inches on center allows for an increased amount of insulation value in walls. This proposal provides a practical visual prescriptive alternative for compliance, to meet the 0.060 U-factor, without having to provide calculations.



## INTERNATIONAL ENERGY CONSERVATION CODE - RESIDENTIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
RE58	As Submitted	This proposal removes the mandatory 3 and 5 ACH50 building tightness requirements and makes it possible to trade-offs building tightness in the performance path without reducing the stringency of the code.	Building tightness requirements are extremely stringent. It had been difficult to communicate this until DOE did a field study showing that even Maryland who has had a 3 ACH50 requirement for over 3 years has less than half of their new homes meeting the required tightness. This proposal offers a performance tradeoff that will allow equal energy performance but provide relief on tightness. In addition, there is a backstop to prevent excessive leakage.
RE69	Disapprove	This proposal adds requirements for common "adiabatic" walls, floors and ceilings to the air barrier and insulation installation table.	The proposed change is not clear and there will be an interpretation issue between the fire marshal and the code official. The terms used in the proposal introduce procedures that typically have not been incorporated in residential construction. A definition for "Adiabatic" is not needed in the code. The code already addresses both the fire-resistive elements and air barrier requirements related to these walls between adjacent dwelling units or townhouse units. There is no definition in the code for Class 1 insulation installation. The prescriptive provisions of the energy code already address the R-value and the required blower door test will take care of the air barrier issue.
RE79	Disapprove	This proposal to the Air Barrier and Insulation Installation table, addresses a new requirement for encapsulating rim insulation.	The energy code already requires a proper air barrier and includes a blower door test to prove the effectiveness of the air barrier. The energy code does not require an air barrier on all sides of an insulation product. It already requires an air barrier to prevent the air from passing through the building envelope only. This requirement is unrealistic and not cost-effective.
RE86	Disapprove	This proposal adds a new building tightness test criteria for house/garage firewall air testing.	The air barrier testing already addresses the air barrier between the house and the attached garage. The proposed test does not accomplish the proponents goal.
RE87	As Submitted	This proposal to increases the mandatory maximum air leakage rate in Climate Zones 3 through 8 to four air changes per hour.	The current requirement of 3 air changes per hour in climate zones 3 through 8 is too tight. 11 of the first 13 states that adopted a code with the 3 ACH requirement ammended the 3 ACH tightness to 4, 5 or 7 ACH. This requirement is especially problematic in smaller homes and homes without basements.
RE92	As Submitted	This proposal deletes the section addressing Rooms containing fuel-burning appliances.	No data was provided showing a problem exists requiring a room to be isolated. No energy savings potential was shown for having the requirement in the code. No cost data was provided to justify the increase in the cost to construct or the benefit. This requirement does not benefit energy efficiency. The initial proposal provided no cost effectiveness justification and the DOE determination indicated that this requirement did not save any energy. Requirement can increase the possibility of freezong pipes. Cost estimates for isolating the mechanical room can exceed \$500.
RE100	As Modified	This proposal sets the criteria to allow buried ducts in the attic to be performance modeled as if they are in conditioned space if the ducts are extremely tight and covered with sufficient insulation.	This proposal is a complement to RE99 - it adds specific criteria for being able to consider ducts in conditioned space when doing a performance path or ERI. Research shows that these highly insulated ducts that meet these requirements perform better than ducts in conditioned space.

## INTERNATIONAL ENERGY CONSERVATION CODE - RESIDENTIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
RE101	Disapprove	This proposal modifies duct sealing language by deleting reference to the IMC/IRC, removing exceptions and increasing requirements.	This proposal will create a conflict with the duct sealing requirements in the mechanical section of the IRC and the IMC. As well as increasing the stringency without data to show there was a problem. This change is more product specific than what is currently in the code.
RE103	Disapprove	<b>This proposal requires Duct Tightness Testing for all duct systems. It removes the exception that did not require testing if all duct were within the thermal envelope.</b>	<b>This requirement for testing all duct systems is not cost justified. No costs were provided nor were any energy savings estimates. The proposal increases the stringency, removes current flexibility and increases the cost of construction without increasing energy efficiency.</b>
RE107	Disapprove	This proposal modifies the duct testing requirements to test all duct systems regardless of the location.	This proposal removes options and flexibility that was introduced into the IECC in the 2015 edition. The code as it is currently is far easier to understand than what was in the 2012 code and far easier than what is being proposed. The proposed changes introduce arbitrary limits of flow rates and house sizes without substantiation.
RE113	Disapprove	This proposal adds new sections that require only the listed types of water heating equipment can be used.	Bad code language such as "anticipated needs" , references federal statutes, "has a label meeting certain criteria". Also, some of the referenced products that go beyond what a minimum code would require and has stepped into the realm of GREEN requirements. The definition for Grid-enabled is a criteria list not a definition. These products are too costly.
RE114	Disapprove	This proposal mandates the maximum shower head flow rate in dwelling units, to be 1.5 GPM. This is a plumbing issue and already exists in the plumbing code, this will create a conflict with the plumbing code section of the IRC and the current 2.2 GPM.	This is an above code requirement (WaterSense) and should remain an option. This does not belong in the energy code. This is a plumbing code issue. Section 604.4 Maximum flow and water consumption of the plumbing code regulates flow and water consumption. The current requirement is 2.2 gpm @ 60 psi. There are too many instances where the energy code tries to regulate other codes. This only confuses the installers and inspectors/plan reviewers as to where to find the correct criteria.
RE116	Disapprove	This proposal requires that ventilation must be mechanical rather than just point to the IRC/IMC ventilation requirements.	There are methods for ventilation other than mechanical which should remain available as listed in the IMC and IRC. Mandating mechanical under any and all circumstances is too restrictive. Many states have amended the ACH or do not have a requirement. Changing this section would require mechanical ventilation no matter what the ACH. The requirements of section 304 in the IRC would not control whole house ventilation, this section would.
RE123	Disapprove	This proposal requires Heat Recovery Ventilators in climate zones 6, 7 and 8.	Heat recovery ventilators are sophisticated pieces of equipment that not only need to be purchase, but need to be maintained. Estimated installed cost range from \$1,000 to \$5,000 depending on the type and size. The cost of maintenance is not factored into any of the figures. These units are not cost effective- especially in climate zone 6 where the payback could possibly exceed the life of the equipment.
RE134	As Modified	This proposal creates an energy neutral performance trade-off for equipment efficiency, but will also require a reasonable thermal envelope through the addition of a UA backstop.	Allowing the energy neutral equipment trade-off along with minimum building insulation requirements is a reasonable compromise that ensures a very good building envelope along with the equivalent energy performance of the 2018 energy code.

## INTERNATIONAL ENERGY CONSERVATION CODE - RESIDENTIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
RE135	Disapprove	This proposal adds the mandatory requirements of the ERI path to the performance path and provides direction to compliance software developers.	Makes the performance path meet the envelope requirements of the ERI path-referencing the 2009 energy code. Awkward language, provides programmer commentary.
RE137	Disapprove	This proposal make a major modification to the performance path. Rather than a one year cost analysis, it creates a net present value calculation to determine code compliance based on assumed life of building products (e.g. windows, wall insulation etc.).	This proposal would all but eliminate the use of the performance path for compliance. There is no clear method by which the numerous variables are to be developed nor a reason why this is an improvement on the current performance path.
RE142	As Submitted	This proposal would allow building tightness sampling for stacked multi-family construction.	Stacked Multi-family buildings are difficult to test for leakage. Batch sampling is ideal for this type of construction as each unit is a continuation of the unit adjacent to it, thus create the total building. When inspecting at rough you can cost affectively evaluate multiple units so in reality the sampling truly only comes into play for the final diagnostics (blower door testing) and reporting. Sampling of stacked multifamily units is more cost effective than testing each unit while at the same time ensuring that the inspection process for code compliance is valid.
RE146	As Submitted	This proposal would keep the 15% ratio, but would give credit if ratio was less than 15% and still penalize if ratio was over 15%.	The thermal performance of code-conforming window is not comparable to opaque walls. Walls are typically 6 times more energy efficient than windows. Currently, providing glazing area greater than 15% of the floor area is penalized for its reduced energy efficiency. This proposal allows credit if less than 15% is used. It makes sense; using less is rewarded using more creates a penalty. This is a balanced proposal.
RE156	As Modified	This proposal changes the envelope backstop for the ERI from the 2009 IECC prescriptive table to 15% of the current thermal envelope UA requirements to improve flexibility.	<b>This proposal is important to increase the flexibility and usability of the ERI. Currently you can trade off wall insulation in climate zones 4 and 6, but not climate zone 5. This illustrates the inequity of the current backstop. It will also bring the backstop calculation up to the current code rather than an arbitrary point in history.</b>
RE162	Disapprove	This proposal disallows the use of solar to meet the ERI	Credit for on-site generation is necessary as we move to higher efficiency and many new requirements are not cost effective.
RE166	As Modified by Public Comment 1	This proposal incorporates the ANSI/RESNET/ICC 301 standard into the ERI	This proposal will recognize the new ANSI/RESNET/ICC 301 as the calculation method for the Energy Rating Index. It will clarify how the calculation is to be performed and push the technical discussions to the standard rather than in the ICC process.
RE173	As Modified by Public Comment 1	<b>This proposal increases the ERI values around 10%. It also adds a backstop for homes complying with the ERI using on-site generation.</b>	<b>This proposal brings the ERI values a little closer in-line with the prescriptive path. With this change, the proposed values will still be about 20-25% more stringent than the prescriptive path rather than the current values which are about 30-35% more stringent.</b>
RE177	Disapprove	This proposal adds an EUI backstop prior to renewables	The "backstop" ERI values are excessive - to comply with the values there is a need to go well beyond the minimum prescriptive requirements - on the order of 20%- before renewables.

## INTERNATIONAL ENERGY CONSERVATION CODE - RESIDENTIAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
RE179	Disapprove	This proposal adds a section for additional efficiency requirements referred to as Flex Points requiring additional energy efficiency points amounting to about 5% of dwelling energy use.	This multi-page proposal adds complexity to compliance as well as future code development of this section. The requirements do not evolve well over time. The percentages will need to change as well as the points. The proponents calculated the points based on their own method, so in the future, they will be the only ones who can calculate points for other items to be included. This proposal does not fit in the code.
RE187	As Submitted	This proposal removes the informative Appendix RA which addresses Combustion Appliance Zone testing for gas appliances.	Appendix RA is not appropriate location for an informative fuel gas appliance testing protocol. The language applies to existing homes and is outdated. There are other places where this type of procedure can be developed and maintained such as BPI or RESNET.
RE189, Part 2	Disapprove	This proposal is an attempt to place Appendix RB for Solar ready into the body of the code by Solar Energy Industries Association.	This appendix needs to remain as an optional appendix as the criteria are not appropriate for all jurisdictions. It would require multiple plans for every model house to address different solar orientations and would restrict chimney and roof vent locations.

## INTERNATIONAL FIRE CODE

Prop #	Recommended Vote	Proposal Description	Reason Statement
F37	Disapprove	This proposal modifies Section 503.1.2 by requiring a minimum of two fire apparatus access roads when buildings are of Type III, IV and V construction and four or more stories in height.	This proposal has no substantiating technical justification for the change. There is no data for the 1/3 of the overall diagonal distance separation of the roads or justification for the second access road. The change captures buildings of Type III, IV and V construction but the fire loss examples shown in the reason are all limited to Type V construction.
F172	As Modified	This proposal adds section 903.3.1.2.3 Attics, which may require a sprinkler system in the attic, if the roof assembly is located more than 55 feet above the lowest level of the fire department vehicle access.	This proposal is a good compromise to the other four submittals to this section, which were overly restrictive. This proposal was developed jointly by the National Multifamily Housing Council and the Fire Code Action Committee. This provides an additional option for protection of combustible attics in pedestal type buildings.
F332	As Modified	This proposal adds a new section 3308.6.1 Smoke detectors and smoke alarms, which requires them to be covered in an area where airborne construction dust is expected.	The proposal was modified by the committee by removing the fire watch provision which addressed the concerns.
F333	Disapprove	This proposal modifies 3310.1 Required access, by adding the access to be within 150 feet on not less than 2 sides, if construction is utilizing combustible materials or construction activities exceed two stories in height above grade.	This proposal is overly restrictive and at times virtually impossible to achieve. When construction is performed on urban infill lots, the location of the infill may not afford the necessary room on two sides of the building because of the size of the lot.
F336	Disapprove	This proposal adds 3314.2 (IBC [F] 3312.2, IEBC [F] 1507.2) which requires buildings of Type III, IV or V construction to have operational sprinklers for stories below before construction may continue over a height of 40 ft. above FD access.	Overly restrictive and very difficult to attain. Buildings are not constructed in a manner where they fully complete a floor prior to erection of additional stories. Impossible to keep from freezing in cold climates.

## INTERNATIONAL RESIDENTIAL CODE - BUILDING

Prop #	Recommended Vote	Proposal Description	Reason Statement
RB17	Disapprove	Seismic Design Categories - This proposal updates the seismic design maps in Section R301.2 to be consistent with those in the 2014 NEHRP Provisions and ASCE 7-16.	Changes in site factors and ground motions move portions of New Hampshire, Tennessee, and South Carolina, and a few other states into higher seismic design categories, Building officials can permit use of a less-restrictive alternate map based on their understanding of local soil conditions. However, they may be reluctant to allow the alternative map unless the builder provides a soils report.
RB20	Disapprove	Wind Loads - This proposal updates Table R301.2(2) based on new, higher roof pressure coefficients in ASCE 7-16. New wind map reduces wind speeds in the West.	The new roof pressures may have a significant impact on roof coverings, roof sheathing and roof framing in high-wind regions. While wind speeds are reduced in the Midwest and West Coast, a fully coordinated revision of the IRC wind provisions to take advantage of the reductions has not been completed.
RB27	Disapprove	This proposal increases the live load for balconies and decks in Table R301.5 from 40 to 60 psf and changes the values of the tables in Section R507.	The change would conflict with industry guidance, local deck guide details and approved 2018 code changes based on the traditional 40 psf requirement. Concerns of failures at the connection to the house drove this change. However, it also decreases joist and beam spans and will significantly increase the size of footings.
RB29	As Modified	This proposal modifies the tables in Section R302.1 to allow Type IV construction or fire-retardant-treated wood to meet the fire-resistance rating for projections.	Including heavy timber and fire-retardant-treated wood adds options and correlates this section with Section 705.2.3 of the IBC.
RB51	Disapprove	This proposal modifies Section R302.3 by prohibiting stacked duplexes.	No technical data or testing was provided to show that a 1-hour rating is inadequate in stacked duplexes.
RB52	Disapprove	This proposal modifies Section R302.3 by requiring duplexes divided by a lot line to be separated by two 1-hour fire-resistance rated walls.	The presence of a lot line does not make a duplex inherently more dangerous. No technical data was provided to show that this major cost increase is necessary.
RB69	Disapprove	This proposal modifies Section R302.13 Fire Protection of Floors by removing the current exception which allows dimensional lumber used in floor assemblies to be installed without fire protection.	The original language of this provision was approved by a broad coalition of the fire service and industry. The proponent is incorrect in using a design load of 100%. ASCE 7 assigns a design load of 50% for extraordinary events, such as fires.
RB72	Disapprove	This proposal modifies Section R303.4 by requiring mechanical ventilation regardless of the air infiltration of a dwelling.	The current 5 ACH 50 cutoff for mechanical ventilation is reasonable, especially for the states that have amended the building tightness requirements.
RB95	Disapprove	This proposal modifies Section R310.2.3.3 Window Well Fall Protection by requiring fall protection on all sides of window wells deeper than 30 inches.	Fall protection is unnecessary where there is no walking surface next to the window well. No technical data was provided to show that this is a problem, and the language does not address tiered window wells.
RB119	As Submitted	This proposal modifies Section R311.7.10.1 by specifically allowing open risers on spiral stairways.	The proposal correlates the "spiral stairways" section with the exception in the "risers" section.
RB129	As Submitted	This proposal modifies Section R313 Automatic Fire Sprinkler Systems by moving the sprinkler requirements to an appendix.	Permissive language "where provided/not provided" is used throughout the code which already recognizes fire sprinkler systems as optional. In addition, 48 states have not adopted the sprinkler mandate, which attests to the fact that the provision exceeds what is considered minimum code.

## INTERNATIONAL RESIDENTIAL CODE - BUILDING

Prop #	Recommended Vote	Proposal Description	Reason Statement
RB157	Disapprove	Flood-Resistant Construction - Revises provisions to require construction in Coastal A Zones and Zone V be designed per ASCE 24. Deletes design requirements for elements covered in ASCE 24.	One should be able to use the IRC without having to hire a structural engineer. Engineering standards often result in a more costly design due to their inherent conservatism.
RB160	As Modified by Public Comment 2	Flood-Resistant Construction - Adds new Zone V requirements for exterior slabs (e.g. parking pads, sidewalks) based on ASCE 24. Slabs must be constructed to break up under flood conditions or designed to resist flood loads, erosion and scour.	The proposal coordinates with FEMA Technical Bulletin #5: Free of Obstruction Requirements. The approved public comment adds all the guidance necessary to construct a break-away slab including joint spacing, and narrows the scope to exempt a slab constructed landward of the home.
RB161	As Modified by Public Comment 1	Flood-Resistant Construction - Adds new provisions requiring stairways and ramps to be flood resistant, breakaway or be able to be raised.	The proposal coordinates with FEMA's Technical Bulletin #5: Free of Obstruction Requirements. The approved public comment modifies the proposal to clarify the requirements for constructing open riser stairs and prohibit break-away stairs if part of the means of egress.
RB190	Disapprove	This proposal increases the live load for balconies and decks in Table R301.5 from 40 to 60 psf.	No technical justification was provided to the ASCE 7 committee that 40 psf was not adequate. It makes zero sense for decks to have a higher live load than the house to which they are attached.
RB197	Disapprove	This proposal increases the minimum vapor retarder thickness to 10 mil and requires conformance to ASTM E1745.	This proposed change would limit product choice and increase cost by requiring the use of a proprietary product, not generic polyethylene sheet. No technical data was provided that this change is necessary.
RB201	Disapprove	Decks - Clarifies freestanding decks must be designed to resist all vertical and lateral loads.	The original language can be taken as requiring engineering for all freestanding decks regardless of height. Public Comment #1 limits construction of freestanding decks without engineering to those less than 4'-6" in height from grade to bottom of framing and provided with full-height X-bracing.
RB211	Disapprove	Decks - Adds prescriptive guard post attachment details. Two sets of details are provided: (1) details using only blocking, nails and screws; and (2) details using hold-down devices.	The details are too complicated and difficult to construct or enforce in the field. The underlying engineering standards, factors of safety and testing loads are overly conservative for residential construction.
RB252	Disapprove	Allows use of other approved methods of exterior window and door installation and flashing besides fenestration manufacturer's instructions.	Similar to other products, the installation of windows and doors should be detailed by the manufacturer.
RB253	Disapprove	Specifies exterior windows and doors shall be anchored per Section R609.7, and fenestration manufacturer shall provide installation instructions.	Similar to other products, the installation of windows and doors should be detailed by the manufacturer.
RB266	Disapprove	Vapor retarders - Revises vapor retarder provisions to separate Class I, II and III requirements. Class I vapor retarders are prohibited in Climate Zones 1-4 and Class II are prohibited in Climate Zone 1 & 2.	While the proposal As Modified at the Committee Action hearings contains changes requested by NAHB allowing latex/enamel vapor retarding paints to meet Class II criteria and other editorial improvements, an unjustified limit on kraft-faced fiberglass batts and other Class II vapor retarders in Climate Zones 1 and 2 remains.

## INTERNATIONAL RESIDENTIAL CODE - BUILDING

Prop #	Recommended Vote	Proposal Description	Reason Statement
RB270	Disapprove	Vapor retarders - Exempts dry climate zones from Class I and II vapor retarders and allows Class III. Adds requirement for minimum 1/4" air space behind vented cladding.	No studies have been provided that show the expanded use of Class III vapor retarders is good practice. A water-resistive barrier is required behind all claddings per code, so the additions to Table R702.7.1 are redundant.
RB271, Part 1	Disapprove	Requires the construction documents to include a vapor management strategy with vapor retarder, air leakage, and ventilation details. Requires moisture control and duct leakage testing.	This is a new concept of documenting vapor management, which would require hiring a building science specialist or engineer to develop. No technical data was submitted to substantiate the need to submit this new analysis prior to obtaining a building permit.
RB271, Part 2	Disapprove	This proposal requires air flow testing of mechanical ventilation systems	The ventilation rates in single family dwellings are not as critical as to require sophisticated testing to verify their performance. The rating on simple systems should be sufficient.
RB281	Disapprove	Water Resistance - Adds new requirement for absorptive claddings in wet climate zones to have a 1/8" air space or meet a minimum drainage efficiency per ASTM E2773.	The anticipated increase in cost of construction for implementing rainscreen techniques and/or additional testing is not quantified. The proposal contains vague and confusing language.
RB322	Disapprove	Attic Ventilation - Deletes exception to reduce the amount of required vents to 1/300 and requires all ventilation be balanced between eave and ridge or gable vents.	The proposal may conflict with wildland/urban and wind resistance requirements and is difficult to manage with townhouses given the required setback at separation walls. No evidence was provided the 1/300 ratio is not adequate.
RB327	As Submitted	Unvented Attics - Adds new option for constructing an unvented attic with air-permeable insulation if vapor diffusion ports and minimum air flow is provided.	Adds an option for constructing an unvented attic using blown fiberglass or other air-permeable insulation that may be useful for certain climate zones and roof configurations. The method may be easier and less-costly to install than other options for insulating an unvented attic.
RB361	Disapprove	Adds new section R327 for installation of radon control methods including an active soil depressurization system rough-in. Section applies anywhere a system is provided, not just in high radon potential (Zone 1) areas.	The proposal is not limited to high radon regions, and it inappropriately references the IMC instead of the mechanical chapters of the IRC.
RB362	Disapprove	Renames Appendix F as "Radon Control Methods", deletes passive system requirements and adds new requirements including an active soil depressurization system rough-in.	Uses terminology inconsistent with the main body of the IRC and contains an improper reference to the IMC for vent pipe installation.
RB372	As Modified by Public Comment 1	Masonry chimneys - Adds new appendix for seismic retrofit of masonry chimneys. Options are reconstruction with factory-built chimney or light-frame enclosure, or capping at roof level and abandoning fireplace.	The retrofit options have a lower cost than replacing the entire chimney. The prescriptive details coordinate and point to the appropriate sections of the IRC.



## IEBC/IBC - STRUCTURAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
EB39	Disapprove	Change of Occupancy - Seismic Requirements - Adds provision requiring a seismic upgrade when a building or portion is converted from Group S or U to another occupancy group.	The code should not single out specific occupancy groups if the Risk Category does not change. Retrofits of residential construction are best done through local ordinance where affordability concerns can be addressed.
FS6	As Submitted	Polypropylene Siding - Revises limitations to clarify that polypropylene siding can be used on exterior walls of any construction type.	Polypropylene siding has been used successfully on multifamily projects with no reported performance issues. Additional options for selection of wall cladding are always welcome.
G32	As Modified by Public Comment 1	Storm Shelters - Adds provisions to clarify storm shelters are only classified as Risk Category IV if designated by the office of emergency management for use by the community.	Allows a storm shelter to be incorporated in a commercial or multifamily building without triggering upgrades to corridors providing access to/egress from the shelter as long as it is primarily intended for use by the residents or tenants of the building. The public comment removes a reference to the emergency management official and clarifies the Risk Category IV designation only applies to emergency shelters open to the community at large and used after an event.
S7	As Modified by Public Comment 1	Ventilation - Adds new provision requiring ventilation of enclosed framing under balconies and elevated walking surfaces.	The proposal is a response to issues identified in the recent balcony collapse in Berkeley, CA. The approved modification fixes issues in the original proposal by removing the requirement for ventilation openings to be large enough to allow inspection, and moving the provision to Chapter 23 where other language on moisture protection of wood framing resides.
S16	Disapprove	Roof Gutters - Adds new provision requiring roof gutters be designed for wind loads and tested per SPRI GT-1.	The standard requires testing for each project, not just once for a manufacturer's product line. The testing is onerous for small projects or for a small, local manufacturer who rolls their own custom gutters on the job site.
S53	Disapprove	Structural Design - Notation - Correlates terminology with ASCE 7	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The change is otherwise editorial and does not affect building design or construction cost.
S63	Disapprove	General Design Requirements - Modifies sections on serviceability, analysis, and seismic detailing to correlate with ASCE 7. Deletes section on countervailing structural actions.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The cost of construction may increase as ASCE 7-16 effectively doubles the rainfall rate used for ponding checks and design of secondary drainage (e.g. scuppers).
S72	Disapprove	Tsunami Loads - Adds new provisions requiring Risk Category III and IV buildings along the CA, AK, HI, WA and OR coasts be designed to resist tsunamis.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The code language invites states or local jurisdictions to modify the code to add multifamily buildings. This could limit where such buildings are viable in tsunami-prone areas or require the lower floors be constructed of concrete or steel rather than light framing.
S77	Disapprove	Load Combinations - Revises ASCE 7 references to correlate with ASCE 7-16, which relocated its seismic load combinations.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The change is otherwise editorial and does not affect building design or construction cost.
S78	Disapprove	Load Combinations - Replaces strength design and allowable stress design load combinations with references to ASCE 7. Alternate load combinations are retained.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The change is otherwise editorial and does not affect building design or construction cost. However, removing this information results in a loss of transparency for building officials regarding changes in future editions.

## IEBC/IBC - STRUCTURAL

Prop #	Recommended Vote	Proposal Description	Reason Statement
S93	Disapprove	Live Loads - Replaces ASTM E2397 reference for vegetative roofs with ASCE 7-16 reference.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The ASTM standard contains procedures for determining the weight of green roof components, as well as designating how those weights are applied. ASCE 7-16 lacks these procedures or any reference to them.
S103	Disapprove	Snow Loads - Replaces "case study" regions in snow load maps with reference to new tables in ASCE 7.	ASCE 7-16 contains significant ground snow load increases for the eastern portions of Colorado. Scattered locations in other states with "case study" regions may see minor increases unless the building official retains current local specifications.
S105	As Submitted	Wind Loads - Adds new option allowing use of 130% of the ASCE 7-10 component and cladding roof pressures in lieu of the new ASCE 7-16 values.	Using the option reduces the impact of the significantly-higher component and cladding roof pressure coefficients in ASCE 7-16.
S109	Disapprove	Wind Loads - Modifies alternate all-heights method to reflect new component and cladding roof pressures in ASCE 7-16.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The code change implements new higher low-rise roof component and cladding pressures into the alternate wind method.
S110	Disapprove	Rain Loads - Modifies provisions to reference ASCE 7-16 and require use of twice the rainfall rate per Figure 1611.1.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The cost of construction may increase as the rainfall rate used for ponding checks and design of secondary drainage (e.g. scuppers) is doubled. Approving this change would create a conflict with Section 1106 of the 2018 IPC, which will still use the 100-year/60-minute rate.
S114	Disapprove	Seismic Loads - Updates the site coefficients to reflect new values in ASCE 7-16.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. Changes in site factors coupled with changes in ground motions may result in some buildings moving to higher seismic design category. ASCE 7-16 adds new stair detailing, fence design, and diaphragm design requirements.
S166	Disapprove	Foundations - Updates ASCE 7 section references to match ASCE 7-16.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The change is otherwise editorial and does not affect building design or construction cost.
S242	Disapprove	Concrete - Adds new provision referencing new ASCE 7 design method for precast concrete diaphragms.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The new design method only affects a project that includes precast floor construction. However, the new ASCE 7-16 provisions inappropriately include a test method inside a loading standard.
S279	As Modified by Public Comment 1	Treated Wood - Requires the impervious moisture barrier separating moisture-permeable floors from supporting wood members include a system for providing positive drainage.	The proposed language did not provide sufficient clarity as to what type of a system is being called for. The approved public comment improves the proposal by removing a confusing reference to elements of the moisture barrier system and simply requires the system provide positive drainage.
S315	Disapprove	Tsunami Hazards - Revises Appendix M on tsunami hazards to correlate with ASCE 7-16 and focus appendix on vertical evacuation structures.	The proposal is dependent on the reference standard update to ASCE 7-16 being approved. The technical changes only affect the design of vertical evacuation structures.

