UNIFORM BUILDING CODE COMMISSION

MECHANICAL ADVISORY COMMITTEE
ARCHITECTURAL ADVISORY COMMITTEE

September 10, 2013
Sandy City Hall Room 341
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

David Wilson	Tyler Lewis
Trent Hunt	Brent Ursenbach
Dennis Thatcher	Roger Hamlet
Randy Beckstead	John Gassman

ARCHITECTURAL ADVISORY COMMITTEE

William Hall	Ron McArthur
Kenny Nichols (excused)	Jerry Jensen
Scott Marsell	Gary Payne (excused)

VISITORS:

Ross Ford, Utah HBA	Dennis Thomas, UBIG
Daniel Wright, Wright Shed Co	Kevin Emerson, Utah Clean Energy
Miles "Cap" Ferry	

SWEAR IN NEW COMMITTEE MEMBER	Tyler Lewis was sworn in as the new member for the Mechanical Advisory Committee.
APPROVAL OF THE MINUTES FROM THE JULY 16, 2013 JOINT MEETING	A motion was made by William Hall to approve the minutes from the July 16, 2013 joint meeting as written. The motion was seconded by Ron McArthur and passed unanimously.
REVIEW PROPOSED AMENDMENT FOR IRC SECTION R105.2	Dennis Thomas spoke to the committees in connection with his proposed amendment. Those present discussed the proposal. Following the discussion on the proposal, a motion was made by Ron McArthur to deny the proposed amendment. The motion was seconded by Scott Marsell and passed with a vote of ten in favor and Dave Wilson and William Hall voting in opposition.

REVIEW AND DISCUSS REPORT FROM ENERGY CODE AD HOC COMMITTEE

Brent Ursenbach gave an overview of the ad hoc committee's review that they did on the new version of the REScheck software which was made available to them by the DOE. Mr. Ursenbach pointed out that the second version of REScheck, which is now available for review, seems to have incorporated all of the recommendations given by the ad hoc committee after their first review. (Roger Hamlet joined the committees at this point in the meeting.) The committees discussed having this second version of the test software looked at by some additional home builders and then having them submit their comments back to Kevin Emerson by the end of the month. Mr. Emerson will then pass those comments on to the DOE. The committees will meet again in October to make a final decision on whether or not REScheck is ready for public use.

Those present reviewed the recommendations that have been submitted regarding increasing residential energy performance and other ways of promoting energy efficiency so they can put together a recommendation that can be presented to the Business and Labor Interim Committee in October.

Brent Ursenbach submitted five recommendations that could be given to the Business and Labor Interim Committee in connection with the requirement of HB 202 Section 4 which directs these two committees to do a study on improving residential energy efficiency. (Trent Hunt joined the meeting at this point.) Those present reviewed the recommendations and made some additional recommendations. Following the discussion, it was suggested that the second recommendation be modified to read "Develop a disclosure system that provides information to buyers of both new and existing homes regarding home energy use."

Following further discussion it was suggested that a sixth recommendation be added to read, "Recommend that the State Office of Energy Development (OED) develops and maintains a website identify-

ing incentives and rebates that are available to builders, homeowners, builder owners - all energy consumers."

A motion was made by David Wilson to approve recommendations 1, 3, 4, and 5 as written, 2 as modified and 6 as written. The motion was seconded by Dennis Thatcher and passed unanimously. These recommendations will be given to the Business and Labor Interim Committee at their October meeting by Scott Marsell and Brent Ursenbach.

The meeting adjourned at 11:07.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

UNIFORM BUILDING CODE COMMISSION
ARCHITECTURAL ADVISORY COMMITTEE
MINTUES

Scott Marsell, Chairman

10-22-13
Date

Dan S Jones, Bureau Manager

10-22-13
Date

AGENDA

UNIFORM BUILDING CODE COMMISSION
ARCHITECTURAL ADVISORY COMMITTEE
MECHANICAL ADVISORY COMMITTEE
JOINT MEETING

October 22, 2013 9:00 AM
Sandy City Hall, 10000 Centennial Pkwy, Sandy, UT
Room 220
This agenda is subject to change up to 24 hours prior to the meeting.

ADMINISTRATIVE BUSINESS:

Sign attendance sheet

1. Swear in new committee member
2. Approval of the minutes from the September 10, 2013 meeting

DISCUSSION ITEMS

3. Review and discuss report from energy code ad hoc committee

INFO ITEMS

a. IBC Amendment Status Log

Next Scheduled Meeting: as needed

If you do not plan on attending this meeting, please call Sharon at 530-6163 or email at ssmalley@utah.gov or dansjones@utah.gov.

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Dave Taylor, ADA Coordinator, at least three working days prior to the meeting. Division of Occupational and Professional Licensing, 160 East 300 South, Salt Lake City UT 84115, Phone 530-6628 or toll-free in Utah only 866-275-3675.

Agenda Item #2

UNIFORM BUILDING CODE COMMISSION

MECHANICAL ADVISORY COMMITTEE
ARCHITECTURAL ADVISORY COMMITTEE

September 10, 2013
Sandy City Hall Room 341
10000 Centennial Pkwy Sandy, UT

MINUTES

STAFF:
Sharon Smalley, Board Secretary

MECHANICAL ADVISORY COMMITTEE:

David Wilson	Tyler Lewis
Trent Hunt	Brent Ursenbach
Dennis Thatcher	Roger Hamlet
Randy Beckstead	John Gassman

ARCHITECTURAL ADVISORY COMMITTEE

William Hall	Ron McArthur
Kenny Nichols (excused)	Jerry Jensen
Scott Marsell	Gary Payne (excused)

VISITORS:

Ross Ford, Utah HBA	Dennis Thomas, UBIG
Daniel Wright, Wright Shed Co	Kevin Emerson, Utah Clean Energy
Miles "Cap" Ferry	

SWEAR IN NEW COMMITTEE MEMBER	Tyler Lewis was sworn in as the new member for the Mechanical Advisory Committee.
APPROVAL OF THE MINUTES FROM THE JULY 16, 2013 JOINT MEETING	A motion was made by William Hall to approve the minutes from the July 16, 2013 joint meeting as written. The motion was seconded by Ron McArthur and passed unanimously.
REVIEW PROPOSED AMENDMENT FOR IRC SECTION R105.2	Dennis Thomas spoke to the committees in connection with his proposed amendment. Those present discussed the proposal. Following the discussion on the proposal, a motion was made by Ron McArthur to deny the proposed amendment. The motion was seconded by Scott Marsell and passed with a vote of ten in favor and Dave Wilson and William Hall voting in opposition.

REVIEW AND DISCUSS REPORT FROM ENERGY CODE AD HOC COMMITTEE

Brent Ursenbach gave an overview of the ad hoc committee's review that they did on the new version of the REScheck software which was made available to them by the DOE. Mr. Ursenbach pointed out that the second version of REScheck, which is now available for review, seems to have incorporated all of the recommendations given by the ad hoc committee after their first review. (Roger Hamlet joined the committees at this point in the meeting.) The committees discussed having this second version of the test software looked at by some additional home builders and then having them submit their comments back to Kevin Emerson by the end of the month. Mr. Emerson will then pass those comments on to the DOE. The committees will meet again in October to make a final decision on whether or not REScheck is ready for public use.

Those present reviewed the recommendations that have been submitted regarding increasing residential energy performance and other ways of promoting energy efficiency so they can put together a recommendation that can be presented to the Business and Labor Interim Committee in October.

Brent Ursenbach submitted five recommendations that could be given to the Business and Labor Interim Committee in connection with the requirement of HB 202 Section 4 which directs these two committees to do a study on improving residential energy efficiency. (Trent Hunt joined the meeting at this point.) Those present reviewed the recommendations and made some additional recommendations. Following the discussion, it was suggested that the second recommendation be modified to read "Develop a disclosure system that provides information to buyers of both new and existing homes regarding home energy use."

Following further discussion it was suggested that a sixth recommendation be added to read, "Recommend that the State Office of Energy Development (OED) develops and maintains a website identify-

ing incentives and rebates that are available to builders, homeowners, builder owners - all energy consumers."

A motion was made by David Wilson to approve recommendations 1, 3, 4, and 5 as written, 2 as modified and 6 as added. The motion was seconded by Dennis Thatcher and passed unanimously. These recommendations will be given to the Business and Labor Interim Committee at their October meeting by Scott Marsell and Brent Ursenbach.

The meeting adjourned at 11:07.

Note: These minutes are not intended to be a verbatim transcript but are intended to record the significant features of the business conducted in this meeting. Discussed items are not necessarily shown in the chronological order they occurred.

Info Items

IBC AMENDMENT STATUS LOG
PENDING
G:\Commission\067.wpd

Section to Amend	Proponent & Agency	Approved/Denied by Committee	Commission Appr/Deny for Hearing	Published	Public Hearing	Commission Appr/Deny Amendment	Effective Date
3401.7	Structural Advisory	7-18-13 approved	10-9-13 no action taken				
R105.2	Dennis Thomas	9-10-13 denied	10-9-13 no action taken				

Report on RES*check* Software Update for Utah as per House Bill 202, Energy Conservation Code Amendments

Presented to Utah Uniform Building Code Commission

Between August 2013 and October 2013, Pacific Northwest National Laboratory (PNNL), working on behalf of the U.S. Department of Energy (DOE), developed a Utah-specific version of the DOE's RES*check* software ("Utah 2012") and incorporated the relevant amendments to the 2012 International Energy Conservation Code (IECC) as adopted by the Utah Legislature's passage of House Bill 202, Energy Conservation Code Amendments.

Numerous building and energy efficiency experts reviewed the revised software and provided comments to PNNL during two rounds of review. Utah Clean Energy served as liaison between the RES*check* software reviewers and PNNL.

All substantive review comments were addressed by PNNL by either making refinements to the software based on the comments or providing explanations about why the comments did not result in changes to the software.

According to the review comments, the Utah 2012 version of the RES*check* software is functional and provides a working version of RES*check* that verifies compliance to the requirements of House Bill 202. This version of RES*check* was developed through support from the U.S. Department of Energy and is expected to be made available to the public in mid-November, 2013.

Below, more information is provided that details the software changes made and comments provided by reviewers.

1. BACKGROUND ON UTAH RES*CHECK* SOFTWARE UPDATE

House Bill 202, which was passed during the 2013 Legislative Session, adopted a hybrid version of the 2006, 2009 and 2012 IECC in Utah ("Utah 2012"). The effective date of the Utah 2012 is contingent on the Uniform Building Code Commission certifying in writing to the Utah Legislature that the U.S. Department of Energy (DOE) has implemented a version of RES*check* that can be used to verify compliance with the provisions in H.B. 202.

> 286 Section 5. **Contingent effective date.**
> 287 *This bill takes effect on the first day of the month following the month in which the*
> 288 *Uniform Building Code Commission certifies in writing to the Business and Labor Interim*
> 289 *Committee that the United States Department of Energy has adopted a version of the*
> 290 *RESCheck software that can be used to verify compliance to the requirements of this bill.*

In March 2013, Utah Clean Energy and other parties initiated a request to the DOE to develop a modified version of its RES*check* software to comply with the requirements of HB202. DOE approved the development of a Utah-specific version of RES*check* and on August 9, 2013 PNNL delivered a review version of the Utah 2012 RES*check* software, based on the amendments in H.B. 202, to Utah reviewers to test.

The RES*check* test software was made available to the UBCC's Architectural and Mechanical Advisory Committee members, members of the Home Builders Association of Utah, and energy code and energy modeling experts in Utah. Nine entities provided review and comments on the test version of the Utah RES*check* software through two rounds of review. These comments were submitted to PNNL on August 18, 2013 and October 11, 2013.

PNNL provided feedback based on reviewer comments.

2. OVERVIEW OF RES*CHECK* SOFTWARE

RES*check* is a free software tool developed by the United States Department of Energy for the purpose of demonstrating compliance with the IECC. RES*check* software confirms compliance primarily with the fenestration and insulation requirements by utilizing the U-factor equivalents to the prescriptive R-value requirements as published in Table R402.1.3 *Equivalent U-Factors* of the 2012 IECC.

RES*check is not* used to demonstrate compliance with lighting, duct tightness, air leakage, and other provisions of the IECC not based on the fenestration and insulation requirements. The exception to this is RES*check*'s Performance Method of compliance, which is described below.

UA Trade-off and Performance Compliance Methods

Demonstrating compliance through RES*check* is based on calculating the heat loss (represented as *U-factor multiplied by area* to provide an overall "UA" of the building envelope) associated with each building assembly of the home being modeled.[1] If the total heat loss (UA) through the building envelope is less than or equal to the prescriptive code requirements, the building complies with the UA Trade-off Method allowed by the code.

In addition to determining energy code compliance using the UA Trade-off method, RES*check* provides a Performance Method that is based on a simplified or "limited" energy performance model of the home's insulation and fenestration components, HVAC system efficiency, and building orientation, which involves an hour-by-hour energy simulation of the modeled house to determine if the HVAC efficiency systems improvements and orientation make up for a less energy-efficient building envelope.

3. PRIMARY SUBSTANTIVE AMENDMENTS

[1] "Envelope heat loss" is calculated by multiplying the UA by the temperature difference. "Total heat loss" includes infiltration and duct losses, accounted for in the mandatory requirements. REScheck doesn't of course look at temperature differences, other than climate zone information for requirements. The UA remains the same in all climate zones.

House Bill 202 used the 2012 IECC as the foundation for the development of the Utah 2012, with a number of amendments that are based on the 2006 IECC. Several of these amendments directly impact the RES*check* software calculations, while many of the amendments do not. The primary amendments to the 2012 IECC that most substantially impact the RES*check* software calculations were made to the following tables:

SECTION OF 2012 IECC	ACTION
Table R402.1.3 Equivalent U-Factors	Incorporated relevant values from 2006 IECC into Table R402.1.3. These values are used by RES*check* to calculate the UA for insulation and fenestration requirements
Table R405.5.2(1) Specifications for the Standard Reference and Proposed Designs	Incorporated language from 2006 IECC allowing highly efficient HVAC equipment to receive compliance credit under the Performance Method
Table R405.5.2(2) Default Distribution Systems Efficiencies for Proposed Designs	Distribution system asssumptions were implemented based on language from 2006 IECC, assuming a conservation 80% for both the required and the design building irrespective of the location of duct systems.
Section R 402.2.2 Ceilings without attic spaces	Reinstated allowance from 2006 IECC with modification of "or 20% of the total ceiling area, whichever is less."
Section R402.3.4 Opaque door exemption	Reinstated the allowance for this from 2006 IECC with modified door area limit as per HB 202

In the Utah 2012 Table R402.1.1 was amended to use prescriptive values directly from the 2006 IECC, with one exception (Climate Zone 3 (CZ3), Wood Frame Wall R-Value, which was increased slightly, from R13 to R15). Specifically, the RES*check* software uses the values in Table R402.1.3 Equivalent U-factors, which correspond to the amended insulation and fenestration requirements.[2]

In addition, the Utah 2012 preserves the functionality in the 2006 IECC allowing highly efficient HVAC equipment to contribute to compliance "credit" in RES*check* when the insulation values in the building envelope are reduced. To accomplish this, an amendment was made to Table R405.5.2(1) Specifications for the Standard Reference and Proposed Designs using the same language as in the 2006 IECC.

These amendments are the most crucial to ensure the functionality of the RES*check* software to comply with the amended 2012 IECC provisions in H.B. 202. The RES*check* software has been modified to reflect these amendments in compliance with H.B. 202.

The following provisions required superficial amendments to the Requirements tab in the software, but did not change the way compliance is calculated in RES*check*. These amendments have been incorporated into the Utah 2012 RES*check* software.

[2] It should be noted that during the drafting of amendments to the 2012 IECC, the equivalent U-factor value for the amended CZ3 wood frame wall value was accidentally left unamended. Therefore, the Table R402.1.3 Equivalent U-Factors in the Utah 2012 is identical to the 2006 IECC.

SECTION OF 2012 IECC	ACTION
Section R402.4 Air Leakage (Mandatory)	Modified requirements tab in RES*check* to reflect amended language in HB202. Incorporated change to require either installation checklist (Table 402.4.1.1) or air leakage test (R402.4.1.2) as per HB202
Section R403.2.2 Sealing (Mandatory)	Modified requirements tab in RES*check* to reflect amended language in HB202
Section R403.2.3 Building cavities (Mandatory)	Modified requirements tab in RES*check* to reflect amended language in HB202
Section R404.1 Lighting equipment (Mandatory)	Modified requirements tab in RES*check* to reflect amended language in HB202

4. OTHER AMENDMENTS

A number of other amendments were made to the 2012 IECC in H.B. 202 that do not impact the functionality of the RES*check* software, given the limited focus of RES*check* discussed in Section 2. While these amendments do impact the way homes in Utah are required to be constructed, they are not taken into account by the RES*check* software and, therefore, are not part of the RES*check* software review. These amendments were made to the following sections of the 2012 IECC:

SECTION OF 2012 IECC	ACTION
Section R402.2.1 Ceilings with attic spaces	Reinstated allowance from 2006 IECC
Section R402.3.3 Glazed fenestration exemption	Reinstated allowance from 2006 IECC
Section R402.4.4 Recessed lighting	No action was taken since RES*check* does not utilize this code language for compliance calculation
Section R403.4.2 Hot water pipe insulation	No action was taken since RES*check* does not utilize this code language for compliance calculation
Section R403.5 Mechanical ventilation (Mandatory)	No action was taken since the deleted text in HB202 was not included in the 2012 IECC checklist

5. UTAH RESCHECK REVIEW COMMENTS

Below are summaries and responses to reviewer comments that aren't related to the primary RES*check* changes noted above.

RES*check* and Credit for Installing High Efficiency HVAC Equipment

Reviewers provided comments questioning if/how RES*check* provides "credit" toward compliance for installing high efficiency HVAC equipment. RES*check* does provide the ability to receive "credit" in the modeling of a home with an HVAC system that is above the federal efficiency standards. However, *only the Performance Method provides this functionality* (as has been the case since the 2006 IECC version of RES*check*); the UA Trade-off Method doesn't provide credit for higher efficiency HVAC system, since its functionality is limited to *calculating heat loss of the building thermal envelope only*.

The Utah 2012 RES*check* software preserves the identical functionality of the 2006 IECC version of RES*check* regarding high efficiency equipment trade-off and therefore meets the requirements of HB 202.

How do the UA Trade-off Method and Performance Method differ?

Reviewers appear to be confused about the difference between UA Trade-off and the Performance methods of energy code compliance. Both compliance paths are included in REScheck and both can show compliance, but only the performance method allows for optimal orientation of the building for solar gains or shading from solar exposure. There are circumstances where a house could pass energy code compliance with one methodology and fail in another. This is not a fault of the software but is the reality of the differences between the Total UA and Performance Method.

Due to the different software approaches between the UA Trade-off Method and the Performance Method, RES*check* users should not expect these different methods to provide the same results.

Comparing RES*check* and REM/Rate

Several reviewers compared RES*check* to REM/Rate a private sector software that is typically used to show compliance with ENERGY STAR new homes. RES*check* was developed to support energy code compliance, while REM/Rate was developed by Architectural Energy Corporation for HERS Raters to use in modeling high energy performing homes that exceed minimum energy codes, i.e. ENERGY STAR homes. (However, REM/Rate later incorporated the energy code's Performance Method and UA Trade-off Method into its functionality). Since these software products were developed for different purposes, these comments are not relevant to the function of the Utah 2012 RES*check* software meeting the requirements in HB 202.

Multifamily and Multiple HVAC Systems

Reviewers commented about problems with the software in modeling multifamily buildings or buildings with multiple HVAC systems. The RES*check* Performance Method has limited functionality as it only supports modeling of single-family homes with one heating system and/or one cooling system for all versions of the software. Builders who wish to use a performance based software tool for multi-family homes or single-family homes with 2 or more HVAC units must use a different software tool, such as REM/Rate. However, RES*check* can be used to determine energy code compliance for multifamily buildings under the UA Trade-off Method.

The first version of the software had a "bug" that allowed the program to be tricked to allow a performance method calculation in multi-family buildings. This "bug" was resolved in the second text version of the software.

RES*check* and HERS Ratings

One set of review comments compared HERS scores to passing the energy code, reporting that homes with low HERS score houses did not pass using the Utah 2012 version of RES*check*. This is an "apples to oranges" comparison because there are code minimum requirements that are not included in the HERS process; if the mandatory requirements are not met then the house will fail even if the home scores a "0" on the HERS Index. However, as per Section R405 of the IECC, the code allows flexibility and could

allow an alternate software tool and report, such as a HERS Rating, based on the decision by the code official.

RES*check*, Duct Tightness, Air Infiltration, and Duct Location

Reviewers also provided comments about the way RES*check* accounts for *duct tightness* or *placement of duct systems* within the home. RES*check* doesn't account for duct tightness, the location of ducts within the home, or air infiltration rates. If builders want home modeling software to take account of low air infiltration numbers and very tight ducts they would need to use another tool such as REM/Rate.

Another reviewer was looking for a bump in passing percentage when using the UA Trade-off method by moving the ducts between conditioned and unconditioned. This functionality is not part of the UA Trade-off calculation but is part of mandatory requirements and therefore the UA passing score should not change. (The same thing could be said if high efficacy lighting was part of the Utah 2012 code; including high efficacy lighting that exceeds the requirement does not add to the UA but does allow passing because it's a mandatory requirement.)

RES*check* and Ceiling Exception

There was also a question about the ceiling exception of 500 ft2 or 20% to allow a smaller ceiling area to comply with less insulation. This 500 ft2 exception only applies to the ceiling area and does not tradeoff against other envelope areas. There are actually quite a few of these exceptions in the code and in many cases they only apply when the prescriptive path is chosen. According to the IECC Commentary; "this provision does not apply if the U-factor alternative is being used. In those cases…it would be accounted for with additional insulating components in the case of the U-factor alternative." In other words this exception is only applicable when using the prescriptive compliance path.

RES*check* Requirements Tab

One reviewer noted that a home can pass the code requirement using RES*check* without the software's "System" or "Envelope" requirements in the "Requirements Tab" being addressed. At the current time, PNNL is treating the completion of the requirements found in the Requirements Tab as optional for the builder and primarily for the benefit of energy code officials in reviewing and processing permit applications.

Soil Contribution to UA

One reviewer noted that CZ3 basement wall value converts to U-factor that allows significant "trade-off" opportunities, but in practice this will have minimal impacts on builders since virtually no basements are built in Washington County (climate zone 3).

Another reviewer commented that soil is a better insulator than air spaces, and therefore suggested that the UA portion of the software wasn't working correctly. In fact, air spaces are much more effective insulators than soil as is easily seen with insulation materials such as fiberglass, cellulose, open-cell foam and others that trap air within the insulation material and the air becomes part of the insulation system.

LIST OF UTAH 2012 RES*CHECK* REVIEWERS

NAME	AFFILIATION
Matt Meyer	Provident Energy
Billy Giblin, et. al.	Nexant, Inc.
Damian Mora	Garbett Homes
Jim Meyers	Southwest Energy Efficiency Project, SWEEP
Brent Ursenbach	UBCC Mechanical Advisory Committee/Salt Lake County
Ross Ford	Home Builders Association of Utah
Ron McArthur	UBCC Architectural Advisory Committee/McArthur Homes
Adam Heath	Elite Craft Homes
David Wilson	UBCC Mechanical Advisory Committee/Energy Rated Homes of Utah

Site Title Goes Here

Shortcut Navigation:

- Page Content
- Site Navigation
- Footer

IMT
INSTITUTE
FOR MARKET
TRANSFORMATION

Promoting energy efficiency in buildings

Contact Us | Blog

Site search

Search: Enter text here... Submit search Search

- About
  - Board
  - Staff
    - Consultants
  - Funding
  - Partners
    - COMNET
  - Where We Work
    - IMT in DC
    - Central Asia and Russia
    - Русский
  - Jobs
  - Contact Us
- Codes
  - Code Compliance
    - Compliance Savings Potential Map
  - Code Development and Adoption
    - DC Codes
  - IECC
    - Code Change Supporters
  - Existing Buildings
  - Codes Infographic
- Policy

- Building Energy Performance Policy
  - Benchmarking Case Studies
  - Infographic
- Policy Advocacy & Consulting
- Utilities
  - EEB Hub Working Group
- Energy Efficiency and Property Value
- Finance & Leasing
  - SAVE Act
  - Commercial Real Estate Engagement
    - What Is Green Leasing?
    - Government Leasing Policies
    - Broker Education
  - Single-Family Finance
  - Multifamily Finance
- News
  - The Current
    - Press Releases
    - Announcements
    - Blog Posts
  - In The News
  - For the Press
- Resources

Stay Connected

Sign up to receive the IMT email newsletter

Email Signup

Subscribe to our mailing list Enter email here... Sign Up →

Friend us on Facebook Follow us on Twitter

What Is Market Transformation?

Market transformation is a process of strategic intervention in the market to bring about widespread, permanent change. For IMT, this means creating the conditions for higher investment in energy-efficient buildings.

More information →

Home > News > The Current > Energy Efficiency Wins Big in New Residential Building Codes

Energy Efficiency Wins Big in New Residential Building Codes

Published: Oct 10, 2013 Codes | Press Release

A groundbreaking change to the 2015 International Energy Conservation Code will offer a new way to achieve significant energy savings while providing more flexibility to builders.

Washington, DC – October 10, 2013 – Energy efficiency advocates celebrated a major victory this week at the 2013 International Code Council (ICC) Annual Conference and Public Comment Hearings where building code officials approved an updated code to reduce energy waste in new homes, while overcoming attempts to roll back the current code's energy-saving measures.

One of the most significant code updates under consideration, a proposal known as RE-188, adds a new optional compliance pathway to the 2015 International Energy Conservation Code (IECC). It would allow builders to comply by using an energy rating index (ERI), such as the Home Energy Rating System known as HERS, to meet the code's energy-saving goals instead of having to install many prescriptive energy efficiency measures specified by the code. Approximately 40 percent of new homes are already rated using the HERS system, which is utilized for compliance in other programs such as the new homes tax credit and ENERGY STAR, making the timing ripe for this addition to the code as a compliance path.

The update was supported by a number of groups, including the Institute for Market Transformation, Natural Resources Defense Council, and the Britt/Makela Group. "This is a huge win-win for new homeowners, builders, and for energy efficiency—our cheapest, cleanest resource," said Meg Waltner, Natural Resources Defense Council's Manager for Building Energy Policy. "This is a cost-effective approach that will help cut utility costs for homeowners, give greater flexibility to homebuilders in complying with the code, and create a stronger market for even more efficient homes by giving home buyers an MPG-like rating to compare the homes side by side."

The update will provide a boon to homeowners through reduced energy bills and greater information on their home's efficiency. Builders will also have a new compliance option using this path: documentation of the ERI score and of meeting the mandatory code provisions prepared by a certified third-party. Under the HERS system, these third-party verifiers are certified energy efficiency experts and a random sample of their work is quality-checked; their involvement will help improve compliance by reducing the burden on code officials.

Many builders are expected to disclose the results of energy ratings to the home's occupants, providing another layer of verification, and creating a better market for homes whose energy efficiency surpasses the current building code. And, if Congress passes the SAVE Act (which would improve the accuracy of mortgage underwriting by factoring in energy costs), these ratings would enable borrowers to more easily qualify for mortgages to buy energy-efficient homes or to refinance and improve their homes' efficiency.

"With this updated building code, a broad coalition including advocates and homebuilders has overcome past suspicion to craft a solution to give builders greater flexibility to innovate and reduce costs while raising the bar for energy efficiency," said IMT's Cliff Majersik. "This move creates a foundation for improved code compliance and more information and options for homeowners. I'm proud of what we accomplished by coming together and thinking outside the box."

At the ICC Hearings in Atlantic City, building code officials also defeated a proposal that would roll back efficiency levels from the current 2012 code.

"Maintaining the highest standards for energy codes is vital to keeping homes safe and energy-efficient, and our

environment protected from harmful greenhouse gas emissions," said Ryan Meres, Senior Code Compliance Specialist for IMT.

###

About the Institute for Market Transformation: The Institute for Market Transformation (IMT) is a Washington, DC-based nonprofit organization dedicated to promoting energy efficiency, green building, and environmental protection in the United States and abroad. Much of IMT's work addresses market failures that inhibit investment in energy efficiency.

About the Natural Resources Defense Council: The Natural Resources Defense Council (NRDC) is an international nonprofit environmental organization with more than 1.4 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Livingston, Montana, and Beijing. Visit us at www.nrdc.org and follow us on Twitter @NRDC.

About Britt/Makela Group: Britt/Makela Group, Inc. was formed in 2001 by Eric Makela and Michelle Britt to meet the growing need for independent code development, training, and analysis resources. Their complementary backgrounds encompass building energy, land use and transportation planning, and regulatory issues. BMG brings a combination of national and local experience, research and practice on best practices, new ideas, and lessons learned. BMG provides states and jurisdictions with expertise to develop the plans and programs best suited to the needs of their community. BMG is committed to fostering the changes needed so that one day energy efficiency and sustainability will be the norm. For more information, visit www.brittmakela.com

0 comments

0

Leave a message...

Best Community Share

No one has commented yet

IMT.ORG

How DC Crunched the Numbers on Its Own Buildings

— This is great! What are your thoughts on some of the more useful ways this data can be used?

Overlooking the Potential for Widespread Efficiency | Institute for ...

— I saw an electrical meter flash by and lots of lights on in the displayed building.How many of these existing and ...

SAVE Act Would Make Energy-Efficient Homes More Affordable

— Good work to energy efficiency. Hope so accounting to value energy act seeks to ...

Green Can Be Beautiful | Institute for Market Transformation

— Wonderful article. Seems a no brainer that we want to live / connect to an attractive world. Appreciate your work to ...

About | Jobs | Copyright & Permissions

1707 L St. NW, Suite 1050, Washington DC 20036 | Tel. (202) 525-2883 | imtweb@imt.org

Website by