



**REM/Rate™**

# 2017 ENERGY STAR® Certified Homes Stakeholder Meeting

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October 23, 2017

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# CUE CARD

**Remember - Stay on script!!**

**No Tweets!!**



# TODAY'S GOALS

## 1. Brief highlights of...

- Latest REM/Rate™ features (v15.4 desktop)
- What's next (v15.5 desktop)

## 2. Hear what you want/need from this software



# HERS® BIAS MINIMIZED... FOR SMALL & BIG HOMES

RESNET's

**Index Adjustment Factor**

(Addendum E)

▶ Last round of comment ends in a few days

▶ You can see the impact **now** and advise your builders

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The screenshot displays the REM/Rate v 15.4.2 software interface. The main window shows 'General Building Information' with fields for 'Conditioned Floor Area (sq ft): 724', 'Infiltration Volume (cu ft): 6154', and 'Year Built: 2014'. Below this, 'Housing Type' is set to 'Apartment, inside unit' and 'Level Type' to 'Mid-level'. The 'Analysis' pane on the right shows a list of programs with their status: 'V3.0 ENERGY...', 'V3.0\* ENERGY...', 'V3.1 ENERGY...', 'Tax Credit', 'DOE Zero Ene...', and 'HERS Index' (63). The 'draftHERS IAF' is highlighted with a red circle and shows a value of 1.07. A 'Spreadsheet' window is overlaid on the bottom right, showing a formula in cell B2: '=63/1.07', which results in the value 58.88. A red annotation next to the spreadsheet says 'Future HERS Index with IAF (round to nearest whole number)'. The bottom status bar indicates 'Detailed New York, NY 09/29/17'.

# NEW TAB ON ANALYSIS PANE

## “Air” Tab

- ▶ Quick access to **infiltration** in various units
  - Including CFM50/sf shell
- ▶ Quick access to **mechanical ventilation** comparisons
  - Converts the Asls to equivalent continuous flow
  - Shows 62.2-2010 flow
  - Shows 62.2-2013 flow, with infiltration credit

The screenshot shows a software window titled "Analysis" with a status bar indicating "Updated: 01:12:10 PM". The window contains two main sections: "WH Infiltration" and "WH Ventilation (continuous)".

WH Infiltration	
Natural ACH	0.31
ACH50 (Pa)	6.24
CFM50 (Pa)	640
ELA (sq.in)	35.1
SLA	0.00034
CFM50/sf shell	0.25

WH Ventilation (continuous)	
Type	None
Asls (equiv.cfm)	0
62.2-2010 (cfm)	22
62.2-2013 (cfm)	37

Below the tables, there is a section titled "CFM50/sf shell". At the bottom of the window, there is a navigation bar with tabs for "Energy", "Area", "Codes", and "Air". The "Air" tab is currently selected. The status bar at the very bottom shows "New York, NY" and "09/29/17".

# HOT WATER DISTRIBUTION -- REFINEMENT

## DHW Efficiencies screen

- ▶ New button automatically sets this screen to match the RESNET Reference Home

The screenshot shows a software window titled 'DHW Efficiencies'. The window has a standard Windows-style title bar with icons for file operations and help. The main content area is divided into several sections:

- DHW Efficiencies:**
  - All bath faucets & showers  $\leq 2$  gpm
  - All DHW pipes fully insulated  $\geq R-3$
- Plumbing Design (Enter plan view rectangular distance):**
  - Recirculation:
  - Farthest fixture to DHW heater (ft):
  - autocalc vertical, for conditioned floors (ft):
  - autocalc vertical, for uncond. bsmt (ft):
  - TOTAL Pipelength for longest DHW run (ft):**
- Drain Water Heat Recovery (DWHR):**
  - Drain Water Heat Recovery (DWHR)
  - Efficiency of DWHR unit per CSA 55.1 (1-100%):
  - DWHR preheats COLD supply for shower
  - DWHR preheats water heater input
  - Number of showerheads in home:
  - Number of showers connected to DWHR:

A red circle highlights the 'Set RESNET defaults' button, which is located to the right of the first two checkboxes in the 'DHW Efficiencies' section. At the bottom of the window, there are two hand icons pointing towards the center.

# UPDATED LAUNDRY INPUTS

## Clothes Washer & Dryer

- ▶ Updated inputs to use CEF and IMEF

The screenshot shows a software interface for configuring laundry inputs. The 'Clothes Washer and Dryer' section is highlighted with red circles around the 'Washer IMEF' (0.331) and 'Dryer CEF' (2.32) fields. The interface includes various input fields and dropdown menus for different appliance categories.

Appliance	Input	Value	Unit
Refrigerator	Total Consumption	383	kWh/yr
	Location	Conditioned	
Dishwasher	Energy Factor	0.00	
	or kWh/yr	275	
	Place Setting Capacity	12	
Range/Oven	Fuel	Electric	
	Induction Range	<input type="checkbox"/>	
	Convection Oven	<input type="checkbox"/>	
Clothes Washer and Dryer	Location	Unconditioned	
	Washer Presets	RESNET Default	
	Dryer Fuel	Natural gas	
	Washer IMEF	0.331	
	Elec Rate	0.0803	
	Dryer CEF	2.32	
	Washer LER	704	kWh/yr
	Gas Rate	0.58	
Moisture Sensing	<input type="checkbox"/>		
Capacity Cu.Ft.	2.874		
Annual Gas Cost	23.00		
Lighting	CFL (%)	83.3	
	Interior Fixtures		
	Exterior Fixtures(%)	0.0	
	Garage Fixtures(%)	0.0	
Ceiling Fan(s)	CFM / Watt	0.0	(at Med. speed)
	Restore RESNET Defaults		

# SAMPLING BATCH - MORE FLEXIBLE

## Added fields to Sampling Batch csv file

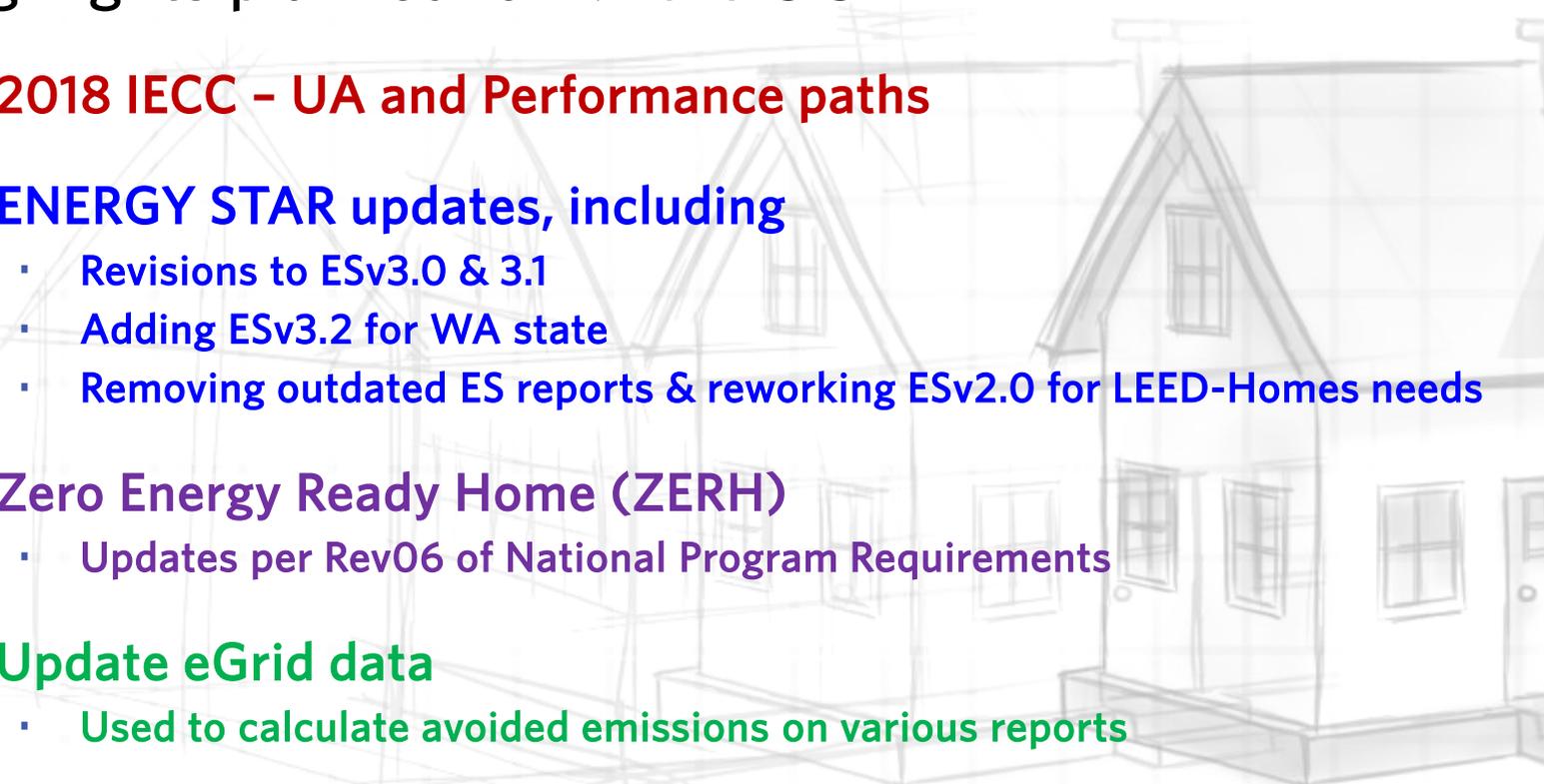
- If you are Sampling, this eases the work of creating a rating for every address.
- See REM/Rate™ Help for the Tools Menu to get details.

	A	B	C	D	E	H	I	J	K	L	M	T	U
1	bldgname	propowner	propstreet	propcity	propstate	samplesetid	ratingtype	ratename	raterid	verifiername1	verifierid1	inputfile	outputfile
2		Avery J.	2540 Frontier Ave	Boulder		25NQ	Sampled	Rater Bailey	801	RFI Anne	101	C:\Users\brianc\Documents\PlanZ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanZ_2540frontier.blg
3		Cameron I	2541 Frontier Ave	Boulder		25NQ	Sampled	Rater Casey	802	RFI Bea	102	C:\Users\brianc\Documents\PlanZ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanZ_2541frontier.blg
4		Drew K.	2542 Frontier Ave	Boulder		25NQ	Sampled	Rater Dylan	803	RFI Alex	103	C:\Users\brianc\Documents\PlanZ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanZ_2542frontier.blg
5		Jordan L.	2543 Frontier Ave	Boulder		25N1	Sampled	Rater Emerson	804	RFI Shannon	104	C:\Users\brianc\Documents\PlanQ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanQ_2543frontier.blg
6		Morgan S.	2544 Frontier Ave	Boulder		25N1	Sampled	Rater Harley	805	RFI Erin	105	C:\Users\brianc\Documents\PlanQ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanQ_2544frontier.blg
7		Perry T.	2545 Frontier Ave	Boulder		25N1	Sampled	Rater Jamie	806	RFI Peyton	106	C:\Users\brianc\Documents\PlanQ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanQ_2545frontier.blg
8		Reese W.	2546 Frontier Ave	Boulder		25N1	Sampled	Rater Ryan	807	RFI Vin	107	C:\Users\brianc\Documents\PlanQ_tmplt.blg	C:\Users\brianc\Documents\Need_QA\PlanQ_2546frontier.blg
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11 # these are comments  
12 # which should be skippedd  
13 # by the parser  
14 # blank lines should also be skippeed  
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16 # bldgname - this field will populate the Building Name field in the Property/Builder Information screen  
17 # propowner - this field will populate the Property Owner's name in the Property Information  
18 # propstreet - this field will populate the Property Address field in the Property Information  
19 # propcity - this field will populate the Property City in the Property Information  
20 # propstate - this field will populate the Property State in the Property Information  
21 # propzip - this field will populate the Property Zip Code in the Property Information  
22 # propphone - this field will populate the Property Phone Number in the Property Information  
23 # samplesetid - this field will populate the Sample Set ID in the RESNET Section for the specified building files  
24 # ratingtype - this field will populate the Rating Type in the Rating Information  
25 # ratename - this field will populate the Official Rater in the Rating Information  
26 # raterid - this field will populate the Official Rater ID (RTIN) in the Rating Information  
27 # verifiername1 - this field will populate the 1st Raters/Rating Field Inspectors in the Rating Information  
28 # verifierid1 - this field will populate the 1st Raters/Rating Field Inspector ID (RTIN or RFI) in the Rating Information  
29 # verifiername2 - this field will populate the 2nd Raters/Rating Field Inspectors in the Rating Information  
30 # verifierid2 - this field will populate the 2nd Raters/Rating Field Inspector ID (RTIN or RFI) in the Rating Information  
31 # verifiername3 - this field will populate the 3rd Raters/Rating Field Inspectors in the Rating Information  
32 # verifierid3 - this field will populate the 3rd Raters/Rating Field Inspector ID (RTIN or RFI) in the Rating Information  
33 # verifiername4 - this field will populate the 4th Raters/Rating Field Inspectors in the Rating Information  
34 # verifierid4 - this field will populate the 4th Raters/Rating Field Inspector ID (RTIN or RFI) in the Rating Information  
35 # inputfile - this shows the path and file name of the sampled building file which copies will be made  
36 # outputfile - this is the path and filename of the copied sample building file

# WHAT'S NEXT ?

## Highlights planned for REM v15.5:

- ▶ **2018 IECC - UA and Performance paths**
  - ▶ **ENERGY STAR updates, including**
    - Revisions to ESv3.0 & 3.1
    - Adding ESv3.2 for WA state
    - Removing outdated ES reports & reworking ESv2.0 for LEED-Homes needs
  - ▶ **Zero Energy Ready Home (ZERH)**
    - Updates per Rev06 of National Program Requirements
  - ▶ **Update eGrid data**
    - Used to calculate avoided emissions on various reports
  - ▶ **Texas ERI report for 2015 IECC**
- 

A photograph of a row of houses with a red fire hydrant in the foreground. The houses have dark roofs and light-colored siding. The fire hydrant is red and is located on a sidewalk. The image is overlaid with a semi-transparent green and blue gradient.

**THANKS FOR YOUR TIME !**

**FIND ME & CHAT.  
WHAT DO YOU WANT/NEED FROM REM/RATE™ ?**

Brian Christensen, Senior Engineer