



What's Next with ENERGY STAR? A Program Update

Jon Passe, Zak Shadid, Dean Gamble
U.S. Environmental Protection Agency



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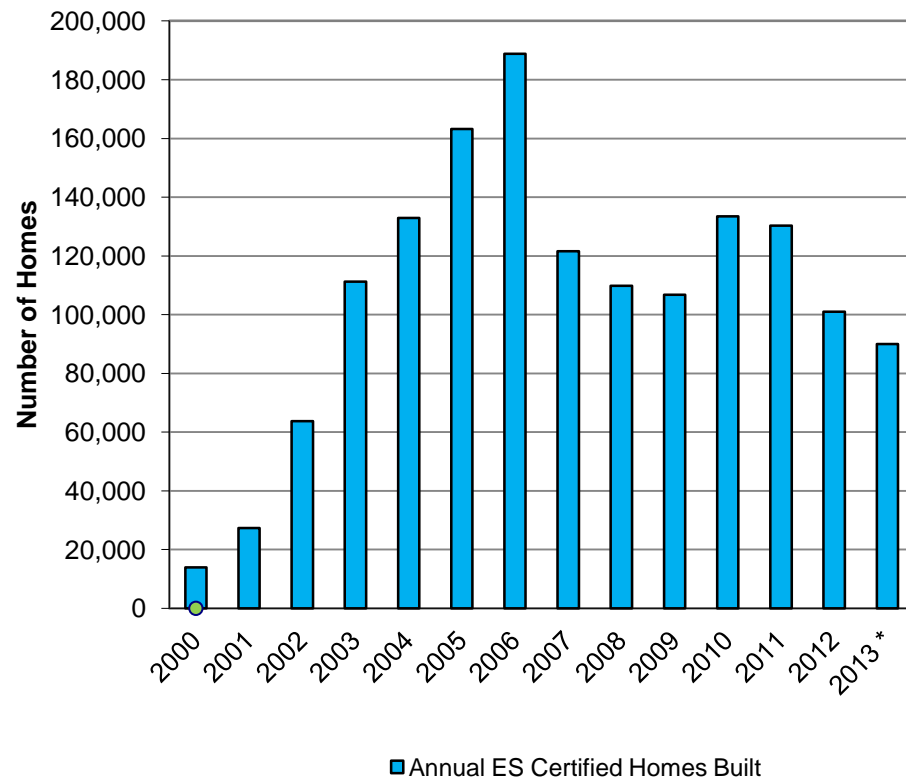


Topics to Cover Today

- 2013 ENERGY STAR program numbers
- Ongoing EPA/RESNET coordination areas
- Technical update
- Marketing update
- ENERGY STAR conference track overview

Program Numbers

Annual ENERGY STAR Certified Homes



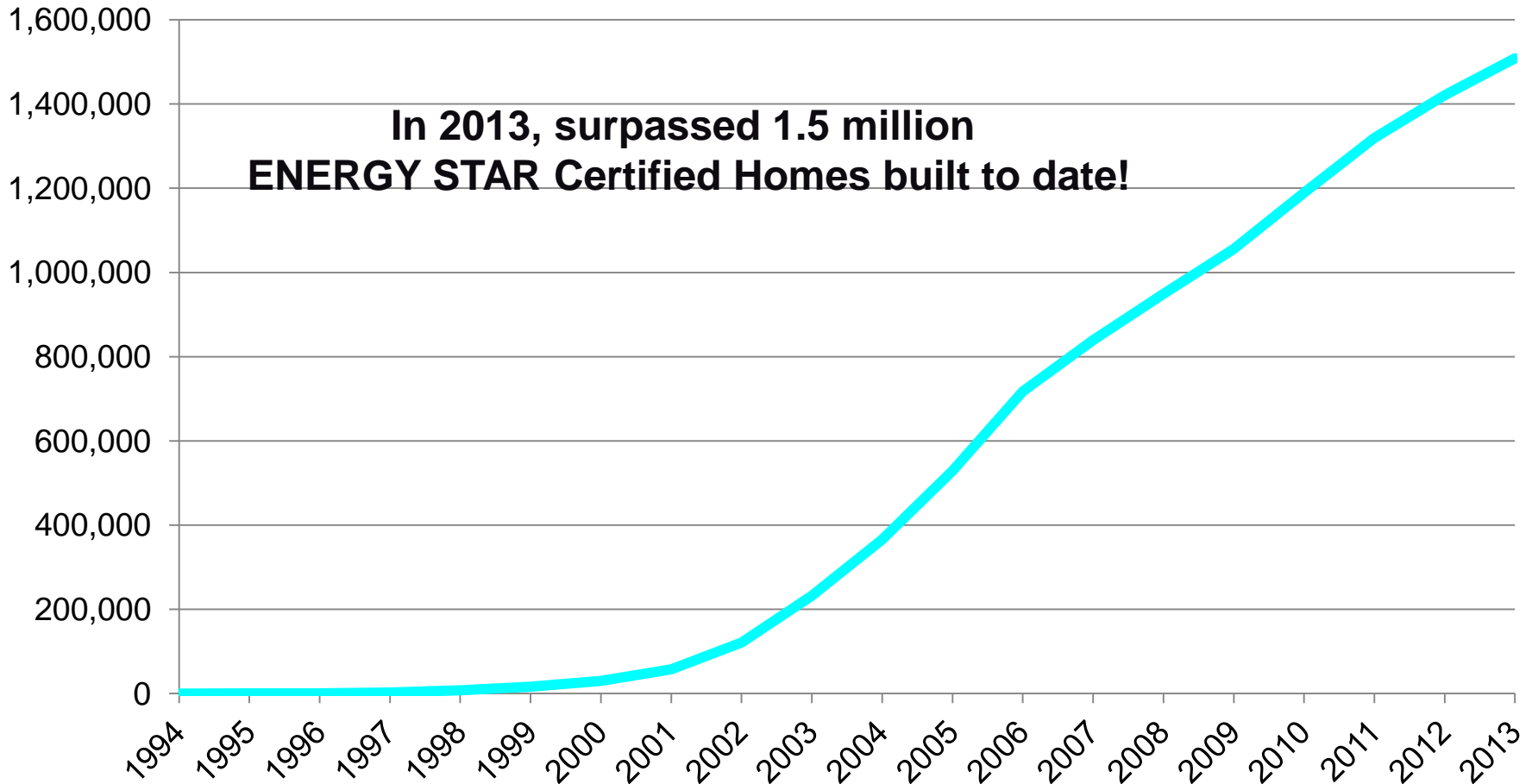
Year	Homes Reported
2012	101,034
2013*	90,459

- ~10% decline from 2012 to 2013
- Note that 2013 is 1st full calendar year since v3 implementation

Program Numbers

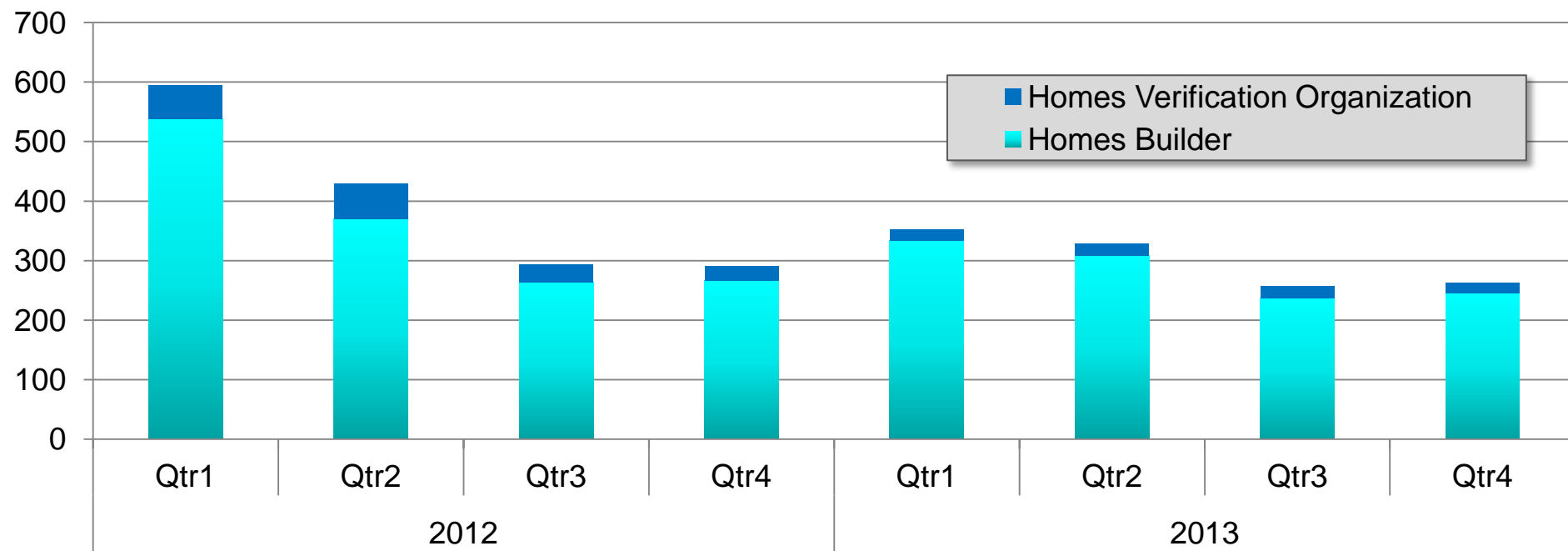


Running Total of All ENERGY STAR Certified Home Reports



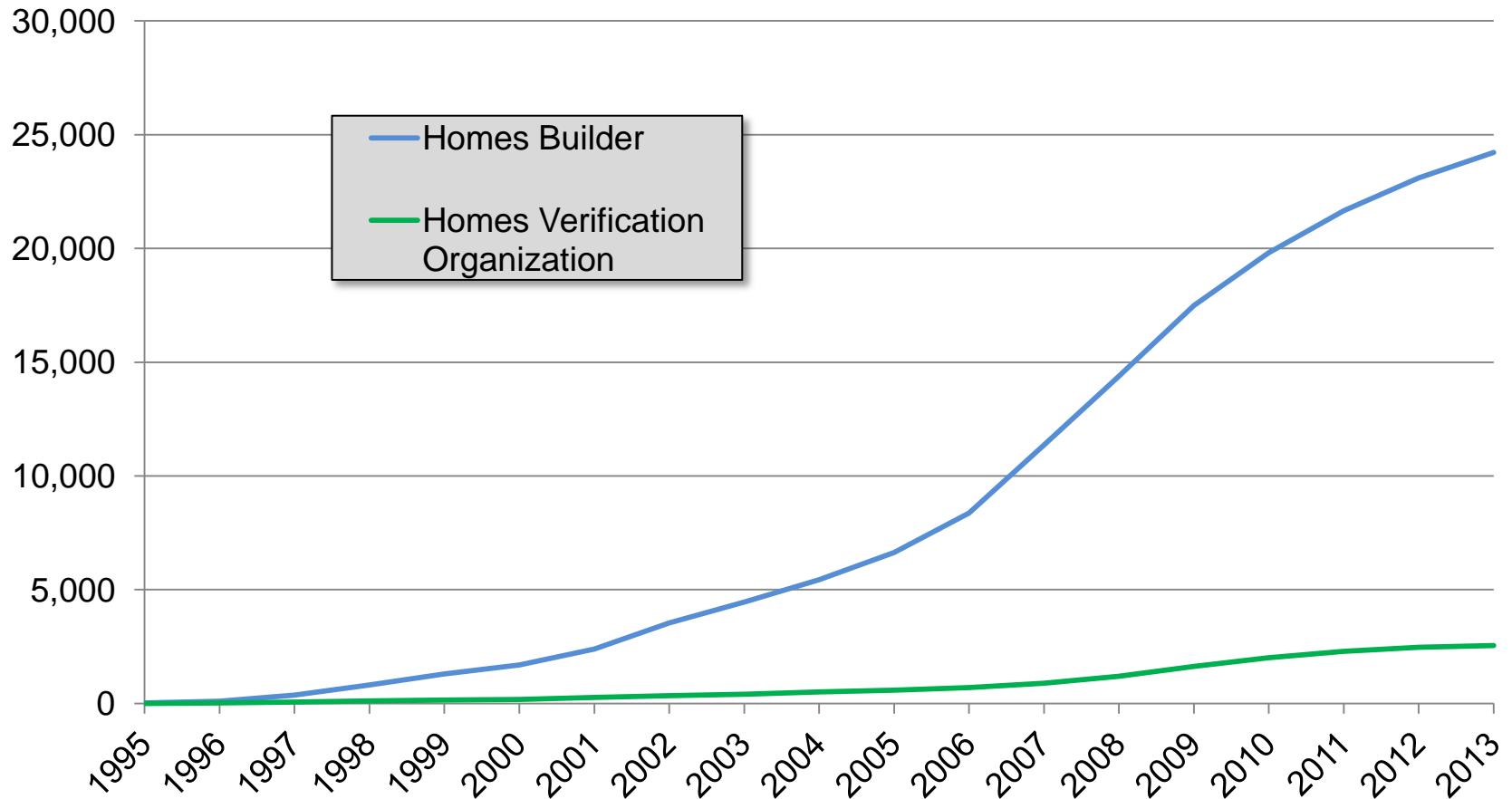
Program Numbers

New Partners by Quarter: 2012 and 2013



Program Numbers

Running Total of Partnership Agreements Signed



Why do builders and raters continue to partner with ENERGY STAR?



- Homebuyers (and homebuilders) still know and trust the label
 - >87% Brand awareness
- EPA provides extensive technical support
 - Webinars (eligible for RESNET PD credit), program ‘in-box’ to ask questions, policy clarifications
- EPA offers great marketing materials
 - ‘Better is Better’ brochures, consumer videos, PSAs, on-line advertising
- Strong collaboration with partners
 - We share, we listen, we change, we inform

Ongoing EPA/RESNET Coordination Areas

Ongoing Coordination: Quality Assurance



- Quality assurance of individual ENERGY STAR Checklist items is now formally part of RESNET QAD requirements
 - Beyond simply verifying that a checklist was done
 - Covers items on the Thermal Enclosure and HVAC QI checklists
 - EPA and RESNET worked together to define process, identify critical QA items to check, and develop QA checklist
 - Effective January, 2014
- Cooperatively developed on-line training for QAD's on new requirements
 - Mandatory for QAD's doing QA for ENERGY STAR certified homes
 - CE creditable
 - Fielding now

Ongoing Coordination: Scholarship Program



- Encourages small, minority, and women-owned businesses to get involved in residential energy efficiency industry
- EPA and RESNET collaborated on developing scholarship program structure and eligibility requirements
- Both organizations provide funding for the effort
- Scholarship funds can be used for training, certification/accreditation fees, equipment, conference registration, etc.
- Officially launching this week!

Ongoing Coordination: Multi-family Buildings



- Improving energy efficiency in multi-family buildings is a key part of the President's Climate Action Plan
- EPA and RESNET are collaborating to enhance engagement in this sector:
 - Joint Multi-family Working Group to clarify and expand RESNET's technical guidance for rating services provided in the MF sector
 - Providing additional guidance to Raters who want to provide verification services to help MF buildings earn the ENERGY STAR label

Ongoing Coordination: Technical Standards and other Committees



- EPA staff continue to be active in several RESNET committees and work groups:
 - Standards Development Committee 300
 - Quality Assurance Committee
 - The newly-formed Quality Improvement Taskforce and Working Group

Technical Update





#1 Version 3.1

Version 3.1



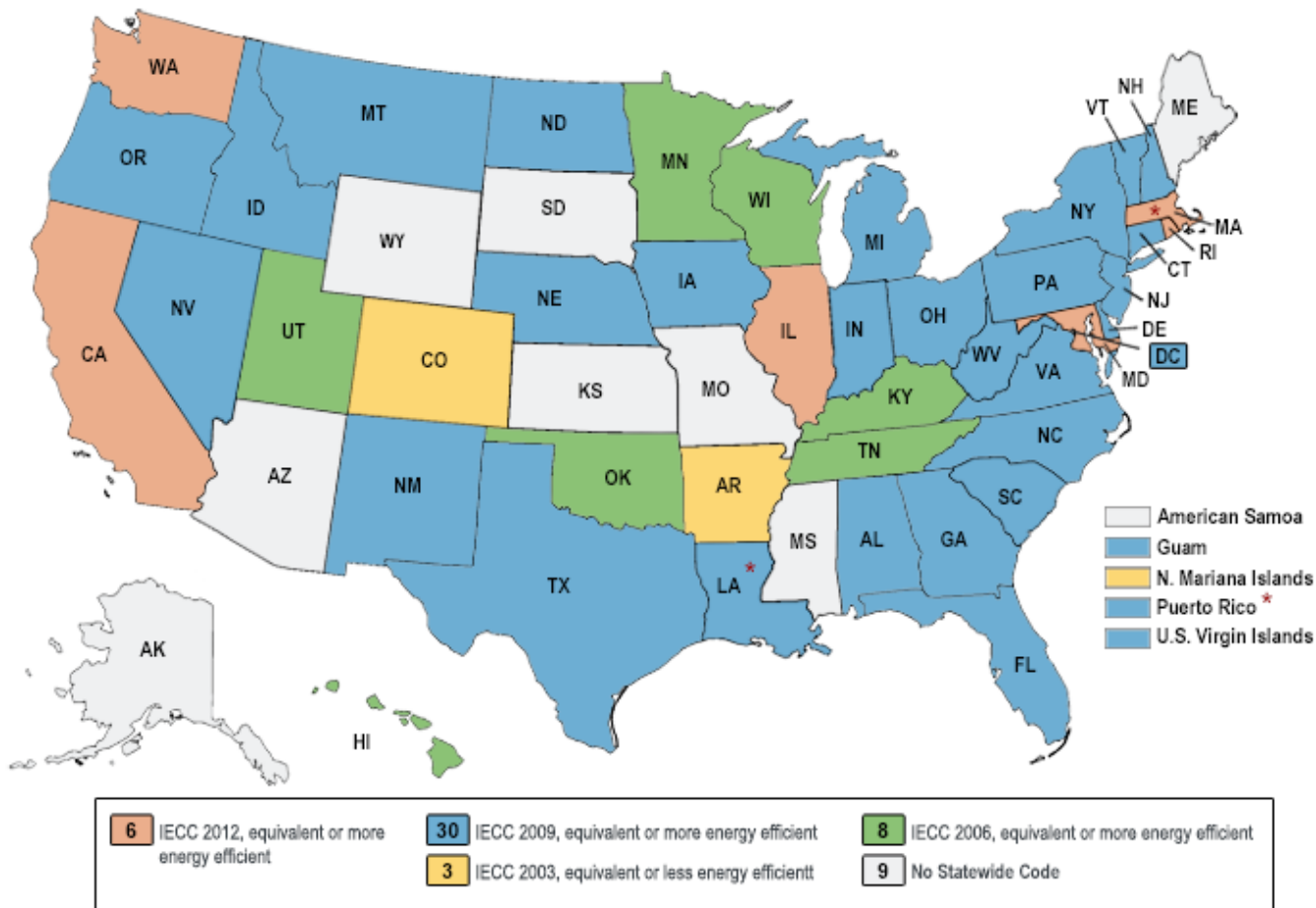
- Rationale for..
- Key components of..
- Implementation timeline for..

Rationale for Version 3.1

- Codes continue to evolve rapidly:
 - 2006 IECC is equally stringent to codes from 1998;
 - 2009 IECC is ~15% more efficient than 2006 IECC;
 - 2012 IECC is ~15% more efficient than 2009 IECC;
 - 2015 IECC is about the same as the 2012 IECC*.
- * Except for that new HERS compliance path.

Rationale for Version 3.1

- 31 states now at 2009 IECC; 6 states now at 2012 IECC

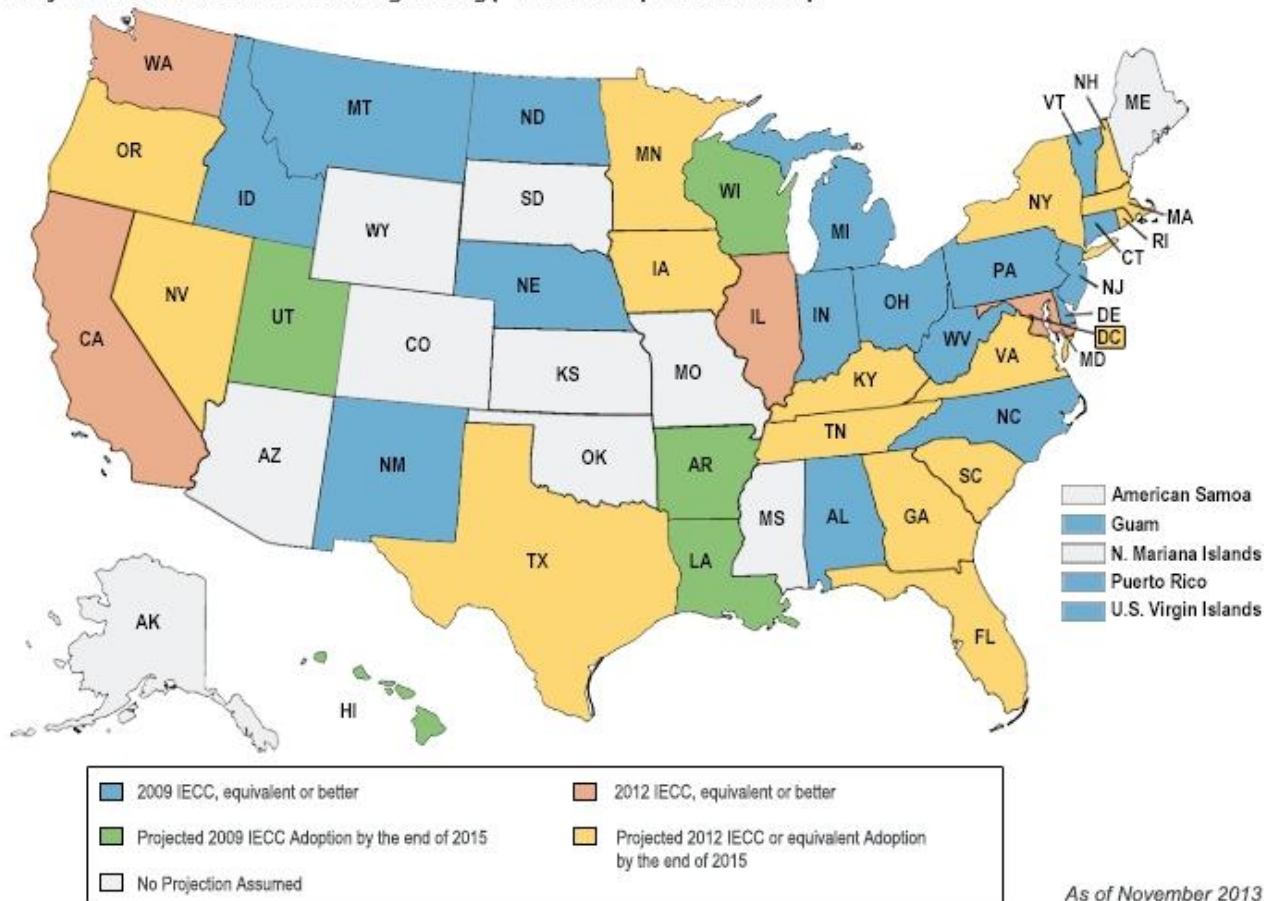


* Adopted new Code to be effective at a later date

Rationale for Version 3.1

- By end of 2015, **19** states expected to be at 2012 IECC

Projected Residential Building Energy Code Adoption Activity



As of November 2013

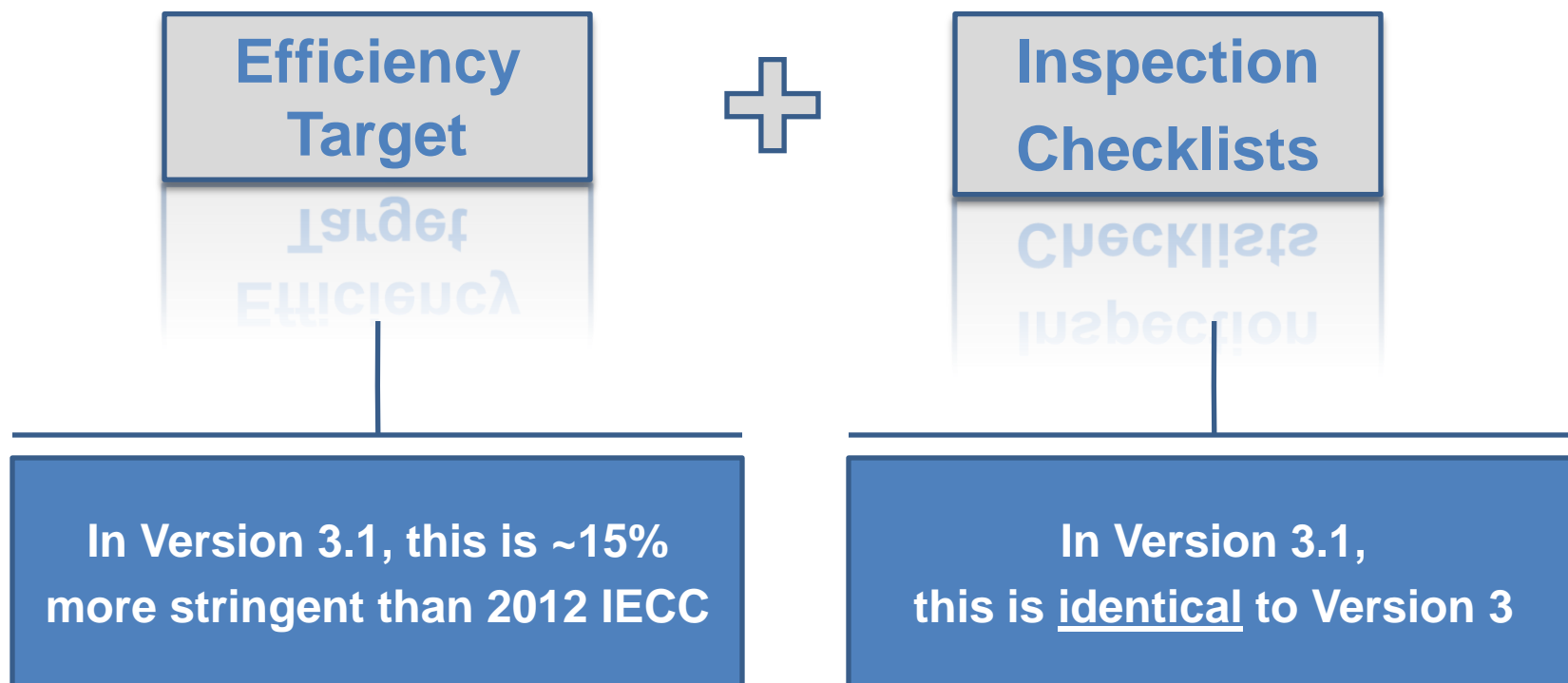


Rationale for Version 3.1

- Ensure program continues to deliver meaningful savings in states with 2012 IECC.
- Developing v3.1 state-specific program requirements is resource intensive & complex for partners (e.g., MA, FL).
- Instead, developing v3.1 national program requirements is more resource efficient and clearer for partners.
- At the same time, Version 3 is still a challenge for many partners. Therefore, want to make transition to v3.1 as painless as possible.

Key components of Version 3.1

- Two key components to program requirements:





Key components of Version 3.1

- The more stringent efficiency target is achievable using ‘off-the-shelf’ technologies. Key changes include:
 - Lower infiltration rates; and,
 - Better windows & doors; and,
 - More efficient HVAC equipment; and,
 - Ducts in conditioned space; and,
 - More efficient lighting.
- No new mandatory requirements in the Performance Path, but ENERGY STAR HERS index target in the range of ~55-65.



Quiz

- How many new mandatory measures does v3.1 have?
 - 0
 - 1
 - 99

Key components of Version 3.1

- Mandatory requirements in the 2012 IECC improve the cost effectiveness of Version 3.1 relative to Version 3.

ENERGY STAR v3.1 vs 2012 IECC Home Illustrative Cost & Savings Summary

#	CZ	Location	Found.	HVAC Equipment Type	2012 IECC	ENERGY STAR Version 3.1						
					Annual Purchased Energy Costs	Annual Purchased Energy Costs	Annual Purchased Energy Savings	Total Upgrade Cost	Monthly Purchased Energy Savings	Monthly Mortgage Upgrade Cost	Net Cash Flow	
1	1	Miami, FL	Slab	Elec. Air-Source HP	\$1,799	\$1,472	\$327	18%	\$1,761	\$27	\$9	\$18
2	1	Miami, FL	Slab	Gas Furnace / Elec. AC	\$1,638	\$1,307	\$331	20%	\$1,758	\$28	\$9	\$18
3	2	Tampa, FL	Slab	Elec. Air-Source HP	\$1,799	\$1,480	\$319	18%	\$1,667	\$27	\$9	\$18
4	2	Tampa, FL	Slab	Gas Furnace / Elec. AC	\$1,618	\$1,292	\$327	20%	\$1,664	\$27	\$9	\$18
5	3	Fort Worth, TX	Slab	Elec. Air-Source HP	\$2,021	\$1,594	\$427	21%	\$1,571	\$36	\$8	\$27
6	3	Fort Worth, TX	Slab	Gas Furnace / Elec. AC	\$1,728	\$1,369	\$359	21%	\$1,964	\$30	\$11	\$19
7	4	St. Louis, MO	Bsmt.	Elec. Air-Source HP	\$2,451	\$1,902	\$550	22%	\$1,670	\$46	\$9	\$37
8	4	St. Louis, MO	Bsmt.	Gas Furnace / Elec. AC	\$1,869	\$1,488	\$381	20%	\$1,780	\$32	\$10	\$22
9	5	Indianapolis , IN	Bsmt.	Elec. Air-Source HP	\$2,573	\$1,931	\$641	25%	\$1,721	\$53	\$9	\$44
10	5	Indianapolis , IN	Bsmt.	Gas Furnace / Elec. AC	\$1,882	\$1,480	\$402	21%	\$1,721	\$33	\$9	\$24
11	6	Burlington, VT	Bsmt.	Elec. Air-Source HP	\$2,967	\$2,189	\$778	26%	\$1,797	\$65	\$10	\$55
12	6	Burlington, VT	Bsmt.	Gas Furnace / Elec. AC	\$1,992	\$1,560	\$432	22%	\$1,721	\$36	\$9	\$27
13	7	Duluth, MN	Bsmt.	Gas Furnace / Elec. AC	\$2,184	\$1,671	\$512	23%	\$1,721	\$43	\$9	\$33

Key components of Version 3.1

- Size Adjustment Factor remains, but smaller impact, because all homes are doing more in terms of efficiency.

Sample Version 3 Size Adjustment Factor

House Size	Bedrooms							
	1	2	3	4	5	6	7	8
1000	0	0	0					
1600	7	0	0	0				
2200	11	5	0	0	0			
2800	14	8	4	0	0	0		
3400		10	6	3	0	0	0	
4000		12	8	5	2	0	0	0
4600			10	7	4	2	0	0
5200			12	9	6	4	2	0
5800				10	7	5	3	2
6400				11	9	7	5	3
7000					10	8	6	4

Sample Version 3.1 Size Adjustment Factor

House Size	Bedrooms							
	1	2	3	4	5	6	7	8
1000	0	0	0					
1600	2	0	0	0				
2200	4	2	0	0	0			
2800	5	3	1	0	0	0		
3400		4	2	1	0	0	0	
4000		4	3	2	1	0	0	0
4600			4	2	1	1	0	0
5200			4	3	2	1	1	0
5800				4	3	2	1	1
6400				4	3	2	2	1
7000					4	3	2	1



Implementation timeline

- For the foreseeable future, only enforce Version 3.1 in states that adopt the 2012 IECC.
- For states that have not yet adopted the 2012 IECC, Version 3.1 enforced for homes permitted starting one year after state-level implementation of 2012 IECC.
- For example: state ABC adopts the 2012 IECC, and enforcement begins 01/01/2015. One year after that is 01/01/2016. Homes permitted on or after 01/01/2016 would be certified using v3.1.
- This policy allows builders to focus on complying with the new code first and then ramping up to our new program requirements afterwards.

Quiz

- For most states, when will v3.1 be implemented?
 - Tonight at midnight.
 - EPA will use a dartboard to decide for each state.
 - Homes permitted one year after state-level implementation of the 2012 IECC.



Implementation timeline

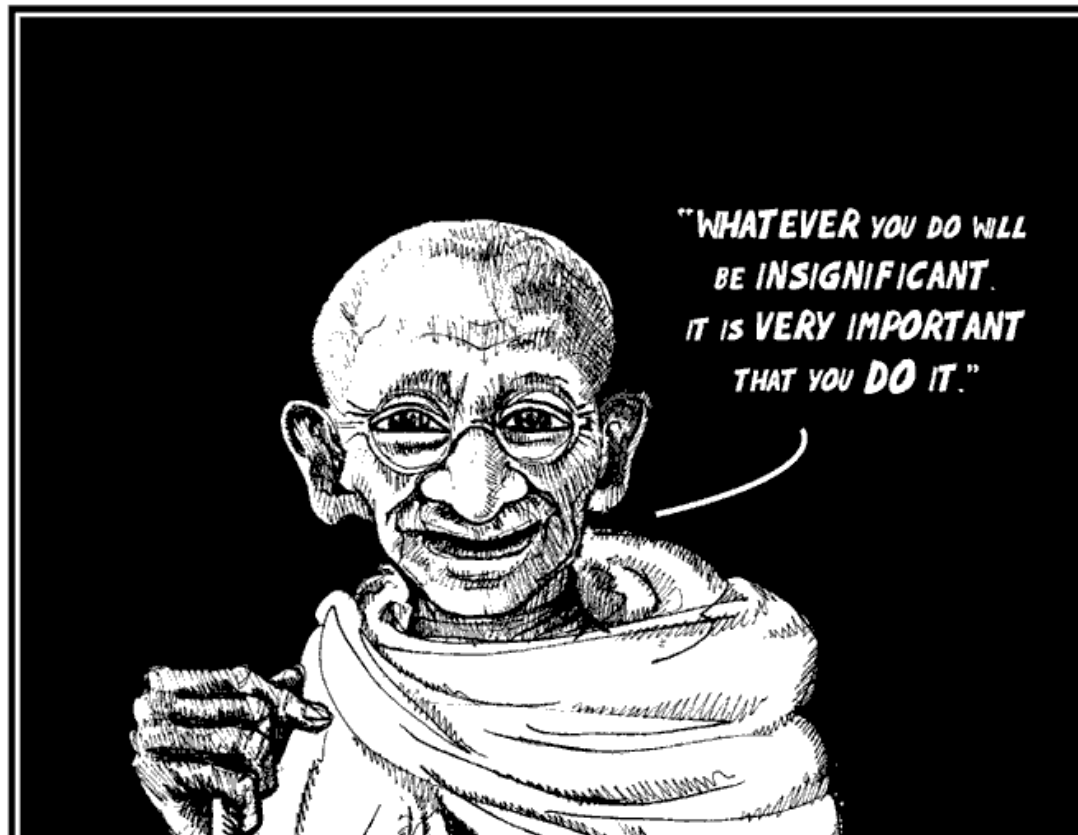
- For states that have adopted the 2012 IECC:
 - For IL, MD, and RI, enforce the Version 3.1 national program requirements for homes permitted starting 04/01/2015.
 - For CA and WA, region-specific program requirements will be developed and maintained.
 - For MA, EPA is proposing to transition to the Version 3.1 national program requirements with implementation for homes permitted starting 01/01/2015.
 - For FL, v3.1 state-level program requirements are already being enforced. However, we intend to engage stakeholders about transitioning to the v3.1 national program requirements.



Summary

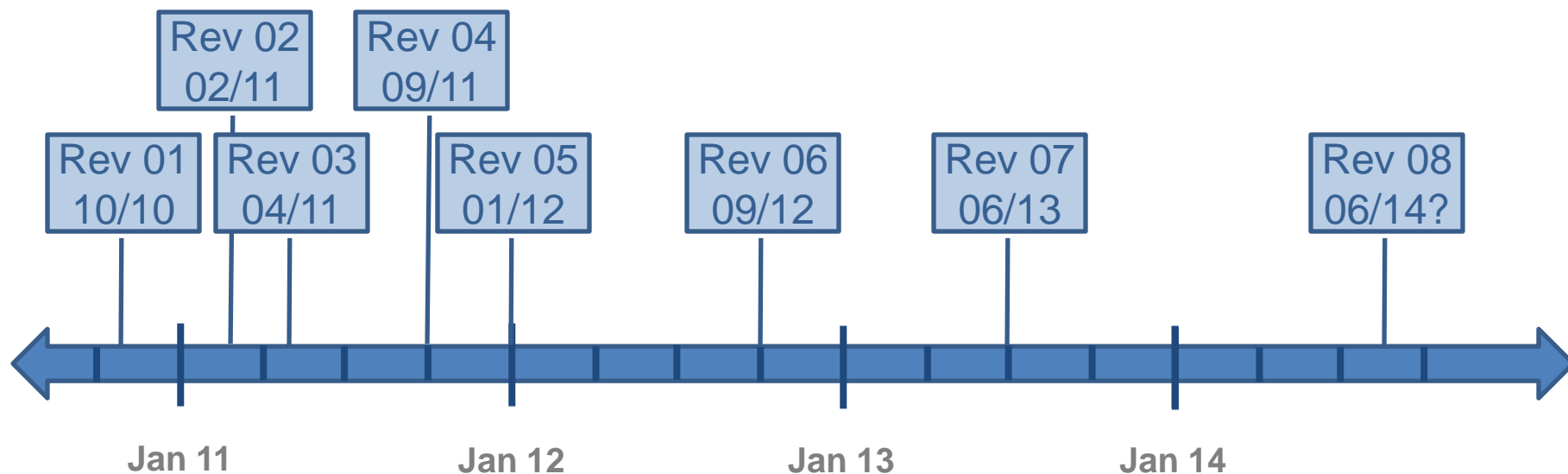
- The main rationale for v3.1 national program requirements is to maintain meaningful savings in states that adopt the 2012 IECC.
- The change is intended to be as painless as possible for partners, using lessons learned from Version 3.
- Key components of v3.1 include a more stringent efficiency target, checklists that are identical to v3, and a smaller Size Adjustment Factor. No new mandatory measures.
- For the foreseeable future, Version 3.1 will only be implemented in states that have adopted the 2012 IECC, or equivalent.

#2 Revision 08



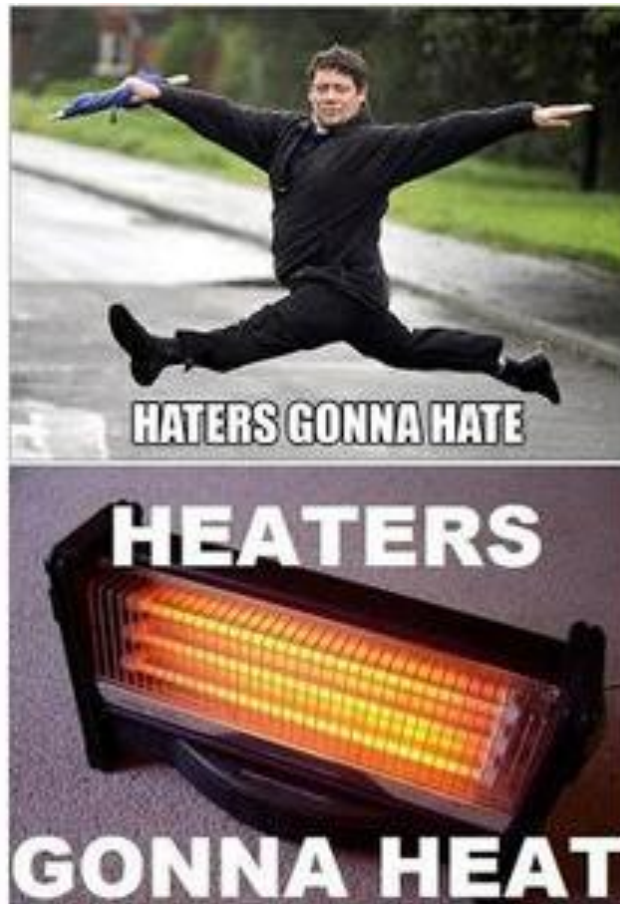
Purpose & timing of Revisions

- Driven by partner feedback.
- Goal is to make program clearer, simpler, and better.
- Time between revisions is growing:



#3

HVAC, HVAC, HVAC



HVAC, HVAC, HVAC

- Continue to refine HVAC program requirements.





HVAC, HVAC, HVAC

- Develop better guidance for builders.

HVAC, HVAC, HVAC




- Streamline and standardize Manual J & S software report.

HVAC, HVAC, HVAC

- Additional training resources – presentations, videos, self-serve content, and standards.



A photograph of a technician in a white shirt kneeling and working on a white front-loading washing machine. The technician is looking at a device in their hands.

#4 Partner Support



Partner Support

- 14 free technical webinars with over 1,000 attendees.
- Approximately 120 partner questions answered in the last year.
- Outreach to and coordinate with our partners, RESNET, ACCA, ASHRAE, and others to move the industry forward together.