

ENERGY STAR. The simple choice for energy efficiency.



The Future of High-Performance Housing Policy: ENERGY STAR Certified Homes

October 12, 2017





ENERGY STAR Version 3



Who's Ready for Version 4?





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National Program Requirements
ENERGY STAR Certified Homes, Version 4

Program Checklists

ENERGY STAR Version 4 Inspection Checklist	Must Correct	Rater Verified	N/A
1.1 Don't do anything dumb	<input type="checkbox"/>		-



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Basic Program Structure Works Well





Size Adjustment Factor Worked For Version 3





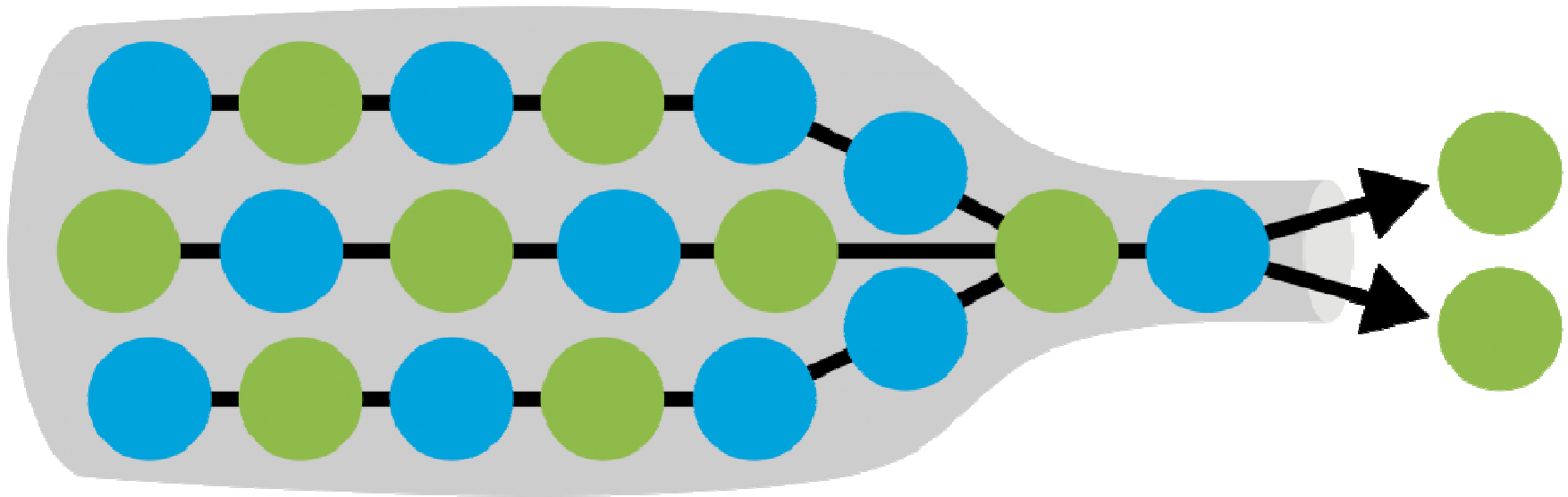
Higher Performance Target Was Manageable



The Kitchen Sink Was A Bit Much



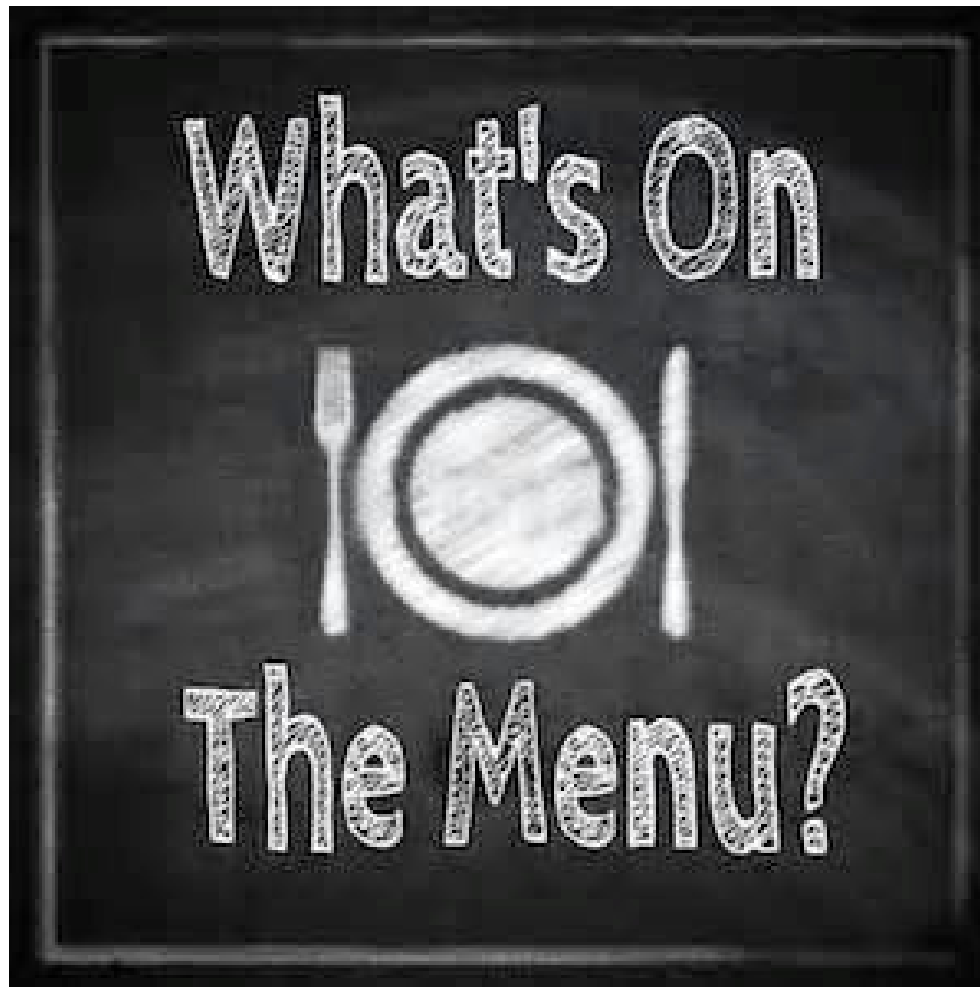
Process Trumped Requirements





Verification Standards Are Important





Efficiency Features





Overview

- Central to our program
- Need to:
 - Achieve meaningful savings
 - Maintain cost-effectiveness
 - Be integrated with HERS standard (before they're required!)



Possible Efficiency Features

- Increased insulation, in some markets
- High-efficiency water heaters
- LED lighting
- ENERGY STAR smart thermostats
- Credit for proper HVAC design & installation
- Buried & encapsulated ducts / ducts in conditioned space
- Variable capacity HVAC
- Efficient whole-house ventilation systems
- Home Energy Management Systems

Non-Energy Features





Overview

- Also central to our program.
- Non-energy features ensure that efficiency is not delivered by sacrificing other attributes.
- Rooted in building science.
- Need to:
 - Be verifiable by the Rater through their normal workflow
 - Recognize that non-energy features will negatively impact cost-effectiveness.
 - Clearly express the value of these features



Possible Non-Energy Features

- Better / smarter whole-house ventilation systems
- Dehumidification in hot-humid climates
- Higher MERV filters
- Balancing of register airflows
- Smarter kitchen and bath fans
- No unvented combustion appliances
- Enhanced verification

Renewable Energy Features





Overview

- Traditionally, renewable energy features have not been part of the program.
- The landscape is starting to shift.
- Want to be proactive in figuring out what role they can play.
- Need to:
 - Recognize that we'll continue to be an efficiency first program.
 - Develop clear messaging on how efficiency and renewable energy work together in ENERGY STAR homes.
 - Be complimentary (or at least not contradictory) to goals of utility partners
 - Be verifiable by the Rater through their normal workflow



Possible Renewable Energy Features

- Promote inclusion of renewable-energy-ready features
- Allow use of renewable energy features, beyond mandatory efficiency target, to earn special recognition
- Simply set a more stringent HERS index target, beyond ENERGY STAR, and recognize partners who hit this target through either efficiency or renewable energy features

Demand Management Features





Overview

- Utility partners have historically valued energy savings.
- Increasingly, utilities are valuing demand savings.
- Is there a way to overlay a package of measures that reduce demand, to help meet utility goals?
- Need to:
 - Not compromise homeowners' experience.
 - Ensure that program does not become too complex
 - Be verifiable by the Rater through their normal workflow



Possible Demand Management Features

- Very low SHGC windows
- Buried & encapsulated ducts / ducts in conditioned space
- Connected ENERGY STAR appliances
- Variable-capacity HVAC
- Energy storage
- A demand-management performance target



Summary

- We're in no rush to launch Version 4.
- Lessons learned from Version 3 will make the transition more seamless.
- Key components we're thinking through include:
 - Efficiency features
 - Non-energy features
 - Renewable energy features
 - Demand management features



ENERGY STAR Certified Homes

Web:

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