Where Do We Go From Here?
The Future of ENERGY STAR Certified Homes

October 26, 2016
Who’s Ready for Version 4?
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Who’s Ready for Version 4?
Stability
Coordination
Transparency
Responsiveness
Support
Appreciation
Who’s Ready for Version 4?
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take a deep breath.
Lessons Learned
RAISING THE BAR AGAIN.
What's On The Menu?
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

• High-efficiency water heaters
• LED lighting
• ENERGY STAR connected 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
• Increased insulation
Possible Efficiency Features

• Additional air barrier requirements (blocking under kneewalls)
• Ban electric resistance equipment
• Smart technology – HVAC / interactive with homeowner
• Use of EnergyPlus to generate energy savings
• Innovation points for measures that are not in software
• “Free Pass” certification
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
Possible Non-Energy Features

- Less ventilation than 62.2 in hot-humid climates
- Consumer education
- Modify credential requirement for small companies
- Improve green appraisal process
- More photos of Rick in small shirts
- Assess whether performance is same year after year
- Option / certification after improvements
- ENERGY STAR homeowner group – green living, product replacement / updates, house valuation, smart homes
- “Still ENERGY STAR” 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
Possible Renewable Energy Features

• Choose one mandatory requirement:
  – Site generation
  – Passive solar design
  – Day lighting design

• Is this even in your scope?

• What is value proposition?

• Is there consumer demand?
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
Possible Demand Management Features

- Will including DR compromise EE benefits?
- How will this impact cost effectiveness?
- Demand response credit, provided that comfort & IAQ are not scarified.
- What does “connected” look like:
  - 5% efficiency credit (e.g., for connected appliances)?
  - Requirements for individual equipment?
  - Home energy management?
Additional Thoughts? Ideas? Suggestions?

What’s on your mind?