



# Green Building, Energy Star and Other Voluntary Programs

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# Question: What are the issues surrounding the relationship between energy codes and “above code” programs?

- Energy Star
- LEED and regional/local green building programs
- HERS
- SPIRIT



# Voluntary programs are useful because they:

- Advance and provide a vehicle for the energy components of the building industry:
  - Suppliers
  - Knowledge base
  - Building science
  - Market transformation
- Accelerate the adoption of higher efficiency (value) products and techniques
- Provide consumer education resources
- Increase awareness
- “Softens the market” for advanced code adoption
- Create a culture of commissioning
- Provide viable code compliance options
- Offer a simple message/logo/rating for non-technical consumers



# Challenges of Voluntary programs

- Relevancy to codes as benchmarks (which code?)
- Variations of standards among jurisdictions
- Complexity and inconsistency in modeling; lack of training
- Market confusion from multiple programs and associated code relationships
- Code officials' acceptance of VPs for compliance
- Conflicts in codes (real or perceived) with green building/building science techniques
- Who pays for the ratings?
- Simplicity vs. flexibility vs. credibility
  - Tiered programs
  - Prescriptive vs. performance approach
  - Black Box (lack of transparency)



# Challenges of Voluntary programs (cont'd)

- Consistent benchmark
  - States/locales with higher standards than ES or VPs
  - HERS scores change with code changes
  - Fuel variations
  - Enforcement and verification
- HERS leakage rates vary (as do other inputs)
- Builders may assume cost for VP ratings
- Roles of various entities
  - Local/regional/state/federal government
  - Private sector
  - Utilities
- MARKET RECOGNITION OF VALUE



# Solutions

- Education, education, education
  - Building officials: value of VPs for compliance; new approaches; eliminate poor practices (Building America research)
  - Builders: value of VPs for higher performance and fewer callbacks
  - Consumers: value for cost savings and comfort
  - Building suppliers/subcontractors: misinformation (e.g. warranties on products like roofing materials)
- Code changes through the CC process
- Funding for greater influence (through technical analysis) for the code process
- Better collaboration with building officials



# What does the future Voluntary program look like?

- Increased emphasis on Life Cycle Analysis
- Measured verification
  - Funding
  - Program sustainability
- Zero net energy goal
- Increased market awareness, demand and labeled products



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Energy Efficiency and Renewable Energy



Building Energy Codes

See ya!