



Unit by Unit or Whole Building

Technical Roundtable on Rating Multifamily Buildings

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Florida Solar Energy Center

Energy Rated Homes of Vermont



Why Multifamily Buildings?

- Residential multifamily buildings are a large potential market for efficiency
 - Affordable housing programs
 - Redevelopment projects
 - Willing audience
- Participation in utility programs (New England, NJ) past, present & future

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Why Multifamily Buildings? (con't)

- NASEO/HERS Technical Guidelines are silent on limits to building size
- ENERGY STAR void between "Homes" and "Buildings"
 - Homes: up to 3 stories
 - Buildings: no new construction
- What to do if operating an ENERGY STAR Program and customers want to participate?
- Why not include multifamily?

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Format & Process

- Panelists to provide their perspective on the issue (5 min. each)
- General questions/comments from audience
- Outline the issues and questions that need to be answered in order to proceed
- Map out next steps

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Rating Issues

- When is it better to rate an individual dwelling unit vs. and entire building?
- Should multifamily building rating be permitted for new and existing buildings?
- How does the HERS reference home compare to commercial code (ASHRAE) requirements?

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Rating Issues (con't)

- What are the common rating tools' limitations for accurate modeling based on building size, height, number of units, configuration, mixed-use, etc.?
- How do we input efficiencies for equipment that is not rated (AFUE, EER and EF)?
- How do we model air leakage?
- How do we model duct leakage?

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Testing Issues



- How do we test air leakage?
 - High Rise Blower Door Testing
 - Different Building Configurations
 - Single-zone buildings, with single entry / common hallway
 - Duplex houses / 2-Zone Buildings, with separate entrances
 - Isolated Units in Common Entry Buildings (or 2-Zone Buildings)
 - Townhouse or similar “modular” buildings
 - Multi-Zone Buildings with Separate Entrances

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Testing Issues (con't)



- How do we test duct leakage?
- How do we know the efficiency of the mechanical (heating, cooling and hot water) equipment?
- What percentage of the units should be physically inspected and tested for envelope leakage, duct leakage, ventilation air flows, etc.?

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Rating & ENERGY STAR Certification Issues



- What should the rating report and ENERGY STAR certificate say for buildings?
- How should the number of units be counted towards the number of “certified units”?



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Next Steps



- NASEO/RESNET Technical Committee
 - Subcommittee(s) to address specific issues
 - Opportunities to field-test recommendations
 - New England, NJ Utilities
 - Process to get submitted and adopted
- Advisory Committee to EPA
 - What weight will an outside organization hold at EPA?

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