



VERMONT ENERGY
INVESTMENT CORPORATION

High Rise Multifamily, Affordable Housing and Public Housing Authorities: New Markets for Multifamily Rating Services

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Overview

- Background
- Current Status
- Pilot Program
- Opportunities for Raters and Providers

ENERGY STAR Multifamily Building Program - Background

- 2001:
 - EPA discovers that ENERGY STAR labeling of “high-rise” (4+ story) buildings has taken place, meets with some of the culprits and agrees to a 2-year (?) grandfathering period (until new program developed)
 - Research began on technical (e.g. modeling air leakage) issues, but funding later redirected
 - EPA researches importance of multifamily sector for pollution prevention
- 2002:
 - Conference sessions at RESNET, Affordable Comfort
 - Research continues at EPA
 - Questions abound regarding how a building should qualify as ENERGY STAR

Background Con't

- 2003:
 - EPA concludes that only efficient lights and appliances should be considered in labeling multifamily buildings rather than a comprehensive approach
 - Energy industry revolts
 - EPA provides goals for working with multifamily sector:
 - Nationally applicable
 - Recognition of superior energy performance
 - Difficult to game
 - Consistent results with repeatable, stable baseline
 - Accessible to broad marketplace
 - Inclusion of appliances and lighting
 - Maintain a good relationship with EPA's ENERGY STAR Homes Program administration partners
 - Consistency with other ENERGY STAR buildings programs

Background Con't

- 2003 Con't:
 - Formation of National Working Group
 - 50+ participants
 - Core of 15-20 experts from across the U.S.
 - Collaborative process facilitated by Consortium for Energy Efficiency (CEE)
 - Subcommittees:
 - 1) Technical Approach
 - 2) Testing & Verification
 - 3) Implementation
 - 4) Framework

Background Con't

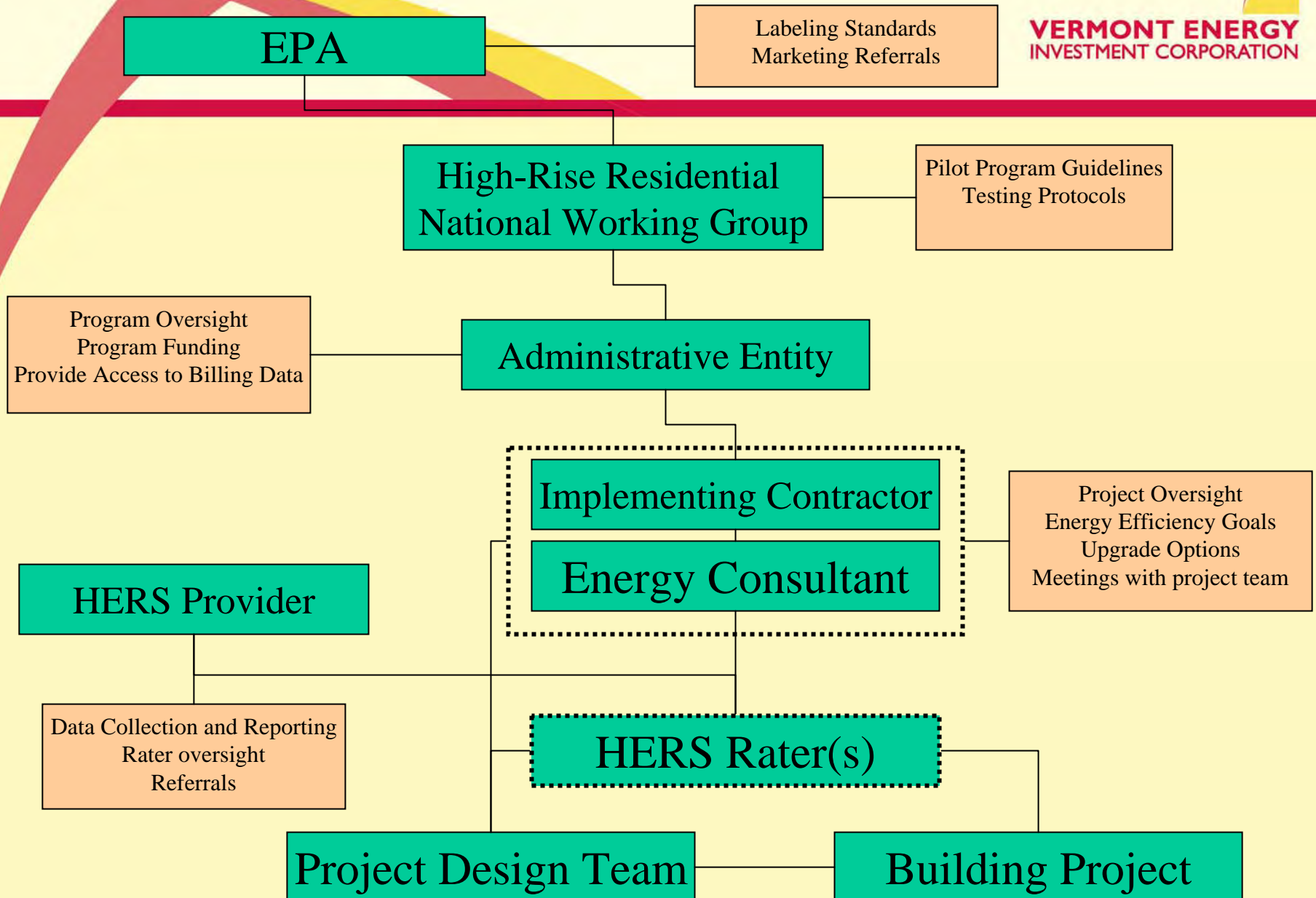
- 2004:
 - Working Group continued to meet twice a month
 - ACEEE Summer Study paper presentation
 - On-going discussions/debates with EPA regarding the approach for determining ENERGY STAR qualification:
 - Agreement to model to X% better than baseline, with verification and testing
 - Which baseline?
 - Simulation Baseline - ASHRAE 90.1 Appendix G
 - RECS Baseline – EPA Benchmarking Tool
 - The dialogue continues...

Current Status - 2005

- On-going debates:
 - Which baseline to use?
 - Which end-uses to consider in buildings?
 - Validity of RECS data (low R^2 coefficients)
 - Applicability of 90.1 Appendix G
 - What energy target?
- Launching of ENERGY STAR Multifamily Building Pilot Program to attempt to answer these questions in:
 - New York
 - California
 - Wisconsin
 - Northeast
 - Criteria for administrative entities

ENERGY STAR Multifamily Building Pilot Program

- Goals
 - Compare two methodologies
 - Evaluate tools, effectiveness and realistically achieving energy targets
 - Incremental and implementation costs
 - Program delivery options
 - Testing, verification and commissioning protocols
 - Market acceptance and interest
- Implementation Structure



ENERGY STAR Multifamily Building Pilot Program

- Pilot Project Selection
 - Reviewed by National Working Group and EPA
 - Need enough projects in different markets and climates to learn what does and doesn't work
- Who is qualified to participate?
 - Implementing contractor
 - Energy consultant and design team
 - Trainers and evaluators
 - Need national responsible entity to determine and oversee – RESNET?

Opportunities for Raters and Providers

- Implementing Contractor:
 - For state or utility programs interested in offering a multifamily program
 - Identify pilot participants
 - Represent the program to participants
 - Manage energy consultants
 - Negotiate incentives
 - Conduct market research
 - Reporting

Opportunities for Raters and Providers – Con't

- Energy Consultant:
 - Recruit and work with developers/owners/architects
 - Train design team
 - Modeling and design consultation
 - Construction contracts and GC orientation
 - Construction inspection & oversight
 - System performance testing
 - Reporting
- Commissioning Agent
- Trainers
- Evaluators

... The Saga Continues

- Pilot programs launching
- National Working Group continues discussions
- EPA is still willing to work with us (most of the time)
- Multifamily buildings are still being constructed inefficiently with lots of energy-saving, building performance opportunities
- Get involved or keep posted on progress:

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