Energy Efficiency Finance: Residential Policies and Programs in the U.S.

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Residential Finance Overview

- Benchmarking, codes, and national housing policy driving demand for residential property improvements
  - Broad menu of financing options for single and multifamily housing
  - Federal government major player in single family finance
  - Multifamily finance provided by combination of banks, insurance companies, and other real estate investors
Single Family Finance - Unsecured Lending

Warehouse for Energy Efficiency Loans (WHEEL)

• **Goal** to create *secondary market* for residential clean energy loans

FHA PowerSaver Loans

• Financing for energy efficiency and renewable energy residential upgrades
Home Energy Efficiency and Mortgage Risks

• Co-authored by IMT and UNC
• Default risks on average 32% lower for energy efficient homes

Energy Efficient Mortgages

• Finance cost effective energy improvements with mortgage
The SAVE Act

• Under SAVE, mortgage underwriters would include energy in the costs of homeownership, when calculating a borrower’s debt-to-income ratio.

• They would also include the net present value (NPV) of future energy savings in the valuation.

Principal
+ Interest
+ Taxes
+ Insurance
+ Energy

The Complete Cost of Homeownership
• Average age of U.S. multifamily housing stock is about **40 years**
• Market players, including investors, vary depending on building size
• Affordable housing
  — Public, government-financed, private
• Market-rate housing
Affordable Housing One-Stop Shops

• Recent market development
• All-encompassing programs

• Finance only part of solution
• Technical assistance, project management also critical
Fannie Mae Green Initiative

- Two green financing loans for owners
  - Green Preservation Plus and M-PIRE
- Multifamily 1-100 ENERGY STAR score
  - In some cities, property owners must report score to receive Fannie Mae Multifamily loan
Benchmarking Informs Decision-Making

U.S. Building Benchmarking and Transparency Policies

- Commercial policy adopted
- Commercial & multifamily policy adopted
- Public buildings benchmarked
- Single-family transparency adopted

Map showing cities and states with adopted policies.
Local Financing Options

- Many available models
- Cities have unique needs and existing capabilities

- Loan-Loss Reserves
- ESA/MESA
- PACE
- ESA/MESA
- TIF
- Green Banks
- On-Bill
- Tax Abatement

Local Governments’ Role in Energy Project Financing
A Guide to Financing Tools for the Commercial Real Estate Sector
Bradley McIver, MIT Community Innovators Lab
John Hiler, Institute for Market Transformation
On-Bill Financing

State Action for On-Bill Financing

LEGEND
- States with legislation related to on-bill financing
- States where utilities have implemented or are developing on-bill financing programs
- No state or utility on-bill financing action
Green Banks

- Low-interest, long-term financing for clean energy projects
- Leverage public funds to attract private capital
- Reduce market inefficiencies
Additional Efforts

Greening the MLS

ENERGY EFFICIENCY + GREEN DESIGN + QUANTIFYING PERFORMANCE = LOWER OPERATIONAL COSTS SAVINGS & PREDICTABILITY IMPROVES RESALE VALUE & GREATER RESILIENCY

Residential Green and Energy Efficient Addendum

Community Reinvestment Act
The Big Picture

- Benchmarking policies gaining momentum
  - 10 cities, 2 states, 1 county
- 31 states plus DC have PACE enabling legislation
- On-bill financing implemented by utilities (or soon to be) in 23 states
- Commercial banks starting to grasp opportunity for EE finance