

Residential Energy Efficiency

Market Transformation of Financing



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What does *Market Transformation* mean in the context of financing energy efficiency in residential housing?

Well-functioning market must include proper valuation of the asset – here, future savings

Building Energy Codes

Codes for Appliances and Systems

Decisions based on Energy Savings

Add-on Incentives & Rebates

Marketing & Education

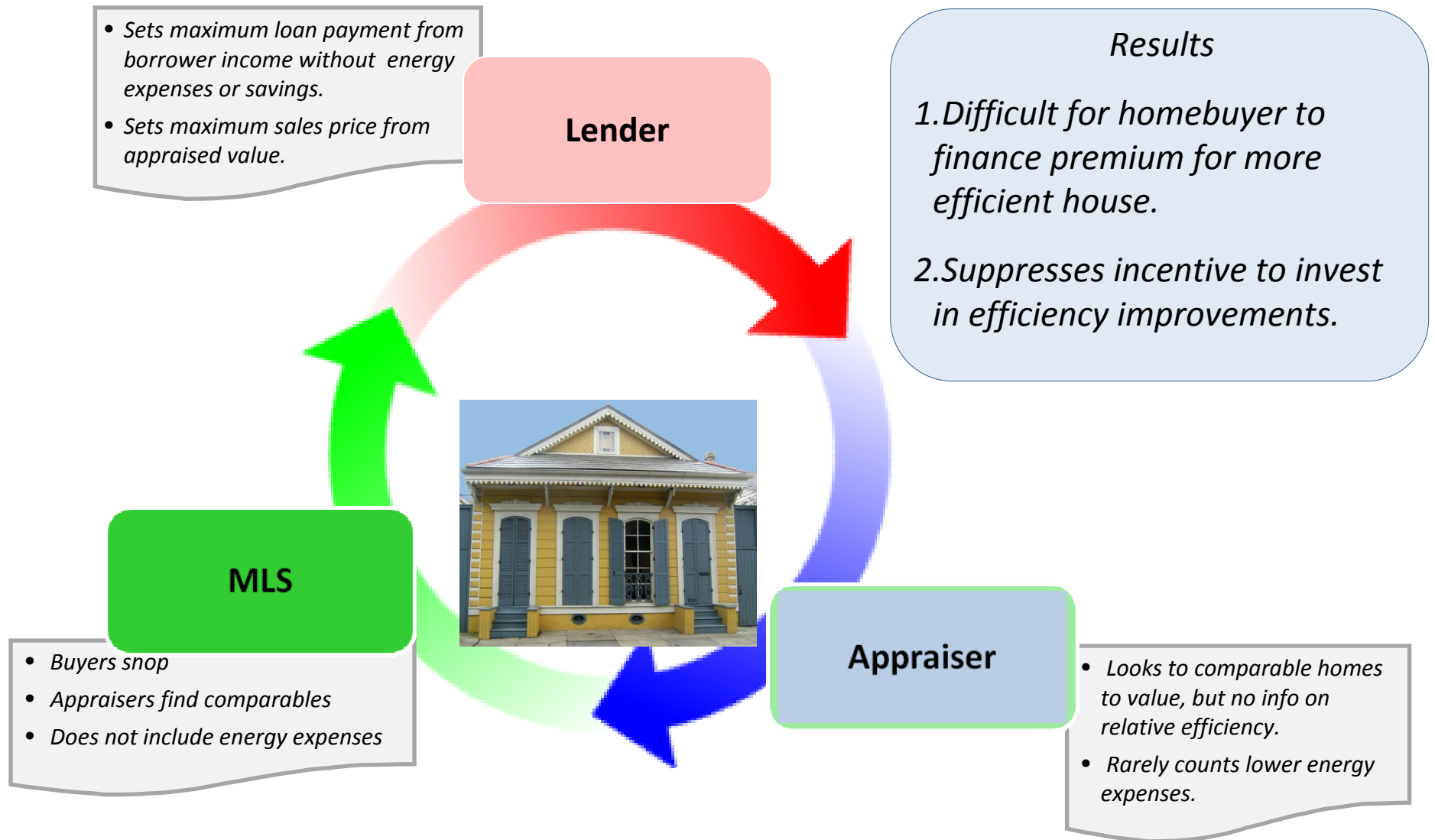
Present value of expected energy savings incorporated into asset values & decisions

Home Improvement

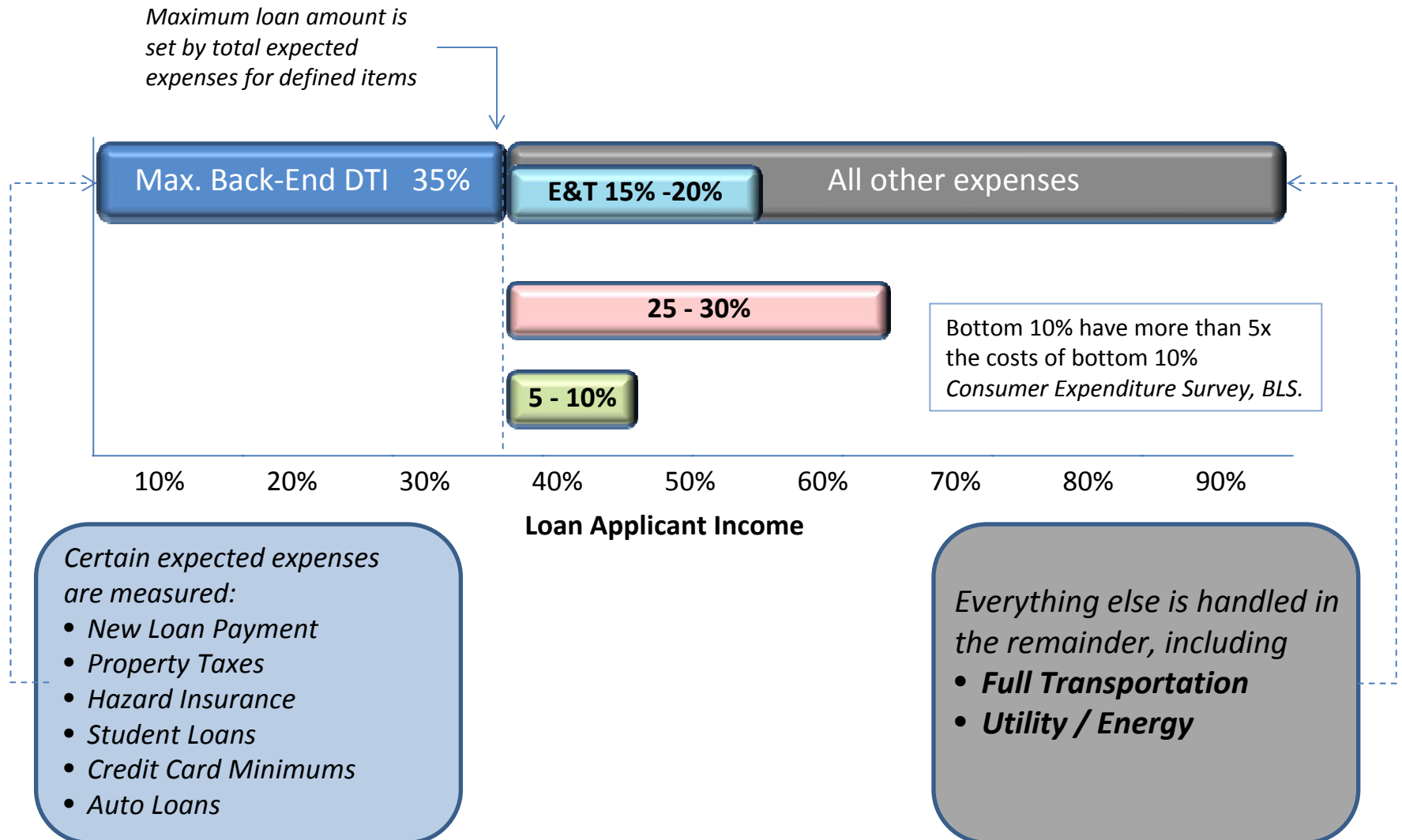
Home Buying

Operational Behavior

Loan “eco-system” actively inhibits homebuyer from paying premium for future energy savings



Mortgage lenders assume everybody will have average energy expenses. But, in reality....



DTI formula without energy is standard, but it's not “traditional,” universal, or sacrosanct.

1. FHA (1938 to 1960s).

Lenders were required to include utility expenses in underwriting. Why did FHA drop this process? Was it to reduce lender work in era of manual underwriting?

2. Commercial Loan Underwriting.

The touchstone of good underwriting is the Debt Service Coverage Ratio, which includes building owner's utility expenses.

3. US Veterans Administration Mortgages.

Loan program includes an assessment of borrower's utility expenses based on square footage of the house. Loan performance in crisis exceeded expectations.

4. Administration's Loan Modification Program.

Servicers collect borrower's entire household budget to determine affordability, including utility bills and transportation expenses.

Financing markets require consistency and data

Conventional mortgage products

- Approximately \$1.4 Trillion market in 2010
- 3 very, very large players (GSEs and FHA) funnel borrowers and investors
- High degree of uniformity among loans and documents
- Standard products
- Powerful systems that enable consistency and data management

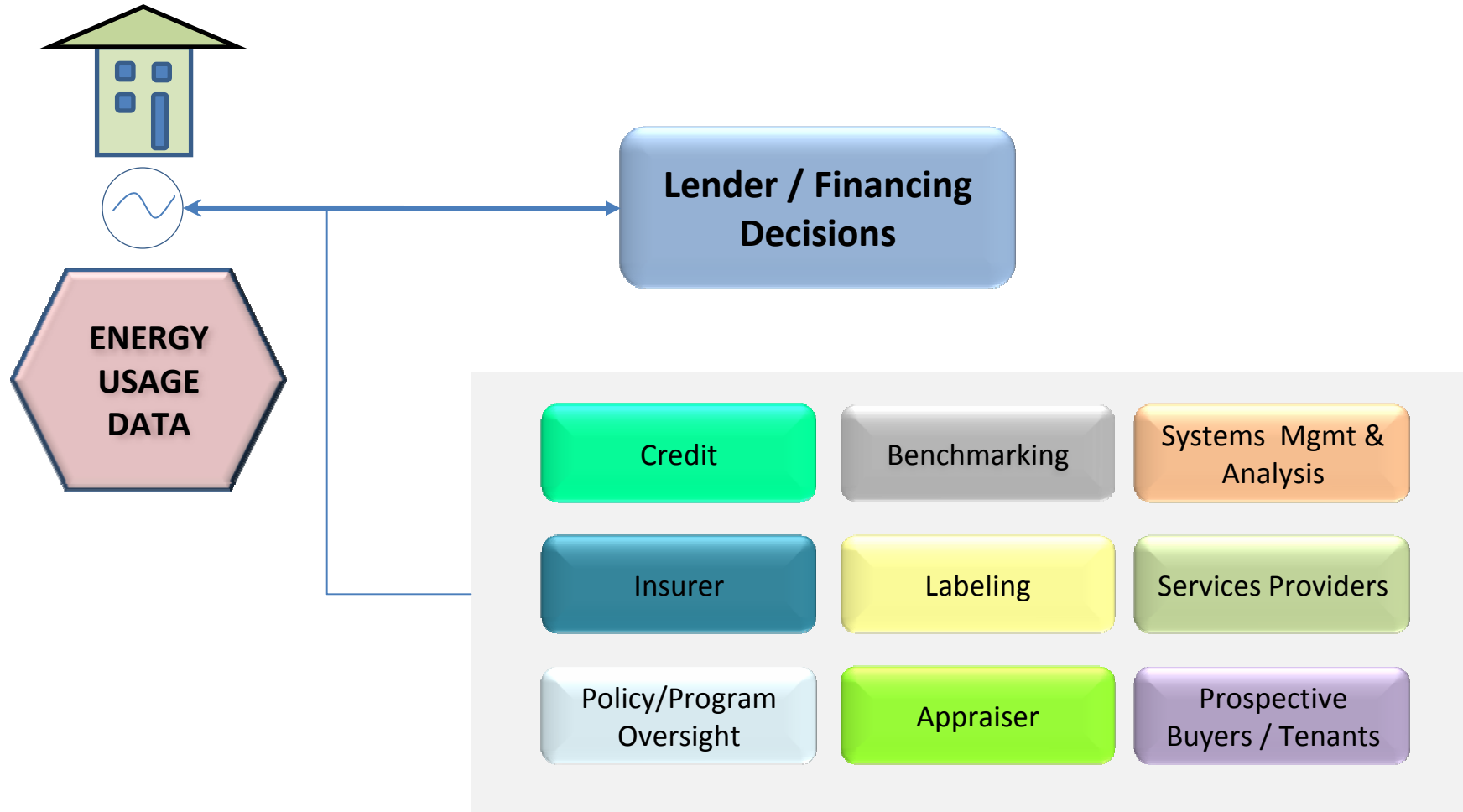
Financing Energy efficiency improvements

- Over 200 state, local, and utility loan programs. Varies state by state, loan by loan.
- Recovery Act funded ~\$670 Million in revolving loan funds and LLR
- What are differences between an “efficiency” loan and a conventional home improvement loan?

Investors need flow of conforming products

Array of incentives, rebates, credits can be bewildering to consumers

Systematic access to reliable information will enable assessment of efficiency for financing.



What does *market transformation* mean in financing energy efficiency?

1

Borrower/buyer must be able to incorporate present value of future energy savings into housing finance decisions and transactions.

- *Home purchase*
- *Financing home improvements*

2

Existing infrastructure to reach borrowers and investors must adopt & embrace value of energy savings

3

Systematic access to reliable information on energy usage

Developments

- FHA's new PowerSaver pilot program.
- Legislative effort supported by builders and host of other interests ("SAVE Act")
- Fannie Mae appears to be interested.
 - Multi-family Energy Star
 - Some residential inquiry
- Dodd-Frank Act.
 - Residual Income.
 - Opportunity to do Data Collection.
- Better Buildings programs in cities/states.
 - Various loan programs
 - Data collection requirements
- Opportunity for data analysis – First mortgage performance connected to efficiency

Thank You



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