

Using Loan Guarantees for large-scale deployment of comprehensive Energy Efficiency in New and Existing Housing

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Lockheed Martin's Residential and Consumer Programs

- ◆ Residential Building Performance Unit
- ◆ Serving government, utilities and providing direct energy efficiency services
- ◆ Building a first class team of experts in building science, residential market transformation and incentive programs
- ◆ Incorporating PV, CHP, residential demand response and advanced metering into residential offerings

Background and Overview

- ◆ Current state of Energy Efficiency financing
- ◆ Alignment of public policy and market resources
- ◆ Guaranteed EE Financing concept
- ◆ Necessary government actions
- ◆ Necessary market elements
- ◆ Residential Workforce opportunities
- ◆ Wrap up, Q&A

Current state of Residential Energy Efficiency financing

◆ Energy Efficient Mortgages

Pros:

- Count energy savings as income: equity stretch
- Allow for more loan to include EE measures
- Some efforts impact appraised value of home
- New homes and refinance

Cons:

- Difficult to access: most realtors and lenders still unaware they exist
- Take longer close because of additional administrative steps
- **No reduced interest rate, therefore no real consumer driver**

Current state of Residential Energy Efficiency financing

◆ Unsecured Financing for HPw/ES on existing homes

Pros:

- 24 hr turnaround on approvals
- Under programs, interest rate rate-down
- Offered by contractor at sale
- Existing third party processing

Cons:

- Absent write-down, can be expensive
- Volatility in rate
- Rate varies by credit score of customer

Alignment of public policy and market resources

- ◆ Recognized need for a national, market-based, low interest financing mechanism which can be easily accessed by builders and sellers of High Performance Homes, and offered by contactors for Comprehensive Home performance Services
- ◆ Maturity of Energy Star Homes infrastructure and expanding HPw/ES capacity
- ◆ Development of consistent national standards (BPI/RESNET) for predictable energy savings
- ◆ Enhancement of QA/QC and M&V mechanisms in the residential new and existing homes markets

Guaranteed EE Financing concept

- ◆ Create a pool of earmarked funds for loan guarantees on the financing of qualifying energy efficient new homes and upgrades to existing homes
- ◆ Sponsoring Entities will:
 - seek guarantee authority amount
 - qualify participating lenders
 - aggregate loans in accordance with guarantor rules
 - validate QA/QC and M&V
- ◆ Participating Lenders will:
 - Agree to pass-through of risk reduction by offering lower interest rate
 - Provide necessary documentation to Sponsoring Entities
 - Establish working relationships with the relevant HERS raters, HPA's, and accredited contractors

Guaranteed EE Financing concept

- ◆ Guarantee will be placed on the “top 25%” of the secured residential loan providing that:
 - an ENERGY STAR new home meets the EPA Act builder’s credit standard of 50% savings relative to IECC, and such is verified by a HERS rater or Home Performance Analyst (BPI/RESNET or equivalent standard), or
 - an existing home receives comprehensive HPw/ES work through a BPI accredited contractor saving at least 40% of the home’s usage, verified by an certified BA or HPA or equivalent.

Predicted Market Effects

- ◆ New Homes, the loan guarantee will:
 - preclude the need for PMI thus reducing the interest rate by 1%, or where PMI is not required reduced risk will drive apprx. ½% reduction
 - provide realtors with an attractive sales option
 - provide a market available consumer and builder driver for a high performance home because the standard aligns with the EPA Act midstream builder's tax credit
 - provide a documented actuarial record of the improved performance of these EE loans which, over time, should drive a market-based lower rate
 - enhance the HERS rater and HPA infrastructure nationally in areas without specific EE programs

Predicted Market Effects

- ◆ **Existing Homes, the loan guarantee will:**
 - offer the same interest rate benefits on a refinanced mortgage
 - provide realtors with an attractive sales option for existing home transactions
 - provide a market available consumer driver for a specific level of savings under Home Performance w/ ENERGY STAR
 - provide a documented actuarial record of the improved performance of these EE loans which, over time, should drive a market-based lower rate
 - enhance the BPI (or equivalent) accredited HPw/ES contractor infrastructure nationally in areas without specific EE programs

Necessary players and actions

Players:

- ◆ Viable Loan Guarantee provider (Federal, State, Foundation)
- ◆ Participating Financial Institutions (Banks, Housing Funds, Bonded Loan pools, Other)
- ◆ Sponsoring Entities (State Energy Offices, Utilities, Energy Authorities)
- ◆ Standards and Certifying entities (RESNET, BPI, or equivalent organizations)

Actions:

- ◆ Establish guarantee mechanism and rules
- ◆ Market the guarantee to the public and stakeholders
- ◆ Establish necessary administrative tracking system

Wrap up, Q&A

Thanks....

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