



Energy Technologies Area

Lawrence Berkeley National Laboratory

Energy Efficiency Financing for Low- and Moderate-Income Households

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Laboratory

ACEEE Finance Forum

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Coming soon!



Energy Efficiency Financing for Low- and Moderate-Income Households: Current State of the Market, Issues, and Opportunities

Financing Solutions Working Group

May 2017

Coming soon!

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The State and Local Energy Efficiency Action Network is a state and local effort facilitated by the federal government that helps states, utilities, and other local stakeholders take energy efficiency to scale and achieve all cost-effective energy efficiency by 2020.

Learn more at www.seeaction.energy.gov

Programs examined

- ◆ **Renew Financial (WHEEL, PACE)**
- ◆ **PosiGen**
- ◆ **NYSERDA**
- ◆ **Roanoke REC**
- ◆ **Ouachita REC**
- ◆ **NYCHA**
- ◆ **Fannie Mae (Multifamily Green Financing)**
- ◆ **Community Preservation Corporation (NY)**
- ◆ **Community Investment Corporation (Chicago)**
- ◆ **CT Green Bank**
- ◆ **PSE&G (NJ)**

Agenda

- ◆ Takeaways
- ◆ Low- and moderate-income (LMI) sector overview
- ◆ Consumer protections
- ◆ Financing products
- ◆ Lessons learned

High-level takeaways

- ◆ Very diverse sector (with implications for using financing to promote efficiency)
- ◆ Program design and coordination with other stakeholders can be valuable for reaching LMI households
- ◆ A number of programs are overcoming some challenges to EE adoption in LMI households
- ◆ Strong consumer protections are needed when steering financing to LMI households

High-level takeaways

- ◆ **So...what works?**
- ◆ No ONE approach works for ALL LMI households
 - Must understand markets and their specific barriers to select appropriate financing products
- ◆ However, a set of traditional and specialized products have been used and are gaining momentum
 - Each has strengths and weaknesses
 - Often *accessed* by LMI, not *designed* for LMI
 - In Southeast, great interest in OBF for LMI households
- ◆ Programs can collect data to help answer this question

LMI sector overview: Wide spectrum of LMI households



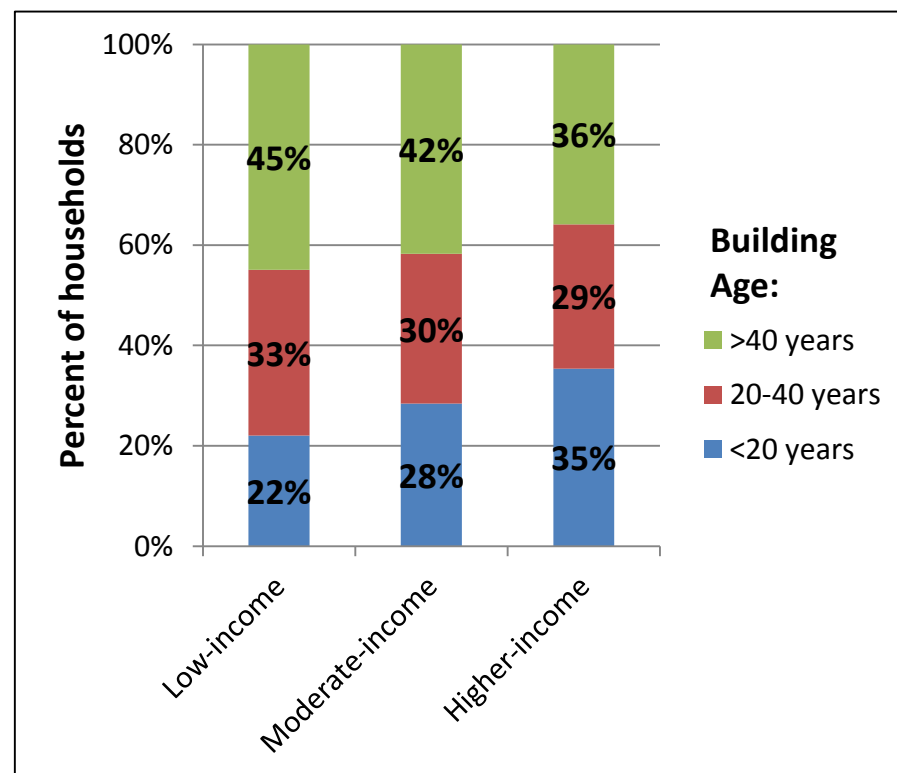
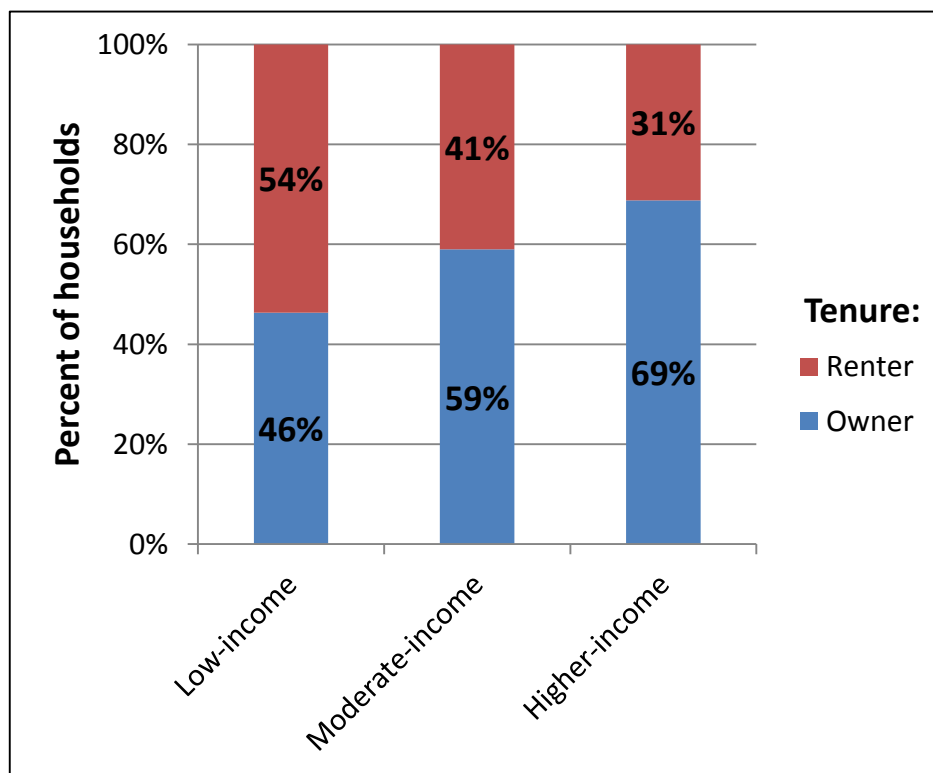
← Urban multifamily renters

Rural single family owners →



LMI sector overview

- ◆ More likely to live in older, less efficient housing
- ◆ Spend larger portion of income on energy (7.8% vs. 3% for all households)
- ◆ Less able to afford energy efficiency improvements
- ◆ Less likely to own their home, but ownership level still significant



Consumer protections

From poor disclosure

- Costs of the loan
- Risks

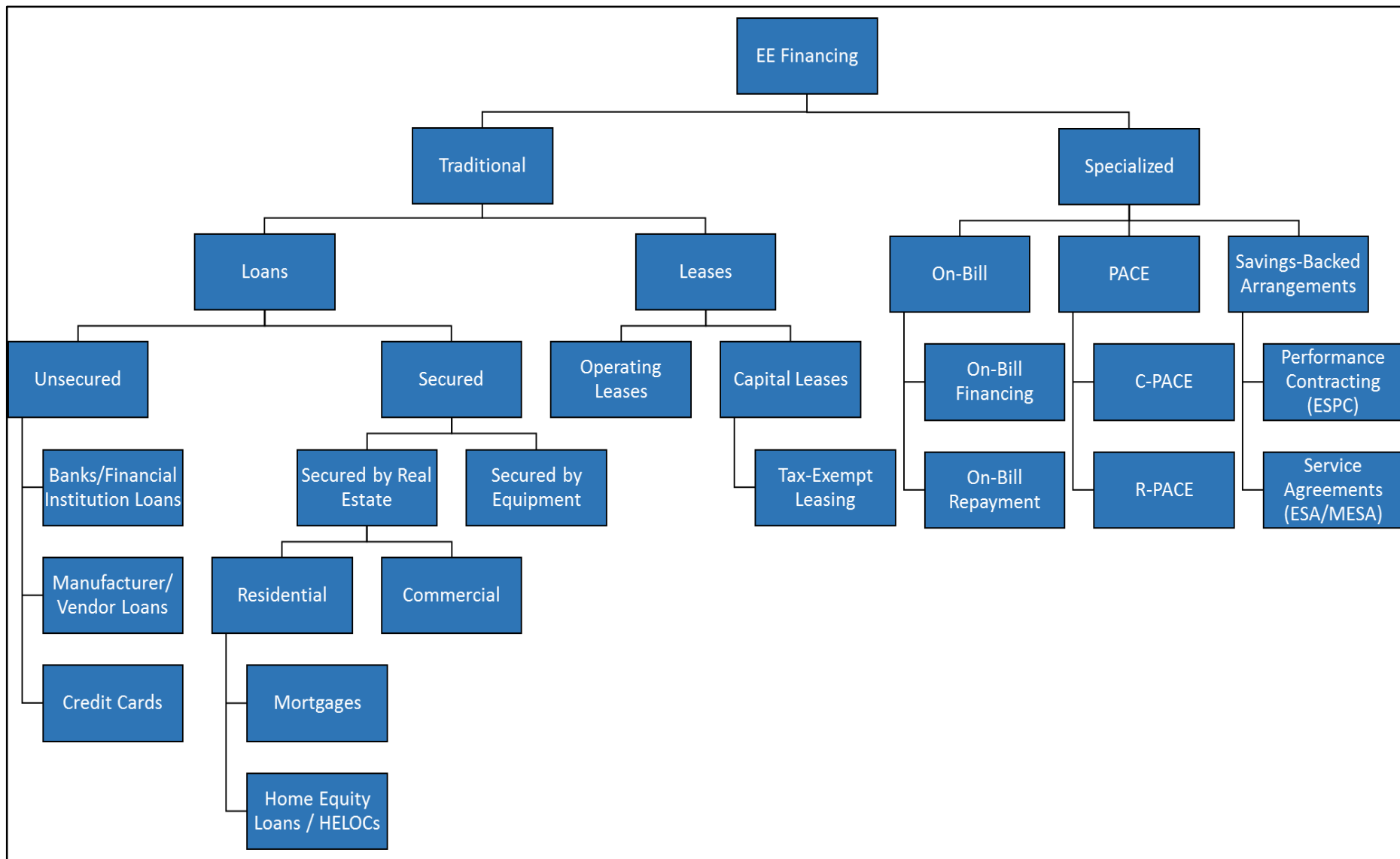
From abuse

- Fraud
- Predatory lending

Verifying ability to pay

- Potential loss of property
- Potential damage to credit
- Potential disconnection

Financing products



Barriers and EE Financing Product Features

Easier

Neutral

More difficult

	Secured (First Mortgage)	Secured (Junior Lien)	Unsecured	OBF/OBR	PACE	Savings-Backed Arrangements
Qualifying for Financing	Standard underwriting	Standard underwriting	Standard underwriting	Alternative underwriting	Alternative underwriting	Alternative underwriting
Debt Issues (restrictions, aversion)	Sr. lien holders may object	Sr. lien holders may object	Debt instrument	May be structured as non-debt	Sr. lien holders may object	Uncertain
Inherent Risks	Potential loss of home or building	Potential loss of home or building	Damaged credit	Power shut-off (some programs)	Potential loss of home or building	Depends on the product
Transaction Costs	High	High	Low	Low	Depends on prog / sector	Depends on prog / sector
Affordability	Long terms, typically lowest rates	Long terms, low rates (but higher than 1 st mortgage)	Shorter terms, lack of security = higher rates	Depends on program terms	Long terms, lower rates than unsecured	Structured as cash flow positive
Financing Cycles (MF)	Leverages fin. Cycles; hard for stand alone projects	Leverages fin. Cycles; easier for stand alones	Easier for stand alone projects	Easier for stand alone projects	Easier for stand alone projects	Easier for stand alone projects

Lessons learned

- ◆ Financing products and product features
 - Know LMI needs and products that may address them
 - Focus on affordability
 - Consider alternative underwriting (careful about ability to pay)
- ◆ Stakeholder coordination and collaboration
 - Trust and awareness
 - Funding and capital
- ◆ Consumer protections
 - Leverage appropriate legal frameworks
 - Exercise useful industry and program practices

Lessons learned

◆ Collect LMI data

- ❑ Program participation
- ❑ Loan performance
- ❑ Underwriting process
- ❑ Measures implemented
- ❑ Energy savings

◆ Considerations specific to MF borrowers

- ❑ Debt considerations
- ❑ MF financing cycles

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Coming soon:

- ◆ The State and Local Energy Efficiency Action Network's (SEE Action Network) report:

Energy Efficiency Financing for Low- and Moderate-Income Households by Lawrence Berkeley National Lab

- ◆ For more information on efficiency financing, please visit our website: <http://emp.lbl.gov>