ENERGY EFFICIENCY FINANCE – ROLES AND OPTIONS FOR UTILITIES

Presentation for the SouthWest Energy Efficiency Project

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**WHY FINANCING?**

- Efficiency goals or standards may be so ambitious and/or costly that they require looking beyond ratepayer capital.
- Utility cost-effectiveness tests are becoming increasingly challenging, especially with lower natural gas costs.
- The general trend away from heavy reliance on lighting upgrades may require larger and potentially more complex efficiency investments.
Why Financing?

• Finance programs dramatically increase close rates for contractors.
• Financing makes efficiency affordable for people with good credit but limited cash.
• Financing may be a more cost effective use of ratepayer funds than a simple rebate.
THE BENEFITS OF PURSUING FINANCE

• Demonstrated improvement in consumer perception of the utility.
• Demonstrated higher uptake for efficiency measures.
Midwest Energy

Strengthened its relationship with its customers

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Value Perception</th>
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<tbody>
<tr>
<td>97%</td>
<td>96%</td>
</tr>
<tr>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>85%</td>
<td>68%</td>
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- How$mart (9.22/9.18)
- Audit (9.05/9.03)
- General (8.88/8.07)
INCREASED PARTICIPATION RATES FOR PROGRAMS AFTER THE COMPANY BEGAN TO OFFER A FINANCING PROGRAM
Does utility engagement in a financing program require it to take on operational responsibility for the program (origination, billing, servicing, regulatory compliance)?
IF YOU REMEMBER NOTHING ELSE

Does utility engagement in a financing program require it to take on full credit risk?

NO
If you remember nothing else

Utilities Have Options to Conform to Their Goals

- Marketing
- Credit Support
- Utility Collection & Credit
- Provide Capital/Do Origination & Servicing

- PowerSaver
- MA Utilities/APS
- IL Utilities
- KY Coops/GA Coops
New FHA program offering credit insurance to qualified investors making loans through qualified lenders for qualified purposes. Utility engagement - largely through partnering with lenders. (Additional credit enhancement possible)

Borrower eligibility:
- Homeowner
- 660+ credit score
- 45% Debt to Income ratio
- Secured by 2nd lien.
- Eligible use of proceeds

Max loan size: $25,000
Measures (no energy audit required)
- HVAC, Insulation and other standard home efficiency measures.
- Renewable Energy

Borrower Profile
- Expected borrowers are motivated to install efficiency or renewable energy, likely responding to utility or government incentive program (likely with a rebate attached to further reduce costs), good credits of 720+ should predominate.
**Credit Support: Massachusetts Mass Save**

- Program uses a partnership of investor-owned utilities providing an interest rate buydown and delivery infrastructure with banks and credit unions that fund loans in the residential & commercial sectors.

- **Program Administrator:** Mass Save® is sponsored by multiple Massachusetts’ gas and electric utilities.

- **Eligible Sector(s):** Owner occupied 1- to 4-family existing homes

- **Eligible Measures:** Attic, wall, and basement insulation, high efficiency heating systems, high efficiency domestic hot water systems, solar hot water systems, 7-day digital programmable thermostats, ENERGY STAR® qualified replacement windows

- **Capital Source:** Rate-based funding to buy rates down to 0%. Capital provided by banks and credit unions, sourced at Prime +1% with a floor of 5%.

- **Financing Term:** 7 years

- **Interest Rate:** 0%
## Program Results

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Loan Volume</th>
<th># of Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$3,649,346</td>
<td>532</td>
</tr>
<tr>
<td>2007</td>
<td>$5,087,889</td>
<td>690</td>
</tr>
<tr>
<td>2008</td>
<td>$7,428,165</td>
<td>1014</td>
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<tr>
<td>2009</td>
<td>$19,095,819</td>
<td>2441</td>
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<tr>
<td>2010</td>
<td>$27,607,121</td>
<td>3416</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$60,868,340</strong></td>
<td>8093</td>
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- The average loan size rose from $6,860 in 2006 to $8,080 in 2010.
- Default rates are less than 1%
Utility Collection & Credit Support: Illinois

- Illinois law required utilities to conduct a $12.5 million on bill collection program.
- Utilities ratepayers would cover all program losses.
- 3rd Party (specialty finance company) conducts all underwriting, origination.
- 3rd Party (bank) would provide capital.
  - From bank’s perspective, the credit risk is with the utility and its ratepayers. Credit analysis focused on strength of the utility balance sheet, the strength of the authorizing legislation and PUC rules.
  - The loan facility was too small to attract much attention from most banks (a $50 million facility would have been much easier to sell). However one bank (and only one bank) eventually made an offer to participate.
Kentucky: How$mart Program

- Kentucky How$mart® program is an on-bill tariff program. It resulted from a collaboration among utilities and a community development lender with foundation capital. Although it uses the utility’s bill to collect payments, the program does not rely on utility ratepayer funds.
- **Program Administrator:** Cooperative utilities partnering with Mountain Association for Community Economic Development (MACED)
- **Eligible Sector:** Residential
- **Eligible Measures:** Residential: Air sealing; HVAC; insulation
- **Capital Source:** $500,000 from MACED cash on hand & $1 million loan from the Ford Foundation for capitalization. KY Housing Corporation provided $300,000 in operating funds. Ongoing operations funded from general support.
- **Cost of Capital:** 3%
- **Financing Term:** 75% of the estimated life of the measure or 15 years, whichever is less.
- **Interest Rate or Customer Charge and Fees:** 3% Interest rate. Fee of 5% of project cost, capitalized into the amount financed.
- **Disconnection for Non-Payment**
- **Landlords and owners** are contractually obligated to disclose the EE agreements to prospective tenants and/or purchasers of the property. Utilities must file a UCC filing on the title. The utilities also must notify new customers of the meter charge when they become new customers.
Kentucky: HowSmart Program

Program Results

- The program is on track to fund 100 projects totaling $400,000 in the first twelve months of the pilot.
- Typical project sizes are $4,000-10,000.
- Because utility rates are low in Kentucky and the tariff charge must be less than the projected savings, most homes are able to finance around $4000 per job. Any remainder is covered through a combination of upfront customer contributions and rebates from the utility or Kentucky Home Performance with ENERGY STAR.
New Developments in Financing

Finance ruling expected in December seeking comments on possible new CPUC directives. Migrate toward:

– greater use of private capital for expanded loan activity and EE investments,
– on-bill repayment option to facilitate cash flow, and
– consider ratepayer loan loss reserves to reduce interest rate to borrowers.

1. On Bill Repayment (OBR)

2. Offer ratepayer-supported loan products via OBR (10% or more of EE program portfolio?)
   – Build on CAEATFA loan loss reserve program to operate 2012

3. Continue OB Financing until OB Repayment is available

4. Collect and share aggregate loan and project data with lenders to build knowledge base and inform performance risk concerns
On Bill Repayment Proposal Elements
(Developed by Environmental Defense Fund in collaboration with CPUC staff)

- Banks or other capital providers provide capital and originate loans
  - Customer repays loan line item via utility bill.
  - Threat of utility disconnection for nonpayment provides valuable security to lenders.
- Can apply to every customer type, including residential.
- No recourse to ratepayer funding, unless loan loss reserve established, with criteria.
- Loan obligation to stay with meter if building is sold or when tenant moves.
- Expect lower interest rates +/- or longer terms due to higher credit quality via utility bill payment.
  - Opportunity for deeper retrofits
**Key Lessons**

- Integrate financing with marketing, rebate, quality control and other functions
- Keep the program simple.
- Operate a fast origination process (don’t let financing stand in the way of getting the deal done).
- Keep rates and terms attractive -- but 0% and very long terms are not necessary or desirable.
- Keep transaction costs at levels appropriate to the loan characteristics
The capital source drives the structure of the finance program
Implementing most forms of on-bill financing requires changes to utility billing systems, but the evidence shows that not all billing systems will require major overhauls.
Losses resulting from non-payment of energy efficiency loans have been low or in line with other utility losses so far; however
Utilities should pay attention to financial regulations and be sure that they are either complying with or not subject to financial regulations at the state and federal levels
Utilities can play multiple roles in financing energy efficiency projects
Utilities Have Options to Conform to Their Goals