

Building Attractive Products for Energy Efficiency Finance



ACEEE Finance Forum
Omni Parker House Hotel
Boston, MA
7 – 8 May 2012

Introduction

- ❑ There are many models for financing energy efficiency projects
- ❑ Massachusetts has developed a unique financing model that integrates local lenders and provides market based mechanisms to provide the proper amount of capital to finance energy efficiency measures without capital constraints
- ❑ Connecticut also has a very successful program that uses zero-percent loans and on-bill-financing to great success
- ❑ The panel will describe their programs and help distill elements of effective and attractive energy efficiency finance products

Introduction

□ Moderator:

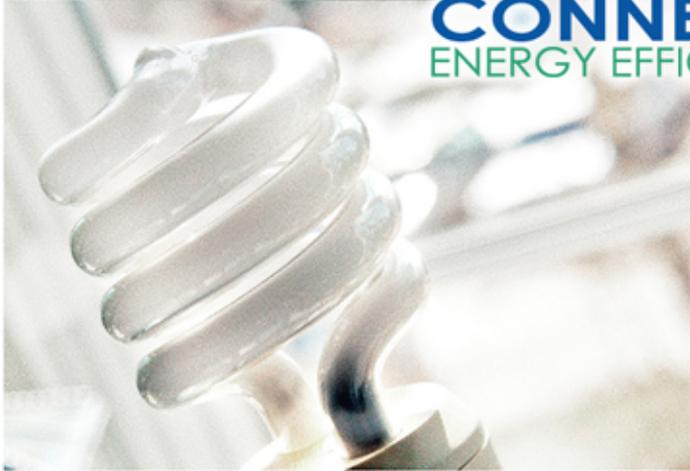
- Geoff Phillips, Product & Marketing Strategist, NSTAR Electric & Gas

□ Panelists:

- Dennis O'Connor, Program Administrator, Small Business Energy Advantage, United Illuminating
- Tilak Subrahmanian, Energy Efficiency, NSTAR Electric & Gas
- Joseph Bator, Senior Vice President, Eastern Bank
- Birud Jhaveri, Director, Energy Markets Massachusetts Department of Energy Resources



CONNECTICUT
ENERGY EFFICIENCY FUND



Commercial & Residential Energy Efficiency with On-Bill Financing



Presentation for:
ACEEE
2012 Energy Efficiency Finance Forum
May 7, 2012

Omni Parker House
Boston, Ma.



Connecticut Energy Efficiency Fund (CEEF)

Connecticut's Energy Efficiency Programs are funded by a Charge on Customer's electric and natural gas bills.

The Programs are designed to help customers manage their energy usage and cost.



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Small Business Objective

PROVIDE > COST-EFFECTIVE, turn-key CONSERVATION and LOAD MANAGEMENT SERVICES to SMALL C&I CUSTOMERS

What qualifies as a SMALL BUSINESS?

A "Mom & Pop" store with a \$150 monthly electric bill up to a mid size manufacturing company with a \$25,000 monthly electric bill

Examples: Retail, convenience stores, houses of worship, professional offices, non-profits, gas stations, restaurants, common areas of apartment buildings, warehouses, sport facilities



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UI Small Business Statistics 2000 - 2011

- ❑ Over **4,425** Installed Projects
- ❑ **991m** Lifetime kWh Saved =
 - ❑ **> 567,000 TONS of AVOIDED CARBON DIOXIDE!**
- ❑ **\$12.7m** Incentives Paid by CEEF
- ❑ **\$34.6m** in 0% Financed Loans
- ❑ Under \$327,000 (**<1%**) in loan defaults





Small Business Financial Solutions

- ❑ **NO OBLIGATION Energy Evaluation**
- ❑ **NO UP-FRONT COSTS**
- ❑ **INCENTIVES**
(up to 40% lighting & non-lighting measures)
- ❑ **Comprehensive Bonus**(up to 50% for multiple end uses, with no 1 end use accounting for more than 85% of savings value)
- ❑ **0% ON-BILL FINANCING**
(to qualified customers)





Small Business Loans

- ❑ Minimum \$250 - Maximum \$100,000
- ❑ Maximum loan term 48 months
- ❑ Qualifications: Utility payment history; less than 60 day arrears in most recent 6 months
- ❑ 94% of customers qualify for financing
- ❑ Of those, 54% decide to participate
- ❑ Of the 6% who don't qualify for financing only 19% decide to participate



Small Business Loans (Continued)

- ❑ **80%** of participants are **“tenants”**
- ❑ **Multiple on-bill loan capability** (for multi-phase projects)
- ❑ Loans are **transferrable** or **assumable**
- ❑ **Defaults** are **recovered by public funds**
(low default rate must be maintained)
- ❑ **Utility allowed to earn interest** on funds they supply for financing
- ❑ **Payment Routine**; Partial payments are applied to loan installment first



Cash Neutral Loan Term

Project Cost:	Material costs	\$9,204.20
	Labor costs	\$6,571.03
	Project Subtotal	\$15,775.23
	Tax (CT 6%)	\$946.51
	Total Cost	\$16,721.74
	Approved UI Incentive	\$7,886.52
	Net Total Cost	\$8,835.22
	Monthly Payment (16)	\$552.20
	-> <i>Annual Energy Savings</i>	42,301 kWh
<i>Estimated:</i>	-> <i>Annual Dollar Savings</i>	\$6,927 = \$577.25/monthly
<i>(may include adjustments)</i>	-> <i>Pay Back</i>	1.2 years

Cash Positive \$25.05

Loan Extension – 24 months

Project Cost:	Material costs	\$9,204.20
	Labor costs	\$6,571.03
	Project Subtotal	\$15,775.23
	Tax (CT 6%)	\$946.51
	Total Cost	\$16,721.74
	Approved UI Incentive	\$7,886.52
	Net Total Cost	\$8,835.22
	Monthly Payment (24)	\$368.13
	-> Annual Energy Savings	42,301 kWh
Estimated: ->	Annual Dollar Savings	\$6,927 = \$577.25/monthly
(may include adjustments) ->	Pay Back	1.2 years

Cash Positive \$209.12



UI Residential Financing

- Who can participate?
 - **UI Customers** who have had **Home Energy Solutions Assessment**
 - **Owner Occupied Units** – single to four family
 - **Approved Contractor** implementing the upgrades

- What can customers finance?
 - High Efficiency **Insulation**
 - **Water Heating** Systems
 - **Heating and Cooling** Equipment
 - **Windows**





UI Residential Financing

- **0%, 2.99%, and 4.99%** depending on measure(s) being implemented.
- **Loans**; range from **\$2,500 up to \$20,000** (average loan **\$11,700**)
- **Up to Ten-Year Term**
- **Unsecured**
- **75% of loans**; central air & heating
- **Financing source**; UI shareholder funds
- **Loan origination**; third party





Contact Information



Small Business Financing

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Residential Financing

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Connecticut's Energy Efficiency Programs are funded by a Charge on Customer energy bills.
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Tilak Subrahmanian



NSTAR

Financing

Context

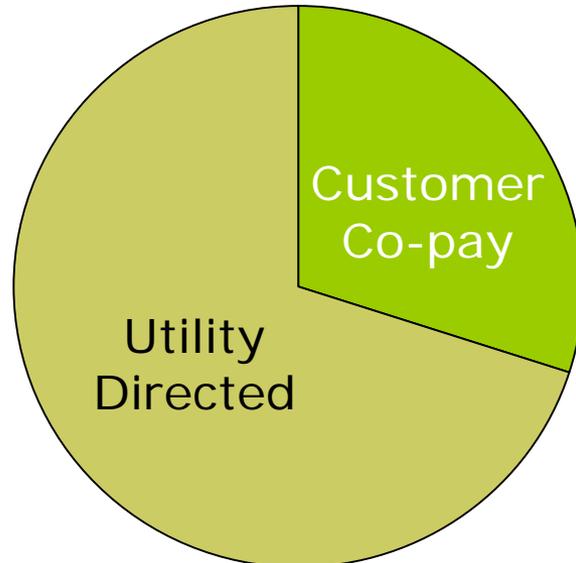
Green Communities Act

- Passed by MA in 2008
- Expansion of investment in Energy Efficiency
- "EE is the first fuel source"

Program Administrator Response

- Three year plan (2010-2012) with \$1.6 billion budget to:
- ↓ annual electricity consumption by 2.4%
- ↓ annual gas consumption by 1.5%

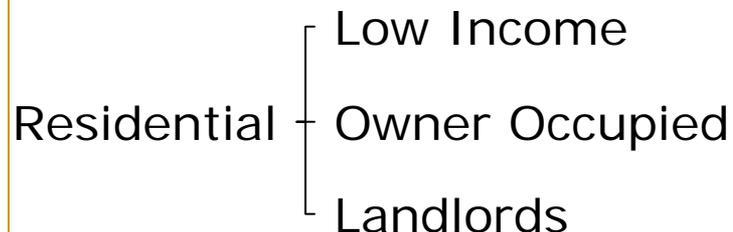
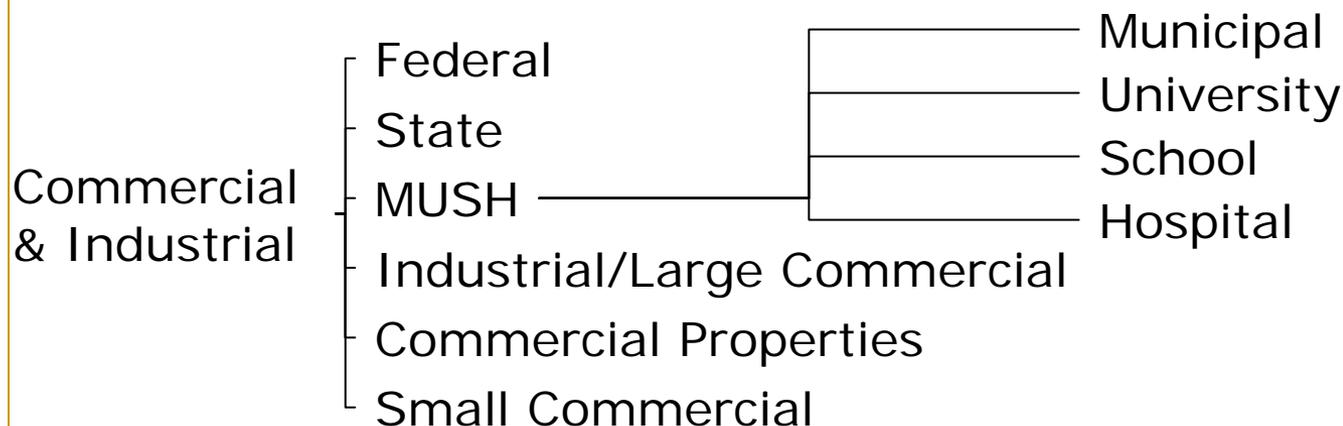
Total 2010 – 2012 EE Spending
~\$2.1B – \$2.5B



*Need for
Financing
products*

Principles & Approach

Customer Segments



Goals/Principles

- ❑ Segment focused approach
- ❑ Engage local partners and third-party/commercial funds
- ❑ Establish consistency for EE loans
 - Single front end application for consumers
 - Consistent backend underwriting criteria
 - Streamline process
- ❑ Don't "push" financing

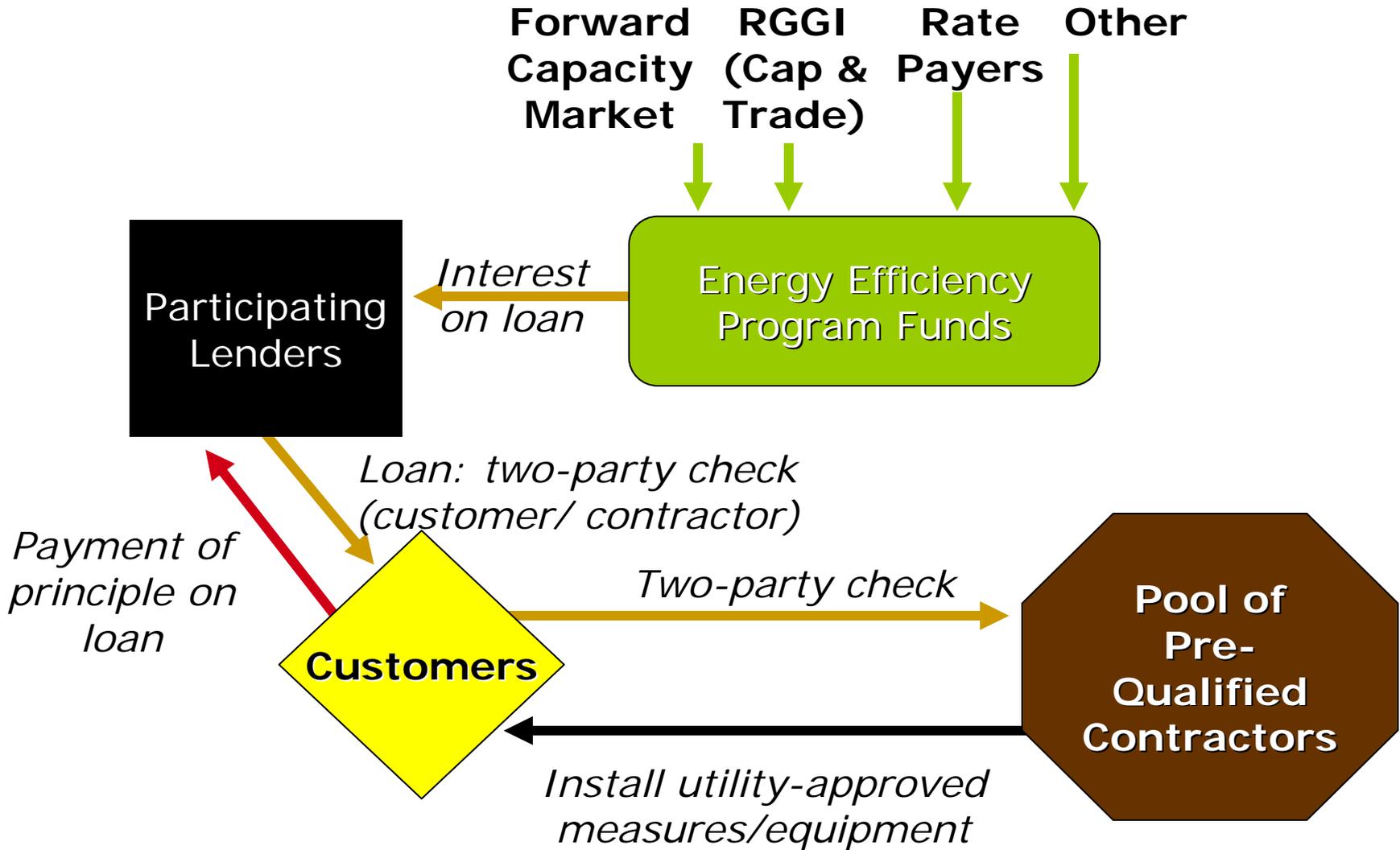
EE Financing Products

Sector	Product	Min Loan Amount	Max Loan Amount	Max Term (mo)	Minimum Underwriting Guidelines	Interest Rate ¹	Interest Rate Floor
Residential	Micro	\$500	\$2,000	24	650 FICO	Prime + 100 bp	5.00%
	Standard	\$2,001	\$15,000	84	650 FICO, debt/income <50%	Prime + 100 bp	5.00%
	Extended	\$15,001	\$25,000	84	Same as Standard plus additional as required by Lender	Prime + 100 bp	5.75%
Landlord/ Investment Property	Standard	\$5,000	\$25,000	84	YTD Financials, 2yr Tax Returns, Personal Fin Sta., Current receivables/payables	Prime + 100 bp	6.25%
Small Business/ Non-Profits	Standard	\$5,000	\$25,000	84	Same as Landlord/ Investment Property	Prime + 100 bp	6.25%
	Large	\$25,001	\$100,000	84	Same as Standard plus additional as required by Lender	Prime + 100 bp	6.25%

Note:

1. Utility pays NPV of interest upfront to Lender, once loan is appropriated.
2. Interest rate charged to customer will be 0.00%. Utility to pre-pay NPV of interest expense when loan appropriated.

Financing Model Overview



Learnings ...

- Huge impact on Residential ...
 - \$83 Million financed via 10,392 heat loans from 2006-2011 for NSTAR and NGRID
 - ~\$30 million financed in 2011 alone
 - More loans closed in the first 2 months of 2012, than in the entire year of 2008
 - The amount financed was up 75% from 2009 to 2011
 - The number of closed heat loans was up 62% from 2009 to 2011
 - The average loan amount is up 8% from 2009 to 2011
- C&I
 - Limited up-take on financing with large C&I
 - Access to capital is not a barrier
 - EE needs to compete for investment \$

Joseph Bator



Eastern Bank

Birud Jhaveri



Massachusetts Department of Energy
Resources

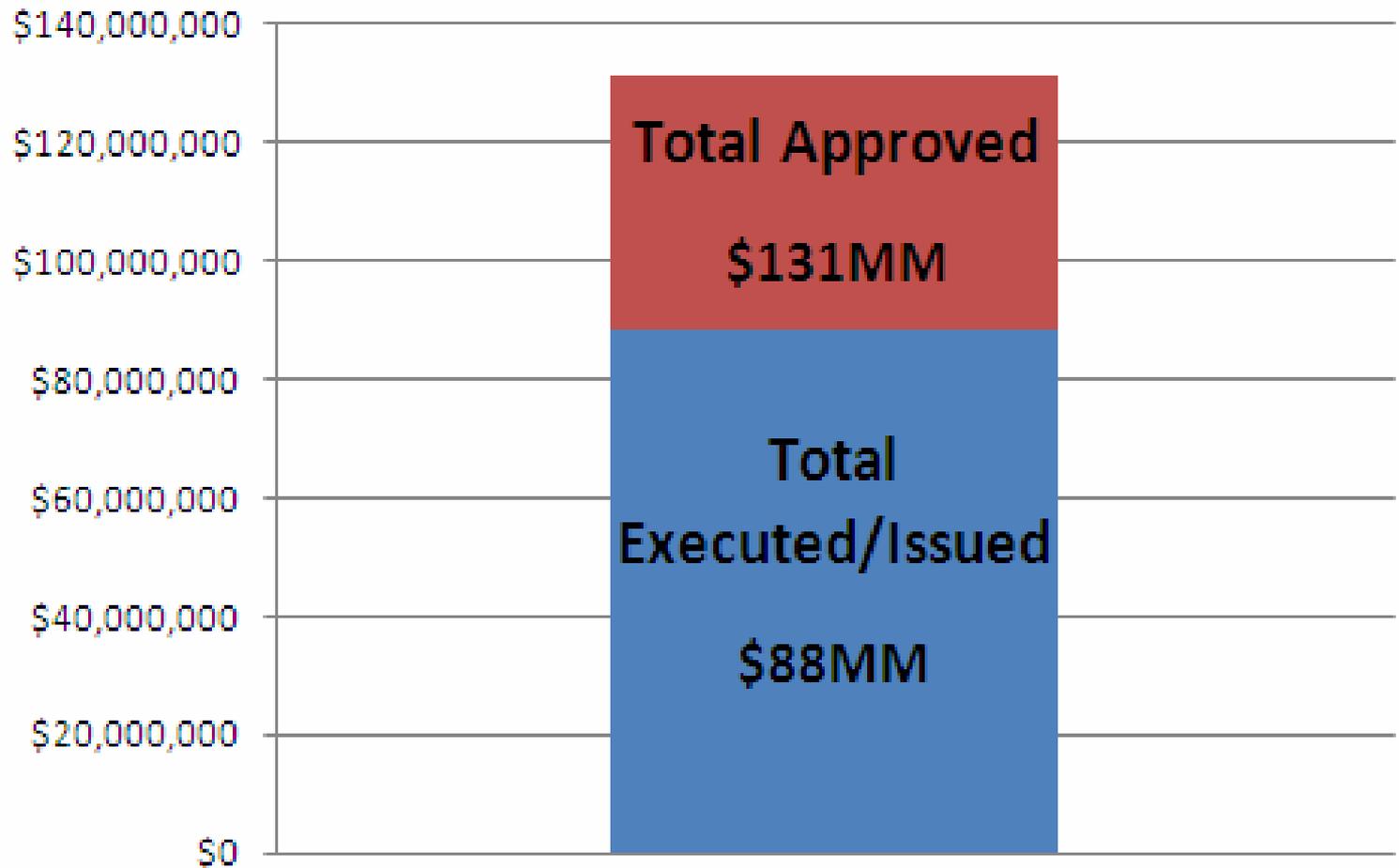
Financing Options

- ❑ Mass Save Financing designed for projects under \$250K
- ❑ Customized financing can be obtained for projects over \$250K
- ❑ Financing vehicle and parameters can be customized to meet customer or project needs
 - Financing Type: Loan/Lease/Bond/Performance Contract
 - Term
 - Capex vs. Opex
 - Stipulated vs. Realized Savings
 - Covenants
 - Interest Rate: varies depending on above factors & risk

Commercial & Industrial Financing (Incl. Multi-Family and Non-Profit)	Federal	State	MUSH*	Industrial/Large C&I	Commercial Properties	Small C&I
Loans						
Mass Save [®] Financing	○	●	●	●	●	●
Commercial PACE/Equity Investment	○	○	●	●	●	●
Construction Loan	○	○	●	●	●	●
Commercial Loan/Line of Credit	○	○	●	●	●	●
Vendor Financing	○	○	●	●	●	●
Consumer Lending (Personal loan, HELOC, etc.)	○	○	○	○	○	●
Energy Performance Contracts						
Energy Service Agreement	●	●	●	●	●	●
Shared Savings Agreement	●	●	●	●	●	●
Guaranteed Savings Agreement	●	●	●	●	●	●
Leases						
Capital/Operating/Seasonal/True Lease	○	○	●	●	●	●
Tax Exempt Lease-Purchase Agreement	○	●	●	○	○	○
Commercial Equipment Lease	○	○	●	●	●	●
Federal Alternative Finance Contract	●	○	○	○	○	○
State Sponsored Financing for Private & Non-Profit Industry						
Boston Local Development Corporation (BLDC)	○	○	○	●	●	●
Boston Industrial Development Financing Authority (BIDFA)	○	○	●	●	●	○
Massachusetts Development Corporation	○	○	●	●	●	○
● Applicable ● Somewhat Applicable ○ Not Applicable						

* Municipal, University, School, Hospital

Mass Save Financing is top EE Lending Program in Nation



* Total loans approved and/or issued since 2006.

EE Financing less riskier than traditional HELOC & Commercial Loans

- Pre-2010 Statistics: Residential Mass Save Loans have demonstrated solid credit performance while maintaining attractive acceptance rates
 - Default Rate (cumulative): <0.5%
 - Prepayment Rate (cumulative): ~5%
 - Acceptance Rate (lender median): 87%
- Energy efficiency financing is less riskier than Home Equity Line of Credit or Commercial/Construction loans
 - Funds being invested specifically to lower energy costs
 - Increases customer cash flow
 - Energy efficiency investment is audited and verified by Utility as installed and working appropriately prior to loan being released
 - Lender receives interest payment upfront at loan closing, which equals approximately 15%-18% of principle
 - Customers not clustered/grouped in one funding pool or underwriting standard

Why Massachusetts prefers Local Lender Model

- ❑ Provides access to financing to multiple customer segments
- ❑ Does not create an artificial “funding pool” ceiling
- ❑ Financing is available through multiple local/regional Lenders through hundreds of banking/retail outlets, phone or through the internet
- ❑ Allows for investments to remain in local/regional economy
- ❑ Aids local workforce development and green jobs
- ❑ Allows Customers to take advantage of combining multiple financial products for projects
- ❑ Allows for increased access for various income levels and credit qualities
- ❑ Reduces transaction costs as Lenders continue to use internal underwriting and billing/remitting mechanisms
- ❑ Lenders serve as marketing agents
- ❑ No administrative costs, no credit enhancements, no state/utility guarantees, no securitization costs
- ❑ Model is competitive, open, flexible and expandable