

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:

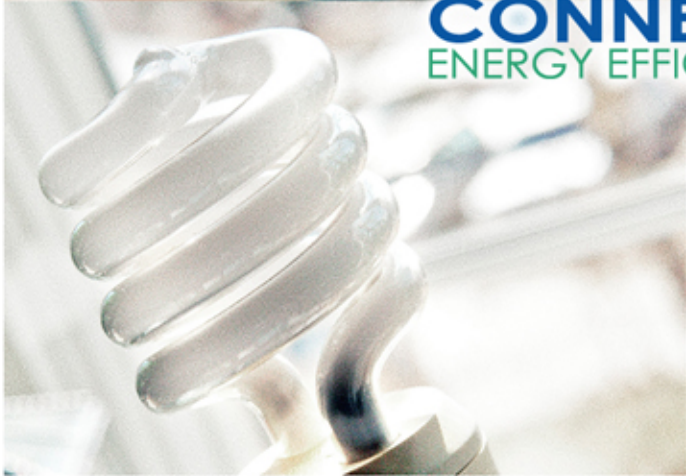
- Geoff Phillips, Product & Marketing Strategist, NSTAR Electric & Gas

❑ 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 (CEEFF)

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.



Connecticut's Energy Efficiency Programs are funded by the Conservation Charge on customer electric bills. The Programs are designed to help customers manage their energy usage and cost.



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



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

-> *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 \$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.
The Programs are designed to help customers manage their energy usage and cost.

Tilak Subrahmanian



NSTAR

Financing

Context

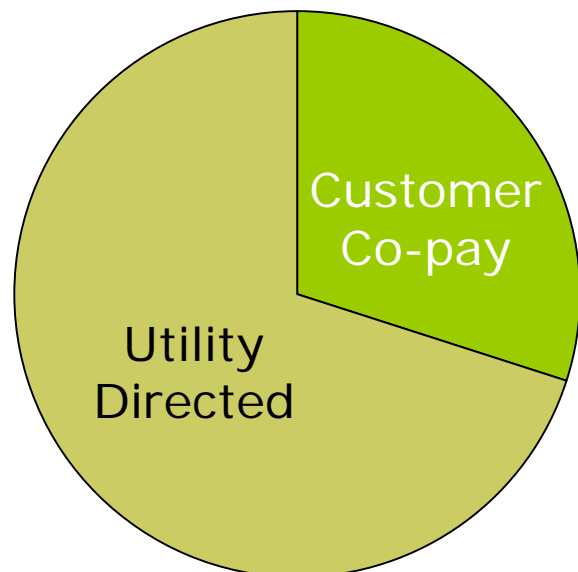
Green Communities Act

- 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%

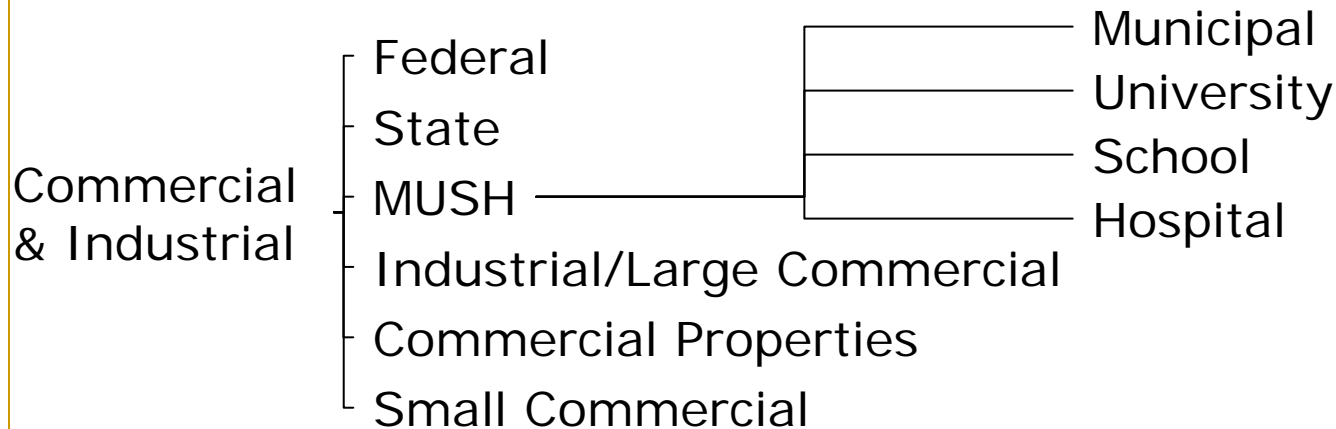
Total 2010 – 2012 EE Spending
~\$2.1B – \$2.5B



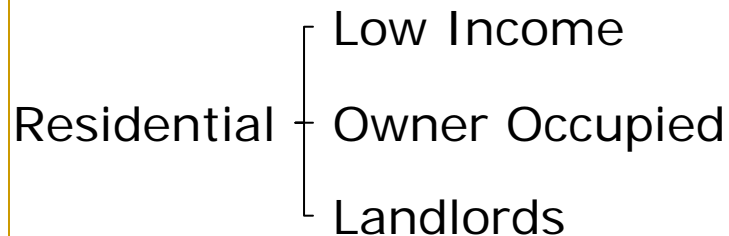
*Need for
Financing
products*

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

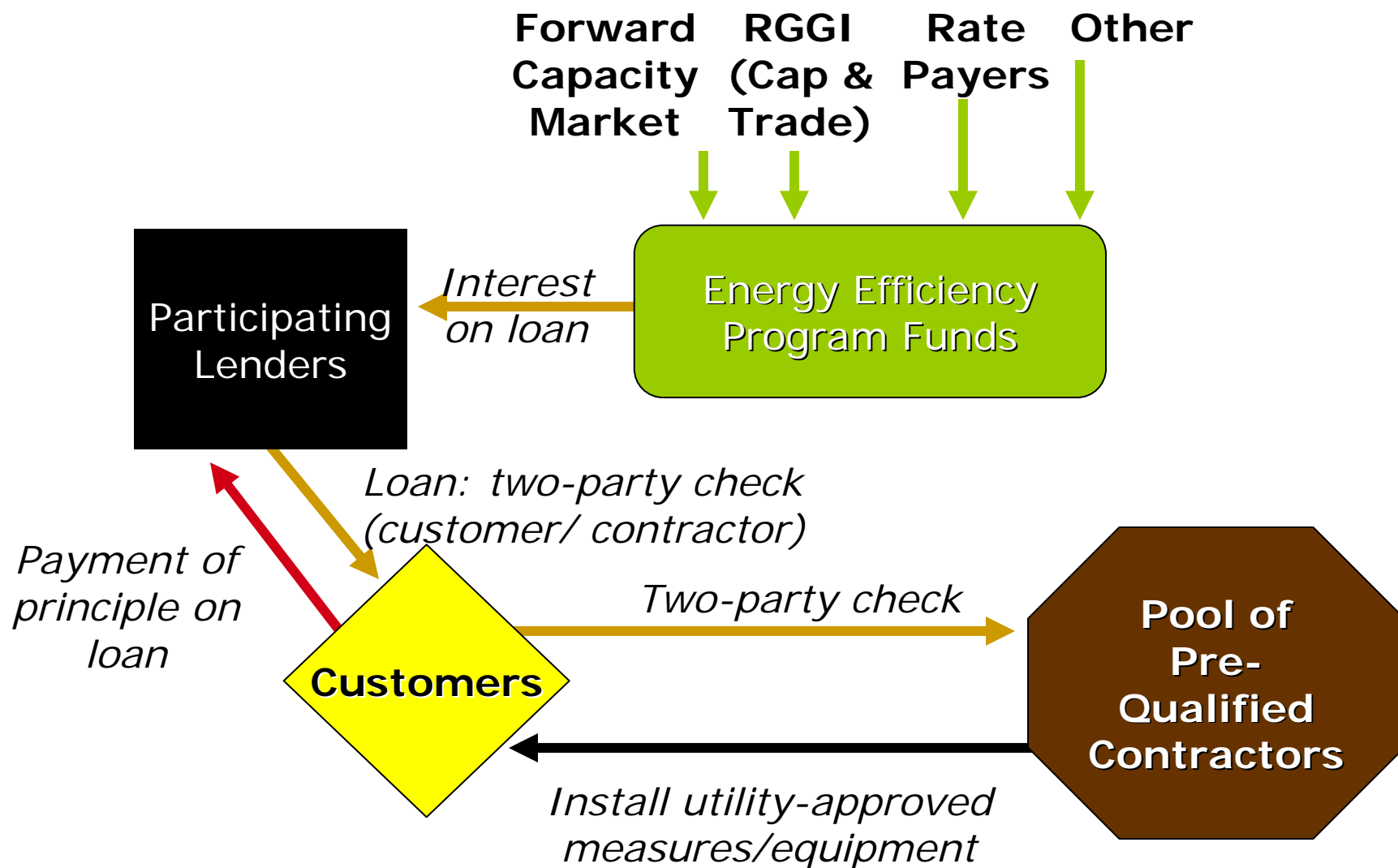
EE Financing Products

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	○	○	●	●	●	○

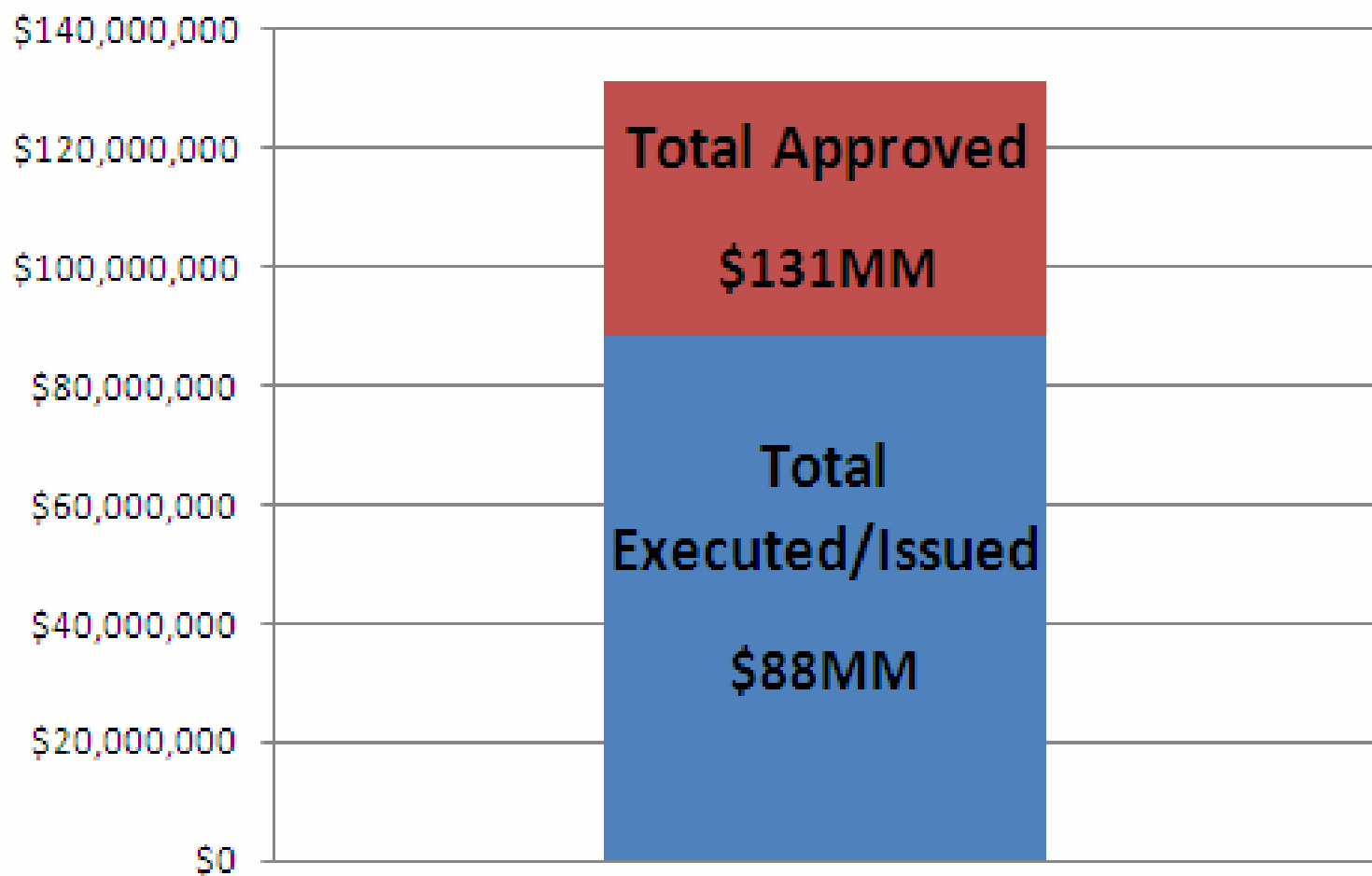
● Applicable

● 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