The Mass Save® Distributed Model for Commercial Energy Efficiency Financing: A Better Mechanism for Growing the Pie

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ABSTRACT

The Mass Save® program for residential and business energy efficiency financing uses a unique distributed lending model that allows local lenders to share in the success of the program while providing customers with the ability to engage in energy efficiency projects that may otherwise not be done.

In this model, energy efficiency Program Administrators[1] provide incentives to participating lending institutions to pay down the interest on the loan. The result is a 0% loan from the customer's perspective, which helps overcome first-cost issues for doing energy efficiency projects. The Mass Save® program has had great success in offering these financing mechanisms to the residential customers in its service territory.

In 2014, the program made over 11,000 loans totaling almost $110,000,000 through a network of local lending institutions. By all metrics, this is one of the most successful energy efficiency financing programs in the country. The Mass Save® Program Administrators are now engaged in building on these successes for both small and large business customers.

This program is also a unique model: a distributed, local lending based program that allows lenders to make decisions solely on credit worthiness and Program Administrators to make decisions solely on the merits of the energy efficiency impact of a project. In essence, it enables lenders and the Program Administrators to focus on the decisions where they have expertise.

INTRODUCTION

The approach we have taken to energy efficiency at Eversource is to find solutions that fit the needs of our distinct customer segments. We have developed a financing model in Massachusetts that is infinitely scalable, can deliver third-party capital to our customers interested in implementing energy efficiency without turning the utility into a lender or relying on esoteric financial mechanisms, and is flexible enough to allow multiple product extensions to meet the needs of distinct customer segments. This paper will describe the current product offerings of the lending program, a description of how the program works, the benefits to all participants, and the key success factors to this program.

[1] In Massachusetts, energy efficiency providers that administer rate payer funds for energy efficiency are referred to as Program Administrators. These Program Administrators include: Berkshire Gas, Blackstone Gas Company, Cape Light Compact, Columbia Gas of Massachusetts, Eversource Energy, Liberty Utilities, National Grid, and Unitil.

PRODUCTS OFFERED

In the Mass Save® program, the Program Administrators (PAs) in Massachusetts have partnered with over 60 local lending institutions to provide financing to our residential, commercial, and industrial customers both large and small.

Through Mass Save®, the PAs have negotiated favorable rates with participating lenders (see Table 1-2). We have targeted financing products for different customer segments including financing products for non-owner occupied residential customers. For commercial and industrial customers and non-profits, we offer a basic loan product that we enhance through additional options for the customer.

Table 1. Residential Loan Options

Eligible Customer	**Type**	**Loan Amount**	**Loan Term**	**Interest Rate Floor**
Owner Occupied	Micro Loan	$500 – $2,000	24 Months	5.00%
Owner Occupied	Standard Loan	$2,001 - $25,000	Up to 84 Months	5.00% or 5.75%
Non-Owner Occupied	Rental Property Loan	$5,000 - $25,000	Up to 84 Months	6.25%

Table 2. Commercial Loan Options

Eligible Customer	**Type**	**Loan Amount**	**Loan Term**	**Interest Rate Floor**
Commercial, Industrial, and non-profit customers	Standard Loan	Up to $500,000	Up to 84 Months	6.25%

For example, for commercial customers[2], sometimes the incentives available to implement the energy efficiency (EE) measure are small. They do not necessarily provide sufficient motivation to the customer to implement the measure immediately. By leveraging this money to buy down the interest on a loan, we enable the customer to leverage their cash. Sometimes this is not sufficient to cover the total cost of the measure. In these cases, we allow our customers to pre-pay interest to cover the total cost of implementation.

HOW THE PROGRAM WORKS

The program works as follows: local banks and credit unions sign agreements to offer loans at pre-negotiated rates for energy efficiency projects. A customer interested in energy efficiency financing applies for an incentive or rebate for the EE measure they are interested in implementing. The PAs ensure the proposed EE measures qualify for incentives. If this criterion is met, the PAs grant approval of the measure through an official authorization form and provide the lenders with a loan subsidy authorization form that details the loan terms and amount of pre-paid interest authorized. At this point, the lenders underwrite the loans using their own unique criteria. The lenders invoice the PAs for the Net Present Value (NPV) of the interest over the

[2] Commercial customers in Massachusetts can leverage additional options beyond the Mass Save program; these include on-bill installment plans (offered by some PAs) and also vendor-facilitated financing plans.

course of the loan. The PAs then pay the NPV of the interest on the loan upon invoicing by the banks. By using a distributed lending model, local lenders share in the success of the program while providing customers with the ability to engage in energy efficiency projects that may otherwise not be done due to cost considerations. Figure 1 illustrates this process in residential applications.

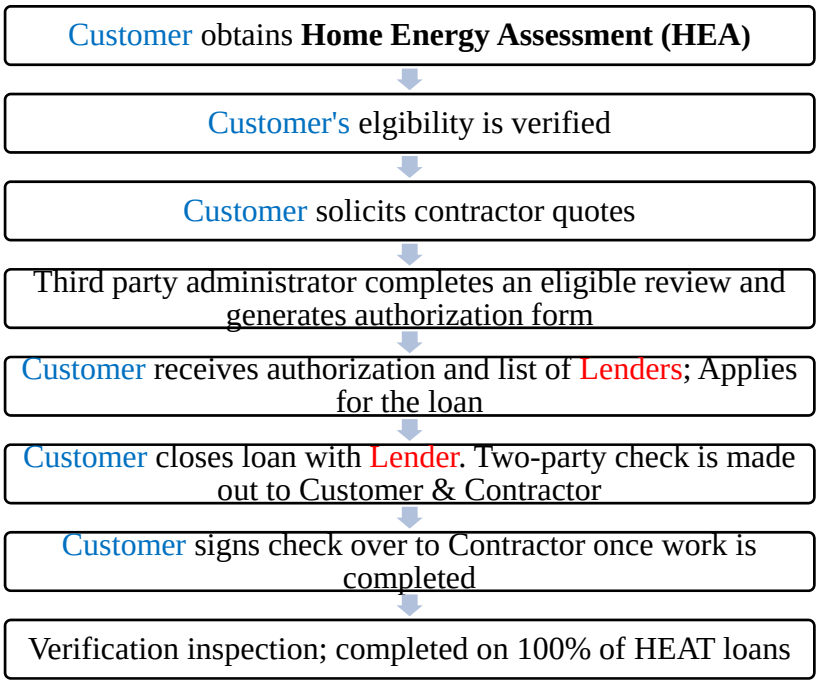

Figure 1. Mass Save Residential HEAT Loan Process.

The process for commercial loans is similar (see Appendix A). The customer expresses interest in financing on any of the Mass Save® applications. This generates a pre-approval letter and a loan subsidy authorization form that the customer can take to any of the participating lenders in the program. The banks approve the loan, close, and provide the customer with two-party checks. The measures are installed, the work is inspected, and the banks invoice the PAs for the interest.

As mentioned above, sometimes the proposed commercial EE measures qualify for incentives but the incentive amount is not large enough to cover the NPV of the interest on the loan. In these situations, the Mass Save® program administrators allow commercial customers to pre-pay a portion of the interest.

For example, a smaller professional service customer in Massachusetts recently wanted to replace its old boiler with a new energy efficient gas condensing boiler. The project was eligible for a $1,600 incentive but the NPV of the interest on the loan ($2,237) was larger than the incentive. . In this case, the incentive was not sufficient to cover the interest on the loan, the customer paid the difference ($637) up-front and took advantage of Mass Save financing.

BENEFITS

This program has benefits to all parties involved: the customers, the lenders, the program administrators.

Customers

Customers benefit in several ways. First they get access to capital for major improvements to their homes or businesses. For residential customers, we encourage the lenders to make the loans unsecured. The interest rates on the loans are very competitive for an unsecured loan and compare favorably with the other major option for customers, credit cards. (see Figure 2)

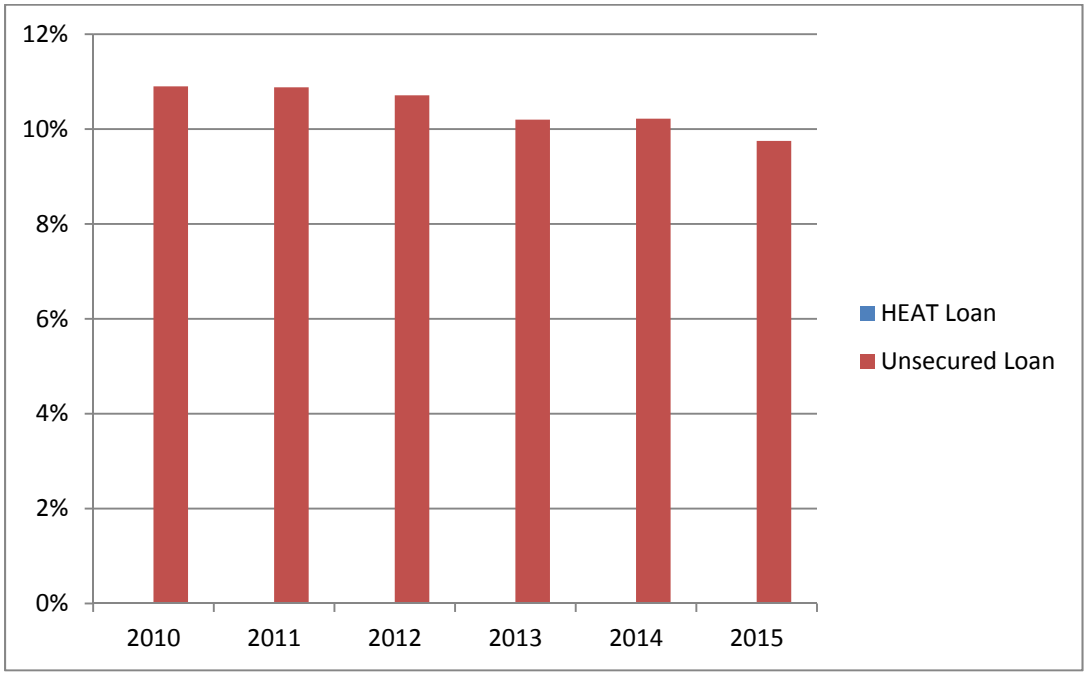

Figure 2. HEAT Loan rates compared to other consumer rates. *Source: U.S. Federal Reserve, 2016.*

Not only do customers get access to capital at favorable rates, they also have a choice of lenders to choose from. This competition keeps fees low and ensures that the lenders are working to please the customer in order to win their business. If one lender will not loan to a customer, there are over 60 others in the program who may.

Lenders

Lenders also benefit from this program. First, they use their underwriting criteria when approving loans. These criteria are not imposed on them. Many of the lender partners do not use FICO (Fiar Issac & Company) scores when making underwriting decisions. In 2013, more than one third of the lender partners did not use FICO scores to make underwriting decisions. This enables them to control the risk profile of their loan portfolio in a way that best serves their individual needs. Secondly, they get to put their assets to work. Instead of earning 0.25% with the Federal Reserve they earn 5% or more on their money. Third they get the interest payment up-front. The lenders can turn this money around and use it to make additional loans right away. The interest rate risk on the loan is eliminated. The funds to pay the interest come from the PAs. One unanticipated benefit to lenders was attracting new customers. Close to 80% of loans are to new customers to that bank (see Figure 3).

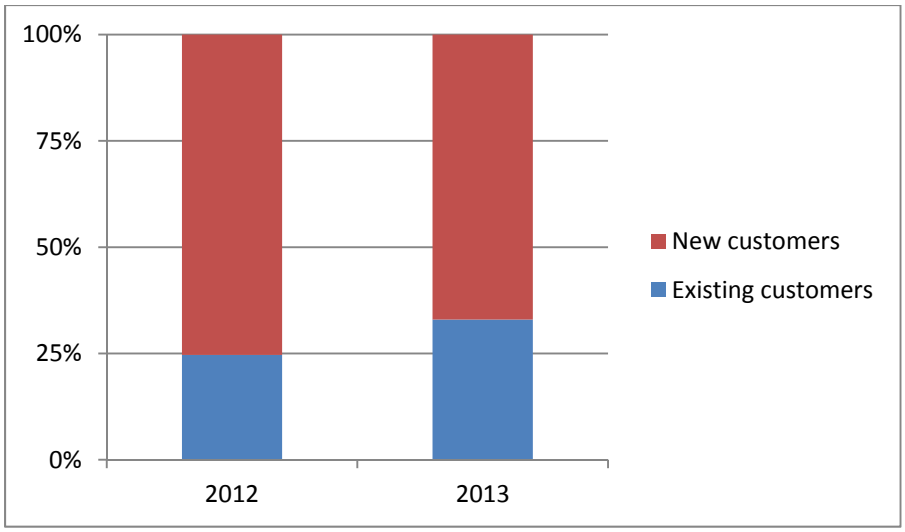

Figure 3. Mass Save® Residential Loans: Existing Lender Customers versus New Lender Customers. *Source: Mass Save HEAT Loan Survey Data*, 2014.

Finally the default rate on these loans in extremely low (see Figure 4). If the customer pays the loan off early, the lender can keep the excess interest.

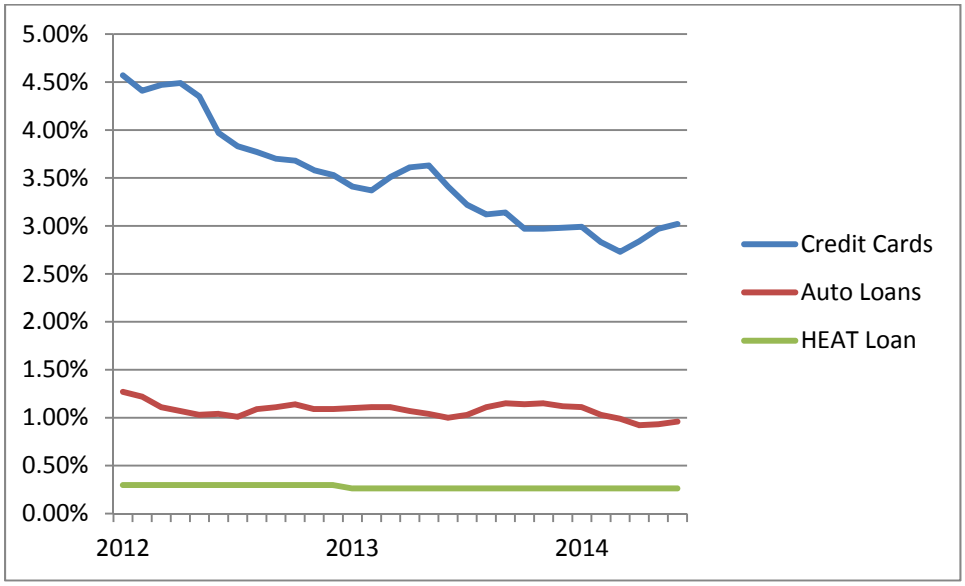

Figure 4. HEAT Loan Default Rates. *Sources*: *S&P Dow Jones Indices and Mass Save HEAT Loan Survey Data, 2014*.

Energy Efficiency Program Administrators

Program Administrators also benefit from this program. The most important benefit is that the PAs do not have to bring new capital into the program. The way energy efficiency is structured in Massachusetts and in many other states, the PAs have a pool of money already available for EE. By allocating a portion of this money for interest rate buy-downs, that money is leveraged almost five times. (See Figure 5).

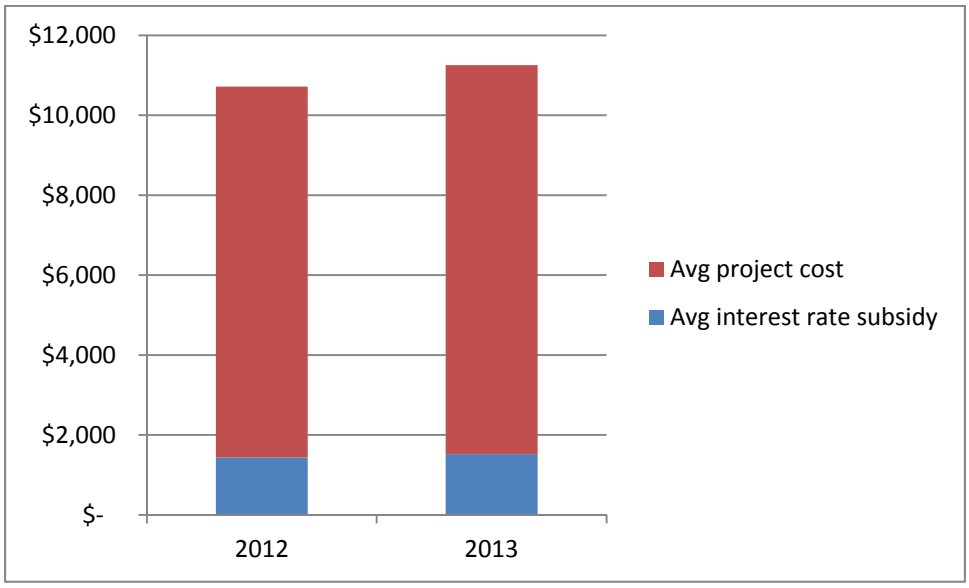

Figure 5. Mass Save HEAT Loan Leverage Chart. *Source: EFI, 2014.*

For our commercial customers, there is zero impact on the EE budget because those customers receive an interest rate buy-down in lieu of an incentive or rebate. Secondly, PAs are not turned into underwriters. Once the pre-paid interest is paid to the lender, all responsibility for collecting on the loan lies with the lender. There is no arrears process required at the PAs. The lenders manage that. Also, since consumer lending is fraught with regulation and getting more so every year, the PAs do not have to become lending experts. The banks and credit unions manage underwriting and loan regulations. Finally, the PAs enable their customers to install high efficiency equipment at a low monthly cost. In Massachusetts this allows Eversource Energy to collect a performance incentive, which goes straight to the bottom line. More importantly it enables us to serve our customers better and to have a part in improving their satisfaction.

Everybody wins with this model. Even our regulator is pleased that we can meet our savings commitments as PAs. There are no artificial limits on how much can be invested in energy efficiency. There are no additional loan or lending costs to the PAs. Banks make their money on the margins, just as they have been doing for hundreds of years. The program offers unlimited scale and flexibility. Every PA in the nation that is interested in implementing energy efficiency should put a similar program in place today.

KEY SUCCESS FACTORS

This model provides clear benefits to all stakeholders involved. Because of this it has been tremendously successful. Since 2006, when the residential program was modified to the current lending model, the compound annual growth rate in lending has been over 50%. (See Figure 6) In 2014 Massachusetts made close to $110 million of residential loans and nearly half a million of commercial loans under this program (See Figures 6-7).

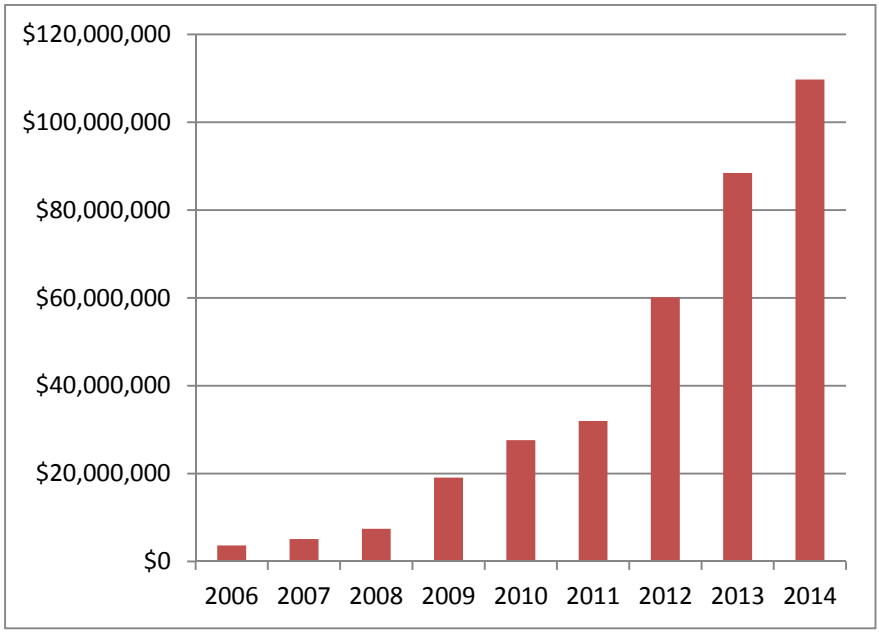

Figure 6. Mass Save HEAT loan growth, 2006-2014. *Source:* EFI, 2015

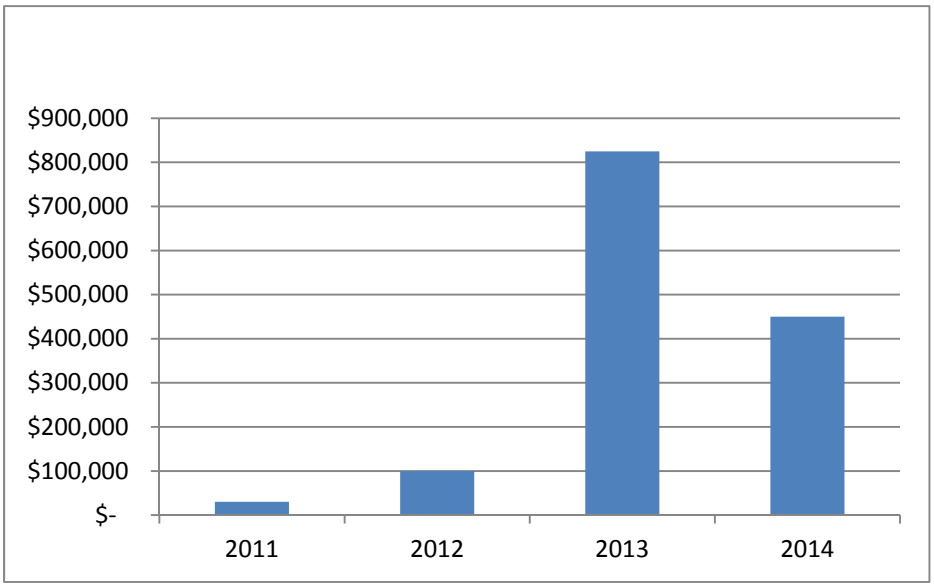

Figure 7. Mass Save Financing for Business, 2011-2014. *Source: Mass Save Program Administrators, 2015.*

The success of this model is due to a few key factors. First, the model is flexible. With minor modifications it works for both residential and commercial lending.

Second, this model is infinitely scalable. Utilities interested in implementing this model are not required to create a fund or come up with any additional funding other than the prepaid interest. The lenders bring their capital. In Massachusetts, one of our participating lenders informed us that it had $1 billion sitting at the Federal Reserve earning 0.25%. That one lender alone could fund the current entire statewide demand for EE financing. The program is very easy to implement. All that is required is an agreement between the lenders and the PAs.

Third, this model keeps utilities out of the lending business and lenders out of the energy efficiency business. A distributed, local lending-based program allows lenders to make decision solely on credit worthiness, and program administrators to make decisions solely on the merits of the energy efficiency impact of a project (see Figure 8). In this way, lending institutions and program administrators make decisions where they have direct expertise.

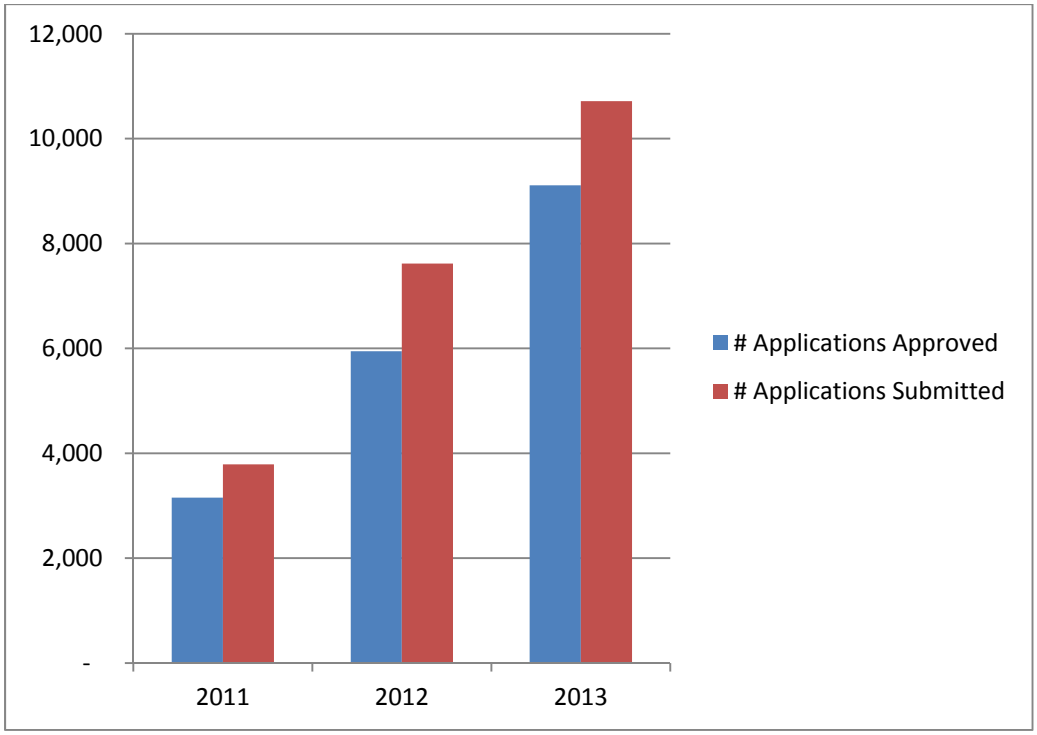

Figure 8. Mass Save HEAT Loan Applications, 2011-2013. *Source: Mass Save Mass Save HEAT Loan Survey Data, 2014.*

Finally, the model enables EE providers to leverage their available incentives. The incentives for energy efficiency projects provided by the Program Administrators go to pay down the interest of the loan issued by participating lending institutions. The result is a 0% loan from the customer's perspective, which helps to overcome first-cost issues for doing energy efficiency projects. The Mass Save® program has had great success in offering these financing mechanisms to the residential customers in our service territory. We are now engaged in building on those successes for both small and large Business customers as well.

Summary

The Massachusetts Program Adminisrators have developed a financing model that is infinitely scalable, can deliver third-party capital to customers interested in implementing energy efficiency without turning the utility into a lender or relying on esoteric financial mechanisms, and is flexible enough to allow multiple product extensions to meet the needs of distinct customer segments. This program has benefits to all parties involved: the customers, the lenders, the program administrators. The proof of the value of the concept is in the tremendous growth the program has experienced over the past several years and could be used as a model for any group looking to foster additional adoption of energy efficiency measures.

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Appendix A: Mass Save Financing For Business Program Loan Process Diagram