

# Financing – Assess the Market

## Description

Before you begin to design and implement your program's financing activities, or expand on existing activities, understand the parameters and the environment in which your program operates. Assessing the market is the first step to formulating successful strategies that will meet your homeowners' financial needs. By conducting a market assessment, your program can identify existing loan products available in the marketplace, unmet financing needs in your community, and the target audience to whom your program wants to offer financing products. This assessment has two key steps:

- Assess the needs of your program's target audience and determine what loan products are most appropriate for helping them undertake the kinds of energy upgrades that your program will offer.
- Identify lenders and understand available loan products.

Your market assessment, however, is best approached as part of a larger effort to understand your local market in its entirety—which will help inform all aspects of your program. This [broader assessment](#) may include:

- Characterizing the housing stock in your community to better understand the range of potential energy upgrade measures and the homeowners who could benefit from an energy upgrade
- Assessing current energy efficiency services offered by other organizations in your community (e.g., utilities, government, colleges, non-governmental organizations)
- Researching community demographics (e.g., age, income, educational attainment).

Through a broader market assessment, which includes a focus on financing, you will identify your target customers and lay the foundation for your program's activities.

This handbook describes information to look for, individuals and institutions to talk to, and key questions to ask when conducting a financing market assessment. It will also help you develop specific ideas about preferred financial products that could meet your market's needs.

### Financing

#### Stages:

##### [Overview](#)

1. [Assess the Market](#)
2. [Set Goals & Objectives](#)
3. [Identify Partners](#)
4. [Make Design Decisions](#)
5. [Develop Implementation Plans](#)
6. [Develop Evaluation Plans](#)
7. [Develop Resources](#)
8. [Deliver Program](#)
9. [Assess & Improve Processes](#)
10. [Communicate Impacts](#)

Find related information across other program components:

- **Market Position & Business Model – Assess the Market**  
*Survey existing and potential demand for energy efficiency products and services based on an understanding of policies, housing and energy characteristics, demographics, related initiatives and other market actors.*
- **Program Design & Customer Experience – Assess the Market**  
*Research and analyze the specific barriers, needs, and opportunities for a residential energy efficiency program in your community.*
- **Marketing & Outreach – Assess the Market**  
*Identify and prioritize potential target audiences based on their likely receptivity to your program's services.*
- **Contractor Engagement & Workforce Development – Assess the Market**  
*Learn about the capabilities and services of existing contractors and training providers working in your market.*

## Step-by-Step

The first stage in the design and implementation of your program's financing activities is to understand the parameters and the environment in which your program operates. Assessing the market relative to financing involves two key steps:

### Assess the characteristics of target customers and identify gaps

For the initial step of the market assessment, you will need to conduct research to better understand the characteristics and needs of your target customers. This effort will also be closely aligned with your [program design](#), [contractor and workforce development](#), and [marketing and outreach](#) market assessments, during which you identified your target audience.

Two key groups can be accessed to help you better understand your market for financing: contractors and lenders. Identify local contractors through your local energy efficiency or green trade association or business coalition if one exists, an Internet search, or by reviewing local advertising. Schedule calls or meetings with home performance, HVAC, remodeling, and insulation contractors to tell them you are considering providing a loan product for home energy upgrades and ask them what they think will generate sales volume for them. Questions you might want to ask contractors include:

- Do they currently offer financing to their customers or help their customers connect with banks that offer loans?
- What percent of their customers pay for upgrades out of pocket versus through financing?
- What are any shortcomings of any existing financing they offer?
- What are the characteristics of the financing that they offer their customers? (e.g., fees, rates, terms, process steps, and turn-times, etc.)?
- What could be done to make loan products more attractive to customers?

Speak with lenders such as credit unions, community banks, larger commercial banks, and finance companies that fund home improvements. Describe your mission to them and list the resources you intend to deploy (marketing, contractor management and training, credit enhancements, etc.). Ask these lenders:

- What is their experience with home improvement loans?
- Do they offer direct loans (loans made directly to borrower) or dealer loans (loans coordinated by contractors so the borrower doesn't need to interact with the lender)?
- Do they only finance specific technologies?
- Can they share their underwriting requirements with you? How many people are turned down for a loan and why?

- Do they prefer secured or unsecured lending? For secured lending, what are the levels of home equity in the locality?
- What rates and terms do they offer?
- Do they have an interest in promoting a green initiative?
- How could your resources be used to enhance their product?

In addition, ask both contractors and lenders about:

- Your target customer's acceptable levels of cost, time, and complexity of loan processing
- Sensitivity of your target customer to interest rates
- Profiles of customer credit scores in your target market(s)
- Experience with other efficiency programs
- Experience measuring or representing certain levels of expected energy cost savings from energy upgrades.

Results of this assessment will help you understand:

- The types of loan products that could add value in your market
- If existing providers of finance are willing and able to work with your program—for example, lenders may be unwilling to use a credit enhancement, while contractors may be more comfortable with other sources of customer financing
- If you should use your program resources to (a) support existing forms of financing or (b) develop a new product. Comparing your conclusions about what the residential energy efficiency market needs with the existing products in the marketplace will allow you to determine if new loan products would be useful.

Ultimately your take-away from the assessment will be to improve some combination of the interest rate, term, fees or loan origination process. Your goal is to put a more attractive, efficiency-focused, loan product in to the marketplace that meets your program's [financing goals and objectives](#) (e.g., generates more home energy upgrades or generates larger, more comprehensive upgrades).

#### Regional Market Snapshots of Lending Options and Barriers

In 2010, the Environmental Finance Center at the University of North Carolina Chapel Hill conducted a market assessment for North Carolina. The center found that lending options to fund energy efficiency upgrades posed many problems for residential borrowers:

- Interest rates were too high.
- Bank application processes were cumbersome.
- Underwriting criteria were restrictive.

Most existing loan products were charging between 14% and 26% per year, making many projects too expensive for the average homeowner; however, the assessment also showed that there was market potential for new, innovative financing programs to address a large cross-section of customers in the state.

Review the North Carolina market assessment report [Expanding North Carolina Energy Efficiency and Renewable Lending Programs: Market Snapshot](#).

UNC's Environmental Finance Center has also conducted several other market assessments that identify customers and potential demand for energy efficiency upgrade programs:

- [Sarasota County Energy Efficiency Upgrade Financing Program: Market Assessment](#)
- [City of Greensboro Better Buildings Project: Market Assessment](#)
- [St. Louis Residential Energy Efficiency Loan Program: Market Assessment](#)
- [CharlestonSAVES: Market Assessment](#)
- [Alabama Energy Revolving Loan Fund: Market Assessment](#)

## Michigan Saves and Maryland's Be SMART Programs Identify Gaps and Design Financing Activities

### Michigan Saves

**Michigan Saves** performed a market assessment that revealed that bank and credit union loan products designed specifically for the residential energy efficiency market were not available. With this knowledge, Michigan Saves decided to create a loan product that had attractive interest rates and was easy to close for both homeowners and lenders. Michigan Saves contacted trade organization Michigan Credit Union League, which identified 13 credit unions that helped Michigan Saves design the loan product and process. Michigan Saves created a loan loss reserve to enable its lending partners to offer interest rates in the 4% to 7% range. As of early 2014, nine credit unions are participating. From October 2010 to June 2014, Michigan Saves has closed nearly 3,600 loans with a total value exceeding \$30 million. The program approves approximately 80 loans each month. The applicant approval rate is approximately 60%.

### Maryland Be Smart

When developing the **Maryland Be Smart program**, the Maryland Department of Housing & Community Development (DHCD) began by conducting a review of the market for residential, single-family energy efficiency services. DHCD's review found a lack of loan products that offered favorable interest rates. Many of the loan products available to moderate-income Marylanders were limited to home equity lines of credit (HELOC) or unsecured loans, with interest rates typically above 12%. DHCD found a gap in the marketplace—most moderate-income households lacked the equity in their homes needed to make energy efficiency improvements using a HELOC, and other unsecured lending products charged interest rates that were unattractive to borrowers. As the state's housing finance agency, DHCD utilized its expertise and experience offering affordable, residential lending programs and administering the state's Weatherization Assistance Program (WAP). The Be SMART Home loan provides an unsecured loan with a 4.99% interest rate. Monthly payments for this low interest loan are approximately equal to the money saved from the utility bills.

## Identify lenders and understand available loan products

The second phase of market assessment involves identifying lenders that provide financing for home energy upgrades and understanding their products. With this information, you can determine whether existing loan products adequately support your customers or whether new products are needed.

Existing loan products to look for include personal loans, home improvement loans, energy efficient mortgages, second liens, home equity loans, lines of credit, and credit cards (revolving financing). Be sure to specifically look for existing unsecured financing products; secured loans are not typically effective in the energy efficiency market as they require weeks, rather than hours to originate.

Meeting with local lenders in person to gather information is an effective strategy to better understand the loan products they offer. It also serves as a good opportunity to establish a relationship with lenders who can become valuable **partners for your program**. There are several publicly available resources that can help you identify lenders and the loan products they offer. These include:

- Federal Deposit Insurance Corporation, [Statistics on Banking](#)
- National Credit Union Administration, [5300 Call Report Quarterly Data](#).

Evaluating existing financing programs and market activity will help you to understand the market for energy efficiency financing. You can start by talking with local contractors—both those that offer energy efficiency services and those that offer traditional equipment installations and remodeling. Read the **Identify Partners** handbook in Contractor Engagement & Workforce Development for more on reaching out to local contractors.

Loan products targeting energy efficiency upgrades may already exist in your market. Contact both local and regional lenders to see if they offer unsecured financing that could be used for energy efficiency upgrades. Lenders to investigate should include:

- Community banks
- Credit unions
- Non-bank finance companies (i.e., leasing company or specialized financial institutions)
- Local or regional commercial banks
- National energy efficiency lenders
- Community development financial institutions
- Utility-partnering lenders
- State-chartered (state-level) bond authorities
- State energy offices

- State housing finance authorities.

**In Their Own Words: Identify Existing Loan Products First, Then Design Better Ones**



Source: U.S. Department of Energy, 2012.

By working with existing programs in your area, lenders, contractors, and perhaps your local utility and state energy office, you may find additional information to help you assess the existing loan products in your market. These organizations may be able to provide information on:

- Existing sources of financing for energy efficiency in your community
- Who is offering the financing
- Which products they offer
- Who is receiving financing (e.g., low and moderate income borrowers)
- What volume of financing they are producing monthly or annually
- What is preventing more homeowners from accessing their loan products
- The potential for modifying existing or adding new loan products.

If your program is government sponsored, ask lenders about their interest in participating in a government lending program and what level of paperwork they are willing to do. Some banks have customer strategies that include participation in subsidized lending programs, but others may not wish to participate because of program requirements or additional administrative burden that may be involved.

The consumer and home improvement financing sector is complex and rigorously regulated. Identifying and understanding the regulatory environment is an important step in determining which products are available or could be made available from your lending partners. For example:

- Consumer lending products and the lenders that offer them are regulated at the federal and state levels, so lenders may need to comply with more or stricter financial regulations or requirements in certain states. For example, home improvement lending, when there is a relationship between the contractor and the lender, is regulated on a state-by-state basis. Additionally, states often have restrictions on the use of public funds to support private capital.
- Financing offered through utility programs (e.g., on-bill financing or repayment) could be subject to consumer finance regulations that would in turn subject the utility to consumer lending regulations. This is an unacceptable consequence for most utilities.

Such requirements, along with lenders' policies and established lending practices, can greatly impact the design and flexibility of loan products that are or could be available for your customers.

More information on the various [types of financial products](#) is available via the DOE State and Local Solution Center.

**Database of State Incentives for Renewables and Efficiency (DSIRE)**

Operated by the North Carolina Clean Energy Technology Center at N.C. State University, the [Database of State Incentives for Renewables and Efficiency](#) (DSIRE) is a comprehensive source of information on incentives and policies that support renewable energy and energy efficiency in the United States. DSIRE consolidates information about policies and incentives at the federal, state, and local levels. With respect to financing, DSIRE contains details about energy efficiency loan programs offered by states, localities, and utilities.

## Tips for Success

In recent years, hundreds of communities have been working to promote home energy upgrades through programs such as the Better Buildings Neighborhood Program, Home Performance with ENERGY STAR, utility-sponsored programs, and others. The following tips present the top lessons these programs want to share related to this handbook. This list is not exhaustive.

### Make sure there are enough customers in your target market to meet your goals and attract partners

Many programs that focused on a specific neighborhood or other small geographic areas have found it difficult to generate enough customer interest, partner interest, and upgrade activity to meet program goals. Regional or statewide approaches are often more attractive to contractors, lenders, utilities, and other partners than smaller markets defined by neighborhoods or city boundaries because they align with more typical service territories. Programs have found that larger contractors often are not interested in working in multiple cities or towns that have varying qualifications procedures and incentive rules. Utility partners are often better able to engage with a program offering services across a large segment of their customers. Historically, credit unions, community banks, CDFIs, and national lenders already specializing in energy efficiency loans have been more receptive to partnerships with residential energy efficiency programs.

- [Be SMART Maryland](#) shifted away from a volunteer-driven, neighborhood-by-neighborhood approach in favor of marketing through contractors and local community organizations to a broader geographic area. The program found it difficult to manage marketing and outreach to diverse geographic locations with the neighborhood approach (e.g., volunteer networks were difficult to engage and inconsistent from community to community). The adjustment in marketing strategy and target audience definition expanded Be SMART Maryland's service area, proved to be more effective in generating interested customers, and made the program more attractive to qualified contractors.
- [Community Power Works](#) (CPW) in Seattle found that its geographic scope was too narrowly focused when it first began providing services. At that time, CPW was focused on specific areas of the city, including many low-income neighborhoods. These geographic boundaries limited the number of potential customers, and many residents in these areas did not have the financial ability to invest in energy efficiency upgrades or access financing. CPW achieved significantly higher results once it expanded its geographic scope to the entire city in early 2012, more than doubling the number of eligible households. The expansion of the service territory—along with other program changes, such as simplifying and increasing incentives and offering new financing options—significantly boosted the number of upgrades per month from around 10 per month in late 2011 to around 50 per month in mid-2012. For more information, see Seattle Community Power Works' [Fall 2012 Progress Report](#).
- [Energize Phoenix](#), which focused its program on a central downtown light rail corridor, expanded its service area after a year of operations in late 2011 to increase the number of homeowners eligible for upgrades and unite neighborhoods that the previous boundaries had unintentionally divided. After the program launched, managers realized that the original program boundary, scaled down to better match funding amounts, divided close-knit neighborhoods and didn't correspond to traditional media and market boundaries. The program found that it was hard to target its marketing and outreach only to residents in the service area without also reaching those ineligible for the program. Especially in tight-knit neighborhoods, this created discord over who qualified for the program and who did not. When the program expanded the service area in 2011 to cover entire neighborhoods, it increased its geographic area by 55% and increased the number of eligible residential parcels by 77%. This helped drive an increase in single family and multifamily upgrades in 2012 and 2013. After three years in operation, the program upgraded over 2,000 housing units. For more information on the program and the expansion of its service area, see Energize Phoenix's [Energy Efficiency on an Urban Scale, Year Three Report: Results](#).
- [New Hampshire's Better Buildings program's](#) original upgrade goals were based on the state's Climate Action Plan and some general knowledge about the demographics of the three participating communities in the program. As the program began to unfold, however, the program noticed significant differences between the estimated number of projects and the actual level of demand. The projections were likely high because the original estimates were based more on need (i.e., how many buildings the state should upgrade), rather than an analysis of the existing market demand and potential for expansion. By the end of the grant period in 2013, a suite of efforts, including increased marketing and a statewide expansion of its residential program helped the program exceed its revised residential upgrade goals.

## Examples

The following resources are examples from individual residential energy efficiency programs, which include case studies, program presentations and reports, and program materials. The U.S. Department of Energy does not endorse these materials.

### Case Studies

None available at this time.

### Program Presentations & Reports

#### [Expanding North Carolina Energy Efficiency and Renewable Lending Programs: Market Snapshot](#)

Author: Environmental Finance Center at The University of North Carolina at Chapel Hill

Publication Date: 2010

This market assessment evaluates lending options for funding energy efficiency upgrades in North Carolina.

#### [Sarasota County Energy Efficiency Upgrade Financing Program: Market Assessment](#)

Author: Environmental Finance Center at The University of North Carolina at Chapel Hill

Publication Date: 2012

This market assessment for the Sarasota County (Florida) Energy Efficiency Upgrade Financing Program identifies the customers and potential demand for an energy efficiency upgrade financing program.

#### [City of Greensboro Better Buildings Project: Market Assessment](#)

Author: Environmental Finance Center at The University of North Carolina at Chapel Hill

Publication Date: 2011

This market assessment for the City of Greensboro, North Carolina identifies the customers and potential demand for an energy efficiency upgrade financing program.

#### [St. Louis Residential Energy Efficiency Loan Program: Market Assessment](#)

Author: Environmental Finance Center at The University of North Carolina at Chapel Hill

Publication Date: 2011

This market assessment for the St. Louis Residential Energy Efficiency Loan Program identifies the customers and potential demand for an energy efficiency upgrade financing program.

#### [CharlestonSAVES: Market Assessment](#)

Author: Environmental Finance Center at The University of North Carolina at Chapel Hill

Publication Date: 2010

This market assessment for CharlestonSAVES identifies the customers and potential demand for an energy efficiency upgrade financing program.

#### [Alabama Energy Revolving Loan Fund: Market Assessment](#)

Author: Environmental Finance Center at The University of North Carolina at Chapel Hill

Publication Date: 2010

This market assessment for the Alabama Energy Revolving Loan Fund identifies the customers and potential demand for an energy efficiency upgrade financing program.

#### [Boulder County \(now EnergySmart\) Market Demand Study for Energy Efficiency Loan Product \(302 KB\)](#)

Author: EnergySmart

Publication Date: 2011

This market assessment for the Boulder County EnergySmart and City and County of Denver energy efficiency loan program identifies the potential loan customers and demand for an energy efficiency upgrade financing program.

#### [Residential Property Assessed Clean Energy: A Connecticut Program Viability Assessment](#)

Author: Clean Energy Finance and Investment Authority

Publication Date: 2015

This report summarizes the legal framework, need for, and viability of establishing a Residential Property Assessed Clean Energy (R-PACE) program in Connecticut.

## [Blueprint for Building the Energy Economy in Maryland: Green Bank Preliminary Findings Report](#)

Author: Maryland Clean Energy Center

Publication Date: 2014

During the 2014 legislative session, the Maryland General Assembly passed Senate Bill 985 (Chapter 365 of the 2014 Laws of Maryland) entitled “Maryland Clean Energy Center—Green Banks & Clean Bank Financing Study,” which directed MCEC to study the feasibility of developing a green bank for the State of Maryland. This study focuses primarily on the role of green banks in financing renewable energy and energy efficiency and on the potential need for a green bank in Maryland.

### **Program Materials**

None available at this time.

## Toolbox

The following resources are available to help design, implement, and evaluate possible activities related to this handbook. These resources include templates and forms, as well as tools and calculators. The U.S. Department of Energy does not endorse these materials.

### Templates & Forms

None available at this time.

### Tools & Calculators

None available at this time.

## Topical Resources

The following resources provide additional topical information related to this handbook, which include presentations, publications, and webcasts. Visit [Examples](#) for materials from and about individual programs.

### Topical Presentations

#### [Using Financing to Scale Up Energy Efficiency: Work Plan Recommendations for the SEE Action Financing Solutions Working Group](#)

Author: Mark Zimring; Lawrence Berkeley National Laboratory; Matthew Brown and Dave Carey; Harcourt Brown & Carey

Publication Date: 2013

This presentation provides background information on energy efficiency financing barriers and opportunities. These barriers may include lack of confidence in energy savings, renter/owner split incentives, long paybacks, and high up-front costs. The presentation also includes five areas of opportunity for SEE Action Financing Solutions Working Group activities.

### Publications

#### [DOE State and Local Solution Center: Financing for Energy Efficiency and Renewable Energy](#)

Author: U.S. Department of Energy

Publication Date: 2015

Provides tactical information on financing program key elements and descriptions of financing program types by market sector for state and local governments working to set up financing programs.

#### [Clean Energy Financing Programs: A Decision Resource for States and Communities](#)

Author: U.S. Environmental Protection Agency

Publication Date: 2011

Helps state and local governments design the appropriate finance programs for their jurisdiction. It describes financing program options, key components of these programs, and factors for states and communities to consider as they make decisions about getting started or updating their programs.

#### [Energy Efficiency Financing Program Implementation Primer](#)

Author: State and Local Energy Efficiency Action Network

Publication Date: 2014

This report provides an overview of considerations for designing and implementing successful energy efficiency financing programs for existing buildings in the residential and commercial sectors. Information on key issues related to energy efficiency financing programs, guidance to existing resources that provide more in-depth financing program design and implementation information, and strategies for delivering broad customer access to attractive financing products that enhance customer capacity and willingness to invest in energy efficiency to address "first cost" barriers are included.

#### [Energy Efficiency Finance 101: Understanding the Marketplace](#)

Author: American Council for an Energy-Efficient Economy

Publication Date: 2011

This report examines the different types of financiers and their specific strengths, weaknesses, and areas of focus. Specifically, the paper addresses the different types of financing partnerships in the marketplace and offers a guide to their individual interests, risk tolerances, and place in the financial services industry.

#### [United States Building Energy Efficiency Retrofits: Market Sizing and Financial Models](#)

Author: The Rockefeller Foundation

Publication Date: 2012

This paper establishes the size of the potential retrofit market in the United States, and examines the emergence of new financing models that offer the promise of overcoming historical barriers to energy efficiency.

## California Joint Utilities Financing Research: Existing Programs Review

Author: The Cadmus Group; Inc.

Publication Date: 2014

The California investor-owned utilities -- Pacific Gas and Electric (PG&E), Southern California Edison (SCE), Southern California Gas (SoCalGas), and San Diego Gas & Electric (SDG&E), referred to collectively as the IOUs or Joint Utilities -- are designing seven energy efficiency financing pilot programs at the California Public Utilities Commission's (CPUC's) direction. To help inform the pilot design process and subsequent evaluation efforts, this report summarizes a comprehensive review of 15 existing financing programs representing noteworthy program models across the United States and around the globe.

## Webcasts

None available at this time.

