CLEAN ENERGY FINANCE GUIDE, THIRD EDITION

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Chapter 1.

Primer on Clean Energy Lending: The Major Components and Options

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This chapter introduces the five major components of a clean energy lending product, one by one, and describes each one's major characteristics. It also illustrates the relationship between the components. Among them, the source of capital is particularly important. All other elements of the loan program revolve around the characteristics and needs of the capital source.

The five major components are lenders, repayment, capital sources, credit enhancements, and security. They apply to both residential and commercial financing of clean energy improvements. The following sections are constructed around a diagram that builds on itself, component by component, beginning with lenders.

A. Lenders

A lending program begins with a lender.

The lender can be one of a number of entities ranging from banks to nonprofits to utilities to government agencies. Lenders procure the funds that they ultimately lend from a number of sources, explained in Section C below. The paragraphs below describe each type of lender.

- ***Banks:*** These can be large national banks (Wells Fargo or Bank of America), regional or super-regional banks (US Bank or Fifth Third Bank), or banks that operate in a geographically defined area (the National Bank of Arizona or the Bank of Colorado). The latter category tends to be more closely entwined with their communities than the larger banks. For that reason, geographically defined banks may be the most attractive to grantees, despite the fact that those banks lack the broad reach and large number of branches (convenient access for home and business owners) of the large national or super-regional banks.

  Any bank that focuses heavily on mortgage lending will be accustomed to closing loans that are well above $100,000, which they, in turn, sell to a secondary market investor. Banks are also familiar with home equity loans or home equity lines of credit through which consumers borrow money and the banks place a lien as security on the homeowner's primary residence. Those large, *secured* mortgage loans are quite different from the small consumer-oriented *unsecured* loans that in many cases support energy efficiency retrofits in homes. The bank departments that are most likely to be comfortable with unsecured residential energy efficiency and renewable energy lending programs are the consumer finance departments that work with unsecured lending. One national bank, EnerBank, now specializes in clean energy loans for consumers.

  Larger loans that might rely on home mortgage refinancing, home equity loans, or energy-efficient mortgages will typically be housed in a separate department dealing with home mortgages. Commercial lending, on the other hand, often falls into a different department

altogether. Not all banks that make home mortgages or do consumer financing also do commercial lending.

> Financial institutions of all kinds distinguish between *secured* and *unsecured* loans. Many features define the difference between these two types of loans, but one of them is typically loan size. Most financial institutions will consider entering into an *unsecured* loan for loan sizes of less than $15,000. But in almost all cases when the loan is for a larger amount, the lender will require some security, also known as a *security interest*. A more detailed description of security appears in Section E below.

- ***Credit Unions:*** Credit unions are nonprofit organizations with a charter to serve the financial needs of specific parts of a community, whether it is an employer group, a group of graduates of a particular university, or some other defined group of people. Examples are the State Employees Federal Credit Union (SEFCU) in New York or the Navy Federal Credit Union. Like the community banks mentioned above, credit unions tend to be highly community focused, but in some cases they lack the broad geographic reach of a large national or super-regional bank. Credit unions typically focus on lending as a way to support the community or members for which they operate. Many credit unions already do small consumer lending—used car loans offered through used car dealers, for example. Credit unions are often very well-suited candidates for clean energy lending with whom grantees should seriously consider developing partnerships.
- ***CDFIs:*** Community Development Financial Institutions (CDFIs) are nonprofit lenders that aggregate lending capital from a mix of federal or state government, foundation, and private capital sources and relend that money to targeted groups. Some CDFIs target their lending to small businesses; others target lending to nonprofit institutions; and a very small number of CDFIs target lending to the residential single-family sector. These financial institutions typically operate small offices with only a few staff and tend to make loans (usually larger than $100,000) to organizations that cannot secure lending from banks or credit unions. CDFIs can be ideal partners for grantees because of their community-based missions. Grantees should bear in mind that CDFIs tend to be both capital and capacity constrained; the capacity constraints often mean that they do not have the staff to process the large numbers of small loans that are common in the single-family residential sector.
- ***Utilities:*** Utilities can be lenders, but are often reluctant to serve in that role. Their reluctance stems from three concerns: (1) legal and regulatory requirements related to serving as a lender, (2) the cost of developing computer systems to handle principal and interest payments and collections, and (3) any financial liability they may incur as a result of making and holding loans. Some utilities do, nonetheless, offer clean energy lending programs, primarily serving commercial borrowers.

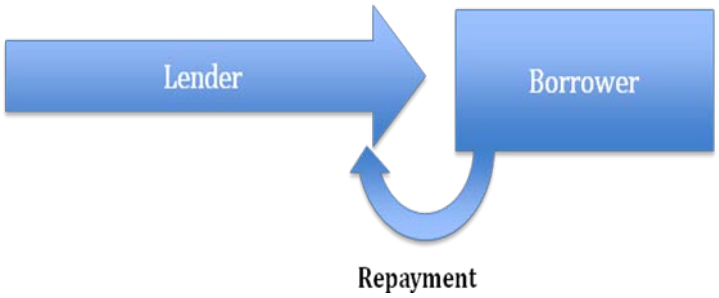
- ***Government Lenders:*** Government lenders can include state energy offices, or state-chartered finance authorities, or their local government equivalent. Many of the first generation energy efficiency lending programs from the late 1980s and early 1990s began with government lenders. As a rule, most government lenders are capacity constrained in the same way as CDFIs and have limited ability or desire to originate and service loans—particularly large numbers of small residential loans.
- ***Specialized Lenders:*** A number of specialized lenders operate in the clean energy lending space. Such nonbank finance companies have access to capital from a variety of sources. Examples include the three Fannie Mae-qualified energy efficiency loan program lenders and the Electric & Gas Industries Association (EGIA).
    - AFC First, Viewtech, and Energy Finance Solutions are Fannie Mae certified lenders for the Fannie Mae Energy Loan program. Those three entities originate loans for energy efficiency and then sell them on a daily basis directly to Fannie Mae. As a result, the three lenders themselves are usually not the final source of capital, but instead fund the loans for just the very brief period for which they hold them (a day or so) until the loans are sold to Fannie Mae. In such cases, Fannie Mae is the ultimate capital source. Fannie Mae energy efficiency loans have been among the most important sources of capital in the unsecured residential loan market. No equivalent to the Fannie Mae energy loan program exists on the commercial side.
    - Some lenders operate largely on the basis of interest rate buydowns that contractors or program sponsors provide—in other words a program sponsor might pay up to 10% of the value of a loan to a lender like EGIA to bring an interest rate down to a level attractive to a borrower.

Different financial institutions will have different criteria for lending, so grantees must do their research and be familiar with those criteria. If the new clean energy loan programs being planned by grantees can build on the financial institutions' existing loan products, such as home improvement loans, the lenders' internal new product development process will likely be accelerated. As a result, the grantees' lending programs can start more quickly than they would otherwise.

Chapter 6 of this Guide reviews the roles of financial institutions in more detail and also describes additional stakeholders involved in the energy efficiency financing process. Chapter 8 provides additional detail on the perspective of different financial institutions with regard to clean energy finance.

B. Repayment

A lending process also requires a repayment structure, which is a means to repay the loan. That can be through a traditional bill from the lender to the borrower (like a credit card statement in the mail), or through some other means such as a payment on the property owner's utility bill.



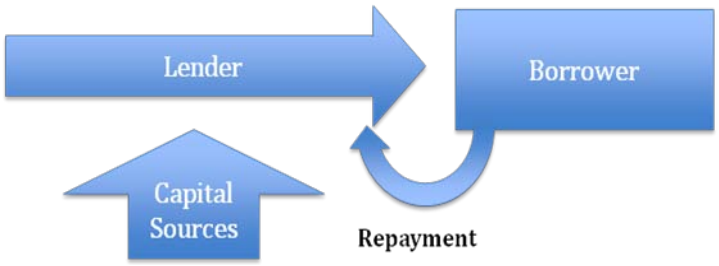
Repayment structures determine how borrowers will pay back the loan principal and interest. Recently, there has been a great deal of discussion about on-bill repayment structures and property tax-based repayment structures. Below are brief descriptions of three repayment structures.

- ***On Bill:*** On-bill repayment means that the principal and interest notification (the amount due) appears on the monthly utility bill of the entity responsible for paying the utility bill, and the borrower repays the principal and interest as part of the regular utility bill payment. On-bill repayment is attractive to capital providers if it is tied to disconnection in the event of failure to pay. However, many capital providers are leery of on-bill repayment structures in which the utility collects the funds and then distributes the collections to the lenders because (1) the collection practices of utilities may be quite different from those of the lenders, and (2) utilities might pay themselves before paying the lender if a customer makes only a partial bill payment.
- ***Property Tax-Based Structures:*** Property tax-based payment mechanisms place the payment obligation on the property tax bill, so borrowers satisfy their repayment obligation as they pay their property taxes. In some communities, an unpaid waste pickup or water bill can be added to the property tax bill, so adding the clean energy loan payment to the tax bill is a variant on that type of repayment mechanism. Property tax-based repayment mechanisms are important in part because they trigger the first lien position in the event of foreclosure. The security that the first lien position creates also makes capital providers comfortable with loan terms that may be much longer than would be available through a traditional unsecured loan. These property tax-based structures are commonly known as property-assessed clean energy, or PACE. Federal regulatory hurdles stand in the way of residential PACE financing, but commercial PACE financing is still a viable option. For more information on Commercial PACE, see Chapter 13.
- ***Lender Billing:*** Traditional (nonutility/nontax bill) repayment structures are the simplest in that a financial institution sends out bills, collects payments, and tracks payments and defaults. The financial institution also manages compliance with any lending regulations like the Truth in Lending Act. The lender typically defines the collection terms as well—for instance, the number of days after which an unpaid bill is declared to be in default.

The repayment structure is important. Lenders want the most secure and robust structure possible—in other words, one that is most likely to yield regular payments in full of the principal and interest. Any new and unfamiliar repayment structure is likely to require grantees to put up a credit enhancement. Credit enhancements are defined and described in Section D below.

C. Capital Sources and Capital Providers

The most important elements of a clean energy lending program are the capital source and the capital provider.



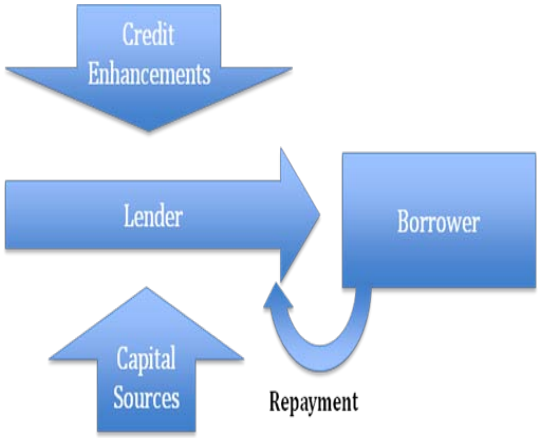
The capital source provides the funding to pay for clean energy projects, and the capital provider manages those funding sources. For instance, banks might use their customers' deposits as a capital source, but as the capital provider, the banks manage the investment of that capital. Capital sources and providers can be from one or a combination of the following:

- ***Federal Funds:*** State Energy Program (SEP) or Energy Efficiency and Conservation Block Grant (EECBG) Program funds are a common source of funds for loan capital. As long as those funds are used to support qualifying clean energy investments, they are a flexible funding source with few restrictions. Another possible source of federal funds is the funding designated to support lower income populations such as Community Development Block Grants. CDFI lenders may also be able to access grants from the U.S. Treasury to provide loan capital to targeted groups.
- ***Bonds:*** Bonds consist of many different types of funds that are too numerous to describe here. Some of the more common types of bonds are *tax-exempt bonds* that can fund investments in government facilities or, subject to many limitations, investments in certain private activities. Those are known as private activity bonds. Another category is *tax credit and tax subsidy bonds*, the proceeds from the sale of which can be used to fund some energy efficiency and renewable energy projects. Qualified Energy Conservation Bonds (QECBs) are one such example (see Chapter 2 for a discussion of QECBs and other bonding structures).
- ***Bank Capital:*** Banks can invest their own depository capital in clean energy lending projects if the banks feel that the return is sufficient, given their understanding of the risk involved in the investment.
- ***Credit Union Capital:*** Like banks, credit unions invest their capital in projects for which they feel the return will justify the risks as they understand them. As noted earlier, credit unions tend to be smaller than most national banks and closely tied to particular communities or constituents. Credit unions may also have less capital to lend and a smaller network of branches than the larger banks.
- ***Foundation Grants and Funds:*** CDFIs receive foundation grants to cover their operations and make loans to businesses, nonprofits, and homeowners in the community. CDFIs also receive foundation program-related investment (PRI) funds. Those are funds that foundations can legally place with CDFIs as an investment with a low interest rate, typically 2% to 3%.
- ***Community Reinvestment Act Funds:*** Commercial financial institutions often meet their regulatory responsibilities under the federal Community Reinvestment Act (CRA) by placing funds at a low interest rate with CDFI lenders. Like PRI funds, these investments often earn a

below-market rate of 2% to 3%. In turn, CDFI lenders are expected to lend the funds at that same low rate plus a small interest rate spread that typically ranges from 2% to 3%.

- ***State Government Funds:*** Government entities can make loans and have often done so. For instance, some state energy offices created clean energy lending programs in the late 1980s and early 1990s using allocations of funds through the U.S. Department of Energy (DOE) and from certain legal settlements. Other state finance authorities operate lending programs using a number of different capital sources. State and local finance authorities are diverse, but tend to operate in collaboration with (rather than in competition with) private financial institutions. State finance authorities lend in markets that are not attractive to private entities, such as loans to cash-strapped nonprofits, or co-lend with private financial institutions. In some cases, government entities make direct loans, too. Colorado offers an example of a new loan program supported by funds from the American Recovery and Reinvestment Act of 2009 (ARRA), whereby the Colorado Housing Finance Authority offers direct loans to support clean energy investments in the state.
- ***Utility System Benefit Charges and Ratepayer Funds:*** Ratepayer funds and/or utility system benefit charges can help capitalize or provide credit enhancements to a clean energy financing program. Arizona is soon to launch an energy efficiency lending program that uses ratepayer funds for credit enhancements. The United Illuminating program in Connecticut has access to the state's public benefit fund to cover defaults on energy efficiency related loans to small businesses, and Delaware's Sustainable Energy Utility also has an allocation of funds from its public benefit fund.
- ***State Treasury Funds:*** In some cases, state treasurers may be willing to invest a portion of their capital in energy efficiency lending. The longest established program of this type is Pennsylvania's Keystone HELP (Home Energy Loan Program). It began with an initial capitalization of $20 million over a 3-year period from the state treasury. A newer program is the Colorado Clean Energy Finance Program that will begin operations with an approximate $4 million annual capital pool from the state treasury. In both cases, the state treasury is willing to purchase loans made by the primary financial institution (FI) provided it takes care of all loan origination and loan servicing. In turn, the FI has access to a 5%–10% loan loss reserve set up by the state to cover potential defaults, and then the FI bundles and sells the loans to the state treasury. The financial institution agrees to guarantee the loans, so the credit risk from the perspective of the state treasury, which is partly related to the underlying loan assets, is mitigated by the FI's guarantee.
- ***Local Government General Funds:*** Tax revenues can sometimes capitalize an energy efficiency or solar energy loan program. The Energy Independence Program in the City of Palm Desert, California, for example, was supported through general funds. Many jurisdictions, however, are experiencing reduced tax revenues and budget cuts, which limit their ability at this time to capitalize loan programs using their general funds. Palm Desert intends to refinance the loans once a portfolio is assembled, so the local government funds are serving simply as a way to get the program (a PACE program in this case) started.
- ***Emissions Allowance Revenues:*** States that receive revenues from participating in a cap and trade structure (e.g., the Regional Greenhouse Gas Initiative (RGGI)) can use those funds to seed clean energy finance programs. Delaware, for example, is allocating a portion of its RGGI emissions allowance auction revenues to its new sustainable energy fund that lends across several market sectors.

D. Credit Enhancements



A credit enhancement is anything that improves the chances that financing will be repaid. Credit enhancements are useful because they:

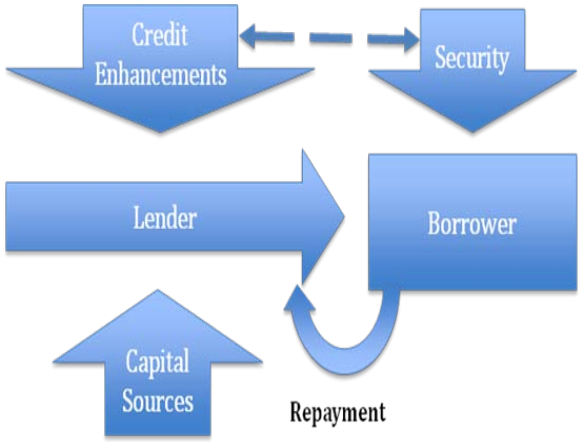
- Encourage lenders and investors to put money into unfamiliar markets or products (such as residential energy efficiency lending).
- Can absorb risk of loss and, as a result, be used as a negotiating tool to convince lenders to reduce interest rates or provide longer loan terms.
- Can be used as negotiating leverage to convince lenders to relax their underwriting criteria in order to lend to individuals or businesses with lower than typical credit profiles.

Sometimes a credit enhancement takes the form of ARRA funds set aside to cover potential losses in case of nonpayment. A credit enhancement can take one of several forms:

- ***A loan loss reserve*** sets aside (reserves) a certain amount of money to cover potential losses (in case of no repayment). For instance, a 5% loan loss reserve on a $60 million loan portfolio would cover up to $3 million of a capital provider's losses on that loan portfolio.
- ***A loan guarantee*** covers the entire amount of a capital provider's potential losses on a portfolio of loans. A guarantee differs from a loss reserve because it is not capped at the amount of money set aside in the reserve. Federal statute does not allow SEP or EECBG funds (and by extension ARRA funds) to be used as a loan guarantee. The federal government provides loan guarantees through the U.S. Departments of Agriculture and Energy as well as several Small Business Administration programs.
- ***Loan loss insurance*** is a private insurance product that lenders can purchase or a grantee can purchase on behalf of a lender. Loan loss insurance is similar in some respects to a loan loss reserve in that the insurance covers a portion of the total losses (in case of no repayment), up to some capped amount. The difference is that instead of setting funds aside in a reserve account to cover the losses, the grantee or lender pays an insurance premium to a private insurer. Loan loss insurance is not easy to secure at the moment.

- ***Debt service reserves*** are funds set aside to cover potential delayed or defaulted payments on a debt instrument (loan). For instance, a bond might require setting aside a 6-month debt service reserve, or perhaps 10% of the total amount of the bond to cover potential defaults.
- ***A subordinated/senior capital structure*** allows two types of capital to be placed into a loan. The first one, subordinated capital (which could be provided by a grantee using ARRA funds) absorbs the potential first losses on a loan and might be set at 10% of the total loan amount. The second one, senior capital, does not absorb any losses until the subordinated capital is exhausted. This structure acts in some ways like a loan loss reserve and serves to attract the senior capital because the subordinated capital takes on the majority of the risk.

E. Security



Security refers to the security of the stream of principal and interest repayments and what happens in the event that a loan defaults. Security can come in several forms:

- ***A lien on property***, in the form of a first mortgage lien or a tax lien, establishes the right of the lien holder (almost always the lender) to make a claim on the proceeds from the sale of foreclosed property. The best lien position to be in is "the first priority lien." It means that, if a bank holds a mortgage on a home for $250,000 and a foreclosure sale yields $270,000, then the bank with its first position lien gets the full $250,000, and any other creditors (lenders) in second or third position must fight for the remaining $20,000. That would include the lenders who provided capital for clean energy improvements.

  In weighing various financing options for a clean energy program, grantees must understand that an unpaid property tax always trumps the first lien position of a bank mortgage. In other words, the property tax gets paid first out of the proceeds from a foreclosure sale, then the mortgage holder is paid, and then all of the other creditors must fight for any remaining funds.

  One innovative financing option presented in this Guide is property-assessed clean energy (PACE) loans. They attach the obligation to pay for the energy efficiency improvements financing to the property tax, thus trumping the mortgage holder's first position lien. The fact that PACE assessments can trump a first mortgage lien on a home has caused federal mortgage regulators to object strenuously to residential PACE, essentially crippling residential PACE programs for the moment. The issue remains contentious, with federal legislation under consideration in addition to several lawsuits pending on the issue. Commercial PACE programs

remain viable financing options because they require the first mortgage holder's agreement before trumping their first lien position. (See Chapter 13 for more information on commercial PACE loans.)

- ***Fixture filings (UCC-1 Filings)*** allow the entity that holds a loan to repossess the property in the event of foreclosure. Fixture filings are most useful when the property is easy to repossess, for example, equipment that could be easily re-used elsewhere. But in the case of most energy efficiency installations, fixture filings do not provide much security because, for example, it is difficult to repossess insulation. Even so, the filings can be useful to the lender because a title search will bring them to light upon sale of the property and may trigger some kind of settlement at that point.
- ***Soft lien/lien at the meter*** refers to the threat to disconnect utility service in the event of non-payment. This threat can be a powerful incentive to settle a debt, although both the utilities and their state regulators must feel comfortable with this approach. Attitudes toward the threat of disconnection vary.

Unsecured loans have none of the above types of security and rely instead on careful loan underwriting and origination processes. Unsecured lending is usually less expensive and faster to do than secured lending, which takes time and money to carry out the appropriate filings and searches. If a borrower defaults on an unsecured loan, the lender typically "charges off" the loan on its books, and sends that loan to a collection agency for further action. If the collection agency manages to recover some or all of the amount due, that agency typically keeps the majority of what it collects. The borrower, meanwhile, receives a bad mark on the credit scoring. In some cases, the lender inserts an intermediate step of offering to renegotiate principal and interest payments on the loan.

Each of the five major components of the financing structure described above is dependent on and affects the others. For instance, robust security in the form of a property tax lien can mean that lower levels of credit enhancement, such as a loan loss reserve, are acceptable. Robust repayment structures that financial institutions understand and have confidence in also require lower levels of credit enhancement. Weak security in the form of an unsecured loan, however, can require higher levels of credit enhancement.

The remainder of this chapter focuses on lending program options and presents brief profiles of different approaches to clean energy lending. Each profile describes a different way to structure the various elements of a lending program.

F. Lending Program Options

Lending programs can fall into one of three large categories:

1. **Self-Administered Programs –** Lending programs through which the EECBG or SEP grantee originates, services, and holds loans on its own, without engaging an outside financial institution.
2. **Local Lender Programs –** Lending programs through which the grantee engages in a contract with a local financial institution such as a bank, a credit union, or a community development financial institution. That local entity originates and services the loans.
3. **National Lender Programs –** Lending programs through which the grantee engages in a contract with a national financial organization that originates and services the loans.

Self-Administered Programs

Self-administered programs are simple to sit up in the sense that grantees do not need to conduct an RFP process to select a lender; instead they conduct the entire loan origination and servicing on their own. That simplicity is counterbalanced, however, by the fact that grantees need to have the ability to conduct loan origination and underwriting, to service loans, to collect payments, and to deal with uncollected accounts. The challenge with residential lending in the energy efficiency sector is that the loans tend to be small and numerous. Thus, the administrative burden to originate so many small loans is significant, as is the task of conducting billing and collection over the multiyear term of the loans.

Many government entities do, in fact, operate lending programs, which tend to be one of two types:

1. Programs that focus on smaller numbers of larger loans, in excess of $100,000 or so, that are outside the residential sector.
2. Programs through which the local or state government contracts with a private entity that can conduct loan origination and servicing. Iowa is developing its SEP-supported residential energy efficiency lending program in that way.

Boulder, Colorado, is one of a small number of local governments operating their own lending programs. The Boulder program (in development at the time of this writing) will focus on microloans of less than $3,000, which is smaller than the loan amount that will be of interest to most lenders.

Local Lender Programs

Local lender programs require a grantee to partner with a local credit union, bank, or CDFI. In general, these partnerships require the lender to put up the capital to make loans, while the grantee covers some of the potential loan defaults through a credit enhancement.

The advantage of these programs is that they usually can attract new capital to a loan program; for example, Michigan's program put up $3 million to attract $60 million in loan capital from credit unions. The partner financial institution also conducts the loan origination and loan servicing so that the grantee does not need to do so.

The disadvantage can be the time that it takes for a grantee to develop a partnership with a financial institution, and the uncertainty about terms and conditions that the financial institution will agree to for the loan program. Ultimately, in local lender programs, the financial institution is the one that decides whether to make loans or not, so the actual lending process is out of the grantee's control. Grantees can exert control over the motivations and incentives they offer the lender through the loan loss reserve agreement, described later in this Guide.

Local lender programs can offer the most attractive interest rates to borrowers because lenders tend to be interested in using the residential loan programs as a way to attract new customers—to form new customer relationships that the financial institution hopes will turn into long-term relationships that encompass mortgages or other loan products. However, grantees may find that their local lenders are less familiar with energy efficiency lending programs compared with certain national lenders. The local learning curve may be steep. As a result, local lender programs can be more labor intensive to establish than a national lender program.

One variant of local lender programs involves the utility as a lender or at the least the entity that bills the borrower for principal and interest. A number of rural cooperative utilities in Georgia, for example, are using that approach in their ARRA-funded efficiency programs, through Oglethorpe Power.

National Lender Programs

National lender programs require a grantee to engage one of the national lenders that secure loan capital from national lending sources. Several national lenders now offer their services to grantees.

The basic model in this case is that a lender originates loans for grantees and then sells those loans to an investor. The lender may only hold on to the loans for a few hours or few days prior to selling them. The lender makes money from its loan origination services and, if it continues to service the loans, from its servicing charges. As a general rule, the interest rates for these loans tend to be higher than the rates for loans originated by local lenders; however, the national lenders have a well-established and grantee-friendly process that requires little time and energy on the grantee's part. Efficiency financing programs can be up and running quickly with such national lender programs. Grantees will need to balance the higher costs (that may require them to add funds to an interest rate buydown) with the ease these pre-established programs offer.

Sample Program Options – Alabama

BASIC PROGRAM INFORMATION	
Program Name, Location, and Geographic Scope:	Alabama*SAVES*™, Alabama Statewide energy program
Launch Date:	December 2010
Web Site URL:	http://www.alabamasaves.com/
Target Market:	Commercial and industrial properties in Alabama
Particular Income or Credit Target:	AlabamaSAVES is structured to accommodate a variety of property and borrower profiles. Each applicant will be reviewed individually for ability and willingness to repay. Recourse and nonrecourse options are available with the DSCR (Debt Service Coverage Ratio) and FICO limitations set accordingly. Without significant compensating factors, the minimum DSCR is 1.30x and the minimum FICO is 680.
Brief Description of Program:	Alabama Department of Economic and Community Affairs (ADECA) is capitalizing the Program with $25 million of SEP funds and intends to attract private capital through various credit enhancement mechanisms so that a targeted total of $60 million to $75 million is available to lend. The funds will be bifurcated into two pools, one for proprietary lending and the other to enhance third-party lending participation.
Financing Capital Source:	American Recovery and Reinvestment Act OF 2009 (ARRA), State Energy Program (SEP) grant, and private capital: $60 million loan fund.
CREDIT ENHANCEMENTS	
Credit Enhancements (if applicable):	The Program will attract private capital providers through a participation agreement whereby the providers will receive an allocation of the Program's funds for loan loss/debt service reserves and interest rate buydowns in return for lending based on the Program's underwriting criteria.
Source of Capital for Credit Enhancement:	Private capital providers
Custodian of Credit Enhancement:	ADECA (held in escrow at a national bank)
Interest Rate Buydown:	See above

Structure of Interest Rate Buydown (if Applicable):	See above
PARTNERS	
Method of Selecting Participating Lenders:	Lenders are invited to respond to a Request for Information (RFI) to assist the ADECA Energy Division in creating financial products suitable for financing energy efficiency and renewable energy retrofits on commercial and industrial real estate throughout the State of Alabama.
SECURITY	
Security:	Security for each loan will include, on a case-by-case basis: (i) any payment obligations of the borrower; (ii) the collateral value of the improvements; (iii) any additional security interest and/or pledge provided by the borrower, including without limitation cash collateral and/or parent guarantees; and (iv) the Loan Loss Reserve (defined below). Cross-collateralization will be considered for single loans.
Disconnection Threat for Nonpayment:	NA
REPAYMENT STRUCTURE	
Repayment:	Program Administrator: Abundant Power
MAJOR LOAN FEATURES	
	i) Interest Rate – 2%, fixed, per annum. The rate will be reevaluated on the first anniversary of the Program's launch date and quarterly thereafter. ii) Loan Term – The blended useful life of the improvements up to 10 years. iii) Loan Size – $250,000–$4,000,000. iv) Credit Score – 680 v) Debt-To-Income – 1.30x vi) Costs – An application fee of $1,000 will be required. Closing costs: 2% loan origination fee and reasonable and customary costs among the program administrator and the program lenders. Income Threshold – N/A
Origination/Servicing:	Abundant Power
LOANS SALE BUILT IN TO PROGRAM	
Are Loans Held to Maturity?	Potentially
If Loans are Sold prior to Maturity, Please Describe:	They will be sold at market rates, i.e., most likely a discount to par.
CONTRACTOR PROGRAM	
Are Energy Evaluations Required:	Yes – must be included with the loan application
Contractor Program:	Contractors, energy service providers, consultants, engineers, and auditors serve as the "engine" of Alabama*SAVES*™. This expertise must be unleashed in a trustworthy and transparent manner. To participate in projects funded by the Program, service providers must: • document proof of proper qualifications and licenses, • participate in a Program orientation, and • submit to ongoing reporting and quality assurance standards. The Program may charge a fee to cover the costs of review of the qualifications and performance of each service provider.

	Service providers that meet the eligible requirements and have been approved by the program administrator will be available to perform services and will be highlighted on the AlabamaSAVES™ website. Results of each project funded in whole or in part by the Program will be measured to encourage successful outcomes and provide full circle feedback. The project performance for each vendor also will be available on the AlabamaSAVES™ website.
Notable:	1) Notably, AlabamaSAVES™ will be targeting industrial businesses whose current cash flow situation will be improved significantly by a deep retrofit. It aims to find customers that can improve their net operating income sufficiently to grow their business. 2) AlabamaSAVES will allow deep whole-building retrofits by providing loans up to $4 million.
Challenges:	1) Educating the lending community on the benefit and security achieved by completing the property improvements. 2) Minimizing the costs associated with the origination process while securing credit and valuation qualifications. Options to overcome this may include (1) partnering with a lending institution that will offer the Program as a “piggy-back” loan, (2) using the existing underwriting and valuation information from a recent refinance or purchase of the property, and (3) targeting borrowers that are willing and able to use personal guarantees as loan security. 3) The ideal structure for the borrower is an extended term to maximize cash flow positive outcomes over the life of improvement. This structure, however, is at odds with the desired financial instrument of the lending community who typically prefer a shorter term and adjustable rate. ADECA’s intention is to balance the difference by offering a slightly longer term and fixed rate.

Sample Program Options – Michigan

BASIC PROGRAM INFORMATION	
Program Name, Location, and Geographic Scope:	Michigan Saves, based in Lansing, Michigan Statewide energy efficiency lending program
Launch Date:	September 2010
Web Site URL:	www.**michigansaves**.org/
Target Market:	Residential to start, but commercial programs to come in the future
Particular Income or Credit Target:	None
Brief Description of Program:	Michigan Saves began as a result of a $6.5 million grant from the Michigan Public Service Commission to allocate state funds to create an energy efficiency lending program. The program started with the idea of leveraging the grant funds to attract local lenders, and over a period of several months resulted in a program that leveraged $3 million of the funds to create a $60 million lending facility, with loan capital provided by credit unions.
Financing Capital Source:	Lenders provide loan capital. Credit unions have been the only participating lenders in the early stage of the program.
CREDIT ENHANCEMENTS	
Credit Enhancements (if applicable):	Loan loss reserves are set at 5% of the outstanding balance of outstanding loans. Lenders receive 80% of any defaulted loan amount.
Source of Capital for Credit Enhancement:	Michigan Saves is using state funds to begin with. ARRA funds to begin shortly.
Custodian of Credit Enhancement:	Michigan Saves establishes an account for each participating lender.
Interest Rate Buydown:	None
Structure of Interest Rate Buydown (if Applicable):	Not applicable
PARTNERS	
Method of Selecting Participating Lenders:	Open invitation to participate in a collaborative process to develop the loan product; open enrollment period during which lenders could choose to participate in the program based on terms developed during the collaborative process.
SECURITY	
Security:	Residential loans are unsecured.
Disconnection Threat for Nonpayment:	None
REPAYMENT STRUCTURE	
Repayment:	Michigan Saves is agnostic as to whether loans are repaid through the lender billing, the utility bill, or other method. All loans have been set up to be repaid through the lender with the exception of one pilot program in Traverse City.
MAJOR LOAN FEATURES	
	Interest Rate – Fixed APR not to exceed 7% Loan Term – 10 years max. Loan Size – *Minimum:* $2,500; *Maximum:* $12,500 Credit Score – 680 minimum in most case. At lender's option, score of 640 is allowed. Lender is only allowed to recover 70% of defaulted amount of a loan if lender chooses to allow a 640 score. Debt-To-Income – 50% max Costs – 1.99% fee charged to contractor

Origination/Servicing:	Performed by a centralized entity, LSI, that operates an online application and a telephone-based application service. Costs are $15/application for online and $58/loan for telephone. LSI does initial screening, but loans are closed by the credit union.
LOANS SALE BUILT IN TO PROGRAM	
Are Loans Held to Maturity?	Yes
If Loans are Sold prior to Maturity, Please Describe:	
CONTRACTOR PROGRAM	
Are Energy Evaluations Required:	No
Contractor Program:	Contractor training also operated by Michigan Saves
Comments:	

Sample Program Options – Portland, Oregon

BASIC PROGRAM INFORMATION	
Program Name, Location, and Geographic Scope:	Clean Energy Works Portland (CEWP), Oregon Throughout Portland metro region and across Oregon
Launch Date:	Pilot program launched in 2009
Web Site URL:	http://www.cleanenergyworksportland.org/index.php
Target Market:	Residential
Particular Income or Credit Target:	> 590 FICO
Brief Description of Program:	The pilot program launched in summer 2009 (proof of concept) for 500 qualified homes in Portland (single-family, owner-occupied). This program was seeded with ARRA, City of Portland, and Living Cities Foundation funds. It focused on financing energy efficiency, comfort, and home safety upgrades. Loans valued at approximately $5 million were made by late 2010. The pilot is now completed, and the state is scaling up with Clean Energy Works Oregon through a $20 million Better Buildings Award.
Financing Capital Source:	ARRA and SEP Funds
CREDIT ENHANCEMENTS	
Credit Enhancements (if applicable):	Loan Loss Reserve Fund = 10% * Goal is to reduce % of loan loss reserve over time, closer to utility default rates of (1%–2%).
Source of Capital for Credit Enhancement:	EECBG formula and competitive dollars; local funds
Custodian of Credit Enhancement:	Clean Energy Works Oregon
Interest Rate Buydown:	Not applicable
Structure of Interest Rate Buydown (if Applicable):	Not applicable
PARTNERS	
Method of Selecting Participating Lenders:	Direct negotiations
SECURITY	
Security:	Secured by deed of trust on homeowner property (blind)
Disconnection Threat for Nonpayment:	None
REPAYMENT STRUCTURE	
Repayment:	To lender through a repayment structure on a monthly utility bill

MAJOR LOAN FEATURES	
	1) Interest Rate – 5.99% (3.99% for <250% Federal Poverty) 2) Loan Term – 20 years 3) Loan Size – Max loan amount is $20,000 4) Credit Score – >590 5) Debt-To-Income – Not applicable 6) Costs – There are $900 in fees per project: a $300 loan fee is applied to the loan by Enterprise Cascadia, and $600 is allocated for the initial home assessment. The assessment includes $300 for the Home Performance with ENERGY STAR assessment and another $300 to cover an Energy Advocate and administrative services; both assessment fees are generally covered by cash incentives made available through the Energy Trust of Oregon. 7) Income Threshold – None
Origination/Servicing:	Enterprise Cascadia
LOANS SALE BUILT IN TO PROGRAM	
Are Loans Held to Maturity?	Yes
If Loans are Sold prior to Maturity, Please Describe:	Not applicable
CONTRACTOR PROGRAM	
Are Energy Evaluations Required:	Yes
Contractor Program:	Contractors join the Energy Trust of Oregon Trade Ally Network and are required to take a BPI training course provided by the Energy Trust to become an Energy Trust Home Performance Contractor. Once that is complete, contractors fill out the Home Performance Inquiry Form and apply for the most current phase of CEWP.
Notable:	**Underwriting Practices** • Program uses: a) utility repayment history b) FICO history to provide the basis for risk assessment. • Program considers the length of time the customer has been serviced by the utility, the customer's utility payment record, and the customer's credit score. • Points are assigned to these criteria in the following manner: – Length of time serviced by utility: if less than 6 months, one point. – Payment history: If borrower is currently past due, one point. – Payment history: If borrower is past due more than 61 days, one point. – Notice of disconnection: If borrower has received notice of disconnection for lack of payment in the past 12 months, one point. – Credit score: if borrower's credit score is less than 650, one point. • The sum of these points is totaled. Higher risk rating (more points) denotes greater credit risk: – Applicants with a Risk Rating of 5 or less are automatically eligible for a CEWP loan. – Applicants with a Risk Rating of 6 will automatically receive a second review and may be approved or declined based on further review. – Applicants with a Risk Rating greater than 6 are declined.

	• Applicants are automatically declined if: – The applicant is not on the title to the home proposed for retrofit. – If the applicant is not a resident at the home with a minimum of one year of home occupancy. – Credit history shows foreclosure pending, in bankruptcy, federal tax liens, child support delinquency, or any other judgment that would impact ability to repay the loan. – Utility score is greater than 1 and credit score is under 590. – Credit report shows mortgage currently past due.
Challenges:	Demand creation: Difficulty predicting demand response to marketing efforts. Transaction costs: Goal is to reduce transaction costs (loan fees and energy advisor fees) over time.

Sample Program Options – State of Washington, Several Areas

BASIC PROGRAM INFORMATION	
Program Name, Location, and Geographic Scope:	Community Energy Challenge Loan Program, State of Washington: The City of Bellingham**,** Whatcom County*,* and the City of Ferndale (coordinating on behalf of all 6 smaller cities) Sustainable Connections is responsible for program design/administration and commercial loans. Opportunity Council is a one-stop-shop for residential loans.
Launch Date:	
Web Site URL:	Sustainable Connections: http://sustainableconnections.org/ Opportunity Council: http://www.oppco.org/ Banner Bank: http://www.bannerbank.com/Pages/default.aspx
Target Market:	Residential and Commercial
Particular Income or Credit Target:	Financing is subject to meeting qualification standards of Banner Bank and the Community Energy Challenge loan program. Actual interest rates vary depending on loan size and borrower's credit. Loan program rates are subject to change.
Brief Description of Program:	The City of Bellingham**,** Whatcom County*,* and the City of Ferndale (coordinating on behalf of all 6 smaller cities) are providing resources from federal Energy Efficiency and Conservation Block Grants (EECBGs) for residential loan loss reserves— making retrofit financing more attractive—as well as marketing support and communications. The City of Bellingham is providing resources from the State Energy Program for loan loss reserves. Bellingham and Whatcom County have active resource conservation management programs and are also coordinating with the Community Energy Challenge.
Financing Capital Source:	Leverage Capital Source – Private, Banner Bank LRF and IRB Capital Source – ARRA Funds
CREDIT ENHANCEMENTS	
Credit Enhancements (if applicable):	Loan Loss Reserve Fund (LRF): $750,000 LRF Percentage: 10% decreasing to 7.5% based upon portfolio performance IRB Fund: $500,000
Source of Capital for Credit Enhancement:	EECBG and SEP funding
Custodian of Credit Enhancement:	Banner Bank

Interest Rate Buydown:	
Structure of Interest Rate Buydown (if Applicable):	
PARTNERS	
Method of Selecting Participating Lenders:	Request for proposal (RFP) process used to procure the financial institution partner crucial to securing favorable loan and leverage terms
SECURITY	
Security:	Unsecured
Disconnection Threat for Nonpayment:	None
REPAYMENT STRUCTURE	
Repayment:	Banner Bank
MAJOR LOAN FEATURES	
	See charts at the end i) Debt-To-Income – 45% ii) Income Threshold – None
Origination/Servicing:	Banner Bank
LOANS SALE BUILT IN TO PROGRAM	
Are Loans Held to Maturity?	
If Loans are Sold prior to Maturity, Please Describe:	
CONTRACTOR PROGRAM	
Are Energy Evaluations Required:	
Contractor Program:	The Community Energy Challenge (CEC) supports the growing workforce of energy efficiency contractors by providing educational resources and training opportunities through the Opportunity Council/Building Performance Center. The program also eliminates the resources contractors spend on finding customers by coordinating projects and providing direct leads after a home energy assessment has been completed. (All projects receiving CEC incentives and loan opportunities must begin with a CEC home energy assessment.)
Notable:	
Challenges:	

Residential					
Project Costs	Fees	Interest Rates	APR	Loan Term	Monthly Payments
$3-5,000	$130-150	4.25% to 5.25%	5.47% for best credit on $5,000 loan	60 months	$95.43
$5,000-10,000	$150-200	4.25% to 5.25%	4.68% for best credit on $10,000 loan at 120 months	60-120 months	$104.49
$10,001-20,000	$200-300	5.25% to 6.25%	5.50% for best credit on	120-180 months	$176.69

			$20,000 loan at 180 months		
Interest Rates include 2% IRB for 4.8% of loan buy-down fee and 0.5% discounts for auto-pay from Banner Bank account.					
Commercial					
Project Cost	Loan Term	Fixed Interest Rate	Fees	Monthly Payment	
$5,000	60 months	4.50% to 6.00%	$150	$96.01 to $99.56	
$10,000	60 months	4.50% to 6.00%	$200	$190.16 to $197.19	
$50,000	60 months	4.50% to 6.00%	$600	$943.34 to $978.24	
Interest Rates include 2% IRB for 4.8% of loan buy-down fee and 0.5% discounts for auto-pay from Banner Bank account.					