

Market Position & Business Model – Develop a Business Model

Description

In this handbook, you will use your [market assessment](#), [established strategic direction](#), and [engagement with current and potential partners](#) to develop a business model for your organization. Your business model will document your understanding of critical market players and your organization's role in facilitating and growing the market for residential energy efficiency. This planning will help you demonstrate your organization's self-sufficiency while strategically securing partners for long-term market development and growth. The business model should be reviewed regularly to reflect changing market conditions, changes in funding sources and program costs, and the evolving role of the program relative to other market actors.

Aspects of a business model for you to consider are:

- **Market position.** Based on your assessment of the market, you will have identified opportunities for your position in the market based on your assessment of:
 - How energy efficiency services are being provided by other organizations.
 - Your organization's strengths, capabilities, and regulatory requirements.

There may be several organizations offering energy efficiency services in your market, and they may collaborate or compete with your organization.

- **Service offering.** Determine the types of residential energy efficiency services (e.g., energy advising, energy assessments, contractor training and pre-screening, incentives, financing, energy efficiency certificates) your organization will offer the market either directly or through partnerships with public or private sector organizations. Specific services will be refined in subsequent planning steps as you make decisions about [program design](#).
- **Customers and customer acquisition.** Identify your general target market and how you will reach them. The nature of your organization can influence the customers you focus on.
 - For example, nonprofit organizations can help create demand among target customers by focusing on education, outreach, promoting incentives, and implementing grassroots or neighborhood campaigns.
 - Utilities may decide to focus on customers by segmenting customer data which will enable them to more effectively target their services.
 - Third party administrators (e.g., PACE programs) can develop networks of private contractors that act as a sales force for the program, while offering centralized application processing, financing and project management.
- **Assets and infrastructure.** Determine what investments in internal or external assets and infrastructure (e.g., program management software systems, program brand, call centers) you will need in order to play your desired role in the market and span the time period you plan to provide energy efficiency services.

Market Position & Business Model

Stages:

[Overview](#)

1. [Assess the Market](#)
2. [Set Goals & Objectives](#)
3. [Identify Partners](#)
4. **Develop a Business Model**
5. [Create a Business Plan](#)
6. [Develop Evaluation Plans](#)
7. [Develop Resources](#)
8. [Assess & Improve Processes](#)
9. [Communicate Impacts](#)

- **Financial model or structure.** Identify costs to operate your organization and sources of organizational funding and revenue. Your cost structure and potential revenue sources will inform key decisions about your organizational design, such as what services you will offer and whether you will perform services directly, contract services out to another organization for program implementation, or form a new business entity altogether. It will also help you determine whether you will operate (or change your current operating approach) your organization as a nonprofit, as a sole proprietorship, or as a multi-owner business.
 - In general, your sources of funding—whether through investors, utility rate-payer funds, government funds, contractor or customer fees, other revenue sources, or a combination of several different sources—may determine, at least initially, what services your organization can offer and how it will operate.
 - There are limitations to all funding sources. For example, government funds and grant funds might be used to support all aspects of an efficiency program but are generally available only on a short-term basis. Ratepayer funding can change over time because budgets and allowable uses are set by state and local regulators and driven by factors such as political changes, economic factors, and policy changes.

- **Governance.** Clearly define your organization's governance structure, consistent with your financial model. You will need to identify who in your organization and partner organizations will manage various aspects of your organization and its delivery of energy efficiency services and who will ultimately be responsible for each action, objective, and goal.
 - For example, if you organize as a nonprofit, how will you set up your board of directors?
 - If you operate as a for-profit entity, how will ownership be established and who will make decisions?
 - Whom will your organization be accountable to, under your chosen governance structure?

How Does a Business Model Relate to a Business Plan?

A business model, as covered in this handbook, describes the value your organization provides to the market, how services are delivered to customers, and how your organization is funded. It includes information on the following:

- The services you provide
- The customers you will serve
- The assets and infrastructure you will need
- Your financial model, including revenue streams and operating costs
- Strategic partners and industry allies, such as contractors and financial institutions
- Your governance structure and external regulatory environment.

A business plan, covered in the Market Position [Create a Business Plan](#) handbook, explains how you implement your business model in order to achieve your [mission, vision, and goals](#). It details the organizational and financial structures and processes that you need in place to be able to operate in the capacity you choose.

In this handbook, you will be introduced to each of these components

of your organization's business model, including:

- Determining what services to provide and how you will provide them
- Identifying the customers to whom you will provide services
- Determining the assets and infrastructure you will need to implement your program
- Identifying sources of funding and operation costs to develop your financial model
- Determining your governance structure
- Developing and fine-tuning your business model
- Deciding whether to offer energy efficiency services in your market based on the viability of the business model.

Your organization's unique mix of business model elements will determine how any given actor will be affected by various financial incentives, regulations, and fluctuations in the market, and will ultimately help you determine how to effectively move forward with a residential energy efficiency program.

Find related information across other program components:

- **[Program Design & Customer Experience – Make Design Decisions](#)**
Solidify your program strategy and decide which customers you will focus on; what products, services, and support you will provide; and how you will partner with contractors and others to deliver services to your customers.
- **[Marketing & Outreach – Make Design Decisions](#)**
Decide on priority target audience segments, messages, and incentives that will motivate customers.
- **[Financing – Make Design Decisions](#)**
Determine if enhancements to existing financing products or the development of new products are necessary to allow you to achieve your goals and objectives.
- **[Contractor Engagement & Workforce Development – Make Design Decisions](#)**
Solidify your program strategy and decide which customers you will focus on; what products, services, and support you will provide; and how you will partner with contractors and others to deliver services to your customers.

Step-by-Step

As you proceed through these steps, information from the Better Buildings Neighborhood Program Business Models Guide about [utility program business models](#) and [non-utility program business models](#) provide useful models and lessons. The Guide's "[business model 101](#)" [presentation](#) describes key terms and concepts for developing a business model.

Determine what services to provide

Your program's range of service offerings should be designed to fill a need in the marketplace, while enabling the growth of a robust market for energy efficiency services, which in many markets are delivered by private sector contractors.

As you consider the different suites of services you might provide and those of your partners, ask the following questions:

- What services are needed in the market?

- What are your organization's key strengths in providing services? What are your partners' key strengths?
- Can strategic partnerships help your organization expand its service offerings or control its service-related costs?

The answers will help you assess your organization's flexibility in certain areas of business, and resulting ability to fill marketplace gaps.

In general, there are five primary suites of services that organizations can provide in the residential energy efficiency market:

1. **Contractor** screening, training, certification and engagement (e.g. mentoring opportunities, public recognition, building science training, lead generation)
2. **Marketing** and engagement of customers (e.g. customer education and outreach)
3. **Customer** experience and management of the upgrade process (e.g., home energy assessments, technical assistance, program administration, certification and labeling of homes)
4. **Financing** and administration (e.g., incentives, access to affordable financing options)
5. **Data** collection and evaluation (e.g. program management, assessment of program impacts)

Each of these service areas are described in greater detail in the corresponding five program components of this Solution Center.

Determine how you will deliver program services

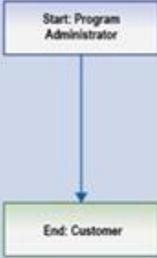
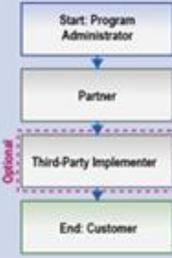
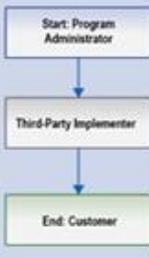
In light of partnership opportunities, your organization may have several options for structuring your program to provide energy efficiency services, including:

- A self-administered program, in which you **provide services and financial incentives** directly to the customer and administer and implement the program in its entirety.
- A partnership program, in which you work with a **partner organization that has existing relationships** (e.g., with customers, contractors, financial institutions) that can be leveraged to deliver services to the customer.
- **A third-party implementer program**, in which you contract with a third-party implementer to deliver services to the customer (i.e., marketing, financial services, incentives). Here, your role is to provide oversight and management to the efficiency program.

In each of these approaches, programs should consider how they partner with and engage contractors that perform energy efficiency services; see the **Program Design: Make Design Decisions handbook** for more information on models for working with contractors.

As shown in the table below, each of these approaches has its own risks, advantages and disadvantages.

Program Administrator Service Delivery

	Self-Administrator	Partnership	Third-Party Implementer
Method			
Definition	<ul style="list-style-type: none"> Provides all services and financial incentives directly to the customer Administers and implements the program in its entirety 	<ul style="list-style-type: none"> Works with a partner organization that has existing relationships (with customers, contractors, or financial institutions) to deliver services to the customer Can delegate implementation of some aspects of their program to a third-party implementer (optional) who also delivers services to the customer 	<ul style="list-style-type: none"> Works with a third-party implementer to deliver services to the customer (i.e., financial services, incentives, etc.) Program administrator provides oversight and management to the efficiency program but a third-party implementer executes program initiatives
Examples	<ul style="list-style-type: none"> State and local organizations (i.e., local efficiency programs) Non-profit organizations (i.e., community development organizations) 	<ul style="list-style-type: none"> Non-profit organizations For-profit third party implementers Financial institutions (banks, credit unions, etc.) Utility 	<ul style="list-style-type: none"> For-profit third-party implementers
Risks	<ul style="list-style-type: none"> Lack of relationship with market participants (e.g., need to hire all expertise in-house) All costs incurred by program administrator 	<ul style="list-style-type: none"> No direct relationship with the customer Can be difficult to find partners with aligned goals and abilities 	<ul style="list-style-type: none"> No direct relationship with customer Fee associated with relationship can be high
Benefits	<ul style="list-style-type: none"> Better understanding of customer needs through direct relationship with customer Allows program administrator direct control over all services Cost savings through no third-party fees 	<ul style="list-style-type: none"> Leverages partner organization's existing relationships Costs of program marketing and operations shared with partner/third party (may represent lower cost option to program) 	<ul style="list-style-type: none"> Allows contracting of work to subject matter experts Establish funds with financial institutions to increase private-sector leverage Some costs borne by third party

Source: [Better Buildings Neighborhood Program Business Models Guide](#), U.S. Department of Energy, 2012

Self-administer

When program administrators self-administer and provide some or all program services directly to customers, they have the opportunity to develop a deep understanding of customers' needs. This understanding can facilitate quality control and flexibility to respond to market conditions; however, it can also limit the program administrator's relationship with key market participants—such as contractors conducting assessments and upgrades or financial institutions providing loans. These organizations may see your organization as a competitor. Additionally, with the self-administrator model, your organization will likely need to hire experts directly, which can result in higher operational costs, compared to partnering with organizations with in-house expertise.

Third-party Implementers

At the other end of the spectrum, a program administrator can leverage third-party implementers to deliver the program. With this approach, the program administrator can tap into these organizations' subject matter experts and transfer some costs to the third-party organizations that are delivering services. Additionally, [establishing financing mechanisms](#) such as consumer loans and partnering with financial institutions will increase private-sector financial contributions to the market. Your organization may be removed from day-to-day program operations, which could limit your organization's ability to make effective and timely decisions affecting your interactions with customers and contractors. One example of a program using a third-party program implementer to execute program initiatives, including handling incentive payments and designing and conducting marketing campaigns, is [New Jersey's Clean Energy Program](#).

Partnership

The partnership model is a hybrid of self-administering and using a third-party implementer. In a partnership, a program administrator works with an organization that has existing market relationships to run the program and delegates some aspects of program implementation to a third-party implementer, if desired. The program administrator has no direct relationship with the customer (the partner organization delivers services to the customer), but benefits from leveraging the partner's existing relationships and cost-sharing of program marketing and operations. An example of the partnership model is [Michigan Saves](#), which partners with regional organizations, utilities, and local community action agencies to deliver the program throughout the state.

[In Their Own Words: Partnerships Can Benefit Energy Efficiency Programs and Utilities](#)



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

Engaging Home Performance Contractors and Home Improvement Trades

No matter which approach or hybrid of approaches you choose, you will need strategies for effectively working with home performance contractors and home improvement trades.

Home performance contractors generally treat a home as an interconnected system and provide a comprehensive suite of upgrades to be made all at the same time. For example, upgrading a heating and cooling system could be coupled with air and duct sealing and adding attic insulation. The benefits of this approach include maximizing immediate energy savings, saving on the overall cost of the upgrades by bundling them together, and ensuring all parts of the system are working in concert with each other. Examples of programs implementing a whole house approach include [Energy Upgrade California](#), [Illinois Home Performance](#) and other [Home Performance with ENERGY STAR](#) program sponsors.

Programs can also work with individual home improvement trades (e.g., HVAC contractors; window, siding and remodeling firms; insulation contractors) to engage consumers and complete efficiency improvements through individual repair and improvement transactions over the life of home ownership. This approach can accelerate the realization of energy savings from one or more measures that can be deployed and scaled to a high volume of transactions. Single upgrades are often provided as a complementary measure to improvements the homeowner is already planning (e.g., equipment maintenance or repair, roof replacement, single room renovations), laying the groundwork for implementing future measures and creating a long-term relationship with the homeowner. Examples of programs implementing a staged upgrade or single measure approach include [Energize Connecticut](#), [Tennessee Valley Authority](#), and [EnergySmart](#) in Boulder, Colorado.

For additional information about working with home performance contractors and individual trades, see the [Workforce handbooks](#) and the [Department of Energy's Home Improvement Catalyst](#), respectively.

Determine the customers to whom you will provide services

Use the information collected in your [market assessment](#) to answer the following questions, which in turn will help you decide which customers to focus on:

- What target markets will help your organization meet its [vision, mission, and goals](#) related to energy efficiency?
- What is the estimated overall demand for each service being provided in each of your potential target markets?

Your selected customer base will influence design decisions in your business model. For example, if you are focused on higher-income customers who can pay out-of-pocket, you might devote fewer resources to financing but more to [branding, marketing, and outreach](#) tailored to these customers. If you are focused on moderate-income customers, you might need [more resources for incentives and financing](#); however, you might be able to adequately access your target market by partnering with existing institutions (e.g., housing organizations; community or economic development groups) rather than by investing significant resources in marketing.

For more detail on how to refine your target market for your specific residential energy efficiency program(s), see the [Program Design & Customer Experience handbook on making design decisions](#).

Determine what assets and infrastructure you will need to implement your program

Your market position, organizational structure, potential partnerships, service offerings, customers, and other aspects of your business model will help you determine what types of assets and infrastructure you will need. You should work with your colleagues and partners to determine:

- What new, or upgrades to existing, information technology systems are needed to efficiently and effectively run the program?
- What investments in physical infrastructure (e.g., office space and equipment) are needed?
- What non-physical assets (e.g., market data, brand, consumer data) are critical to your success? For example, utilities typically have access to ratepayer energy-use data, which is a very critical asset for identifying target markets and selecting services to offer them.
- What in-house training and certifications are necessary within your program to provide services?
- If you will offer technical assistance to customers, will you need more subject matter experts to effectively service your customer base?

Identify sources of funding and operation costs to develop your financial model

Your financial model describes your sources of funding, including initial grants or investments as well as ongoing revenue sources, and costs to operate your program. Because the funding to administer residential energy efficiency programs can come from multiple sources, the following questions will help you develop your financial model:

- What types of costs will you incur (e.g., operating expenses, labor, administrative costs)?
- If you are interested in access to utility funding – now or in the future – do the benefits and costs of your service meet your local utility's [cost-effectiveness test](#)?
- What are your forecasted costs and revenues, three to five years out?
- What sources of initial funding will you seek (e.g., grants, institutional investments)?
- What sources of ongoing revenue will you use (e.g., profit from services, long-term grants)?
- What major factors can influence changes in revenues or costs over time (e.g., number of customers, sources of funding)?
- What and how will your organization finance the investments that are needed (e.g., self-funded, via loan, grant, or foundation)?
- What are the expectations and commitments tied to the type of funding you choose (e.g., produce an annual report, pay loan back at what monthly cost and over what period of time)?
- What are the consequences, based on your funding source, if your organization goes bankrupt? How much time do you have to prove financial viability?

See the U.S. Environmental Protection Agency's three-part webinar series from May/June, 2012 on [funding for clean energy programs](#) ([Part 2](#), [Part 3](#)).

Structure your assessment of costs in terms of fixed and variable costs to understand the variables of your financial model.

- **Fixed costs** are overhead costs incurred regardless of the volume of work performed. They include costs such as management and administrative staff salaries and benefits, information systems, office expenses, and branding.
- **Variable costs** change depending on the success of your program effort and the volume of your work. They include rebates, loan buy-downs, employee and contractor training costs, and salaries and benefits of employees providing direct customer services.

Nuances of Fixed and Variable Costs in the Utility Environment

In the regulated utility environment, fixed and variable costs are defined in program regulations. Utility companies are allowed to set aside a certain percentage of total program funds to be incurred as variable and fixed costs. In some cases, the approach to defining fixed and variable costs creates a disincentive to invest in energy efficiency and conservation programs because utilities lose revenue when electric consumption declines while fixed costs remain unchanged.

To address this issue, the Idaho Public Utilities Commission instituted a [fixed cost adjustment mechanism](#) to ensure that utilities recover the fixed costs of serving customers regardless of the amount of energy conservation.

The program your organization is able to offer will have limited growth potential without ongoing revenue streams. Organizations need to think broadly about potential funding sources. To date, many non-utility programs have used initial grant funding to distribute financial incentives directly to homeowners. These financial incentives or rebates drive down the cost of home energy upgrades to homeowners and enable program administrators to quickly drive demand and reach program targets. This reliance on grant funding, however, may have two unintended side effects:

- It limits program growth because programs that do not generate revenues from sales can provide services only up to the amount of their grant funding.
- By providing incentives to homeowners, programs spend their grant funding much more quickly than they might wish to if they are seeking a longer-term role in the market. This model is not sustainable if grant funding is not maintained.

A grant by nature has a defined end date or expenditure amount, which means additional funding sources may be required to keep essential operations running while additional grant or other funding is procured.

Life Cycle and Revenue of the Program Administrator

Source: [Better Buildings Neighborhood Program Business Models Guide](#), U.S. Department of Energy, 2012

While direct subsidies to consumers drive short-term demand, program administrators (and third-party implementers) should seek to implement programs that generate sustainable revenue streams. To create a sustainable financial model or structure, you need to evaluate your local market to determine what potential demand for various services can be used to create revenue. Key steps in this process include:

- Draw on your [market research](#) to identify service offerings that could be additional sources of revenue beyond grant funding (see below for sources to consider). These service offerings can either differentiate the organization from other industry players or complement existing products and services.
- [Engage with local home performance contractors and other partners](#) to ensure that your organization will add value to the local market rather than providing services that will generate little to no demand.
- Create a basic [pro forma financial model](#), a forecasted financial statement designed to show future revenues. Use it to explore different scenarios to determine optimal use of funds.

Below are some revenue sources to consider.

Fee-Based Revenues

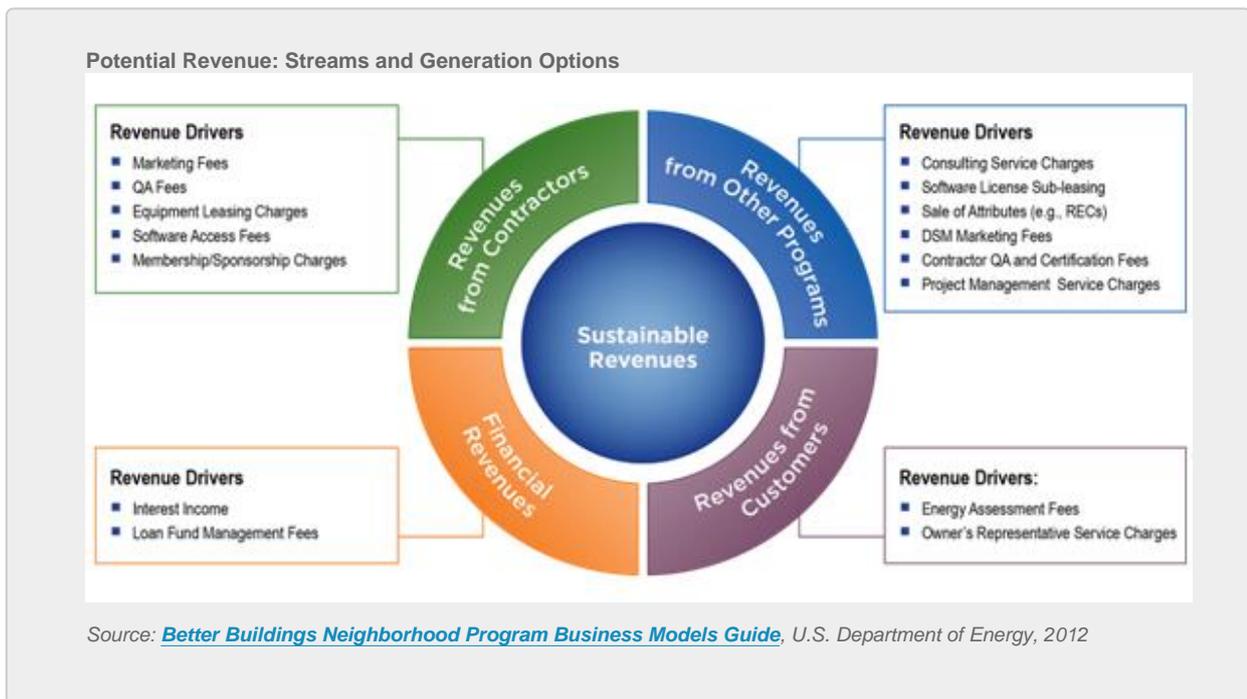
- Financing-based revenues from interest income (e.g., for referrals or loan management).
- Customer-paid fees from administering utility-based (ratepayer-funded) programs.
 - An in-depth [examination](#) of selected program strategies implemented by the DOE Better Buildings Neighborhood Program (BBNP) grantees found that programs that continued beyond the grant period most commonly were receiving ratepayer funding – either by being incorporated into expanded utility (or energy agency) home upgrade offerings, or by remaining as a program implemented by the grantee as a third-party implementer to a utility or as a complement to a utility program.
 - Recognize that ratepayer funding can change over time because budgets and allowable uses are set by state and local regulators and driven by factors such as political changes, economic factors, and policy changes.

- Contractor fees in exchange for program-generated leads, marketing, quality assurance, information technology services, equipment rental, rebate processing, or any other administrative services.
 - Research conducted for the development of the [Better Buildings Neighborhood Program Business Model Guide](#) suggests that leads cost contractors \$100 to \$400, or around \$250 on average. Several Better Buildings Neighborhood Program partners are considering charging lead generation fees to contractors and note that the value of the lead to contractors is partially dependent on the quality of the lead and the number of leads that result in work.
 - For example, [Michigan Saves](#) charges contractors a fee for quality assurance. For each project, contractors pay 1.99% of total project costs into a pool of funds for quality assurance services.
 - Customer fees to pay for energy advising or quality assurance.

Other Funding Sources

- Employer-based financing.
 - With this strategy, program administrators encourage other organizations to provide loans for energy efficiency upgrades through the program to their employees as a benefit; the loans are paid back via payroll deductions.
- State and/or federal economic development or other funds.
 - For example, [Community Development Block Grant funds](#) from the U.S. Department of Housing and Urban Development provide communities with resources to address a wide range of unique community development needs.

Current residential energy efficiency programs are also looking into the viability of other creative sources of revenue. These often involve the sale of energy efficiency attributes, such as [energy savings in forward capacity markets \(presentation, transcript\)](#), carbon reductions associated with decreases in energy use, or the sale of “green power.” Note that entering these markets requires a thorough understanding of relevant policies, regulations, and measurement and verification protocols. The [Federal Energy Regulatory Commission’s information about industry activities](#) is a good place to start for information.



Non-energy benefits of a residential energy efficiency program may resonate more with some funding organizations or potential partners. Residential energy efficiency programs also advance public health, safety, comfort, economic development, and other objectives. For example, partnering with low-income housing programs to combine and integrate energy efficiency services broadens the pool of potential funding sources to include funding allocated for the low-income housing market.

As you develop a financial structure for your organization, assess potential risks to costs or revenues. Consider whether a potential cost structure (especially high fixed costs) will be jeopardized if expected revenues (especially those based on customer volume) are lower than expected. Various options—such as pilot projects or staged investments—can help you mitigate these risks.

Determine your governance structure

If your organization is already established and ready to provide energy efficiency services, then you will not need to spend time determining your governance structure. If, however, you are creating a new organization or considering a significant shift in governance as part of your business model, you will need to consider several questions to help determine the right governance structure for your organization:

- In light of your [partnerships](#), who will be involved in developing your organizational strategy (e.g., assisting in developing goals and objectives) and making operational and other decisions about your organization's energy efficiency service delivery?
- What is the institutional arrangement for making these decisions (e.g., executive director, board of directors, advisory committee)?
- Once a decision is made, who has responsibility for oversight (e.g., executive director, board of directors, advisory committee)?
- What are the opportunities and constraints provided by your governance approach, including any legal or regulatory opportunities and constraints (e.g., a NGO can raise outside money while a government agency cannot)?

Non-utility program administrators typically include:

- **Government agencies (state or local government).** Government agencies typically provide funding, administer programs, and, in some cases, conduct day-to-day program implementation.
 - Examples include [NYSERDA](#) and [Energy Smart](#).
- **Private companies.** Private companies (typically consulting firms) often contract with a utility or government agency to administer and implement a program, via a legally binding contract or under a grant agreement.
- **Non-governmental organizations (NGOs).** NGOs contract with a utility or government agency, or operate autonomously with energy efficiency service delivery as their primary or a secondary goal.
 - Examples include: [Enhabit](#), [Greater Cincinnati Energy Alliance](#), and [NeighborWorks of Western Vermont](#)

Non-utility program administrators typically direct and oversee public and other funds to implement residential energy efficiency programs. They must often meet goals established with funding organizations, such as performing a certain number of home energy upgrades or achieving a certain level of energy savings in a particular area during a specific period. To date, many of these organizations have been grant funded and have needed to comply with grant requirements. Over time, as organizations shift away from grant funding, they will gain greater flexibility but will need to rely more on other types of revenues.

Governance models for utility programs vary, depending on utility type:

- Municipal or publicly owned utilities are generally regulated at the local level rather than the state level.
 - Examples include [Cape Light Compact](#) (Cape Cod), the [Sacramento Municipal Utility District](#), and [Austin Energy](#).
- Cooperative utilities have service offerings driven by the decisions of their member customers.
 - Examples include the [Kauai Island Utility Cooperative](#) (Hawaii) and [Idaho Consumer-Owned Utilities Association](#), a utility composed of a group of cooperatives.
- Investor-owned utilities have a traditional corporate governance structure. They are subject to regulation and oversight by public utility commissions and are often required to serve a certain amount of demand through energy efficiency; they are also subject to state regulations. Investor-owned utilities are common in New England, the Pacific Northwest, and California.
 - Examples include [Eversource](#), [Southern California Edison](#), and [PacifiCorp](#).

Utility Governance Models

	<i>Municipal Utility</i>	<i>Cooperative Utility</i>	<i>Investor-Owned Utility</i>
Description	Nonprofit utilities owned by municipalities	Nonprofit utilities owned by their customers/members	Utilities owned by their shareholders
Key Decision-Makers	Elected officials, board (elected or appointed), executive management	Members, executive management	Shareholders, board of directors, executive management
Profit Requirement	Break even with recovery of costs through rates	Break even with recovery of costs through rates	Shareholders' required rate of return or allowable return under regulations

Source: Booz Allen research

Source: [Better Buildings Neighborhood Program Business Models Guide](#), U.S. Department of Energy, 2012

As regulated monopolies, utilities may choose to prioritize reliability and reasonable cost above clean energy, unless directed otherwise. Electric and gas utilities' revenues—with the exception of those in decoupled markets—are directly related to their sales of electricity or gas. Thus, efficiency programs that result in selling fewer units of electricity or gas are in direct conflict with their business models, which understandably can cause concern. Regulated utilities are directly influenced by public utility commissions, which regulate these utilities and significantly influence their activities.

To facilitate the regulatory review cycle, many states have adopted a mandatory Integrated Resource Planning (IRP) process that their utilities must follow. Under the IRP process, a utility must submit a plan to its regulator that outlines the state of its current infrastructure and the projected future investments needed to maintain grid reliability. The utility must also meet any required renewable or energy efficiency targets. Influencing the development of an IRP is an important strategy that organizations can pursue to enhance utility energy efficiency programs. The schedule for IRPs varies depending on utility commission. See the Better Buildings Neighborhood Program webinar [Exploring Opportunities for Energy Efficiency as a Revenue Stream in the Forward Capacity Markets \(presentation, transcript\)](#) for more information on IRPs.

Another approach is to research and identify when the utility's next rate case will take place. The rate case is the point at which most utilities make program decisions, such as whether to partner with or develop a new energy efficiency program. Organizations considering partnering with a utility should review the public proceedings of past rate cases to understand what programs are currently in place and what cost-effectiveness tests the utility uses to approve or deny programs.

Non-utility and utility programs have different advantages and disadvantages in the home improvement market, as outlined below.

Outline your business model

After identifying your customers, services, assets, and infrastructure; developing your financial model; and defining your governance structure, you are ready to pull all of that information together into a business model. The U.S. Department of Energy has developed a [business model worksheet](#) that you can use to help understand and describe key aspects of your business model.

The following sample business model schematics outline four different approaches that a program administrator might consider when developing business models. (In each case, the example program is transitioning from a grant-funded environment to a post-grant period.)

- [A program seeking to continue operations in the post-grant period as a not-for-profit entity.](#)
- [A program that builds private-sector capacity then phases out and stops operating.](#)
- [A program seeking to continue in the post-grant period as a marketing contractor to a utility.](#)
- [A program that establishes itself as a government entity, then operates using a fee-based structure.](#)

RePower Programs in Washington State Consider Business Model Options

The [RePower Bainbridge](#), Kitsap, and Bremerton programs in Washington state convened local community leaders, organizations, contractors, and program partners for a planning summit to consider the benefits and challenges of different business models for the post-grant period. Participants considered four models: nonprofit organization, utility, county or city government, and private sector.

From Non-profit to For-profit: Changing Business Models to Achieve Success

When federal resources began running out to support Twin Falls, Idaho's [South Central Community Action Partnership](#) (SCCAP), a low-income weatherization assistance program provider, the non-profit looked for ways to change its business model. The SCCAP developed a for-profit limited-liability corporation that allowed it to continue its mission. In order to make this happen, the idea first had to be presented in the form of a business model - covering what services would be performed, who would perform them, how it would be financed, and expected profits - to the SCCAP Board of Directors. After setting up the legal structure, creating an operating agreement and marketing plan, and setting rates, the Board granted final approval. The new social enterprise model of management provided the opportunity to generate the non-federal resources needed to continue providing energy efficiency services in the area.

Decide whether to proceed based on the viability of the business model

After developing an outline of your business model, you need to step back and make the decision—ideally with the involvement of partners and stakeholders—about whether it will be viable. Then make the critical decision about whether or not to move forward. You should be open to the possibility that your market does not allow for a viable program, at which point you need to decide whether to revisit the decisions that make up this business model (e.g., costs, funding sources, governance structure, service offerings) to see if changes could be made to make it more viable, or to put your plans on hold.

Alternatively, you might determine that your business model is viable given market opportunities and constraints. If so, the next step will be drafting a more [detailed business plan](#) that outlines your assumptions and can enable fundraising.

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.

Adapt your business model to fit your external environment

To develop a successful business model, Better Buildings Neighborhood Program partners found it critical to have a strong understanding of the external environment within which they operated. This included who their customers were, who their competitors and partners were, what key policies governed their work, and what trends were likely to impact their ability to accomplish their goals and fulfill their mission. Understanding the external forces that affected their market allowed the organizations to better identify services that met customers' and partners' needs and develop a more robust business model. Many organizations adapted their business model to overcome challenges and leverage opportunities as local conditions and their understanding of how their business operated within the market evolved.

- When the [New Hampshire Better Buildings program](#) began, there were numerous energy efficiency programs operating independently in the state (e.g., by multiple utilities), and only informal coordination among activities was occurring. Customers were often overwhelmed trying to determine which programs they qualified for, how to fill out all the required paperwork, and which contractors they were able to work with. The program quickly learned that their business model needed to be well-integrated with other energy efficiency programs in the state, in order to provide value to customers and contractors while enabling long term growth for the efficiency market.

In response, the program took a collaborative approach to their business model design and partnered with the utilities' rate-payer funded Home Performance with ENERGY STAR (HPwES) program. Combining programs leveraged the utility programs' existing queue of upgrade projects, procedure for assessments and upgrades, and database for collecting information about each project. A single program and process also made the most sense for residential customers, who were more likely to move forward with a project if they did not have multiple programs and processes to figure out. The utility companies benefitted from the partnership because the additional funds from Better Buildings allowed them to expand their program's reach. Combining efforts and utilizing each program's strengths led to consistent marketing and messaging, more efficient processes for contractors, one-stop shopping for customers, and a streamlined approach to financing.

- The [Neighbor to Neighbor Energy Challenge's](#) (N2N) original program design used community-based social marketing (CBSM) to acquire and feed leads into the existing ratepayer funded Home Energy Solutions (HES) assessment program. N2N expected that contractors would convince customers to take advantage of rebate programs to complete home energy upgrades; however, over the first two years of the program, they saw many of the leads they generated stall after the assessments. N2N realized that they had limited influence over the contractor network with this approach and that the HES program design did not incent contractors and customers to complete upgrades. They shifted their business model and focused marketing and outreach resources on new strategies, such as direct lead acquisition, in order to acquire customers who were more likely to proceed straight to completing upgrades.

Consider a diversity of funding and revenue sources and make selections based on local opportunities when planning for long-term program sustainability

In order to craft a sustainable financial model, organizations need to identify long-term sustainable revenue sources. As with the Better Buildings Neighborhood Program, grant funding can be a great way to get an effort off the ground; however, grant funding does run out, leaving the need to secure alternate revenue sources. Many Better Buildings Neighborhood Program partners overcame this challenge by aligning revenue opportunities with gaps or untapped potential for business in their local market. In some cases, several years were needed to gain trust and demonstrate results before funding was secured, so the sooner you begin considering options, the better the chances are of finding and securing one that is viable. Consider a wide range of options and pursue those opportunities that best match what your organization and local market have to offer. See a detailed list of potential funding sources in the [Market Position - Develop a Business Model handbook](#).

- In 2010, St. Lucie County in Florida was awarded an Energy Efficiency and Conservation Block Grant and created the [Solar and Energy Loan Fund](#) (SELF), expecting that property assessed clean energy loans (PACE) would be an integral part of the residential loan structure. When Freddie Mac and Fannie Mae challenged the residential PACE system nationwide, SELF shifted direction. They evolved through a multi-year process into a certified community development financial institution (CDFI) focused on energy efficiency and renewable energy upgrades for the residential sector. They targeted low and moderate income populations that had been especially affected in Florida by the economic crisis in 2009.

- The change meant that SELF no longer had access to capital from investors seeking highly secured and profitable investments through PACE; however, becoming a CDFI allowed SELF to diversify its products and receive new types of support in the form of grants for technical assistance and loan capital. By becoming a certified CDFI, SELF was able to attract capital from banks as Community Reinvestment Act (CRA) investments and establish legitimacy in the eyes of other socially responsible investors. For example, in the last year of operating under the Better Buildings grant, SELF contacted faith-based foundations that seek to make socially responsible community investments. Over the year and a half after the Better Buildings grant, SELF raised an additional \$835,000 from 5 different religious organizations.
- Under their business model, SELF faced some challenges limiting their ability to attract capital. For example, even though they implemented new policies to have Uniform Commercial Codes and a more strict collections process, capital providers are still wary of the fact they provide “unsecured” loans. Nevertheless, SELF’s portfolio results of less than 1% default and less than 3% delinquency helped prove that they had a good evaluation method and their risk management procedures were effective. The new CDFI business model allowed SELF to become self-sufficient by providing a platform to offer financial and non-financial services that could generate diversified revenue streams. These revenue sources include interest and fees earned on their investments; fees from off balance sheet portfolios such as commercial PACE; and fees from partnering with other financial institutions to sell their financial product and other activities such as contractor training.

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

[A Business Case for Home Performance Contracting \(9 MB\)](#)

Author: Pacific Northwest National Laboratory

Publication Date: 2012

This report contains information on the market for home performance upgrades and the opportunities that exist for new home performance contractors; start-up needs and costs for firms entering the home performance contracting industry; home performance business approaches; and how established home performance contractors attract customers. It also contains detailed profiles of eight successful home performance firms across the United States.

[Making Nonprofit Work in a For-Profit World](#)

Author: Home Energy Magazine

Publication Date: 2011

Article on how one company added a for-profit weatherization business to its nonprofit organization -- and how they now work successfully together.

Program Presentations & Reports

[What's Working in Residential Energy Efficiency Upgrade Programs: Greater Cincinnati Energy Alliance](#)

Author: Andy Holzhauser, Greater Cincinnati Energy Alliance

Publication Date: 2011

Presentation on the organization, funding structure, and market focus of the Greater Cincinnati Energy Alliance.

[RePower Considers Business Model Options](#)

Author: RePower Bainbridge

Publication Date: 2012

The RePower programs in Washington State convened local community leaders, organizations, contractors, and program partners for a planning summit to consider the benefits and challenges of different business models for the post-grant period. Participants considered four models: non-profit organization, utility, county or city government, and private sector.

[Best Practices - Sustainable Revenue Sources for Local Energy Alliances \(1 MB\)](#)

Author: Clean Energy Solutions, Inc.

Publication Date: 2010

Presentation describing sustainable revenue sources for local energy alliances.

[Rebuilding Our Local Economy: One Home at a Time](#)

Author: Clean Energy Works Oregon (now Enhabit)

Publication Date: 2012

Clean Energy Works Oregon (now Enhabit) provides a simple four-step process for homeowners seeking energy upgrades. It includes: (1) apply, (2) assess, (3) finance, and (4) transform. Along with financing, rebates are available for home energy assessments and energy upgrades (rebates vary based on energy savings). As of June 2012, the program completed 1,800 home energy remodels, received over 90% customer satisfaction, and saved \$500,000 in energy costs.

[Energy Upgrade California in Los Angeles County: The Flex Path Program](#)

Author: Steve Culbertson, BKi

Publication Date: 2012

This presentation talks about Energy Upgrade California's Flex Path pilot program which offers a menu of upgrade options for homeowners to select. Its flexible approach has been popular with middle-income homeowners interested in upgrades.

[Cleveland EnergySaver Pilot Program \(From Pilot to Permanent Program\)](#)

Author: Kristin Hall, Cleveland Mayor's Office of Sustainability; Anand Natarajan, Cleveland Mayor's Office of Sustainability

Publication Date: 2012

Presentation on efforts of Cleveland to create a sustainable business model.

[Better Buildings Pro Forma: Local Energy Alliance Program--Virginia](#)

Author: Local Energy Alliance Program

Publication Date: 2012

This presentation explains the pro forma spreadsheet used by Virginia's Local Energy Alliance Program to evaluate program impact.

Program Materials

[Greater Cincinnati Energy Alliance: Strategic Plan](#) (349 KB)

Author: Greater Cincinnati Energy Alliance

Publication Date: 2011

This strategic plan describes the goals, objectives, market, and business model for the Greater Cincinnati Energy Alliance's energy efficiency program and service offerings.

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

[Business Model Worksheet \(248 KB\)](#)

Author: U.S. Department of Energy

Publication Date: 2011

Worksheet for program administrators to map out their programs' business model framework.

[Sample Business Plan Framework: Not-for-Profit \(NGO\) Entity \(237 KB\)](#)

Author: U.S. Department of Energy

Publication Date: 2011

Sample business plan framework for a program seeking to operate as a not-for-profit entity.

[Sample Business Plan Framework: Building Private Sector Capacity \(270 KB\)](#)

Author: U.S. Department of Energy

Publication Date: 2011

Sample business plan framework for a program seeking to build private sector capacity then phase out and stop operating.

[Sample Business Plan Framework: Marketing Contractor to a Utility \(227 KB\)](#)

Author: U.S. Department of Energy

Publication Date: 2011

Sample business plan framework for a program seeking to operate as a marketing contractor to a utility.

[Sample Business Plan Framework: Government Entity Operating Using a Fee-Based Structure \(256 KB\)](#)

Author: U.S. Department of Energy

Publication Date: 2011

Sample business plan framework for a program that establishes itself as a government entity, then operates using a fee-based structure.

[Energy Impact Illinois Reporting Packet for Whole Home Projects](#)

Author: Energy Impact Illinois

Publication Date: 2014

This packet contains all the contractor reporting and verification forms required by Energy Impact Illinois.

[PG&E Whole House Survey \(95 KB\)](#)

Author: Pacific Gas and Electric Company

Publication Date: 2012

Homeowner survey created by the utility to inform their whole home upgrade program.

Tools & Calculators

[The Partnership Evaluation Framework: How to Evaluate a Potential Partner's Business Model and Identify Areas for Collaboration \(89 KB\)](#)

Author: U.S. Department of Energy

Publication Date: 2011

Table showing business model frameworks, their relevance, key metrics, and questions for consideration.

[Pro Forma Resources: Draft Contractor Pro Forma Tool \(1023 KB\)](#)

Author: National Home Performance Council

Publication Date: 2012

Tool to evaluate contractor impacts on program revenue.

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

[Business Models 101 - Terminology and Basic Concepts](#)

Author: U.S. Department of Energy

Publication Date: 2011

Presentation aimed at program administrators summarizing business model elements and their usage (i.e., governance, financial structure, assets & infrastructure, and customers).

[Transitioning to a Utility Funded Program Environment: What Do I Need To Know?](#)

Author: U.S. Department of Energy

Publication Date: 2013

Presentation that provides insights from a utility executive on how energy efficiency programs can effectively partner with utilities.

[Energy Efficiency: Serving the Cooperative Consumer/Owner](#)

Author: Environmental and Energy Study Institute

Publication Date: 2011

Presentation explaining the advantages and challenges of electric cooperatives, and discussing the implementation of an energy efficiency program operated by an electric cooperative in South Carolina.

[Pay As You Save \(PAYS\) Tariffed On-Utility Bill Efficiency System](#)

Author: Paul Cillo; Energy Efficiency Institute; Inc.

Publication Date: 2011

Presentation providing an overview of the PAYS financial model, including information on risks and how to manage them, and successful program examples using the PAYS model.

[Staged Upgrades as a Strategy for Residential Energy Efficiency](#)

Author: U.S. Department of Energy

Publication Date: 2015

This summary from a Better Buildings Residential Network peer exchange call focused on the challenges, requirements and opportunities to advance staged upgrades in the home upgrade market.

[Staged Upgrades: Homeowner-focused Strategies for Encouraging Energy Upgrades Over Time \(201\)](#)

Author: U.S. Department of Energy

Publication Date: 2015

This summary from a Better Buildings Residential Network peer exchange call focused on how to involve homeowners in staged energy efficiency upgrades and what information is appropriate to share with them at each stage.

Publications

[Better Buildings Neighborhood Program Business Models Guide](#)

Author: U.S. Department of Energy

Publication Date: 2012

This report serves as a resource for program administrators and building contractors who are or may be interested in starting or expanding their services into the residential energy efficiency market.

Webcasts

[Exploring Opportunities for Energy Efficiency as a Revenue Stream in the Forward Capacity Markets Presentation \(2 MB\)](#), [Media](#), [Transcript](#)

Author: Terri Esterly, PJM Capacity Market Operations; Doug Hurley, Synapse Energy Economics Inc.

Publication Date: 2012

Webcast on utility forward capacity markets and how energy efficiency programs may access these markets as a potential source of revenues.

Partnering with Utilities Part 1 -- Successful Partnerships and Lessons from the Field

[Presentation](#), [Media](#) (68 MB), [Transcript](#)

Author: Jennifer Clymer, ICF International; Philip LaMay, Allegheny County, Pennsylvania; Christian Willis, Denver, Colorado; Sharon Procopio, Denver, Colorado

Publication Date: 2011

This webcast served as a roundtable for communities to describe successful partnerships between local governments and utilities that enabled the local governments to implement new clean energy programs or enhance existing ones.

Partnering with Utilities Part 2-Topics for Local Governments-Creating Successful Partnerships with Utilities to Deliver Energy Efficiency Programs

[Presentation](#), [Media](#) (65 MB), [Transcript](#)

Author: Jennifer Clymer, ICF International; Neal De Snoo, Berkeley, California; Dan Schoenholz, Fremont, California; Catherine Squire and Gina Blus, Pacific Gas and Electric Company; Jon Ippel, Orlando, Florida; Cameron Saulsby, Orlando Utilities Commission

Publication Date: 2011

This webcast focused on advanced topics for local government-utility partnerships, with presentations from local governments and their partnering utilities that have well-developed, multi-year relationships and programs.

Part I: Getting Started: Answering Big Picture Funding Questions

[Presentation 1](#), [Presentation 2](#), [Presentation 3](#), [Presentation 4](#), [Transcript](#)

Author: Neelam Patel, U.S. Environmental Protection Agency; Pat McGuckin, The Cadmus Group, Inc.; Shawn Collins, Opportunity Council and Alex Ramel, Sustainable Connections; Richard Dooley, Arlington County, Virginia

Publication Date: 2012

This webcast (Part I of a three-part series) covers the big picture questions that local governments should consider for funding clean energy programs. What resources are available? What are the program priorities? How can these programs pay for themselves? What funding is available? The webinar guides local governments through these and other questions in the context of their own unique circumstances and illustrates the concepts through case studies that explore how local governments have used both conventional and unconventional methods to gain support, line up partners, and design and implement their funding programs.

Part II: Getting it Funded: Finding Funding for your Clean Energy Programs

[Presentation 1](#), [Presentation 2](#), [Presentation 3](#), [Presentation 4](#), [Presentation 5](#), [Transcript](#)

Author: Neelam Patel, U.S. Environmental Protection Agency; Pat McGuckin, The Cadmus Group, Inc.; Marvin Lee, School District of Philadelphia, Pennsylvania; Nate Boyd, City of Orlando, Florida

Publication Date: 2012

This webcast (Part II of a three-part series) discusses how climate and clean energy programs can find funding.

Part III: Keeping it Going: Financing Options for your Clean Energy Programs

[Presentation 1](#), [Presentation 2](#), [Presentation 3](#), [Presentation 4](#), [Presentation 5](#), [Presentation 6](#), [Transcript](#)

Author: Neelam Patel, U.S. Environmental Protection Agency; Pat McGuckin, The Cadmus Group, Inc.; Niko Dietsch, U.S. Environmental Protection Agency; Keith Canfield, Clinton Climate Initiative; James Christensen and Yvette Rincon, City of Sacramento, California

Publication Date: 2012

This webcast (Part III of a three-part series) covers how to choose and implement financing options that meet local needs.

Energy Efficiency Cost-Effectiveness Testing

[Presentation 1](#), [Presentation 2](#), [Presentation 3](#), [Presentation 4](#), [Presentation 5](#), [Media](#)

Author: Steven Schiller, Schiller Consulting; Snuller Price, Energy and Environmental Economics Inc.; Sami Khawaja, The Cadmus Group Inc.; Tim Woolf, Synapse Energy Economics; Tom Eckman, Northwest Power and Conservation Council

Publication Date: 2014

This webcast provides an introduction to cost-effectiveness testing for energy efficiency programs. It also covers key drivers in the cost-effectiveness results and cost-effectiveness tools developed for the U.S. Department of Energy.

