External Financing for Energy Projects

This worksheet was informed by Financial Allies working with the Department of Energy (DOE) through the Better Buildings Initiative. It is designed to help organizations select appropriate financing mechanisms and shorten the decision-making timeline to enable capital projects.

Overview

Financing is a key part of any capital project. Project managers, sustainability and facilities staff, and financial teams can use the questions below to gather project details and organizational preferences that will guide the selection of optimal financing mechanisms and promote effective conversations with finance professionals.

This worksheet is organized in the following sections:

- **Gather basic project information** including goals, preliminary scope, estimated costs
- **Assess organizational preferences and internal resources** including staffing and ability to manage projects, debt capacity, asset ownership
- **Consider financing time horizons and availability** including timeline for financing, geographic availability, and incentives
- **Combine financing mechanisms and incentives** by considering how to braid and stack sources
- **Consider financing mechanism options** by reviewing key differentiators between financing mechanisms
- **Reach out to DOE Better Buildings Financial Allies or other external financiers** and gather financing documentation

For definitions of key financing mechanisms mentioned throughout this worksheet, please reference the Appendix at the end of this worksheet.

Worksheet

Fill in the worksheet questions below; if your organization doesn't have the information or the topic is not relevant to your organization, you can note that and move on or coordinate internally to gather the information. Once completed, you can use your answers from this worksheet to fill out the DOE Better Buildings Financing Navigator, which will identify the best financing mechanism(s) for your organization's needs. It will also connect you with Financial Allies.

Learn more about the importance of each topic by referencing the light blue box below each guiding question.

1. Gather Basic Project Information

Guiding Question: Does your organization have clear goals for the project/s?

Clear goals will help you evaluate financing options that are best suited for the project/s.

◉ Y ○ N **Does this project fit in with your organization's goals?**

If it does, which of the following does it fit within:

- ☐ Energy savings
- ☐ Reduced maintenance costs
- ☐ Employee/Customer/Student comfort and experience
- ☐ Organizational commitments
- ☐ Reporting
- ☐ Other _____

○ Y ○ N **Has your organization identified what type of reductions this project will achieve**

If so, which of the following does it fit within:

- ☐ Energy
- ☐ Waste
- ☐ Water
- ☐ Emissions
- ☐ Costs
- ☐ Other _____

○ Y ○ N **Is a requirement of the project to pursue building certification?**

If yes, which of the following certifications will be pursued:

- ☐ LEED
- ☐ Phius
- ☐ ENERGY STAR
- ☐ Enterprise Green Communities (EGC)
- ☐ Other _____

Guiding Question: Has the team determined what efficiency measures will be included in the project/s?

The questions below are geared toward existing building upgrades. If it is a new construction project there may be more financing options, as well as the ability to combine financing sources, that are paid back, with funding sources such as incentives, grants, and rebates. Traditional loans are common types of debt financing mechanisms for new construction,which can be combined with other sources such as Small Business Administration and Community Development Financial Institution (CDFI) loans, Freddie Mac/Fannie Mae green loans (for multifamily), Commercial Property Assessed Clean Energy (CPACE) (in some locations), and/or equity investments.

Existing building upgrades focused on energy efficiency or energy generation may benefit from a specialized financing product. For example, an Efficiency-as-a-Service (EaaS) product is designed for energy efficiency whereas a Power Purchase Agreement (PPA) is designed for renewable energy generation.

○ ○ Y N

Is your project an existing building upgrade focused on energy efficiency?

If so, expand on the type of upgrade (e.g., Building Automation Systems [BAS], lighting, HVAC and domestic hot water [DHW] systems, and building envelope improvements):

_____

_____

_____

○ ○ Y N

Does your project include or is it focused on energy production exclusively (e.g., renewables and energy storage)?

○ ○ Y N

Have any of the following energy systems been previously upgraded for energy efficiency?

- ☐ Lighting
- ☐ HVAC
- ☐ Domestic hot water (DHW)
- ☐ Building Automation
- ☐ Transportation
- ☐ Renewable Energy
- ☐ Energy Storage
- ☐ Other _____

○ ○ Y N

Has the team identified Energy Efficiency Measures (EEMs) for implementation?

If yes, list them below:

_____

_____

○ Y ○ N **If EEMs have been identified, have the expected savings/reductions been quantified (e.g., dollars, kW, $MTCO_2e$)?**

If yes, list them below:

_____

_____

○ Y ○ N **If your organization has a deferred maintenance schedule, is it possible to tie project financing into the maintenance planning cycle, and/or bundle multiple projects into one contract?**

Include file names/location of maintenance planning documents or list projects that could be included:

_____

_____

○ Y ○ N **Is access to tenant space required to complete this project?**

If yes, add relevant details here that may impact costs and/or timing of financing:

_____

_____

Guiding Question: Does the team have an estimated cost for the project/s?

The size of the project will impact the type of financing options /mechanisms available. Projects over $500k will generally have more financing options available, such as Energy Savings Performance Contracts (ESPC), CPACE, and stacking financing sources, while smaller projects may be better suited for EaaS, PPAs, On-Bill Financing/Repayment (OBF/R), or traditional loans or leases.

What is the estimated project cost?

☐ Over $500k

☐ Under $500k

2. Assess Organizational Preferences and Internal Resources

Guiding Question: Does your organization prefer to take on-balance or off-balance sheet financing?

On-balance sheet financing appears as a liability and is typically provided through traditional financing models such as loans and leases. Off-balance sheet financing often involves specialized financing mechanisms like EaaS or a PPA and may be suitable if an organization does not desire to take on additional debt.

Y N **If your organization has capacity to take on upfront debt, has the team identified which forms of debt are preferred? (e.g., short/long term loans, leases, bonds, etc.)**

If yes, expand on which forms of debt are preferred below:

Y N **Does your organization require guaranteed savings?**

Y N **If external financing does not cover 100% of the project cost (e.g., design, development, construction, implementation, etc.), is your organization willing to seek other funding opportunities from state, local, federal, or utility incentives, CPACE, EaaS, or bridge or pre-development loans?**

If yes, what type of additional funding might be pursued (continue reading for information on incentives):

Guiding Question: Does your organization prefer ownership of an asset?

Some organizations prioritize ownership of assets (e.g. central plants, HVAC equipment, or solar PV) while others may prefer long-term leases or contracts. If asset ownership is a priority, traditional loans may be the right choice. In contrast, leasing arrangements on building equipment may include Operating Leases, PPAs or Energy Services Agreements (ESA), which are commonly used by EaaS providers.

Y N **Are there organizational policies regarding ownership of assets?**

If yes, add notes/references below:

Y N **Does your organization prefer that the financing institution pay for periodic maintenance service to ensure long-term reliability and performance of the project equipment?**

Guiding Question: Does your organization prefer working with a financing partner who can also implement the project/s?

This will determine the type of finance provider the organization works with. If the organization prefers to work with a single entity for both financing and implementation, turnkey solutions like EaaS and ESPC might be an appropriate fit. If your organization has internal expertise to manage and implement projects, then traditional funding like loans or leases may be desirable.

Y N **Does your organization have internal expertise to manage, install, operate, and maintain efficiency or energy generation projects?**

Guiding Question: Have you identified the right people in your organization to support and manage this work?

Early collaboration between sustainability, facilities, accounting, and other departments is critical to a successful project. Experience with financing energy upgrades and the internal staff's capabilities and capacity will impact the execution and ongoing management of the project.

Y N **Does your organization have experience utilizing financing for energy upgrades?**

If yes, add notes/references below:

What departments or staff managed these projects?

Y N **Does your organization have dedicated internal sustainability staff, and/or an experienced project manager who will champion the project/s? If not, who will support these projects?**

Y N **Will internal staff be responsible for operations and maintenance following the implementation of the project/s? If so, will they require training?**

Y N **For large or complex projects, is bringing on an owner's representative an option?**

Y N **Does your organization have legal and accounting staff who will need to review and sign off on contracts?**

3. Consider Financing Time Horizons and Availability

Guiding Question: Has your organization identified a timeframe for when project financing must be available?

Understanding the organization's financing requirements, mandatory payback periods, and project completion timelines is critical for planning and helps ensure that the project is financially viable. Consolidating and phasing projects can optimize financial and operational efficiency. Some financing mechanisms, such as ESPCs and CPACE, may take longer to negotiate and receive financing, while others, such as commercial loans, are relatively fast and straightforward.

Y N **Does your organization have a mandatory payback period?**

If so, what is it?

_____

Y N **Have any time constraints for project completion been identified?**

If so, what are they?

_____

_____

Y N **Can the financing provider consolidate smaller project opportunities across multiple sites into a unified service contract and assist with the project phasing?**

If so, list the project opportunities that could be included:

_____

_____

Y N **Is the financing mechanism you're considering available in the project region (e.g. CPACE is currently allowed in 31 states, Power Purchase Agreements (PPAs) are allowed in 28 states plus Washington D.C. and On-bill financing/repayment is only offered by some utilities)?**

Notes: _____

Guiding Question: Have you identified funding sources to offset costs such as local, state, federal, or utility incentives?

It's a best practice to identify all available incentives and tax credits during the pre-design phase. Sector-specific considerations for higher education and multifamily are italicized.

Y N **Is your organization eligible to receive income or benefits in exchange for tax credits by transferring them and/or allocating the tax deduction? Review the IRS webpages on Elective Pay and 179D for current guidance.**

Y N **If the organization's tax structure, or the project financing, is complex has the team considered bringing in a third-party tax consultant?**

Y N **Does your organization's utility offer on-bill financing (OBF) programs?**

Y N **Has the team reviewed the following resources for incentives, funding, and rebates?**

Better Building Initiative's Funding and Incentives Hub

ACEEE's State and Local Policy database of city/state/utility programs

Database of State Incentives for Renewable Energy

DOE's Manufacturing and Energy Supply chains database (Industrial)

Your utility to identify rebates or incentives

List the incentives, funding sources, and/or rebates that might apply:

Y N **If the incentive is awarded, does it prevent your organization from receiving other funding?**

Y N ***(Multifamily) Is the organization able to take advantage of tax credits or deductions as provided by the U.S. Department of the Treasury or a local taxing authority?***

If not, has the organization identified potential tax credit investors or other partners to team with on this project? List them below.

Y N *Alternatively, if there is a plan to refinance or take on a new mortgage for the property, can the organization use those loan proceeds to fund improvements?*

(Higher Education) Does the team have a list of funding sources from the university that could be utilized for the energy projects?

Funding Sources	YES	NO
Capital Budget	○	○
Endowments	○	○
Revolving Loan Fund	○	○
General Activity Fees	○	○
Student Fees	○	○
Donors	○	○

4. Combine Financing Mechanisms and Incentives

Sometimes combining multiple funding avenues will help you finance your project faster or result in more funding to do multiple projects at the same time.

Guiding Question: Is your organization able to "braid" multiple types of financing products, or stack financing with funding such as grants or incentives?

○ Y ○ N **Is there an opportunity to braid financing products (e.g. a traditional loan with CPACE)?**

If yes, list potential financing sources to combine:

_____

_____

○ Y ○ N **Does the financing product that a provider offers prevent your organization from applying for incentives or utilizing other financing products?**

Notes: _____

○ Y ○ N **Do the available incentives stack with the financing mechanism that you're considering?**

Consider Financing Mechanism Options

Once you have answered the questions above and the team has collaborated internally to understand the project goals, organizational preferences, and time horizons, it is time to pick a financing mechanism. The financing comparison chart below can help organizations understand the key differentiators between financing mechanisms. Further information is available on each of the financing types on the DOE Better Buildings Financing Navigator. You can also use the Find Financing tool to enter the basic attributes of your project to customize your search and create an individualized comparison chart.

		Commercial Loan	Operating Lease	Efficiency-as-a-Service	Commercial Property Assessed Clean Energy (CPACE)	On-Bill Financing/ Repayment (OBF/R)	Energy Savings Performance Contract (ESPC)	Power Purchase Agreement (PPA)
Basic Attributes	Project Type	Energy efficiency & energy generation projects	Energy efficiency & energy generation projects	Typically energy efficiency projects	Energy efficiency & energy generation projects	Typically energy efficiency projects	Typically energy efficiency projects	Energy generation projects
	Typical Project Size	Low-high cost project	Low-high cost project	$250k and above	$250k and above	$5k- $350k	$500k and above	Low-high cost projects
Balance Sheet & Contract Structure	Balance Sheet Treatment	On-balance sheet	Typically on-balance sheet	Off-balance sheet	Typically on-balance sheet	Varies	Typically off-balance sheet	Typically off-balance sheet
	Equipment Ownership	Yes	No	No	Yes	Yes	Yes	No
	Performance Risk	No performance guarantee	No performance guarantee	Performance guarantee	No performance guarantee	No performance guarantee	Performance guarantee	Performance guarantee
Contract Terms	Contract Complexity	Simple	Simple	Moderate	Moderate	Simple	Complex	Moderate
	Geographic Scope	Available everywhere	Available everywhere	Available everywhere	Varies	Varies	Varies	Varies
	Typical Duration	3-5 years	3-5 years	5-15 years	10-20 years	2-15 years	10-20 years	10-25 years

*The information above may vary based on specific project and organizational considerations

Reach out DOE Better Buildings Financial Allies or other external financiers

Once you have determined your external financing needs using the information above and the Financing Navigator, the next step is to reach out to external financiers, such as the Better Buildings Financial Allies. Financial Allies are market-leading financing companies that have committed to funding energy efficiency and renewable energy projects. Providing education about their financing model is part of their commitment and it's recommended to reach out to a them, or other external financiers, early in your process.

Appendix

1.1 Key Financing Mechanisms and Definitions

Commercial Property Assessed Clean Energy (CPACE) – Financing structure in which building owners borrow money for energy efficiency, renewable energy, or other projects and make repayments via an assessment on their property tax bill. The financing arrangement then remains with the property even if it is sold, facilitating long-term investments in building performance. Only available in states with enabling legislation and active programs.

Efficiency-as-a-Service (EaaS) – Off-balance sheet financing with no upfront capital expenditure for energy and water efficiency projects. The provider pays for project development, construction, operational, and maintenance costs. Once a project is operational, the customer makes service payments that are based on actual energy savings or other equipment performance metrics, resulting in immediate reduced operating expenses. The energy services agreement (ESA) is the most common type of arrangement.

Energy Savings Performance Contracts (ESPC) – Under an ESPC, an energy service company (ESCO) coordinates the installation and maintenance of efficiency equipment in a customer's facilities and is paid from the associated energy savings. The ESCO typically provides a savings guarantee. The improvements are usually owned by the customer and may be installed with little or no upfront cost if the ESPC is financed.

On-bill Financing/Repayment (OBF/OBR) – financing options in which a utility or private lender supplies capital to a customer to fund energy efficiency, renewable energy, or other generation projects and is repaid through regular payments on an existing utility bill. Only available in regions where utilities support on-bill programs.

Power Purchase Agreement (PPA) – An arrangement in which a third-party developer installs, owns, and operates an energy system on a customer's property. The customer then purchases the system's electric output for a predetermined period.

1.2 Financing Documents

The following items may be requested by the project funder and will be helpful to have prepared before meeting with a funder:

1. Last two years' financial statements (audited if available)
2. Current interim financial statement or budget for the current operating year
3. Proposed sources and use of project funds
4. An energy audit or benchmarking report, feasibility study, or any other applicable engineering report
5. List of project team members and experience
6. Maintenance and operation agreements for any systems connected to the work being performed
7. *(Multifamily) Articles of Incorporation and Bylaws for property ownership (including amendments)*
8. *(Multifamily) Mortgage notes and loan documents for all other building encumbrances*