



FINANCING

Overview

Energy performance projects may be different from many other business investments in that they provide an immediate and predictable positive cash flow resulting from lower energy bills. This feature allows them to be financed with both familiar and unconventional financing products.

Regardless of your organizational requirements or constraints, there is a financing option available to help you realize the profitability of energy performance improvements.

Financing section discusses payment and financing options and suggests evaluation criteria to help you select the option that is right for your organization, whether you are in the private or public sector. While the right financing option will depend upon many factors such as debt capacity, in-house expertise, and risk tolerance, there are viable options for virtually any type of organization. The following table summarizes financing options traditionally used in the public and private sectors.

	Public	Private
Purchasing	1	1
Cash	1	1
Loan		1
Leasing		
Capital Lease		1
Tax-Exempt Lease		1
Operating Lease		1
Performance Contracting		
Shared Savings	1	1
Paid from Savings	1	1

Payment and Financing Options

The payment and financing options discussed below include:

- Purchasing equipment and services
- Leasing
- Performance contracting
- Public and Institutional Options



Purchasing Equipment and Services

Cash

A cash purchase is the simplest method for financing energy performance improvements. A cash purchase makes sense if your organization has cash reserves and a strong balance sheet. The advantage of a cash purchase is that all cost savings realized from the upgrade are immediately available to your organization.

Additionally, the depreciation of the equipment becomes a tax deduction. The disadvantage of a cash purchase is the loss of opportunities associated with not having that capital available for other investments.

Generally, relatively inexpensive, simple efficiency measures that are likely to pay for themselves in about a year are purchased with cash. Large complex projects are often financed differently.

Cash Purchase

On balance sheet?	yes
Initial payment	100%
Payments	none
Ownership	owner
Tax deductions	depreciation
Performance risk	owner

Loan

Lenders may require up to a 40 percent down payment on loans for energy projects. Generally, a high-risk loan will have less leverage (ratio of debt to equity for the project), a higher interest rate, and a shorter term of debt. As a borrower, you may put up business or personal assets as security for the loan. Your borrowing ability will depend on your organization's current debt load and credit worthiness. Loan payments may be structured to be equal to or slightly lower than projected energy savings. In this financing arrangement, you bear all the risks of the project and receive all the benefits.

Including high performance features during new building design is simpler to justify, since energy efficiency depends on the selection and combination of components that will be purchased regardless of performance goals. Rightsizing lighting and HVAC equipment may eliminate incremental first cost increases. As a result, many of these projects need no additional funding or a slight increase for extended architectural and engineering services and commissioning.



Loan	
On balance sheet?	yes
Initial payment	downpayment
Payments	fixed
Ownership	owner
Tax deductions	depreciation, interest
Performance risk	owner

Leasing

You may procure your energy performance upgrade through leasing to spread out the term of payments. Lease payments are usually lower than loan payments. Laws and regulations for equipment leasing are complex and change frequently, so be sure to consult your financial executive, attorney, or auditor before entering into a lease agreement.

Capital Lease

Capital leases are installment purchases of equipment. Little or no initial capital outlay is required. With a capital lease, you eventually own the equipment and may take deductions for depreciation and for the interest portion of payments. A capital asset and associated liability will be recorded on your organization's balance sheet.

Based on the criteria defined by the Financial Accounting Standards Board (FASB) Statement No. 13, a lease meeting one or more of the following criteria qualifies as a capital lease:

- The lease transfers ownership of property to the customer at end of the lease term.
- The lease contains a bargain purchase option.
- The lease term covers 75 percent or more of the estimated economic life of the equipment.
- The value of the lease equals or exceeds 90 percent of the fair market value of the equipment at the beginning of the lease.

If you work for a governmental organization, you may be eligible for a tax-exempt capital lease. Because the lessor does not pay taxes on the interest from these leases, the rates are lower than typical market rates. For municipal organizations that can undertake new debt, tax-exempt capital leases can be very attractive.

Tax-Exempt Lease

A tax-exempt lease purchase agreement, also known as a municipal lease, is closer to an installment purchase agreement than a rental agreement. You will own the equipment after the financing term is over. A benefit of the lease purchase agreement is that the lessee's (borrower's) payment obligation usually terminates if



the lessee fails to appropriate funds to make lease payments. Because of this provision, neither the lease nor the lease payments are considered debt, and payments can be made from the energy savings in your operating budget. Unlike bond issues, tax-exempt lease purchase financing usually does not require a voter referendum because it is considered an operating rather than capital expenditure due to this non-appropriation language. However, lenders will want to know that the assets being financed are of essential use, which will minimize the risk of non-appropriation. In fact, your organization may already be leasing equipment, and it may be surprisingly easy to add your energy project to the existing lease agreement, especially if your organization has a Master Lease in place with a lending institution.

Capital Lease

On balance sheet?	yes
Initial payment	none
Payments	fixed
Ownership	owner
Tax deductions	depreciation, interest
Performance risk	owner

Operating Lease

Under an operating lease, the lessor owns the equipment. It is, in effect, “rented” (leased) to your organization for a fixed monthly fee during the contract period. The lessor claims any tax benefits associated with the depreciation of the equipment. At the end of the contract term, you can purchase the equipment at fair market value (or at a predetermined amount), renegotiate the lease, or have the equipment removed.

To meet the FASB definition of an operating lease, the lease term must be less than 75 percent of the equipment’s economic life, and the total value of the lease payments must be less than 90 percent of the fair market value of the equipment at the start of the lease. If the equipment has residual value as used equipment, it may be eligible for an operating lease.

Discuss the project’s qualifications with a financial decision-maker before entering into an operating lease for energy-efficient equipment.

Operating Lease

On balance sheet?	no
Initial payment:	none
Payments:	fixed
Ownership:	lessor
Tax deductions:	lessor
Performance risk:	lessor



Performance Contracting

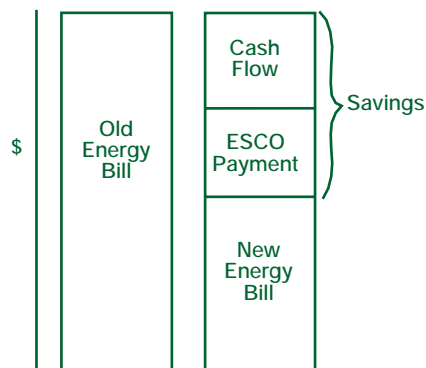
As you research financing options for your project, you will certainly hear about performance contracting. A performance contract may be the preferred financing option if your organization wants to keep the upgrade project off its balance sheet. This type of contracting can be complex, but it is becoming increasingly common.

A performance contract is one in which payment for a project is contingent upon its successful operation (see Figure 1). For an energy performance upgrade, services are rendered in exchange for a share of the future profits from the project.

A performance contract can be undertaken with no up-front cost to the building owner and is paid for out of energy savings. The service provider obtains financing and assumes the performance risks associated with the project. The financing organization owns the upgraded equipment during the term of the contract, and the equipment asset and debt do not appear on your balance sheet. Financing for performance contracts relies little on the financial strength of the building owner, but it is based on the cost savings potential of the project.

Through performance contracting, any of the financing options discussed above can be negotiated to guarantee that, as the customer, you receive the estimated cost savings from the energy performance upgrade. Performance contracting can be applied to purchases or leases.

Figure 1: Performance Contract



In a performance contract, an outside party provides a services package. This package can range from a simple audit, installation, and monitoring to full operation of a facility's energy systems. The service provider typically conducts an energy audit, designs the cost-effective projects, obtains bids, manages the construction, guarantees energy savings, obtains financing, and maintains the energy-saving capital improvements. You use resulting energy savings to pay for the improvements.



Performance contracts are sometimes referred to as “shared savings” or “paid from savings” contracts. These terms refer to the manner in which payment is made for the upgrade.

Performance Contracting

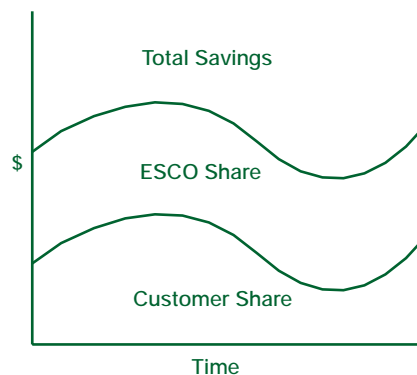
On balance sheet?	no
Initial payment:	none
Payments:	variable or fixed
Ownership:	contractor
Tax deductions:	contractor
Performance risk:	contractor

The service provider pays the energy bill and retains the difference between your payment and the actual bill (for example, the actual bill may be only 60 percent of the expected bill). In this case, if there is an increase in energy usage, the service provider must make up the difference between your payment and the actual bill.

Shared Savings

With shared savings, the dollar value of the measured savings is divided between you and the service provider (see Figure 2). If there are no cost savings, you pay the energy bill and owe the contractor nothing for that period. The percentage distribution of the savings between the service provider and the customer is agreed upon in advance and documented in the performance contract. At the end of the contract, ownership transfers to the building owner as specified in the contract. You either may purchase the equipment at fair market value or simply assume ownership of the equipment paid for during the contract term.

Figure 2: Shared Savings



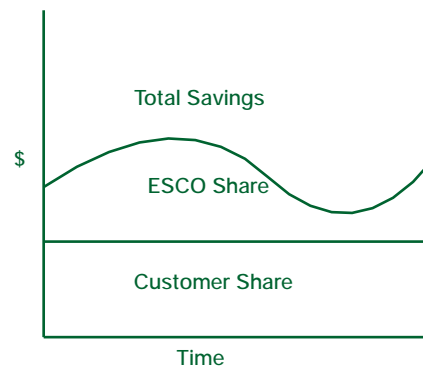


Figures 2 and 3 illustrate the distribution of the cost savings under two scenarios. The specific payment arrangements between you and the service provider are specified in your contract.

Paid from Savings

Almost all energy performance projects are paid for from the savings created by reduced energy usage. Thus, the term “paid from savings” can be used for several different types of energy-upgrade contracts. Here it is being used to refer to another performance contract payment whereby you pay the service provider a predetermined amount each period (for example, an amount equal to 80 percent of the expected energy bill before the upgrade—see Figure 3).

Figure 3: Paid From Savings



Performance contracts can be complex and take a long time to negotiate and implement. The contracts usually:

- Specify detailed work for individual facilities
- Involve large sums of capital
- Cover a wide range of contingencies
- Require significant expertise in law, engineering and finance

For a service provider and financier to make a commitment to an energy efficiency project, the potential for savings must be substantial. Performance contracts are usually arranged for facilities with annual energy costs over \$150,000. However, smaller projects may be good candidates depending on the project specifics.

Entering into a performance contract is like forming a partnership with a service provider. You are arranging a complex, long-term relationship through a contractual agreement. It is important for you to remain in close communication with the service



provider during contract negotiations and project implementation. Build contingencies into the contract for any issues you can anticipate. For example, an operations change such as adding a piece of manufacturing equipment or changing operating hours can have a significant impact on energy use. By incorporating responses to likely changes up front, you can avert major operational or contractual problems down the road.

A performance contract is a major commitment for you and the service provider. As a financing tool, it offers the benefits of low-risk capital improvements off the balance sheet. Although there are no initial payments to the contractor, you should expect to spend time and resources providing data the service provider will need to perform the audit and establish a baseline from which to estimate energy savings. If you wish to select a service provider through a competitive procurement, you will have to prepare requests for qualifications or proposals and evaluate the submittals.

Defining all the terms and conditions of the contract can be a lengthy process and may require hiring independent engineers or other professionals to review the contract on your behalf. The business of performance contracting is growing, so there is an expanding pool of competent and capable service providers available to you. Although the contracting process is complex, it creates an opportunity for organizations with limited debt capacity or capital resources to undertake profitable energy performance projects that would otherwise not be implemented.

Guaranteed Savings Insurance

Guaranteed savings insurance is a method of reducing your risk. This option guarantees that energy cost savings will exceed an established minimum dollar value. Typically, this guaranteed minimum equals the financing payment for the same period to ensure a positive cash flow during the financing term.

Like any insurance policy, you'll pay a premium that compensates the guarantor for the performance risk and covers monitoring costs. This premium is added to your loan or lease payment and the guarantor will maintain and monitor the performance of your upgrade. The supplier, installer, or service provider selling the upgrade usually offers this guarantee.

Public and Institutional Financing Options

The two most common public sector mechanisms are tax-exempt lease purchase agreements and performance contracts. A performance contract can be considered a finance mechanism because it bundles together with performance guarantees one or more of the following components: financing, equipment, energy costs, and maintenance. Both mechanisms are effective alternatives to traditional debt financing, and both may allow you to pay for energy efficiency upgrades by using money that is already in your utility operating budget. By spending only operating



budget dollars, you may avoid the cumbersome capital budget process altogether. Both mechanisms will allow you to draw on dollars saved from future energy bills to pay for new, energy-efficient equipment today.

Evaluation Factors

Finding the right financing vehicle for your project requires a thorough evaluation of your options. The following factors will help define your organization's business profile and will enable you to select the financing option that best meets your organization's objectives.

- Balance sheet
- Initial payment
- Payments
- Ownership
- Tax deductions
- Performance risk

A brief description of each follows.

Balance Sheet

If your organization is near the level of debt permitted by your lenders, you may not be able to undertake additional debt without violating certain covenants. There are, however, methods that enable a company that cannot assume more debt to proceed with an upgrade and take advantage of the financial benefits.

Initial Payment

A large initial capital outlay may be an obstacle for some organizations planning energy performance upgrades. If you have large capital reserves or are planning a small project, it makes sense to pay for the project with cash. Then all the cost savings from the project will be immediately available to you to offset the original investment. There are financing options that can move a project forward with no initial capital outlay from you, the customer. If capital resources are tight, you may want to consider a performance contract.

Payments

Your goal is to obtain financing at a minimum cost to your organization. However, benefits such as off-balance sheet financing may justify paying more for your borrowed money. The general advantage of energy performance investments is that even with performance contracts, which tend to be more costly because of the amount of monitoring and verification involved, you are guaranteed to receive



Table 1: Financing Options

	<i>Cash</i>	<i>Bonds</i>	<i>Municipal Lease</i>	<i>Performance Contracts</i>
Interest Rates	N/A	Lowest	Low tax-exempt rate	Can be taxable or tax-exempt tax-exempt rate
Financing Term	N/A	May be 20 years or more	Up to 10 years is common and up to 12-15 years is possible for large projects	Typically up to 10 years but may be as long as 15 years
Other Costs	N/A	Underwriting legal opinion, insurance, etc.	None	May have to pay engineering costs if contract not executed
Approval Process	Internal	May have to be approved by tax payers or public referendum	Internal approvals needed. Simple attorney letter required	RFP usually required, internal approvals needed
Approval Time	Current budget period	May be lengthy - process may take years	Generally within one day	Generally within 2-3 days once the award is made
Funding Flexibility	N/A	Very difficult to go above the dollar ceiling	Can set up a Master Lease, which allows you to draw down funds as needed	Relatively flexible. An underlying Municipal Lease is often used
Budget Used	Either	Capital	Operating	Operating
Largest Benefit	Direct access if	Low interest rate because it is a general obligation of the public entity	Allows you to buy capital equipment using operating dollars	Provides performance guarantees which help approval process
Largest Hurdle	Never seems to be enough money available for projects	Very time consuming	Identifying the project to be financed	Identifying the project to be financed and selecting the ESCO



financial benefits immediately upon completion of the project. At the end of the contract term, those savings are yours.

Ownership

If you own your energy performance upgrade equipment, you are entitled to tax deductions for depreciation or interest payments and other benefits. You are also liable for any performance risk associated with the equipment.

Tax Deductions

As an equipment owner, your business is entitled to potential tax benefits such as depreciation and deductions for loan interest. If you finance your upgrade off the balance sheet, you will not be eligible for tax benefits.

Performance Risk

There is risk associated with any investment. Energy performance upgrades can be low-risk investments because they apply proven technologies with long records of performance. However, the financing option you choose will affect who bears the risk of performance failure.

Performance risk of energy upgrades depends on the accuracy of the assumptions concerning maintenance, cost of energy, occupancy, and other factors. Lighting upgrades are typically considered a lower risk investment than HVAC investments, because it is easier to predict energy savings from lighting upgrades.

More Savings Opportunities

When you begin your search for project capital, begin by bargain hunting for special programs that support energy performance. Every organization planning an energy performance upgrade should investigate the availability of utility incentives, state assistance, and other cost-reducing measures.

Utility Incentives

Utilities often provide financial incentives for energy performance upgrades through rebates, fuel switching incentives, low-interest loans, and energy audits. Check with your local utility to learn what programs are available.

State Assistance

Some states offer financial assistance to nonprofit organization or small businesses for operating improvement upgrades. Contact the state agency that monitors the type of service provided by your organization to inquire about these opportunities. For



example, Florida’s Energy Loan Program was created to motivate small business owners to evaluate their total energy usage and implement energy conservation measures. Funding may be available through the State Energy Programs, energy conservation programs supported by the US Department of Energy.

Summary of Options

Whether your energy performance project involves small improvements or a complete system upgrade, there is a suitable financing option for you. A simple cash purchase yields immediate benefits to the customer and is a straightforward transaction. It is well suited for small or low-risk upgrades. Performance contracting, the most complex type of arrangement, offers the customer the benefit of risk protection. It is also the most costly financing option because of the amount of monitoring and verification required. However, even this more expensive alternative yields a positive cash flow for the customer immediately upon installation. Regardless of your organizational requirements or constraints, there is a financing option available to help you realize the profitability of energy performance improvements.

Table 2: Summary Of Options

<i>Evaluation Factor</i>	<i>Cash Purchase</i>	<i>Loan</i>	<i>Capital Lease</i>	<i>Operating Lease</i>	<i>Performance Contract</i>
Balance sheet	on	on	on	off	off
Initial payment	100%	downpayment	none	none	none
Payments	none	fixed	fixed	fixed	variable or fixed
Ownership	owner	owner	owner	lessor	contractor
Tax deductions	depreciation	depreciation, interest	depreciation, interest	lessor	contractor
Performance risk	owner	owner	owner	lessor	contractor