

Did Your Energy Efficiency Project Get Lost in Translation?

Financial Speak for Facility Managers

The simple choice for energy efficiency.



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DO YOU HAVE ENERGY EFFICIENCY PROJECTS THAT HAVE BEEN POSTPONED OR REJECTED?

If so, do any of these responses sound familiar?

- It's not in this year's capital budget.
- We can't afford it.
- Other projects offer better returns.
- The payback is too long.
- We don't have the necessary technical expertise.
- The project equipment may be cheaper or the savings greater if we wait for newer technology.

Energy efficiency projects can be paid for from savings generated by the project without changing the capital budget allocations.

Yet, from your perspective the project should be a “no brainer” due to the immediate positive cash flows generated by the energy savings.

This paper highlights alternative financing solutions specific to energy efficiency that may be the perfect solution for your project, yet unknown to your CFO. Understanding the capital budget process can greatly increase the probability of your project's approval. Capital budgets often prioritize projects using traditional financial metrics like return on investment (ROI) or internal rate of return (IRR), which may minimize the apparent value of an energy efficiency project when compared against other projects. Energy efficiency projects may not be as appealing as other projects that generate revenue or

support essential business objectives, while the true appeal of energy efficiency projects are often understated or misunderstood — namely, that they can be paid for from the savings generated by the project without changing the capital budget allocations.

Energy efficiency projects frequently are disadvantaged when traditional financial metrics are used to prioritize projects due to one major fact: cash flow benefits. However, a decision to delay or not install an energy efficiency project is a decision to continue paying your utility for energy waste rather than to reap the benefits of lower energy bills and increased cash flow. If your energy efficiency project is stuck in limbo, it is possible that these benefits were *lost in translation* during the approval process.

Understanding your organization's decision-making process, being able to effectively speak to the benefit of improved cash flow and improving your financial literacy can greatly increase your probability of receiving approval for a project. The self-funding aspect of energy efficiency is often under-appreciated by senior management, and you want to be able to clearly address any questions, concerns, and benefits. For example, by explaining how alternative energy efficiency financing structures can allow your organization to complete the project and save the capital budget dollars, you'll be presenting the benefits of your project in a way that is more consistent with the Chief Financial Officer's (CFO's) goals.

The strategies outlined in this article can help you plan for any energy efficiency project, communicate the project's financial benefits to key audiences, and understand how using ENERGY STAR tools — such as [Portfolio Manager](#)[®] to measure energy performance and the [Cash Flow Opportunity Calculator](#) to calculate the costs of delay — can help get your project approved.

ENERGY STAR[®] is the simple choice for energy efficiency. For more than 25 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov.

DO YOUR HOMEWORK

Today, facility and energy managers are being asked to do more work with fewer resources. Staff is limited, time is limited, and the senior managers who must sign off on the project often do not have the time or resources needed to revisit your project if it was not approved the first time around. You may only get one chance to present your project, so you need to “dot all the i’s and cross all the t’s” before bringing it to the decision committee.

Getting to “yes” on your energy efficiency project approval starts by understanding your organization’s decision-making process and knowing who must sign-off on it!

Larger organizations tend to have more complicated project approval processes that involve more decision-makers.

Before presenting the project, you need to be totally fluent with the project’s technologies, costs, and savings when compared to other alternatives, and especially against doing nothing. You will need to present this information to the individual decision-makers using *their* language, not yours. Do not present benefits in terms of therms or kWh saved unless the listener is an engineer. For example:

- The Chief Executive Officer (CEO) needs to hear the project details as it relates to organizational strategies, mission and leadership.
- The Chief Operations Officer (COO) as it relates to the other facility systems including IT.
- The Building Manager as it relates to operations, maintenance, and budget.
- The Sustainability Officer as it relates to benchmarking, emissions reduced, and goal achievement.
- The CFO as it relates to the organization’s financial health including dollars, profitability, and investment returns

Operations/energy people who can translate the technical and operational benefits into “financial speak” will have more success getting their projects approved.



After getting comfortable with the project details — technology, costs, savings, incentives competition, etc. — each party involved in the decision-making process needs to be contacted individually prior to the final presentation to ensure that their priorities, problems, concerns, and limitations are understood and addressed before making the formal proposal. When tailoring your proposal, each discipline should be addressed separately. For example, avoid talking technology with the financial people or finance with the operations people (other than increased budget dollars).

You should look to highlight critical benefits of energy efficiency projects in terms that relate directly to the goals of each decision-maker, including how this capital improvement project could be paid for using energy savings dollars.

One of the unique benefits of investing in energy efficiency is that the project is literally plugging an operating cash leak within the organization.

Additional benefits may include addressing deferred maintenance issues, providing positive cash flow, and an improved work environment. Sometimes the dollar savings from energy efficiency projects may even free up capital dollars to be used for other projects.

COST OF DELAY

All decision-makers need to understand the costs of delay associated with the project. One of the unique benefits of investing in energy efficiency is that the project is literally plugging an operating cash leak within the organization.

The best way to get the attention of those making the financial decisions is to quantify the current waste and potential savings from your energy efficiency project. No organization wants to waste money and delaying or declining an efficiency project is a decision to waste money. With energy efficiency, time is of the essence — the faster the energy efficiency project is implemented, the more dollars will drop to the organization's bottom line. So, how can you demonstrate the project's "cost of delay"?

ENERGY STAR Cash Flow Opportunity Calculator

ENERGY STAR developed the [Cash Flow Opportunity Calculator](#) (CFOC) to help inform strategic decisions about financing energy efficiency projects. Using the tool, you will be able to estimate how much new equipment can be financed using anticipated savings, as well whether you should finance now or wait for a lower interest rate. The CFOC can help answer critical questions, such as:

- How much new energy efficiency equipment can be purchased from the anticipated savings?
- Should this equipment purchase be financed now, or is it better to wait and use cash from a future budget?
- Is money being lost by waiting for a lower interest rate?

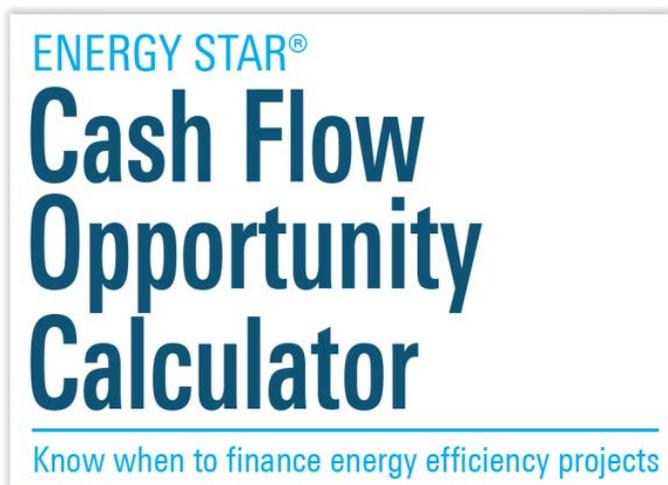
The CFOC is the perfect tool to quantify the **cost of delaying** an energy efficiency project. Combined with the reduction in your utility bill and the operating and social benefits of implementing an efficiency project, the CFOC can create a **sense of urgency** for your project that is easily understood. This can help move the project up on the priority list, especially when it is combined with equipment replacement needs and deferred maintenance problems that can be resolved simultaneously. You can also build the sense of urgency by getting key decision-makers to understand that appropriate and prudent energy efficiency projects are generally cost-effective over short periods of time, generate surprisingly high rates of return with low risk, and produce energy savings that offset implementation costs.

If the lack of capital budget funds is one challenge that is delaying the implementation of these projects, the energy savings could be used to cover the project's financing costs using a variety of financing structures specifically designed with energy efficiency projects in mind. Providing insight into the benefits of alternative energy efficiency financing structures consistent with the group's financial strategies can help overcome CFO's concerns.

ADDRESSING CONCERNS OF THE CHIEF FINANCIAL OFFICER

The CFO is responsible for managing the organization's finances, which includes financial planning, evaluation of financial risks, record keeping, tax strategies, and financial reporting. Their goal is to optimize the financial performance of the organization, which includes reporting, liquidity (cash flow), and return on investment. Energy efficiency directly impacts these areas, starting with improved profitability by reducing energy waste. However, financial reporting, tax strategies, and debt management can be influenced when an energy efficiency project gets implemented. To increase the likelihood of your project's approval, it is in your best interest to understand the reasons behind the CFO's concerns.

When your energy efficiency project is included in the capital budget, project concerns focus mostly on whether the project



is using the best, safest, lowest cost equipment and related services.

Paying cash for an energy efficiency project may not always be the lowest cost or best alternative when considering overall company profitability, especially when the cash needed for the energy efficiency project could be used to generate substantial returns elsewhere. Often overlooked, energy efficiency projects generate savings and positive cash flow, which is usually enough to allow them to pay for themselves. This requires an understanding about the way different energy efficiency financing alternatives will be reflected when evaluating the organization's financial performance, which is discussed in more detail below.

FINANCIAL REPORTING

Why is keeping a transaction *off the balance sheet* important? The simple answer could be that the organization is concerned about its [financial ratios](#), in particular the *debt to equity ratio* and *current ratio* (current assets/current liabilities) which are often used to judge liquidity, operating performance, and credit worthiness. Or perhaps an organization has restrictive covenants with existing lenders which would limit the organization from entering into new debt obligations. Generally accepted accounting principles, or GAAP, are a set of rules that encompass the details, complexities, and legalities of public sector, business, and corporate accounting. According to GAAP, purchased or financed equipment is reflected on the balance sheet of the owner. If the owner of the asset is a third party, the asset (depreciation and corresponding tax consequences) is reflected on the third party's balance sheet, turning the organization's financing cost into an operating expense. Only one party can depreciate the asset.



Financial reporting and tax reporting are not always aligned. In the past, financing under an Operating Lease kept the project assets off the balance sheet. However, the Federal Accounting Standard Board (FASB) changed that by creating new asset and liability categories. By 2019, all operating lease transactions are reflected on the balance sheet.

If keeping a transaction off-balance sheet is important, knowing about **Energy Service Agreements, Power Purchase Agreements, Energy as a Service (EaaS) Agreements**, and **C-PACE** financing, all of which may qualify as off-balance sheet transactions, could save the project. The question to ask the CFO early in the process is whether there are any restrictions or concerns about taking on new debt.

COMPETING BUDGETS

CFOs and finance managers have many projects competing for a limited capital budget. Effective managers invest their capital budget dollars in the projects that deliver the greatest returns. This requires a prioritization of projects according to some criteria, the most common being [internal rate of return \(IRR\)](#) and return on investment (ROI). Other tools include [net present value \(NPV\)](#) analysis and [simple payback](#) calculations.

Hopefully your organization has a mandate to embrace energy efficiency. If not, it may be viewing energy efficiency projects myopically. This is often the case in organizations that manage capital and operating budgets in separate sections of the organization.

Cash-flow analysis is particularly important when evaluating an energy efficiency project because most organizations have many other projects that could benefit from improved cash flow.

When the CFO is talking about energy efficiency projects in terms of ROI or IRR, they are evaluating the project on the same basis as other capital projects. However, energy efficiency projects are different: you may need to remind decision-makers that it is easier to control energy usage than utility bills, which contain wasted or underutilized energy, and always get paid. The question is whether you prefer to continue paying for wasted energy or capture the waste and spend it on improving your facility. Paying for wasted energy



Photo courtesy of Neil Zobler

will never be refunded to the organization. Properly financed energy efficiency projects pay for themselves, often freeing up capital budget dollars for other needed projects.

When talking with your CFO, be sure to know both the simple payback and the ROI of an energy efficiency project. The two analyses are different and should be used appropriately to convey the right messages in favor of an energy efficiency project. But do not limit your analysis to these two metrics. Instead, be prepared to explain the importance of evaluating your project against other investment choices using other analyses that better express the benefits of energy efficiency, including **cash flow analysis** and **life cycle cost analysis**, which are often underutilized by CFOs. Be sure to include the cost of delay calculations which you can quantify using the

ENERGY STAR Cash Flow Opportunity Calculator.

Efficiency projects can stop the leak of wasted money. Because they lower energy bills, projects can be financed and paid from operating budget savings rather than be forced to compete with other capital budget initiatives. *Cash-flow analysis* is particularly important when evaluating an energy

efficiency project because most organizations have many other projects that could benefit from improved cash flow and redirected capital budget dollars.

UNDERSTAND THE BENEFITS OF DIFFERENT ENERGY EFFICIENCY FINANCING STRUCTURES

When you understand the CFO's priorities and constraints you will be in a better position to argue for the energy efficiency project. If you want to conserve cash and new debt is not an issue, traditional loans, equipment financing agreements, commercial and tax-exempt leases, or bonds can work well. Because they are supported by the full faith and credit of the organization, they usually offer the lowest borrowing rates. However, there are other financing structures that align with energy efficiency projects and can help overcome objections.

Energy Performance Contracts (EPCs) or Energy Savings Performance Contracts (ESPCs) can be used for comprehensive energy efficiency projects and are usually used for deep energy retrofit projects. EPCs often include turnkey services, financing, and a guarantee that the full cost of the project will be financed by the savings the project produces. Energy Service Companies (ESCOs) typically use EPCs. Using EPCs, the ESCOs structure third-party financing that fund project installations through the project's energy savings. This includes vendor financing, equipment leasing and, in the public sector, Tax Exempt Lease Purchase Agreements. Usually the ESCO shoulders the risk of the energy savings not being realized by providing guarantees that the retrofits will produce the projected savings in units of energy. Promoting a project through internal hurdles is often easier when the savings are backed up with financial guarantees.

Managed Energy Service Agreements (MESAs) have many similarities with an energy service agreement. However, instead of utilizing standard third-party loans and leases, an investment fund assumes the role of paying the building owner's ongoing utility bill directly and charges the building owner a fixed monthly fee equal to the building's historical energy rates, adjusted for certain variables such as hours of use, recent energy upgrades, etc. The investment fund becomes an intermediary between the building owner and the local utility. Revenue, for the MESA, is generated by capturing the differential between the building's old energy costs and its



decreasing energy costs. MESAs may provide a way to keep the cost of the energy upgrades off the organization's balance sheet, depending on the opinion of your organization's CFO.

Efficiency-Services Agreements (ESAs) are similar to MESAs but have some major differences. For example, the energy efficiency equipment is owned by the energy-efficiency company and not the owner of the building. The building owner continues to pay the utility bills and pays the energy-efficiency company a portion of the savings. As with a MESA, the cost of the project may not need to be reported on the organization's balance sheet. This accounting decision is made by the building owner's CFO.

Energy as a Service (EaaS) Agreements, while similar to ESAs and MESAs, these agreements offer energy as a service, which includes equipment upgrades or replacements, along with managing the utility bills and suggesting alternative sources of energy. According to the American Council for an Energy-Efficient Economy (ACEEE) "the service provider maintains ownership of the energy equipment and the customer pays for the services provided by the equipment."

Commercial Property Assessed Clean Energy (C-PACE) is a financing mechanism that enables low-cost, long-term funding for energy and water efficiency and renewable energy projects. C-PACE financing is repaid as an assessment on the property's regular tax bill and is processed the same way as other local public benefit assessments (sidewalks, sewers) have been for decades. It requires state and local enabling legislation, which is in 37 states and DC. The obligation is attached to the property rather than the organization, frequently keeping it off the balance sheet.

CONCLUSION

Doing your homework before presenting your energy efficiency project to the decision-makers will increase the number of projects that get approved and implemented. Learning to speak with your CFO and other decision makers in *their* language and terms is a critical step in this process. If you understand the "why" behind an objection (or lack of approval), you can actively address concerns and provide alternative solutions.

Whether you do energy efficiency projects or not, you are paying for them through your utility bills!



Photo courtesy of Neil Zobler

RELEVANT RESOURCES

Resource	Description
Cash Flow Opportunity Calculator	The Cash Flow Opportunity Calculator helps inform strategic decisions about financing energy efficiency projects. Using the tool, you will be able to estimate how much new equipment you can finance using anticipated savings, as well whether you should finance now or wait for a lower interest rate.
A Look Inside the Cash Flow Opportunity Calculator: Calculations and Methodology	The Cash Flow Opportunity Calculator helps inform strategic decisions about financing energy efficiency projects. This document provides an explanation of the calculations and methodology at work behind the calculator.
Introduction to the Cash Flow Opportunity Calculator Spreadsheet	This interactive, self-guided presentation shows how to use operating budgets as a potential "source of revenue" to pay for energy efficiency projects.
Finding Money for Your Energy Efficiency Projects	This 14-page paper describes how performance contracts and tax-exempt lease-purchase agreements may offer you a practical solution when no money is available in the current budget for further improvements.
Financing Energy Efficiency Projects	This five-page article introduces energy performance contracts and the corresponding benefits of using tax-exempt lease-purchase agreements as the underlying financing vehicle. It explains how to use the energy inefficiencies buried in your current operating budget to pay for energy-saving equipment.
Des Moines Public Schools Financing Case Study	Learn how Des Moines Public Schools, IA, was able to improve its facilities and maximize energy savings by financing energy efficiency improvements through revenue bonds.
ENERGY STAR Performance Contracting Best Practices	Use this 14-page PDF to learn how to integrate publicly available, no-cost ENERGY STAR tools into the energy performance contracting process in order to make performance contracting projects more actionable and understandable for building owners, tenants, policy makers, and the public.
Introduction to Energy Performance Contracting	This 36-page briefing report provides a tutorial in the fundamentals of energy performance contracting (EPC) for policy makers who need to understand how EPC fits into the broader context of energy efficiency policy and programs.
Easy Access to Energy Improvement Funds in the Public Sector	This two-page primer provides an overview of two of the most popular mechanisms for financing energy efficiency projects in the public sector: performance contracts and tax-exempt lease-purchase agreements.
ENERGY STAR Building Upgrade Manual Chapter 3: Investment Analysis	The Building Upgrade Manual is a comprehensive guide to profitable energy efficiency upgrades presented in an easy-to-understand framework designed especially for ENERGY STAR partners. This 12-page chapter addresses: analytic conventions, cash-flow analysis tools, selecting an analysis tool, the investment analysis process, other considerations
Building Upgrade Value Calculator	Use the Building Upgrade Value Calculator (BUVC) to analyze the financial value of efficiency-related capital investments in commercial real estate.
Energy as a Service (ACEEE)	Energy as a service represents a shift from customer-owned equipment toward a model where the service provider maintains ownership and the customer pays for the services provided by the equipment.
Getting to 'YES' for Energy Efficiency	Successful energy efficiency projects need a Champion who develops a business case that aligns energy efficiency with your organization's goals. This Guide will help you make your project proposal as solid and persuasive as possible.