

“Game Changers” in Energy Project Funding

By Eric A. Woodroof, Ph.D., CEM, CRM
Buildings Magazine March 2014

Several surveys, including one done by Buildings Magazine, show that “lack of capital” is the majority reason why good energy projects are delayed and sometimes cancelled. *Any facility manager or energy engineer who has worked hard to develop a cost-effective project only to have it be delayed, knows what I am talking about... it is frustrating.* As many of us know, a “good” energy project can have a rate of return over 30%, which is higher than most investment opportunities as well as higher than many companies’ profit margins. 30% is also higher than the current borrowing cost, so even if we had to pay 10% financing cost to implement a project, we still would be 20% ahead of “doing nothing”.

We cannot lead by doing nothing, yet that is what is chosen over and over again with delays due to “lack of capital”. Why? There are many reasons.... Psychologically, when most people hear the word “financing”, they have an immediate negative reaction relating to the “extra cost” that will be incurred. *I understand this perception, because if you look at the “total financing cost” on your house, the total amount you pay the bank over 30 years can be twice the purchase price!* However, as mentioned previously (and it is worth mentioning again), with most energy savings projects, the **savings is greater than the finance cost** (especially with today’s low interest rates).

“Lack of upfront capital” is a solvable problem for many projects and I will outline a few solution approaches. I am familiar with this challenge and have even written books on it, but I still have renewed enthusiasm to tackle this problem- especially because there are new solutions that can help you remove the largest obstacle to getting your projects approved. I hope this article inspires you to challenge anyone who tries to block a “good” project based on the false premise that money is not available. The reality is... if we don’t do energy conservation, we are actively choosing to continue to throw bags of money out the window. In addition, the wasted money will never be recovered... so essentially- you will either pay for the project or literally throw an even greater amount of money away!

To tackle this problem, it is imperative that you understand your options to fund an energy project, because project financing might be the only way. I will review some of the traditional financing options, as well as some new options. At the end of the article there are some educational resources where you can learn more.

Traditional Financing



There are many traditional financing options available to facility managers and (if structured properly) an energy savings project can be financed similar to a car payment or home mortgage. If you decide to finance a project with a loan, bond, true lease, capital lease or other leasing variation, there are many new vocabulary words to learn. You may have to get accountants involved and consider things like depreciation (and how to label equipment to enable a faster depreciation schedule). *Note that the tax laws regarding depreciation have changed for 2014, so it is good to be aware of the changes.* Take a little time to understand this information as well as the view from the CFO (or whoever signs the contract). To get approved, the CFO has to say “yes”. Try to make it easy for them, or even better- irresistible.

Performance Contracting

Performance contracting has been around for decades and allows projects to be developed by an Energy Service Company, (ESCO), that will offer a “performance guarantee” on the savings, such that the savings are greater than the finance payment (usually handled by another third-party). This approach can be attractive to some energy users because it allows them to implement a project “risk-free” (theoretically). PC is more common with government, institutional and educational facilities because financiers are more comfortable lending money to organizations that are likely to survive a recession or other business cycles. Thus, performance contracting has its limitations. In addition, contracts can become complex (for both the ESCO and the facility) and it takes time understand them as well as get legal endorsement... which means more time/cost.

Innovative New Options

Additional project funding options have become available in recent years such as Utility Energy Service Contracts (UESC), Power Purchase Agreements (PPA), On-Bill Financing and Property Assessed Clean Energy (PACE) financing. There is a lot to say about all of these options, but below is a quick summary:

- Utility Energy Service Contracts are basically performance contracts that are developed and implemented by the utility servicing an energy consumer. This offers some streamlining as the utility can provide the funding for project development and make the deal cash flow neutral to the consumer, with less hassle.
- Power Purchase Agreements are commonly used for solar PV (and wind generation too). The PPA allows a building to put solar on the roof at no upfront cost, when they agree to purchase the kWh produced for a long-term contract. Hopefully, the PPA is structured so that the consumer is paying about the same price for the solar kWhs as



they do from the grid. This works well when the grid price is high, the utility is cooperative and there are local incentives.

- On-bill financing is offered by some progressive utilities (it is usually part of a Demand Side Management Strategy that benefits the utility). As the name implies, the consumer repays the installation costs with an extra charge on their future utility bills. The deal is structured so that the monthly savings is larger than the extra charge. The improvement can be “linked” to the meter, so that if the consumer moves out of the building, the savings and the repayment are owned by a new consumer.
- PACE is very similar to the on-bill financing concept, except the savings and repayment are “linked” to the property tax, so that if an owner sells a property, the new owner would assume the property tax “amendment” (extra payment), but the new owner also gets the savings cash flow. In the past few years, PACE has become very popular, enabled by legislation in 31 states.

Local Incentives and Rebates (somewhat “free” money)

Don't forget about utility rebates, which can be substantial and truly improve the return on investment if you are willing to do some before/after documentation. *For example, my utility will give a \$10 rebate on LED lamps that cost \$20... that is basically subsidizing 50% of the material cost!* A list of free rebates and other incentives (tax credits, etc.) is available [here](#). Beyond this website, ask your local government, chamber of commerce and economic development office because they may have special grant money or programs to fund projects. I have seen funding available to help pay for solar, energy efficiency or water conservation projects, because the local community benefited.

Learning More

It is clear that the number of energy financing options has exploded, leaving more choices for the facility manager. This is a great situation, if you know where to look and how to leverage the information. If you want some basic information about financing and performance contracting, there is a [free webinar here](#). There is also information on the [energy.gov](#) and [EPA](#) websites. However, you may consider attending training on the newer material (PACE, UESC, PPAs and On-Bill Financing options). For career-focused individuals that want to earn accreditation, there is the new [Performance Contracting & Project Funding Certification](#), which will be awarded upon completing a course and passing an exam on the new subjects. I think this type of training will help many facility managers and ESCO professionals navigate their options and accelerate project approvals. In addition, like the CEM certification, professionals who have earned the certification will have demonstrated some level of competency with all of this new information. I am not aware of another certification test that



allows individuals to earn recognition for their efforts in this subject matter, which is applicable to all types of energy projects.

Ultimately, financing is just another “tool” to get projects approved, but we need to focus more time on this subject as it directly addresses the largest barrier to energy management projects. Feel free to write me on your ideas about energy project financing, I am interested in your success stories. eric@ericwoodroof.com.

