The background of the entire page is a stylized illustration. It shows a hand in a black suit sleeve holding a black briefcase handle. The briefcase is orange with a black and white chevron pattern. The background is a light blue city skyline with various building silhouettes. The text "4 TIPS TO CREATE A WINNING ENERGY EFFICIENCY BUSINESS CASE" is written in bold, black, uppercase letters on the orange briefcase.

4 TIPS TO CREATE A WINNING ENERGY EFFICIENCY BUSINESS CASE

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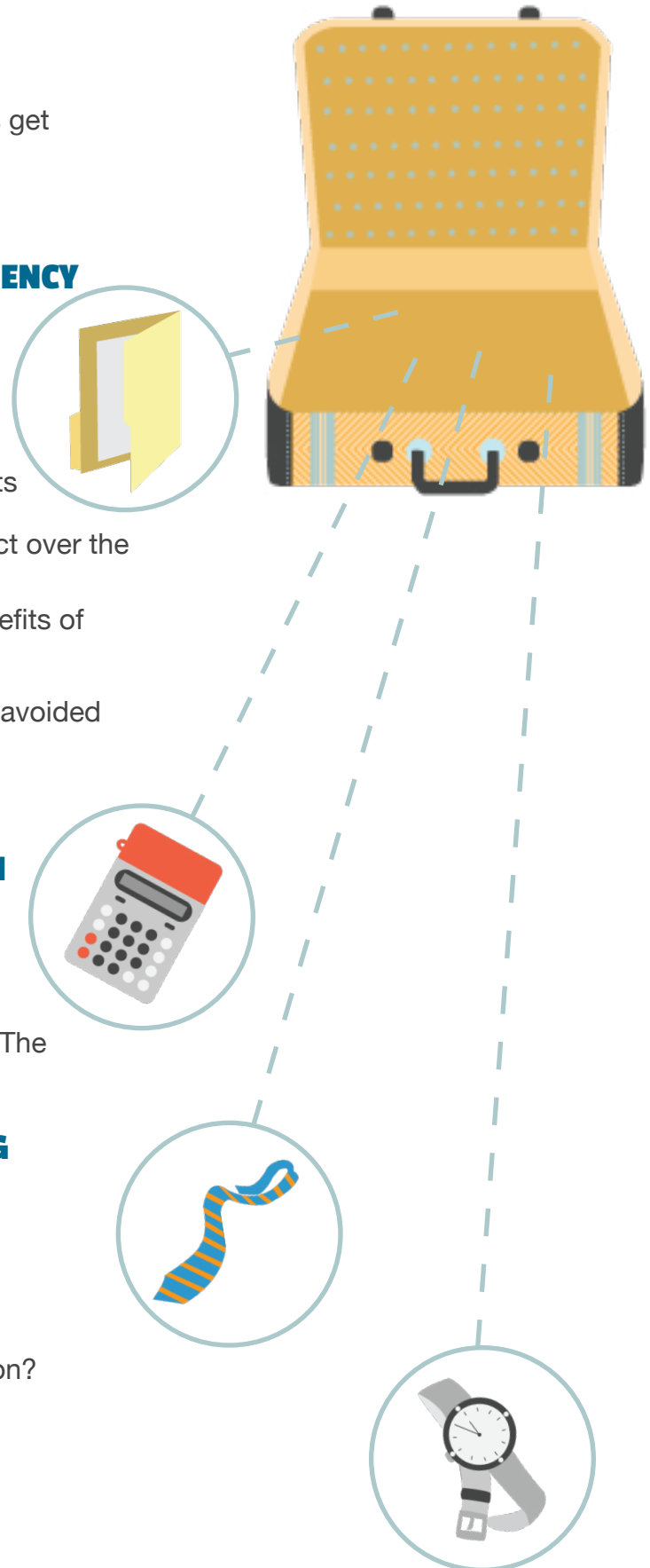
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INTRODUCTION



*I*n uncertain economic times, organizations not only look for opportunities to reduce operating costs, but they also look to control costs and minimize any unforeseen increases that could quickly undermine their financial performance.

One of the most popular costs that organizations are focusing on today – partly due to the fact that it’s often one of the largest operating expenses for any organization – is energy. For years organizations have been reducing their energy costs through tariff and rate optimization and limiting their price exposure through hedging strategies, yet it has only been recently that the majority of organizations are increasingly looking at reducing their energy usage as a way of decreasing energy costs.

For many CFOs, the logic behind selecting a lower rate plan or locking in future prices is

obvious and sound. When confronted with opportunities to reduce energy usage by investing resources and, often, capital, CFOs are more likely to focus on the investment risks and frequently opt for the “if-it-ain’t-broke-don’t-risk-the-capital attitude.” That is, they may believe that there are savings to be had; they’re just not convinced they’ll realize them. So, often they choose to do nothing.

Of course, doing nothing has costs in terms of unrealized savings, and this paper offers up four tips to winning the business case for efficiency investments that result in a project proposal that makes sense to the CFO and other decision makers and to institutionalizing a continuous energy management process where all stakeholders speak the same language and agree on the same metrics, enabling a

steady drumbeat of decisions as efficiency opportunities are identified and proposed.

WHAT'S THE OPPORTUNITY?

Eric Woodroof offers a good into to the opportunity in his book, "How To Finance Energy Management Projects",

Any energy savings that you could be getting via a potential project is also an existing waste stream that (by doing nothing) continues to drain your operating cash and is essentially a penalty you pay every month.

Of course, the penalty that you are currently paying is directly related to the day-to-day performance of your portfolio of facilities. However, if we step back and look at the opportunity at a macro scale, there are several compelling studies out that supporting the case for more focused action:

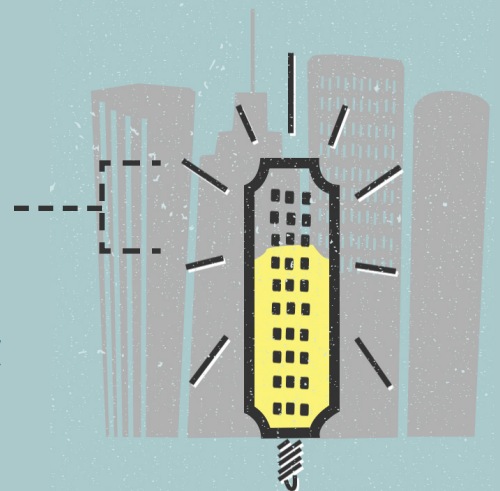
Nearly **75%** of commercial buildings in the United States are more than 20 years old and are ready for energy improvements. <http://www.institutebe.com/Energy-Efficiency-Indicator/2012-EEI-Executive-Summary-of-Global-Results.aspx?lang=en-US>



U.S. commercial building owners could save an average of **38%** on their heating and cooling bills if they installed a handful of energy efficiency controls that make their heating, ventilation and air conditioning, also known as HVAC, systems more energy efficient (recent report from the DoE).



Many U.S. buildings and industrial facilities can use up to **30%** less energy through cost-effective investments in energy efficiency. http://www.epa.gov/cleanenergy/documents/suca/consumer_fact_sheet.pdf



Sounds straightforward, doesn't it? If energy is like other business inputs and there are identifiable opportunities to reduce the usage of this input, making decisions to use less should be easy.

But that's not the case for a lot of companies.

WHY DON'T MORE ENERGY EFFICIENCY PROJECTS GET STARTED?

While there are lots of low hanging fruit (low/no cost and O&M activities) out there, the most significant opportunities to reduce energy usage require retrofits and upgrades in order to capture the benefit. Capital investment decisions need to be made by business stakeholders before projects can get off the ground.

There are many reasons why these efforts don't get started, varying from the trivial to significant hurdles that must be overcome. While every company is different, a lot of these issues come up again and again with decision makers – awareness of energy usage, visibility into opportunities, and uninspiring business cases.

Understanding these common barriers can help you better prepare to make the case and result in more projects getting started.

HOW TO WIN MORE PROJECTS?

Here is what we are going to cover in this paper to help you be more successful when it comes

to getting energy efficiency projects off the ground:

Building the Case for Energy Efficiency Projects

Before you even begin to pitch the idea for new project you need to be prepared. This article will give you the information needed to bring the right data to the table in a way that effectively sells your proposal.

Effective Financial Communications

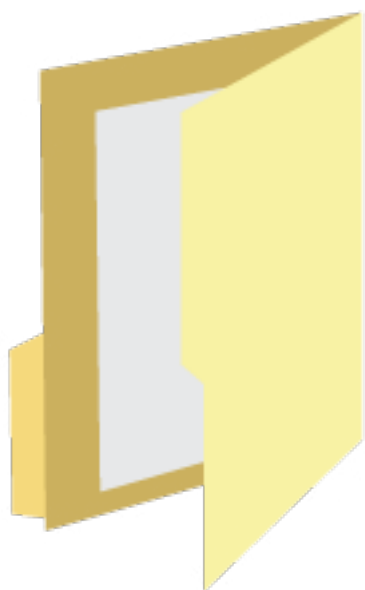
There is often a translation problem when it comes to discussing energy efficiency projects with senior management and CFOs. This section will examine a few different ways to frame an energy conservation investment, in concept and language, that will be easier for finance-oriented business partners to understand.

How to Pitch your Project

Proposals for energy saving projects are often at a disadvantage compared with other candidates for capital investment. Understand the common barriers and how to best address them on your way to getting projects approved.

Turning Energy Savings into a Continuous Process

Management is going to understandably seek documented results of past projects before considering future opportunities. Hear how project tracking and effective communication of results can be used to ensure that energy savings become a repeatable process.



1

BUILDING THE CASE FOR ENERGY EFFICIENCY PROJECTS

By Dave Emmerich

as you prepare to think about improving the energy efficiency of your facility, it's important to invest time in preparing the list of items you'll need to make a successful case for the project. Much like painting a room, the key to a winning outcome is in the preparation.

This article will give you the information needed to bring the right data to the table in a way that effectively sells your proposal.

First, as with any presentation prep, it's critical to know who your audience is and what will cause them to respond positively. Depending on your role in the organization, you may be preparing a case directly for the decision maker or you may be arming someone else

with the information they'll need to approach the decision maker. Either way, it is necessary to identify the person or people who have the authority to say, "Yes!" to your project so you can then tailor your argument to them.

In most companies, from manufacturing facilities to commercial office space, the focus of the decision makers is on either capital projects that generate revenue, or else on cost reduction to increase profitability. The unique challenge of the energy manager is to argue for capital spending to reduce costs (which will then boost profits).

Your energy efficiency project is competing for both the attention of this group and for

the funds that they would normally spend on revenue-increasing projects. So as you build the case for an efficiency project it will have to be positioned in the same language and depth of understanding that a case for, say, a new manufacturing line would be proposed.

THE BUILDING BLOCKS OF YOUR CASE

There are often very good reasons for energy efficiency that are only indirectly related to the bottom-line profitability of the business. These include environmental stewardship, improved productivity and corporate image. Let's put all of that aside for now. These reasons can be mentioned later in the case only after we've established a crystal clear view of how your project will lead to actual dollars in profit for the company.

THE FIRST HALF OF THE EQUATION: PROJECT COSTS

The first component of your case is to gather all the direct cost associated with the project. For help with this, first look internally to the finance department for their accepted assumptions on standard costs, labor rates and depreciation. If there isn't an accepted value or range, then ask about their expectations for using 3rd party estimates or benchmarks. For the sake or credibility, it's important to get this buy-in before you go out for estimates. If you are new to the role or have been frustrated with past project approvals, take this extra step to work with the

Pitfall

Most energy efficiency projects are driven by a "compelling event" such as a commercial construction code, local energy code or by an internal or external mandate. It can be tempting to simply build your case on this reason alone. There are two reasons to avoid this temptation. First, even if you're certain to get the go-ahead on the project, you've given no financial justification for spending the money. Be prepared to have only the absolute minimum funds available and for a high level of scrutiny on all spending. (Even code-required projects can get "value-engineered" out). Second, you'll lose a great opportunity to demonstrate how your role in the company can directly impact the bottom-line profitability.

finance people from the start and you're bound to see an increase in acceptance.

Depending on the size and age of the organization, there are likely to be business case templates and spreadsheets that are being used for other projects. Don't try to reinvent the wheel if these exist. If they are already accepted, find them and use them – it

will save you a lot of time and show that you are connected with the rest of the business processes. Below are many of the most critical line items.

DETERMINE THE TOTAL CASH COST OF THE PROJECT OVER THE EXPECTED LIFETIME

Cash spent to start realizing improved efficiency

- Cost of PP&E (plant, property and equipment) needed for the project
- Engineering and design cost (cash paid to 3rd parties)
- Labor Cost for installation (cash paid to 3rd parties)
- Disposal of old equipment (only add back the sale of assets if there is an active market for the used equipment and you have a buyer lined up with cash in hand.)
- The cost of down-time or lost rent due to the project. (This is only actual cash that will be lost as a result of the interruption caused by the project.)
- Commissioning and maintenance or service contracts
- Allocated cost to realize efficiency
- The cost of employee's time spent working on this and not something else
- Ongoing cost for O&M performed internally
- Depreciation schedule for assets (get this from your finance department)

All of these will result in a cash flow and a total incurred cost per period (usually monthly)

for three phases: pre-installation and design, installation and construction, and ongoing operation until the equipment end-of-life.

Once you have your cash costs, identify all opportunities to reduce the cash outlay through rebates and incentives. I recommend keeping this as a separately highlighted section in the analysis. Very few projects have the opportunity to bring rebates, grants and tax incentives like energy efficiency projects. Do your research and highlight everything that can be saved by an investment in energy efficiency to help your project stand out from the crowd.

The result will be a list of total direct and allocated costs that make up half of what is needed to calculate the various financial measures you'll need. (Internal Rate of Return, Net Present Value, Return on Investment, and Simple Payback).

THE SECOND HALF OF THE EQUATION: THE BENEFITS OF THE PROJECT

It's important to separate the project cost and the project benefit. Financial decision makers will be skeptical if you attempt to show a lower than realistic project cost by assuming early benefits will pay off. It's best to get agreement on cost, then make the case for benefits second. Remember, your management may not know anything about energy efficiency, so your analysis of benefits extending several years out will need to be conservative. With cost and

Note

For any values that have a significant amount of uncertainty, you should include a high and low estimate. Do this only for items that are a large component of the total cost and in cases where an estimate is significantly out into the future. Remember that many of the values from the finance department are just estimates as well, so only add your own account of uncertainty for large items that you are the most knowledgeable. In the end, you'll have a realistic cost estimate with a high and low range based on two or three major items that may vary from estimated over the life of the equipment.

benefits established, the case for potential profit will be self-evident.

In order to determine the potential efficiency gains, you'll first need to fully understand what your baseline energy use or cost is. There are many sources available that describe how to select a baseline period and there are a number of software packages that can automatically calculate the baseline normalized for weather and other variables.

With the baseline established, you can forecast what the energy use will be going forward if

no action is taken and the facility continues to operate without your project.

Second, you will need to collect information about the performance of the new equipment to be installed in your proposal. Start with the manufacturer's performance specifications if you have not yet invested in any engineering design or modeling. Since equipment specifications are based on ideal test conditions, they are not always achieved in real-world installations. For this reason, it is important to ask peers or engineers in facilities with similar equipment about their experience and the real-world cost of running their project/processes. If relevant

[Noesis Energy is a free online system you can use to create weather-normalized baselines](#)

experience is lacking in your organization, look to online communities for expert input.

With input from several sources, create a range of expected energy savings ranging from a high based on the manufacturer's specifications to a low of the most common real-world experiences you can locate.

THE COST OF NOT ACTING AND THE CONCEPT OF AVOIDED COST

Now that you have both the expected energy use if your project is not implemented and a range of potential energy savings if it is

implemented, you can put together some persuasive numbers.

The cost of not acting and what you'll avoid spending if you do act are really two sides of the same coin. For example, putting the cost of the project aside, you can safely say that every month that we delay this project we are writing a check to the utility for, say \$12,000 more than we should be. This is the cost of not acting... a powerful message because it reinforces the notion that doing nothing is negative and it frames the cost of energy as a constant drain on company resources.

Now look at it from the other side of the coin as avoided cost. For example, if we implement this project there will be \$12,000 added to the bottom line every month for the life of the equipment. While it may take 24 months to recover the initial investment, the \$12,000 of saved monthly cash will continue to be realized for 180 months beyond that. This way of framing the benefits of the project is equally strong because it emphasizes the increased monthly cash flow to the bottom line and the on-going benefit far beyond the break-even point.

THE BOTTOM LINE IN YOUR CASE

While there is an endless list of details that go into building your case, there are really

just a few things that can make or break your proposal.

The most important item: Find an advocate in the finance department and take advantage of her resources for structuring a business case. Finance is a support organization and providing the spreadsheets, calculations and internal accounting practices to support business cases is one of their main responsibilities. Not only will you learn a lot, but in the end you'll also have a financial analysis to support your case that is written in the language that the decision makers already accept.

Second, be realistic about future savings promised by equipment vendors and be very honest about all risks involved. There's nothing wrong with stating what you don't know and putting a wide band of uncertainty around your final estimate.

Lastly, establish the cost first and then put that aside to discuss the benefit. You'll have the advantage of starting on a topic not likely to get sidetracked in debate and you end on a high note by explaining that your goal is to avoid cost and add profit.

2

EFFECTIVE FINANCIAL COMMUNICATION:

A Walk Through ECM and How to Get Your Project Approved

By Matthew Armstrong, PMP, MBA



*I*t's crucial that the consultant and the building manager communicate effectively with their ultimate customers – the property managers and owners. One concept we advocate is to look at ECMs as part of an ongoing investment program over the life of the building – it's counter-productive to consider one-off projects in a panic after a few months of overconsumption or high bills resulting from intense weather.

Usually the building manager does not need a lot of convincing that he/she needs to do something about efficiency – the bills arriving with horrifying regularity every month make that apparent. . The challenge is convincing the upper financial management, most notably the controller or CFO, that an \$85,000 capital asset project is going to result in the kind of

operational gains that will make the investment worthwhile.

This isn't to say that there is a trust issue between the finance side and the operational side – obviously, the two need to work together to make the best decisions possible regarding the continuing mission of the business. It's a translation problem.

Sitting squarely in the middle of the charts, kWh numbers, demand spike notifications and P&L reports is the building manager; a person tasked with interpreting for consulting engineers and financial managers who don't understand each other. This section will examine a common way a building manager and/or a consultant can frame the ECM investment in concept and

language that will be easier for finance-oriented business partners to understand.

A PROJECT EXAMPLE

As an example, suppose we're considering installation of a new Building Automation System. Here are a couple of terms in common use:

Simple Payback Period is how many years it will take for that annual savings to reimburse the company for the project cost.

ROI (Return on Investment) is calculated by how much the company saved annually for 1 year divided by how much they paid in total for the ECM.

Invest: **\$85,000** spent on a new BAS

Save: **\$15,000** a year in annual savings

5.7 Years in Simple Payback

17.65% ROI

(Annual Savings for 1 year/Cost of BAS)

Very easy. However, many businesses won't accept a project with a Simple Payback period of over 3-5 years. This is often because the business doesn't know if it will still occupy or own the facility for longer than that. We need a way to demonstrate how an ECM can contribute not only to improved monthly cost performance, but also recapture the investment in the ECM

should the firm divest itself of the building before savings have fully paid for it.

COMMERCIAL OR MULTI-FAMILY REAL ESTATE - THE CONCEPT OF CAP RATE

Fortunately the real estate industry uses more sophisticated financial indicators than ROI and simple payback. If it didn't, no properties would ever be bought or sold.

Perhaps the most common valuation metric in real estate is the capitalization rate, or, "Cap Rate". The cap rate is the Net Operating Income (NOI) divided by the Market Value, a shorthand answer for, "What return can I make on my investment in this building?" Cap rates are a characteristic of local real estate markets, reflecting market demand for the space, perceived business risk, and future prospects. Buildings of the same type and general condition in the same geographic area are subject to the same cap rate when they are sold. Cap rates in weak markets are higher than cap rates in strong markets. Cap rates for multi-family residential buildings are generally lower than cap rates for commercial office space (apartments are considered lower risk).

Given the net operating income, the cap rate in the market dictates a narrow band within which a commercial or multi-family building can be sold for. Many will argue that cap rates are simplistic and are routinely exaggerated by brokers when marketing individual properties. That may be true, but it doesn't take away from the fundamental truth that an increase in NOI

results in an increase in Market Value. And a reduction in energy costs directly increases NOI.

Let's return to our example, supposing we have a

Before Building Automation ECM

Our Building NOI: **\$900,000**
Market Cap Rate: **6.5%**
Value A of Building: **\$13,846,154**
(NOI divided by the Cap Rate)

After Building Automation ECM

Our Building NOI: **\$915,000**
(reflecting our savings)
Market Cap Rate: **6.5%**
Value B of Building: **\$14,076,923**

net operating income of \$900,000 and the market cap rate for a building of our type and condition is The property value is increased by \$230,000 for an ECM investment of \$85,000. Showing how an ECM can increase the value of a building can go a long way towards allaying fears that a firm might have to exit a building before capturing the savings inside the Payback Period. In fact, investing in ECM's two or three years before a planned sale (to give the savings time to show up on income statements) can be a very profitable business strategy.

3

HOW TO PITCH YOUR PROJECT:

Getting Through to the Decision Makers



By Mike Thomas, P.Eng

TYPICAL BARRIERS TO APPROVAL

Your executives will be interested in cost reduction and perhaps enhanced reputation. Your business case must offer a compelling financial return and, if possible, worthwhile additional benefits.

However, proposals for energy saving projects are often at a disadvantage compared with other candidates for capital investment. They face certain predictable barriers, each of which, if not carefully addressed, is enough to undo your efforts. Part of your job is to knock down each barrier on the way to project approval. Think of yourself as a salesperson identifying and overcoming objections in order to sell your

project. You are competing with other sales people selling their own capital projects. The relative importance varies by organization, but these are the most common:

Barrier 1. Institutionally difficult to recognize and account for cost savings arising from capital expenditure.

Solution a. You're not going to change your internal accounting standards. Instead, make your case using financial metrics that your audience is comfortable with. Then include a process for monitoring and reporting the results of your project on a monthly or quarterly basis. Check that your process will feel familiar to the executives by comparing it to other

performance reporting mechanisms already in use.

Barrier 2. Energy-saving capital projects are discretionary. In most cases they are not critical for sustaining the business, nor for regulatory compliance.

Solution a. All businesses need to continually improve to remain competitive. That continual improvement includes supply chain cost control, which applies to energy just as it does to any major business input. Technology and operating practices continue to improve, and your project is an important investment in current best practices.

Solution b. (if applicable) Aside from the clear financial benefits, this project will help achieve corporate energy goals / comply with regulations / prepare for upcoming regulations / provide a compelling case study for the annual shareholders report / help the company attractive and motivate the best staff

Barrier 3. Energy projects are perceived as risky, peripheral activities that are poorly understood. It does not matter that an advertising campaign might actually entail more risk; your energy project is unfamiliar territory, somewhat technical, and may be relatively small in scale. The safe decision is to reject it.

Solution a. Present approval as the safer decision. Focusing on the opportunity cost of not doing anything. Speak in terms of your competitive market and the need for efficiency in all aspects of business operation. Proactive energy conservation creates a

strategic advantage for organizations that embrace it.

Solution b. Give examples where similar projects have been undertaken elsewhere. Quote testimonials from people involved.

HOW ARE DECISIONS MADE IN THE ORGANIZATION?

Most large organizations with a deep management structure will delegate decision making on energy-saving projects to an intermediate level of management. That means the people you present to will likely have a reasonable understanding of your area of work. In small organizations (or large ones with relatively flat structures) you could be making your pitch to people who normally have much bigger issues to think about, and who are less likely to have a detailed understanding of your area of work.

Either way, think about the people you are trying to influence, and adapt your material

Recruit Advocates for Your Project

Use every opportunity to tell others about the benefits of your project. Build a team of allies. Refine your proposal to overcome any objections you hear.

accordingly: What are they interested in? What are their motivations? In what format do they require information? Can you engage them in the process early to aid their understanding and secure their support? Finally, it is not only senior management whose support you need. Consciously work to secure 'buy-in' from co-workers who will be affected. Decision-makers may seek opinions from others to overcome their own uncertainty, and you want those points of reference to support your sales effort. Even if you are successful getting approval without their help, you will need their cooperation for successful implementation. If your idea creates changes to their jobs, and they don't feel their issues have been considered, they may resist or even disrupt the project in subtle ways.

YOUR PRESENTATION

It's critical to build a strong case in your written proposal. But just as important is how you present it in person. Even the most solid business case could fail to get support if it is badly argued and presented. In general, you should present a concise, clear proposal for a single recommendation or request. It must be supported by an appropriate analysis of the costs, benefits, risks and implementation timetable.

Presentation Tips

Use these winning tactics!

- Put figures, tables and charts in the supporting hand-outs rather than on a screen. Your audience is likely to prefer that anyway, as it gives them time to review your proposal later at their own pace.
- Instead of tables and numbers, use visual artwork instead. Use photos, graphs, diagrams or floor layouts to help people see what you are proposing.
- Bring physical props. A piece of control electronics, a valve, a light fixture. People more quickly engage with the physical than the abstract.
- Use computer slides with caution. Unless you're an expert they are easy to do badly, detracting from your message. In addition they can become a crutch if you succumb to the temptation to turn toward the projection screen (and away from your audience).

THESE ARE THE TRIED AND TRUE STEPS FOR A WINNING PRESENTATION:

1. Prepare thoroughly: know your facts and be ready to defend them in depth. Try to anticipate questions.
2. Be sure that everyone can see you. Stand up rather than sit.
3. Introduce yourself briefly.
4. Set the scene with a clear statement identifying the corporate goal that you are addressing, then summarize your project recommendation.
5. State that your presentation is only a summary. The written proposal contains the facts, assumptions and background details.
6. If necessary, give technical background in simple terms.
7. Describe the proposed course of action.
8. Focus on the objective, which is to get agreement for your recommendation. Pull the conversation back on track if it wanders.
9. Restate your recommendation.
10. Answer questions.
11. If you do not hear a clear decision, ask for one.

12. Stop talking when you get the decision. Resist the temptation to keep going.
13. Thank your audience and leave.



Presentation Perils Avoid these traps!

- Unexplained or ambiguous jargon
- Failure to address priority executive issues
- Failure to consider alternatives
- Failure to identify and address risk factors
- Not using your organization's preferred financial appraisal method
- No compelling event or reason for urgency
- Not giving a single clear recommendation
- Rambling delivery
- Forgetting to ask for a decision



4 TURNING ENERGY SAVINGS INTO A CONTINUOUS PROCESS

By William Ball, LEED AP

After successfully pitching an energy project, it can be tempting to move on and look for the next opportunity for savings. However, any executive team with oversight of energy related expenditures is going to understandably seek documented results of past projects before considering future opportunities. In addition, other stakeholders throughout the organization, from marketing to operations, should be apprised of savings achievements and lessons learned from project implementation. As a result, project tracking and effective communication of results are critical to ensuring that energy savings become a repeatable process.

Project tracking, also known as measurement and verification (M&V), is a fundamental component of any continuous energy management program. M&V enables organizations to determine the energy

savings generated by implemented projects and thereby judge the effectiveness of their investments. Though M&V is often associated with performance contracting, in which savings are guaranteed by the energy efficiency service provider, measuring and verifying energy savings is an increasingly expected practice for all types of energy projects. For energy managers and facility managers, demonstrating results via M&V represents an excellent opportunity for establishing credibility, as non-energy experts are often dubious about the returns promised through energy investments. Also, the presence of an M&V process can help enforce quality control of retrofits. Installation crews should understand that estimated savings will be measured against actual results.

As with any systematic process, there are a variety of standards that exist to help guide

M&V. IPMVP and ASHRAE Guideline 14 are two widely accepted and utilized approaches to accounting for key factors in the M&V process, such as a facility's weather normalized baseline, the project reporting period, and non-routine adjustments. Using these accepted methods, one can discern the impact of a project or group of projects on a facility's energy consumption.

Once the impact of a project has been identified through the M&V process, the logical next step is communicating the project results to relevant stakeholders. As recognized by ASHRAE, AEE, US Dept of Energy, US Green Building Council, and other expert organizations, communication and collaboration are critical in continuous energy management. Too often energy management exists in a silo, undermining the implementation of good projects and mitigating awareness of how energy efficiency should affect all aspects of an organization. Without proactive efforts to connect and work with team members and clients that have roles outside of energy management, the default scenario is for energy management to exist in isolation. Because people who are not energy or facility "pros" usually lack an awareness and comprehension of potential energy savings, the "pros" that are pitching their projects fail to have advocates within the broader organization. When budgets are determined and decision makers evaluate a new ECM opportunity, the results can frequently be associated with how

well the energy management professional communicated their value proposition.

There are a number of reasons why the concepts of collaboration and communication can be deemphasized in energy management. Probably the most common reason is that they are viewed as less important than the "hard science" of energy analysis. In addition, collaboration is sometimes lumped together with generic organizational management principles that seem subjective or repetitive. Also, some view collaboration and communication as tasks that are only relevant for those involved in externally facing roles, such as marketing or sales. However, these perceptions of collaboration are problematic because they undermine the effectiveness of a continuous energy management program.

Implementing a process of continuous energy management requires that all relevant stakeholders understand how the organization is progressing in its energy plan and achieving its goals. The value of M&V can be lost without effective communication of the results, as a decision maker could fail to recognize a great project. So, in the same way that failing to collaborate and communicate can lead to good projects not getting funded, poor communication can also jeopardize the long-term impact of ECMs that have been implemented. By integrating M&V and collaboration into one's energy management program, one can ensure that successful projects build momentum for continuous improvement and savings.