

10 Questions To Ask BEFORE An Energy Efficiency Upgrade



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OF MICHIGAN

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You know your equipment or building is in need of an energy efficiency upgrade. Before taking the first step there are 10 questions to which you should get the answers to. Knowing which questions to ask and finding the appropriate answers will make your energy renovation project go smoothly. This process also will help minimize stress and eliminate buyer's remorse. The ultimate goal is to help you get the most energy savings at a cost that reflects the greatest value.

1) What is the first step I should take as I consider improving my company's energy efficiency?

Answer – Find an energy efficiency professional who offers you information FIRST!

A primary barrier to successful energy efficiency upgrades is a lack of information on the client's part. Technology is changing fast. When reviewing the proposal detailing the unique technologies that will be incorporated into their project, most clients remark, "I didn't even know that stuff existed!"

An energy-efficiency professional should be easy to find with some simple searching on the web. Look for reports, case studies, testimonials and blog articles that will showcase experts who are on the leading edge of energy efficiency. Some utility companies maintain a list of "approved" contractors. They will tend to specialize in the products that are used in energy efficiency upgrades but typically won't have the depth of knowledge for a comprehensive energy renovation.

2) Am I looking for a salesperson or a consultant?

Answer – It depends on the size of your project but, in most cases, choosing an energy efficiency consultant or expert will give you the most comprehensive solutions.

Salespeople tend to be product oriented and will look at efficiency projects in terms of incorporating their own product instead of looking at your big energy picture. Almost all energy products offer a choice between good, better and best.

If you have a conference room that is rarely used, installing the most expensive and energy-efficient lighting will make it almost impossible to ever see a return on the investment. The "good" version would have worked just as well with lower expense!

Energy-efficiency projects are all unique. There is no "one-size-fits-all" solution. Each project must be customized to the unique demands of the facility, work accomplished there and/or equipment under consideration.

Consultants will typically have a broad knowledge of multiple options, various technologies and specific experts needed to make your project a success. They will propose the optimal solution to your particular application; sales people will propose the solution that best fits their product offering.

3) How can I become energy efficient without putting a big dent in my cash flow?

Answer – There are many programs that make efficiency projects affordable and some don't require any cash outlay.

When considering energy efficiency upgrades a common problem results when the upgrades show up as a large expense on a company's Profit and Loss statement, or debt on their balance sheet.

A large expense can negatively affect a company's cash flow. If the expense doesn't show a short-term return on investment, it also becomes harder to justify to shareholders and stakeholders.

Fortunately some energy efficiency financing programs mandate positive cash flow guarantees. To be more precise the total project cost must be paid for out of the energy savings. When the proper finance options, rebates, tax incentives and local programs are incorporated into efficiency projects it often turns out that not doing the project can cost more than initiating the project.

One project that was quoted reduced the present energy cost by 13% even after factoring in the cost of the project! It was going to cost the owner less money to initiate the project than he would spend if he kept using his old, energy-hungry technology.

When he saw those numbers he knew he had to make the improvements rather than continue to waste money and energy with the status quo.

"It's very rewarding for us to go into companies and find ways for the owners to save energy and money with the added benefits of new equipment, a better work environment and happier employees."

Scott Ringlein, CEO & Founder of The Energy Alliance Group of Michigan.



4) Should I invest in energy efficiency even though I plan on selling my business soon?

Answer – When energy savings are significant, and the right financing options are utilized, the value of commercial property often goes up (making the sale of the building easier and more profitable) and the financing can be set up to pass seamlessly along to the new owner.

Property Assessed Clean Energy (PACE) is an example of a financing option that eliminates the concern about selling a business following an energy efficient investment. Often the sale of a building necessitates satisfying an underlying loan before the sale can be finalized.

PACE uses the taxing authority of the local county to secure an energy efficiency loan to the property. This provides security for the lender and allows the financing to move with the sale of the property instead of needing to be satisfied by the owner prior to sale. In Michigan, many PACE districts are being created through a private-public partnership called Lean and green Michigan.



This type of financing opens up many energy upgrade opportunities and can make the property more appealing due to the energy efficiency.

5) How can I determine if an energy professional is credible?

Answer – The easiest way is to look at the company website!

There are too many cases where people in unrelated fields get excited about energy efficiency and call themselves energy experts as they attempt to sell the latest gadget or technology.

Compare that to an energy expert who has spent years acquiring vast knowledge and expertise. Qualified energy professionals typically have a wealth of information available about their experience and credentials right on the company website.

A website (or lack of one) is a powerful indicator of the caliber and credibility of energy professionals. A true energy professional will maintain a website that typically provides a variety of case studies, the relevant local rebates and incentive programs, a listing of qualified specialty partners that can be called in to provide expertise on unique situations (solar, geothermal, wind, etc), as well as news articles and recognition from the community they serve.

Credibility should ooze from all aspects of an experts website!

6) Are there other reasons to pursue energy efficiency besides saving money and energy?

Answer – There are countless reasons to pursue energy efficiency.

Knowing the reason you're considering an energy renovation is one of the top concerns of energy efficiency professionals. Some of the most common reasons are energy and cost savings. Sometimes existing equipment is antiquated and can no longer be supported. Other reasons may include social responsibility, the desire to be perceived as "green," employee or customer comfort, visual appeal, and an increasingly popular reason is the desire for unique public relations opportunities.

One company installed cutaway portals in the walls and floors to showcase the energy efficient technology that was hidden within. Another company installed plaques that told a story of the re-purposed products used during the construction of its new facility. A rooftop garden was the highlight of a business that its clients were encouraged to walk through while learning about how much rainwater and heat the garden absorbed.

If a company wants to be perceived as "green," then having visual reminders (solar panels, green gardens, etc) may be more important in the achievement of that goal than putting in a new energy-efficient heating system, nestled in the bowels of the building.

The nice thing about energy projects is they are good for the environment as they cut cost and improve cash flows. Getting some great PR can be an added bonus.

7) How do I know if my business or building is a candidate for an energy-efficient renovation?

Answer – If you use lots of energy, have long operating hours and your facility is old or was constructed with old technology, your business is most likely a candidate.

Businesses that have high energy demands, operate for long hours and have been in business for many years with the same equipment are the most likely candidates for energy efficiency upgrades. Those factors create the greatest probability of energy reductions. New technologies have been invented that should be used in all industries but are usually absent in older facilities.

The typical chimney is a perfect example. In the past, chimneys simply carried away the unwanted exhaust from an operation. But that exhaust contained a lot of heat and moisture that was simply being wasted. New heat recovery technology can capture a large percentage of that heat and moisture and repurpose it to other uses within a building. Water can be used for lawn irrigation and retrieved heat can cut down on other heating fuel usage.

Lighting is another example. Many of the lights used in older buildings are being phased out of production due to their inefficiency. Advances in lighting technology can offer significant energy savings. Adding occupancy-sensor lighting controls and computerized lighting control systems can help reduce commercial lighting costs by even more.

8) What's the best way to actually start an energy or green renovation project?

Answer – A graduated approach typically works best when considering a green renovation. The most common approach typically involves three steps.

Step 1 – Conduct a phone conversation or informal meeting between you and the potential energy consultant. There is typically no charge for this and it allows you to determine if there's a good fit and a desire to move into the next step.

Step 2 – Usually involves a walk-through of the facility with the energy consultant and the principals of the company or the building owner. This step should always be done with company leadership, owners and the CFO. An energy upgrade or retrofit is very much a financial transaction, and decision makers should be involved from the beginning for the most optimal outcome. Don't relegate this vital component to ancillary personnel.

Step 3 - The third step is often a comprehensive energy audit. This will involve the energy consultant looking at several years of prior energy bills, determining the present energy rates, quantifying where energy is presently being used, collecting data, videos and pictures of what technology is presently on site and understanding what outcome is desired with the upgrade.

Do you want or need more light, less light, cooler, better environment, cleaner air, warmer, quiet, etc.. Once this step is completed a formal proposal and plan of action will be created.

The three steps can vary for a number of reasons but the information that needs to be compiled is typically the same. The complexity of gathering the information will differ for each project.



"The fact that PACE enables a building owner to undertake an energy efficiency project that is cash flow positive will resurrect many that have been shelved due to capital and ROI concerns, as well as open the door to many new ones."

Curt Monhart, Vice President of Sales and Marketing, The Energy Alliance Group of Michigan

9) Are my savings guaranteed?

Answer – In a number of situations, yes.

There are too many stories of energy saving promises that miss the mark but after installation there is often no recourse. In some cases, the buyer couldn't contact the manufacturer of the product or the salesperson who sold them on the savings. They were out of business!

Cost savings from the latest energy efficiency technologies can be significant, consistent and predictable. If outcomes are predictable then guarantees may be possible. This requires a "baseline" to be established prior to the energy retrofit, with any subsequent operational changes taken into consideration to determine the effect on guaranteed energy savings. For example, a second shift can't be added without a significant impact on energy consumption.

As a consumer protection feature many of the new energy financing and rebate programs mandate a savings guarantee. Guaranteed savings are a key feature of the Property Assessed Clean Energy (PACE) program.

In order to make a guarantee the cost and saving projections must be calculated out for multiple years (20 is not unusual). Those projections will look at the life expectancy of the technology, replacement costs, projected increases in utility expenses, costs of maintenance, etc.

10) What are some of the indirect benefits I should take into account when deciding to initiate an energy efficiency project?

Answer – There are many more than you would expect.

The stories that detail the indirect benefits of energy efficiency upgrades are almost always simply amazing. A brief list would include increased health, better productivity, less stress, improved concentration, faster growth, less noise, etc.

Often old technology is noisy, smelly, hums, flickers, runs too much, is too dim, breaks down or is just plain annoying. Here are some comments that illustrate the benefits: "The new equipment hardly ever runs", "The plants grow so much better with the new lights", "I don't feel like I'm working in a fog anymore", "We are able to complete so many more cycles per shift now".

Countless studies show the direct relationship between work environment and productivity. When the air is clean, the lighting good, the noise diminished, and the environment more comfortable and safe, people perform better.

When you add energy and cost savings on top of all that – it's truly a winning combination.

The Energy Alliance Group (EAG) of Michigan is an energy solutions company providing energy saving products, technologies and services.

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