



Solar is not THE answer for business!

By Ken Kurtzig, CEO, [iReuse](#)

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Ken Kurtzig
CEO, iReuse

I cannot deny it, solar is sexy. Everyone is talking about it. There are government incentives and rebates to help defray some of the cost, customers and employees are asking about it, and there is no arguing with the fact that we need an alternative to coal, nuclear, and fossil fuels. But slapping solar panels on top

of a building to “save the planet” is not the answer. Maximizing a business’s energy efficiency and achieving true transparency is much sexier.

Alternative energy is great, but unless a commercial property has maximized the efficiency of the building, using alternative energy from solar panels is just masking the inherent inefficiency of the energy usage.

Let’s look at a slightly exaggerated example to prove a point. There is a 250,000 square foot office building which is 60 years old with 20-year-old lighting, 20-year-old heating and cooling systems, and a huge data center stacked to the roof with servers because the IT team believes that “he who dies with the most toys wins.” For some, this is unfortunately not much of a stretch. Now say that all the lights, heating/cooling, and all the IT equipment in the entire building are left on 24 hours a day, 7 days a week, including Passover and Christmas.

At this point, you have two choices. You can either encourage the employees in the building to turn everything off on weekends and holidays, which will reduce the energy usage by about 30% right off the bat and not cost you a dime, or you can choose to put

\$1,500,000 worth of solar panels on your roof so that at least a percentage of the exorbitant energy being used by the building including weekends and holidays is coming from the sun and not some coal burning power plant (note: many locations don’t even get sun on Christmas, so the solar panels would just be roof decorations.) This seems to be a fairly obvious choice, and I may be exaggerating for illustrative purposes, but what remains true in most situations is that the use of alternative energy should only be used once the internal system is as efficient as possible.

Before we get into what you should or shouldn’t do, let’s explore why you would want to install solar in the first place. Most companies install solar for one or all of the following reasons: they want to make their employees and customers happy by showing that they are committed to sustainability; they want to save as much money as possible on their energy bills; or, they want to make the most significant environmental improvements that they possibly can. Let’s simplify this even further and say that companies want to save money while doing the right thing.

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Saving Green by going Green

If a company’s goal is to reduce their operating expenses and energy related expenses, installing solar panels has a fairly unattractive return on investment when compared to retrofits such as high-efficiency lighting upgrades or the installation of occupancy sensors. Solar panels require a substantial capital outlay with a payback period of around 7 to 10 years whereas upgrading your lighting or installing occupancy sensors can have as little as a 1-3 year payback period. Just looking at the financial implications, wouldn’t it make sense to implement every project that has a zero to seven year payback period prior to implementing projects with a 7- to 10-year payback period?

Going Green to be Green

Harnessing energy from the sun is absolutely amazing. There is really only one thing in my mind that is more amazing: not needing the energy in the first place. In evaluating the environmental benefits of solar panels, we must include consideration of the full lifecycle environmental cost of producing, distributing, using, and disposing of solar panels, as well as all the myriad of energy efficiency alternatives. Unfortunately, these trade-offs can only be estimates since current technology does not allow us to have 100% transparency into the full environmental impact of any decision we make.

Employee & Customer Satisfaction

Let's face it: as soon as employees or customers see solar panels on the roof, there is an immediate assumption that the company is "green." A company could have the most inefficient operations in the world, but as soon as it places a few solar panels on the roof, people think they must be doing it right. Five years ago, if you asked a company what they did to be green, they would all tout the fact that they recycled their bottles and cans. Now many people know that being the world's best recycler is just a small piece of being a truly sustainable organization. I think that solar will take the same path. As energy efficiency becomes more popular and people become more engaged in totally transparent operational efficiency measures, employees and customers will be more interested in the Energy Star rating and total kilowatt hours reduced by the company each month, rather than just seeing some solar panels on the roof.

In the end, solar is one answer, but it should not be the first answer. Like dropping a supercharged engine into a rundown car that barely operates, a premature solar installation will be a high-cost, high-visibility solution to the wrong problem. Once you can't reasonably shave any more kWh off of your energy bill, then alternative energy is a great solution to get you closer to energy neutral.

About iReuse:

iReuse is a sustainability consulting and software company founded in 2005 that serves organizations interested in reducing their operational costs and environmental impact. iReuse software and services provide organizations with a clear sustainability roadmap to achieve measured results.

iReuse Sustainability Consulting helps organizations implement programs such as waste diversion, energy efficiency, water conservation, green procurement, greenhouse gas measurement and reporting, green business certification, LEED certification, and more. Many top organizations like Kaiser Permanente, Delta Dental, Adobe, Wells Fargo, Autodesk, and PG&E have benefited from iReuse's expertise in program development and implementation.

The *iReuse Tracking and Reporting Tool* is an easy to use web based application that provides organizations with the transparency they need to cut waste out of their operations. By helping organizations reduce and track their energy, water, and materials usage and increasing their waste diversion rate, the Tool delivers an immediate positive environmental and financial impact. The Tool also provides attractive reports on their progress so organizations can communicate their improvements to executives, employees, and the public.

Contact

For more information about iReuse, please contact Ken Kurtzig at ken@ireuse.com or call 415-332-9977 x221.