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ENERGY SAVINGS - ICING OR CAKE?

by Jeff Ross

Ask anyone why they should implement an energy management program and you'll probably get this answer: "To save energy and utility expenses." Ask an energy-saving product manufacturer or vendor why anyone should buy his product, and he'll probably say the same thing. However, as performance contractors, and thus investors in energy management programs, we found that saving energy is only the icing on the cake. Anyone who has bought or sold it as the cake itself didn't take a good, hard look.

In the private commercial real estate market, utility costs and poor building performance are two of the worst areas for wasting money. And to make matters worse, resolving problems in these areas is often a very low priority. Ask property owners or managers, "What is your greatest concern? Your second greatest concern? How about your third greatest concern?" Better yet, don't even bother. Most likely, utility costs and improved building performance won't even be in their top ten concerns and definitely not in the top five. What are their most pressing concerns? How about (and not necessarily in this order) tenant comfort, improved net operating income, a better proforma, optimum building performance, lower maintenance

and operating expenses, and fewer tenant complaints just to name a few. The irony is that a thorough energy management program brings improvements in all their areas of concern!

Even in a triple-net lease situation where the utility expenses are passed through to the tenants, a property owner can make a lot of money when he sells the building - assuming he has improved his net operating income since purchase. That is exactly what an energy management program does, especially if it is a performance-based program where the owner does not invest any money for the improvements!

If the greatest opportunity for making money in commercial real estate is to turn the building over, then why would owners turn down an opportunity to make an additional 15% to 20%? But that's exactly what happens when they decide not to take time to discuss a performance contract. Performance contractors guarantee performance that shows up on the bottom line, in real dollars, dollars that improve the net operating income, the proforma, the value of the building and its attractiveness as an investment. An example of a scenario will help illustrate the effect an energy management program has on the value of a building upon resale.

APPRAISED BUILDING VALUE:	\$15,000,000.00
INSTALLED IMPROVEMENTS:	\$500,000.00
INSURED SAVINGS:	\$200,000.00
EXPENSES/YEAR ON PROJECT:	\$25,000.00
SAVINGS AFTER EXPENSES:	\$175,000.00
DEPRECIATION (%):	12%
DEPRECIATION (\$):	\$60,000.00
TAXABLE CASH SAVINGS:	\$115,000.00
TAXES AT 34%:	\$39,100.00
AFTER TAX CASH SAVINGS:	\$75,900.00
CAPITALIZATION RATE:	12%
CAPITALIZATION IN DOLLARS:	\$632,500.00
BUILDING VALUE INCREASE YEAR ONE:	\$15,632,500.00
ROI:	26%

As you can see, using a performance contract instead of money can make the return on an investment infinite! And this scenario only illustrates the economic benefits. A successful performance contract (success being guaranteed by the contractor) improves tenant comfort and the mechanical integrity of a facility. In other words, by using a performance contract to enhance the value and performance of a building, an owner, at no expense or risk, gets happier tenants, fewer headaches, and far more valuable building - which results in more money at re-sale.

****NESA**MAIL**BAG****

TO OUR FELLOW NESA MEMBERS:

A big need of industry, which has not been properly addressed in recent years, is that of "wasted" electrical energy through electrical distribution and mechanical systems. An electrical utility cost reduction system will reduce Amps, KW, KWh, KVAR and KVA consumed in a facility, thereby stabilizing the voltage, balancing the three phases and filtering harmonics, surges and transients.

In any electrical distribution, there is one set of basic parameters to work with and that is Volts, Amps, KVA, KVAR, KW and Power Factor. Of these parameters, utility companies can charge for KW Demand, KWh, KVA Demand, KVA Excess, KVAR Excess and Power Factor penalties. An electrical utility cost reduction system enables the utilization of more "conditioned" energy to the point of eliminating any penalty which may be imposed by electrical utility companies.

The power consumed in electrical equipment has two basic components: A) real power which produces useful work, and B) reactive power which is required in the operation of inductive electrical equipment. All inductive devices employ coils of wire wound around cores made of iron. When electric current is fed into these coils, several conditions occur: eddy current, iron effects of leakage-reactance, occasional saturation and hysteresis. All of these cause an inequity between true power and apparent power. This causes motors or transformers to use more current from the system than is necessary to do the same job. The lack of an electrical utility cost reduction system results in equipment actually using less current than you pay for because although necessary, it is wasted. The system eliminates a lot of this "wasted" power by reducing the mismatch between real power and apparent power, so that total current requirements are useful current only. Thus power costs are reduced without limiting or shedding the inductive load.

An electrical utility cost reduction system is uniquely designed for each facility based on measurements taken and data gathered at the electrical distribution center. The system is then designed to include the following benefits and features: lower electric bills, reduced KW demand and KWh consumption, reduced maintenance and down-time, elimination of damaging surges and transients, reduction of unproductive power and amps while providing optimum power factor. Features such as single phase protection and harmonics elimination may also be added, to reduce or eliminate all types of unwanted distortions in the sine wave. The effect of such harmonics, noises and unwanted frequencies can destroy standard capacitor banks and loads.

Further advantages of an electrical utility cost reduction system are reductions in line voltage unbalance, circulating currents, closed delta winding losses and motor temperatures. Reducing these losses reduces the cost of operation. The effective use of special non-saturable inductors can protect against the high rate of current change which is ultimately damaging to all standard capacitors and loads.

In view of present and future economic concerns, application of proven technology towards operation enhancement, protection and waste elimination makes good dollars and sense.

Electenergy Technologies Inc. (ETI) is an independent energy engineering firm with offices in the U.S. and 8 foreign countries and a successful eleven-year program of obtaining for its clients substantially reduced utility costs. Their engineering staff, consisting of engineers and certified energy analysts, performs a non-disruptive evaluation of a facility using actual testing and measurement of the electrical/energy consumption. For further information about ETI and their services, you may call NESA (913) 232-1702 or write to: NESA, 518 NW Gordon, Topeka, KS 66608

"Our members are our business."