

IMPROVING YOUR COMPETITIVE POSITION THROUGH ENERGY SURVEYS

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Downsizing, re-engineering, reorganization. These are business terms of the 1990's used to indicate the need for American companies to streamline, so that they can remain competitive. American business and industry no longer hold their once commanding advantage throughout the world in business. Quality products at low prices have made European and Asian countries major players in today's global market. Therefore, it is essential that American business do everything within its power to improve productivity and reduce its operating costs. Only in this way can it hope to remain viable in the market.

Having survived a number of corporate reorganizations and been involved in over two hundred energy surveys, it has become apparent that many firms are overlooking an area for potential increased profitability; a way to enhance profits and enhance their competitive position. That is through effective utilization of energy resources.

Programs to conserve energy in business and industry have been on-going for over twenty years. However, for the past decade, lulled into a state of complacency by stable energy prices, many firms have opted not to invest in Demand Side Management (DSM) or conservation programs. To them energy is an minor factor in their overall cost of operation. I contend that for many businesses and industrial facilities the effective use of energy resources can be a key component to elevating firms to a position of having a advantage over their competition.

The effective utilization of any commodity begins with: (1) knowing current consumption patterns, (2) knowing where, how, and why energy it is being used, and (3) understanding the basis on which you are being charged for the commodity. The best way to obtain this information is through a comprehensive energy survey. A comprehensive energy survey can provide all of the required information with which to make informed energy decisions. Surveys provide not only recommendations to improve current energy utilization, but they also can provide insight into methods of minimizing future energy use as well. The survey, however, is only half of the story. The survey report is of little value if the customer does not implement the recommended measures.

Having performed numerous energy surveys, I am still perplexed that customers do not implement more of the measures that are shown to be cost effective. Recommendations as obvious as using energy efficient fluorescent lamps are still not being voluntarily implemented by some commercial and industrial

customers. On average, less than 20% of the recommended measures are typically implemented.

Customers always seem to have a *reason* why measures are not implemented. Some of the most often quoted reasons include: “We don’t have the capital at this time” and “We have to submit this through our budgeting process.” Quite often, unless the facility top management is behind the effort, any enthusiasm generated by the initial survey report is lost in the presentation to the management or the budgeting process.

The fact is that in today’s market there are few valid reasons for not implementing cost effective energy measures. There are any number of ways that worthwhile projects can be implemented. For companies where capital is a concern, energy service companies are becoming more prevalent. Organizations such as Honeywell, Johnson Controls, and General Electric, to mention a few, have services available to assist customers. These include audit services, the procurement of equipment, installation, financing, and in some situations guaranteed savings. Many electric and gas utilities are also providing auditing and other services to assist their customers. In addition, state governmental energy agencies may offer subsidized energy assistance to business and industry.

So, support services are available. What then is the opportunity? How much can a company expect to save with a comprehensive energy survey? Is it truly worth the effort? The answer to these questions depends on many factors, including:

- How energy intensive is the facility?
- What is the operating schedule (single shift vs. three shift)?
- What are the current energy rates?
- How efficient is the existing equipment?
- How are system currently controlled?
- Have conservation and/or DSM strategies been previously implemented?
- What is an acceptable payback or ROI to the customer?

In surveying various commercial and industrial facilities certain patterns seem to develop. It is intuitively obvious that an industrial plant would be more energy intensive than the typical commercial building. Also, a significant portion of the plant’s energy would be process related. Therefore, the anticipated savings, on a percentage basis, would be smaller for industrial facilities. In actual practice this hold true. For industrial facilities typical dollar savings may be on the order of 2% to 10%, or more, of the annual energy expenditure. In commercial buildings the potential for saving usually ranges between 5% and 15%, or more. If conservation

and DSM options have not been specifically addressed at a facility, the savings could be significantly greater.

To illustrate this, the table on the following page highlights the dollar saving potential for four moderate size industrial facilities located in the central portion of the country. These plants would be considered typical of the opportunity that is available. It should be noted that all four surveys were restricted to presenting recommendations having a projected simple payback of less than two years. In addition, these savings equate only to electrical energy consumption savings.

TABLE - SAVINGS POTENTIAL

INDUSTRY	ANNUAL ELECTRICAL ENERGY EXPENDITURE	SURVEY PROJECTED ANNUAL SAVING	PERCENT SAVING POTENTIAL
Furniture	\$193,915	\$23,458	12.1%
Furniture	\$199,454	\$18,113	9.1%
Automotive	\$568,573	\$22,501	4.0%
Brick	\$584,689	\$32,289	5.5%

The results noted above are representative of the level of saving potential that exists in American business today. To achieve these savings we do not have to call upon *Star Wars* technology. Each of the recommendations in the four referenced reports utilized off-the-shelf proven technology and controls/strategies that have been available for years. With greater economic flexibility even further savings could have been possible. It should be noted that these are true savings. Therefore, this could be viewed as increasing sales based upon a firms current profit margin. Hence, the smaller the profit margin an industry has, the greater the net impact.

Results such as these have shown that it is possible for many businesses to incur substantial savings from energy improvements. The only way in which to accurately evaluate the potential for these savings is through a comprehensive energy survey. Thus, the energy survey becomes a tool of increased profitability.

Undoubtedly, in today's global economy anything that increases profitability enhances our market position and competitive position.