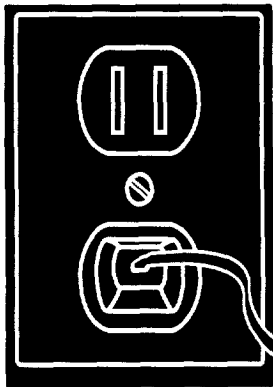


Plan Your Way to Long-Term



Energy Cost Savings

Every dollar you save on energy goes straight to the bottom line, giving you more resources for use elsewhere.

The recent headlines coming out of California and last winter's high natural gas prices may make energy seem like a new trend story. Energy, however, should be thought of as a regular and year-round cost for foundries to control, just like all your other variable costs. Every dollar you save on energy will go straight to the bottom line, giving you more resources for use elsewhere. The more efficiently we use electricity, the more we improve the reliability of the electric system as well.

But where do you start? Edison Electric Institute, on behalf of the nation's electric utility companies, offers the following steps to help you plan how to get the most use from every energy dollar. The following tips are taken from EEI's new guidebook, "Managing Energy."

Following a comprehensive plan like this one can cut your energy costs by up to 20%. Another resource to guide you is your electric utility company. They can help, often for little or no cost. Call them or visit their Website.

Time for Teamwork

To get started and organized for success, you must build a team. Generally, you will need representatives from management or administration. Top-level commitment is paramount. Pull the team together for a planning session and start laying the groundwork. The team will need to define success with goals that are realistic. Is saying you want to save 10% over two years possible? What is the base you will measure against? How and when will the measurement be made?

Create an action plan for implementing top priority energy-saving measures. Assign who will do what by when

and within what budget. Assign plan components to those who are capable of accomplishing the task. Then celebrate your successes. Don't wait until the end of a two-year program to announce results. Create regular milestones and incentives to meet them. Make people feel a part of the program's success and it will take on a life of its own.

Use Your Utility

Consult with your electric company. Your electric utility is likely to be a good source for information and assistance to help you get started. Your representative will likely have historical data about energy use in your foundry. The local electric company can also help you with answers about electric utility incentive programs, discount electricity rates, energy-efficient equipment, or any other energy-related questions.

Audit Time

The best way to determine exactly how to cut your energy costs is to conduct an audit of your foundry's energy use. There are two types of energy audits—a walk-through audit and a computerized analysis audit.

Walk-Through Audit - A walk-through audit is a simple, low-tech place to start. This is the easiest and least expensive means of identifying and evaluating your energy use. Since people have a major effect on how energy is used, this audit pays particular attention to identifying habits and procedures that can be adopted to use energy more efficiently.

Computerized Analysis Audit - An analysis audit identifies more comprehensive, capital-intensive energy saving improvements. Your foundry's energy data is run through a computer program and interrelated. The resulting analysis provides specific recommendations for energy savings that include determining the most economical rate for your shop, equipment replacements or retrofits, and building structural or design modifications. There is usually a fee for an analysis audit; in many cases, the local electric utility may provide this service for you.

Find the Big Abusers

Understand the equipment in your foundry that are big energy users. A small improvement in an area that consumes a lot of energy, like heating and cooling, water heating, or lighting, will make a large impact on the bottom line.

Lighting - Lighting is usually the largest electricity user, so it should be the first place to look for savings. Many fa-

cilities report savings of 20 to 50%. These savings are typically easy to make and cost little or nothing.

HVAC - Your heating, ventilation, and cooling system offers savings of 30% or more by improving efficiency and maintenance. Savings come from keeping the system off when not needed, changing temperature settings, and making the system more efficient.

Building Envelope - The envelope—everything that separates the inside from the outside—has a major influence on the HVAC system. When it operates effectively, when it limits heat losses and gains, the building will require less energy.

Hot Water - Lower temperature settings, fixing hot water leaks, and using heat recovery systems are all ways to control energy here.

Electronic Control

Installing an energy management control (EMC) system is a measure that can enhance the other energy-saving actions you choose to take. EMC systems can save 10 to 20% on electricity costs. It may be the most cost-effective measure you can take, especially to guard against needless energy waste. Remember, the best time to save money in an area or facility is when no one is there. Although some of the savings come from reduced consumption resulting from equipment being turned off, the big savings often come from systems that are able to reduce electrical demand, thereby saving on demand charges.

Determine Payback

A popular way to evaluate any energy saving improvement is to calculate how long it will take the investment to pay for itself in energy savings. Simple payback is calculated by dividing the cost of the improvement by the annual energy savings. The result is the number of years it will take to payback the investment. This method doesn't take into account inflation, energy cost changes, tax effects, or the expected life of the equipment.

The adjusted payback method takes into account some time-value of money. The inputs to this method are the simple payback and the cost of money if you finance or the rate of return you want on the investment.

Life cycle costing is a method that factors in all the variables, and is used when the payback is long, the investment is large, or you just want to know how this investment compares with other you could make.

Cash-in on Competition

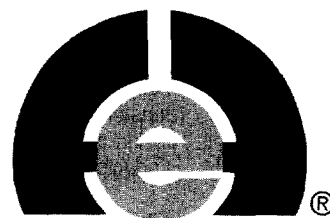
Capitalize on opportunities created by electricity competition. As you no doubt are aware, many state and federal initiatives are underway to restructure retail electricity markets. Although having to choose from among a number of competing energy suppliers can seem daunting even for the most sophisticated energy manager, competition within the electricity industry can offer significant benefits for those who are prepared.

To take full advantage of the new electricity markets, however, you must have an understanding of your electricity usage patterns. Many electricity suppliers are contemplating the use of "Real-time pricing" in the future. Under this pricing option, electricity prices will change hourly based on the cost to produce the electricity. While this will provide an opportunity to shift loads back and forth to the lowest cost hours, it places a burden on companies to understand electricity consumption on an hourly basis, and how to potentially move load without disrupting services. A load profile is information on energy usage over a period, usually displayed graphically. Load profiles should be developed and assessed on an annual, monthly, weekly, daily, and hourly basis, since electricity prices will be dependent on how your energy consumption fluctuates over time. The load shape may also provide an indication of what energy services your foundry may need. **FMT**

"Managing Energy," a guidebook for planning how to get the most for your energy dollar, is available from Edison Electric Institute for \$18.00 by calling 800-EEI-5453 in the U.S. & Canada.

Edison Electric Institute (EEI) is the association of United States shareholder-owned electric utilities, industry affiliates, and associates worldwide. Its domestic members generate approximately three-quarters of the nation's electricity, and service about 70% of all ultimate customers in the nation.

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