



Taking Care of the Basics®

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"--blessed is he who trusts in the Lord." Proverbs 16:20

Why an Energy Management Process?

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Global warming, greenhouse gases, carbon footprint....what's all this about? One critical factor is energy consumption. Thus energy management and energy conservation will improve environmental results while saving \$\$\$\$.

In the mid-1970's there was an oil embargo against the U.S. During those months we all took energy conservation measures....not for politically correct reasons, not for altruistic reasons, not to save the environment, not for global warming...NO! It was to conserve energy so we'd have enough to keep our homes warm, gasoline to drive our cars, electricity and other energy to operate our manufacturing facilities. It was a serious issue. Our church actually voted to set the thermostats at 55° F and wear coats in winter. We car pooled instead of driving our own cars to work everyday. The company I worked for at the time instituted extreme energy conservation measures just to insure that we could keep operating. Yes, it was really like that.

"Conservation of energy also protects our environment."

Lamar S. Smith

What happened? The truth is we failed to learn the lessons. When energy became readily available, we went back to our old habits. Now a few decades later the problem is once again before us. Only this time in environmental issues and energy costs more than simply just an availability issue. Energy costs are significant for families and businesses. Energy utilization and waste is not only a cost issue, but also an environmental issue today. So, "going green" can save "green \$\$\$." In this issue we will see energy management as a process and present an energy management process model.

Energy Management as a Process

What is a Process?

A process is “any set of events working together to produce an outcome.” A process has inputs and outputs. Energy Management is just another process to consider.

“Manage energy as any other process with inputs and outputs considered. Costs are important.”

There are at least three factors that make an energy management process a priority today:

1. Economics
2. Environment
3. Regulatory Issues

The **economics** make it relevant to all businesses:

- Research shows that companies generally can save 5-15% on energy costs rather quickly by implementing an energy management process.
- Eventual savings of >30% are usually obtained when EMP's are implemented

Source: Guide to Energy Management, Capehart, Turner and Kennedy, CRC Press, 5th edition, page 3.

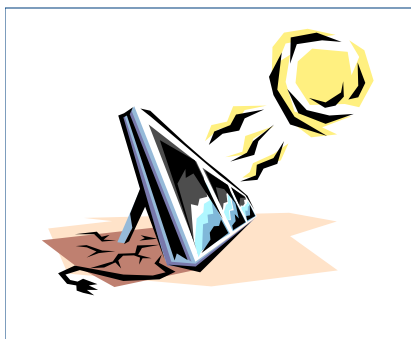
What about environmental concerns today?

- The item *du jour*- *Global Warming*
- Greenhouse gases, primarily CO₂
- Global climate change
- Acid rain
- Ozone depletion
- Total environmental impacts

While these are not equally relevant to all businesses, surely you can already see the implications of environmental impacts and energy consumption. One measure that is gaining prominence today is the “carbon footprint” which can be determined from your energy use.

In a future issue we will briefly summarize how to determine your carbon footprint. There are many so-called “calculators” on the internet, but not all are based on sound principals and conversion factors. So, be careful if you just get on the internet and calculate a number without understanding the basis and how to interpret the result.

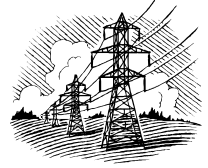
In recent months we have conducted energy assessments and developed measurement and improvement plans for organizations in New York, Arkansas, Alabama, Illinois and Texas. If you would like more information on an assessment that can help you save money, improve the environment and conserve energy, please let us know.



8 Foundations of an Energy Management Process

An effective **Energy Management Process** involves, at a minimum:

1. Top Management commitment
 2. An energy policy that is understood and measurable
 3. Leadership at all levels of the organization focused
 4. An Energy Management Representative and an energy management team that are functioning effectively
 5. Understanding “where we are” with energy use and carbon footprint
 6. Understanding the building systems
 7. Implementing low cost/no cost common sense energy conservation measures
 8. Establishing realistic energy management targets and objectives
- In the next issue we'll discuss how to establish your energy policy .*



Temperature Control can Conserve Energy and Save \$\$\$

1. Set thermostats at 68-70° in winter and 72-75° in summer. This simple change can lead to 5-10% energy savings. There may be some thermostats set on heat and others on cooling within the same building or area of a building. Set them all alike and encourage people to leave them alone.
2. Post placards on thermostats to provide information to users. Using these on each thermostat coupled with leaving the temperatures set could yield closer to 10% than 5% in savings.
3. Change to digital thermostats wherever you can. This will require some investment, but usually yields 30% -80% ROI.
4. Program thermostats for a five degree setback about one hour before maximum building occupancy and then go back to the normal temperature about one hour after maximum occupancy; for example, if you have more people between 12 noon and 6 p.m. then set temperatures to change at 11 a.m. and 7 p.m. This simple change could lead to 2-5% energy savings, but you can reach the point of diminishing returns if the setbacks are programmed for too long a period of time.

Sample Placard for Thermostats:

This Thermostat Controls:

- Select Heat or Cool
 - If heat is selected, set at around 68 degrees.
 - If cool is selected, set at around 74 degrees.
 - Set the fan to AUTO. If you are leaving for several hours, please turn fan to OFF.
 - If heating or cooling is not satisfactory, call:
-

Success Factor:

MEASUREMENT

Success Factor 50

(Excerpted from Davis' book *Taking Care of the Basics: 101 Success Factors for Managers*, page 50, order it from amazon.com; authorhouse.com; bamm.com and others)

Working Definition: Evaluating results; using numbers to determine where we stand relative to a target or goal.

Success Factor: It has been said that if we can't measure it, don't do it. Identify those five to seven critical factors that tell us the health of our organization or work group. Know the units we will use to describe performance, for example: # work orders completed in a shift; labor hours/work order; good pounds per day; # good parts/shift; lbs. of waste/shift; # loads/day; mpg; # of students sent to detention; grade distributions; environmental incidents; safety incidents; etc. Next, set targets and evaluate performance using the data and information from the process

Application: Too often we look at situations subjectively and make decisions based upon emotions and supposition instead of measuring and evaluating performance using real data.

Verses to Consider: Amos 7:7-9

Being More Successful: What are the five to seven factors critical to your unit's success?

To Do: Take your list and identify the units of measure, the frequency of measurement, the communications of the results and the corrective actions when you fail to meet the desired target.

Email Tip: Use details in the subject line of your emails to help the reader make a more informed decision about reading the message now, later or never.

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