



November, 2010 - Save Energy \$ and Get a Free PM!

Cut Your Energy Bill -Now!

There's a lot of talk recently about going green and operating more sustainably by reducing your energy footprint. But don't forget that the biggest reason to reduce your plant's energy consumption is saving money.

The benefits extend beyond dollars. Reducing your energy use makes you more competitive. It reduces plant maintenance costs, which in turn helps reduce overtime costs and makes budget forecasting more accurate.

No matter what size or type of plant, it's possible to cut its energy consumption. So why don't more plant managers do it? Several reasons. When energy costs are low (or when they retreat slightly from new highs) saving energy moves down the priority list. Many people believe it's difficult to become more energy efficient, when in fact it's a relatively straightforward process.

Sometimes we just need to know where to start.



This month, ProBusS offers a few simple steps you can take to reduce your energy bill, starting today.

Proactive energy savings

We have long preached preventative maintenance, and a proactive approach to

energy savings is part of a smart PM strategy. When you keep equipment operating at peak efficiency, it uses less energy. It's kind of like "sticking it to the man" at the utility.

Implementing a PM program may require a bit in start-up costs, but the savings add up quickly. If, on the other hand, you skip preventative measures and simply react to equipment breakdowns as they happen, your costs for labor, equipment replacement, and downtime will be much higher. And a machine with, say, worn bearings or poorly aligned shafts, uses more energy than machines on a regular PM program. The engineers who calculate this stuff say well-maintained equipment uses 20% less energy.



Where to start with PM? Keep it simple. Begin with the equipment you know is key to your operation. Factor in the manufacturer's maintenance recommendations, and create a PM schedule. Rolling inspections by savvy PM technicians, along with tools such as thermal imagers, help identify equipment problems early.

A good kind of audit

An energy audit will help drive your maintenance schedule, too. Start by auditing two areas: 1) your biggest energy-using machines or systems, and 2) the HVAC system.

Use a power logger to monitor voltage and current simultaneously, and measure power factor. A too-low power factor in your plant means you're not managing power effectively and you may be paying a higher rate as a result.

After tracking energy consumption over time for each part of your plant, you'll have a clear indication of how machines and lines are consuming energy at specific times. With that knowledge you can better schedule operations for off-peak hours, rebalance loads, and



determine when to upgrade certain equipment.



A couple of other questions: Are you using newer variable frequency drives where possible? They can help you save power. Have you thermally scanned circuits and systems? If not, you could be missing overloaded or imbalanced circuits, overheating motors, loose connections, and other problems that are clear energy wasters.

HVAC = High Value Air Cost

We see it often: an open plant window during the winter because it's too hot to work comfortably in a particular area. Overheating or overcooling the plant causes people to create workarounds, like additional fans in the summer, or an open window in January. They waste energy dollars in a big way.

When and how often is your HVAC cycling on? When was the last time the system was updated? Chillers frequently use up to 30% more than they should simply because of system inefficiencies. Boilers and AC equipment become less efficient over time, which is why heating, cooling, and moving air is one of the biggest energy wasters in a plant, along with lighting. Regular HVAC system inspections pay for themselves several times over.

Now about that lighting...

See the light

Lighting upgrades can pay for themselves *in less than a year*. We're not just talking about replacing incandescent bulbs with fluorescent bulbs. We're also suggesting you consider LED lighting, too.

LEDs are solid state, so they withstand extreme wind and weather, heavy vibration, and temperature fluctuations. They last a long time. Here are just a few places where LEDs should be considered:



- factories, warehouses, and other large facilities: LEDs are great for lighting the work space and saving on maintenance and bulb storage, etc.
- parking lots and garages: these heavy use, high maintenance locations are better served by LEDs than HID and fluorescent



- sources
- outdoor areas, pathways, etc.: cold weather is hard on fluorescent lighting, and HID and halogen are high maintenance
- stairwells: lights here are difficult to replace and typically require 24/7 operation; LEDs last much longer than other lighting and use less energy

An overall lighting plan that considers multiple lighting options can cut energy costs dramatically and significantly reduce maintenance time and expense.

Save your energy... **with a Free PM!**

One of our customers asked us to repair the gearbox on a motor-operated door; the doors were not closing completely and leaving a small gap. It wasn't a huge opening, but you could feel the HVAC dollars, like Elvis, leaving the building.

At the same time, we checked other components of the door system and discovered that the door insulation was deteriorating. More heat loss in the making. We were able to replace the insulation at the same time we repaired the faulty brake on the gear box that was causing the door gap. The doors now close properly, the insulation has been replaced, and fewer HVAC dollars are flying out the door. It's the kind of happy ending we all like to hear about.

We'd like to help you create your own energy savings story, and a PM inspection is the best way to begin the tale. So we're offering **a free, one-hour PM inspection at your plant** between now and the end of the year. We'll provide a standard PM inspection, and include ideas about what steps you can take to reduce your energy bill -this month and for many months to come. Drop



us an email, or give us a call: **616-490-4781**. This offer is open to any company without a current PM contract with ProBusS.

Call ProBusS today and schedule your free PM!