

## **Some training courses are worth the price**

### **Learn to use energy tools to make your plant more efficient**

Sometimes specialized training courses can be very costly. Even going to industry workshops and seminars have a huge price tag. This has caused many companies to limit training to keep cost down. While taking training classes can be an expensive proposition, the U.S. Department of Energy (DOE) has a great deal for you. Not only do they offer free useful tools, but also cheap training and the ability to be a qualified specialist in many different energy areas.

Through the Office of Industrial Technology, the DOE has been offering Internet, local, and national training on a set of practical evaluation tools that can be used to create an energy efficiency program. Energy systems include steam, process heating, compressed air, motors, pumps, and fans — systems that are used throughout industry. Training can range from Internet introductory courses to one- to three-day courses.

One of the most useful courses is the Steam System Assessment training. The one-day course focuses on DOE's Best Practice Steam Tool that can be used to evaluate any steam system. The Excel-based tool is actually extremely powerful and can evaluate steam traps, boilers and up to three different steam pressures. When used correctly, the evaluation can actually be stretched to do more complicated systems. The course is enough to start using the tool and probably monitoring your own system. Once you've learned to use the tool, you can then take the three-day Specialist Qualification course. Once qualified, you'll have enough knowledge to map most steam systems in most industries. The course is often used by steam equipment and services providers as a way to certify their engineers.

Another very useful training is for process heaters. The program used for this training is the Process Heating Analysis and Survey Tool (PHAST). This program can evaluate almost any type of process heater from kilns and smelters to box type furnaces. PHAST is amazingly versatile and does a great job evaluating all forms of losses that occur in a furnace. Just like the steam program, the one-day training is enough to evaluate your own system while the two-day training can get you qualified as a specialist to apply the program to other process heaters.

The other four training areas — fans, motors, compressed air and pumps — are geared a little more toward maintenance engineers, but if you extensively use these systems, these training courses are invaluable. The Fan System Assessment is good for optimizing any large fan system. Motors can help evaluate repair-or-replace decisions for small to large sizes. The compressed air course has been used by many specialists to find 15–25% savings in air systems. The pump system training looks at performance problems and practical issues concerning pumps.

[DOE is planning to expand their offering in the future by adding training on Energy Management Systems and Total Plant Assessment. The structure of those workshop programs are currently being assembled by committees of industry specialist and technical consultants. Those workshops are expected to be available in 2010, after the program is pilot test on actual industrial plants.](#)

If you become a qualified specialist for any of the tools, you can apply for further training as a Save Energy Now Specialist. These Energy Experts conduct energy

assessments at major U.S. industrial plants as a part of Industrial Technologies Program's nationwide Save Energy Now effort. You can even have your plant sign up for Save Energy Now and get trained as a Specialist at the same time.

The additional benefit of taking these courses is the direct contact to industry experts who are not affiliated with a vendor or technical service company. These experts, paid by the DOE, are often experience in a range of industries and therefore can provide a completely different perspective of your plant and equipment.

So what are the costs of these DOE training courses? Most are between \$50 to \$75 for one-day training to \$250 to \$300 for three-day training. When you compare that to courses offered by industry groups or universities, you can't find a better value — unless you're based in California. There,, the California Energy Commission is sponsoring a series of these courses throughout the state and offering them for free. All you need to do is go to its website [provide url], check the schedule, and follow the instructions to sign up. To find out more about these courses, go to [www.eere.energy.gov](http://www.eere.energy.gov) and click on Industrial Technologies, or write to me at my e-mail address.

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