How long has it been since your operations had an energy assessment by an actual energy professional: one year... two years...never? Taking a step back, just what is an energy assessment—*and is it really worth the trouble?*

An energy assessment (sometimes called an "energy audit") provides a better understanding of how energy is used throughout your facility and identifies opportunities for energy savings. It may take the form of a walk-through of your operations to identify specific opportunities, or it may involve detailed measurement and analysis of specific processes and systems.

There are often many energy-saving opportunities at a facility, from "quick wins," repairs and tune-ups that involve minimal disruptions to equipment and processes, to more significant upgrades and process improvements. In the case of motor-driven systems, an energy audit may reveal inefficient or improperly sized motors, variable frequency drive (VFD) retrofit opportunities, process changes that reduce motor speed or duty and other repair and optimization opportunities.

Is an energy assessment worth the time and money? If improving plant efficiency and reducing operating costs is a core strategy at your facility, then investing in an energy audit is well worth the effort. A skilled professional can help identify numerous and, sometimes, hard-to-spot opportunities, as well as help quantify potential energy savings and payback period for identified changes. Energy audits may also lead to intangible benefits—*such as increasing your team's awareness of how energy impacts the bottom line.*

Getting started

To get started, collect your most recent motor inventory data, system schematic, motor test results and (if applicable) previous audit results. If these resources are not readily available, begin by taking a basic motor inventory, including motor nameplate data, estimated operating hours and the electric costs to operate your facility.

Next, contact a qualified energy assessor. Your local utility may offer an assessment program or provide a list of licensed energy service providers in your area. The U.S. Department of Energy Industrial Technologies Program (ITP) offers audit assistance to qualified plants. The MDM Website has links to system optimization, resources from local utilities and plant energy-management resources. Before committing to an audit, know up front what the approximate time and cost will be and the typical improvements and evaluation criteria that are recommended for your type of facility. Review case studies and references. Be prepared to put together an implementation plan and take action based on the assessment results.

Regularly monitoring motor energy consumption, making motor-system efficiency improvements and tracking improvement over time are key components to sound motor management. Performing an energy assessment is a big step toward identifying savings opportunities, establishing savings goals and—*very important*—achieving results! **MT**

The Motor Decisions Matter (MDM) campaign is managed by the Consortium for Energy Efficiency (CEE), a North American nonprofit organization that promotes energy-saving products, equipment and technologies. For further information, contact MDM staff at mdminfo@cee1.org or (617) 589-3949.

For more info, enter 03 at www.MT-freeinfo.com