

# Motor Decisions Matter

## Overview

*Motor Decisions Matter* (MDM) is a national awareness campaign designed to promote the benefits of sound motor management to corporate and plant decision-makers. Effective motor management can reduce costly downtime *and* save energy and money. MDM sponsors – a collaborative of utilities, energy efficiency organizations, government agencies, manufacturers, and trade associations – are working together to promote this common message to the market.

*Motor Decisions Matter* is managed and coordinated by CEE.

MDM provides a single, coordinated voice in the market, explaining the benefits of motor management and planning to a variety of stakeholders. MDM's goal is to increase the demand for premium efficiency motors and quality motor repair services by highlighting the positive effects of good motor management on business performance.

The campaign encourages customers to work through local motor professionals and others to develop motor management plans. *Motor Decisions Matter* ([www.motorsmatter.org](http://www.motorsmatter.org)) helps industrial and commercial customers use life-cycle costing methods to determine whether motors should be repaired or replaced *before they fail* and when to install premium efficiency motors.

MDM was launched in 2001, and in 2004, MDM sponsors began distribution and promotion of motor management tools such as the *1-2-3 Approach to Motor Management*, an innovative software tool that demonstrates how industrial and commercial facility managers can reduce downtime and save energy by proactively managing their motor fleets. The tool calculates the financial impact of common motor-related decisions. Today, the MDM campaign continues to distribute and promote motor management tools and resources through webcasts and participation in related events. See [www.motorsmatter.org](http://www.motorsmatter.org) for event details or to download the tools.

## About this opportunity

According to the U.S. Department of Energy, Electric motors make up the largest end use of electricity in the United States, accounting for approximately 60% of electricity consumption in industrial applications and more than 70% in the process industries. Since these motors consume 25 percent of all electricity sold in the United States, even small efficiency improvements can have dramatic economic and environmental consequences.

DOE studies have shown that greater attention to cost effective applications of mature, proven motor system energy efficiency technologies and practices can reduce U.S. industrial energy costs up to \$5.8 billion per year.

These motor management practices include specifying high efficiency NEMA Premium<sup>®</sup> motors where appropriate, following best practice repair procedures, proactive planning for motor failure, and establishing management policies that support consistent motor repair and replacement decisions.

### **A motor management plan:**

- Reduces energy costs
- Decreases downtime
- Is strategic for companies
- Helps capture savings opportunities that might otherwise be overlooked
- Enables managers and plant personnel to react quickly and effectively to motor failure
- Ensures motor availability for critical processes

### **Barriers**

Studies have shown that relatively few people are aware of the potential benefits of motor management. A 2005 survey of *Plant Engineering* readers, commissioned by MDM sponsors, found that:

- Only 7 percent of the respondents understood that a motor's *annual* operating costs can be five to six times more than its initial purchase price;
- 27 percent of the respondents had purchased (or knew of someone in the company who had purchased) NEMA Premium motors
- 17 percent of respondents' companies had an official policy requiring the purchase of NEMA Premium motors

Too often decisions to repair or replace a motor are based on availability or short-term economics, not evaluation and planning. When motor equipment failure occurs, the highest priority is to return the equipment to service – not optimize motor performance.

This type of decision-making can result in higher operational costs, poor equipment performance and unreliable service. These consequences could be avoided if more senior managers took advantage of the opportunity to reduce costs and improve performance through better motor management.

When running continuously at or near full load, the annual energy cost for running a motor can be 10 to 25 times its purchase price. This makes the incremental price increase of a premium-efficiency motor insignificant.

**Strategy:** A unique coalition of organizations sponsor the *Motor Decisions Matter* campaign, including:

- Electrical Apparatus Service Association (EASA)
- National Electrical Manufacturers Association (NEMA)
- Motor manufacturers
- Utility and state energy efficiency programs
- Other organizations

Through these organizations and their participating members, MDM emphasizes the bottom line benefits companies can realize by implementing sound motor management policies. In addition to significant energy savings and reduced downtime, these benefits include increased productivity, and reduced operating and maintenance budgets.

The campaign strives to deliver this message in ways that senior plant and corporate management will understand and find compelling. The campaign also provides a forum through which sponsors can partner at the local level, delivering a common message on motor management to customers in their territories.

**Resources:** Tools, news releases, a list of sponsors (and contact information), a bi-monthly newsletter and other resources are available on the MDM Web site ([www.motorsmatter.org](http://www.motorsmatter.org)). Additional information is available at by contacting:

Kellem Emanuele  
CEE Industrial Program Manager  
617-337-9273  
kemanuele@cee1.org