

**LUBE**

# TECHNI-GRAM



**FROM:**

LEWIS FOX  
DIRECTOR OF TECHNOLOGY

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## ENERGY SAVINGS PROGRAM (ESP) = CALCULATED SAVINGS

In industrial plants and commercial facilities, measuring energy use and developing plans for reducing power consumption, are essential for cost effective production. In every manufacturing facility there is the substantial opportunity to improve **profitability, productivity** and overall **efficiency**. But, opportunity has a sly habit of eluding us...only careful inspection and evaluation can reveal the real opportunity that exists in most manufacturing plants. To insure energy savings, Plant Managers and Maintenance Personnel can greatly benefit from developing an overall energy plan for their facilities. The assistance of SWEPCO's energy Savings Program (ESP) and its implementation by the local SWEPCO Consultant can be of enormous benefit. These programs and strategies can combine efficiency projects and upgrades with production and maintenance opportunities.

Since electric motors represent the very heart of industry as they turn electricity into work, the U.S. Department of Energy (DOE) created the Motor Challenge program which consists of hundreds of organizations who are committed to improving the energy efficiency, expanding productivity, and enhancing environmental performance. Southwestern Petroleum Corporation is proud to be a member of this program.

According to the DOE, about 40 million electric motors are used in U.S. manufacturing operations, consuming 70% of the electricity used by all of industry. Without question, a key factor in reducing huge power demands and enormous wasted energy is improving poorly matched electrical loads or inefficiently matched components such as fans, blowers, compressors and pumps. Individually, such components don't seem like much...collectively, they have a major impact on a plant's energy consumption. According to U.S. Department of Energy statistics, evaluating and maximizing this efficiency can improve energy savings a minimum of 5 to 10% and sometimes as much as 30-50%!

The key to successful application of energy efficiencies with motors is the system approach. To utilize a motor to its optimum capabilities all components must be considered and its functions coordinated for maximum efficiency. To drive any industrial load, the conversion from electrical energy to mechanical work is necessary. Knowing that friction robs electrical energy, certainly, when components such as fans, blowers, compressors and pumps are lubricated with new generation, thermally stable, friction modified lubricants, such as



*... to keep it running*

SWEPCO's full line of energy efficient lubricants, obviously energy savings will result. Since electric utility bills generally dwarf maintenance and lubricant costs, a customer has a tremendous opportunity to create a more efficient maintenance program and have a direct contribution to the profitability of the entire operation.

## OCCURRENCE OF LOAD WITHIN INDUSTRY

Source: U.S. Department of Energy

