New guidance for pump efficiency incentives

A new set of resources from the Hydraulic Institute can help power providers institute pump efficiency incentives

By Kevin Jones, *EA* Senior Editor

No one would deny that more efficient pumps are in the interest of everyone involved in their use, whether they be power suppliers, pump users, or the people who specify and maintain the pumps. The question is how to get more efficient pumps more widely into use.

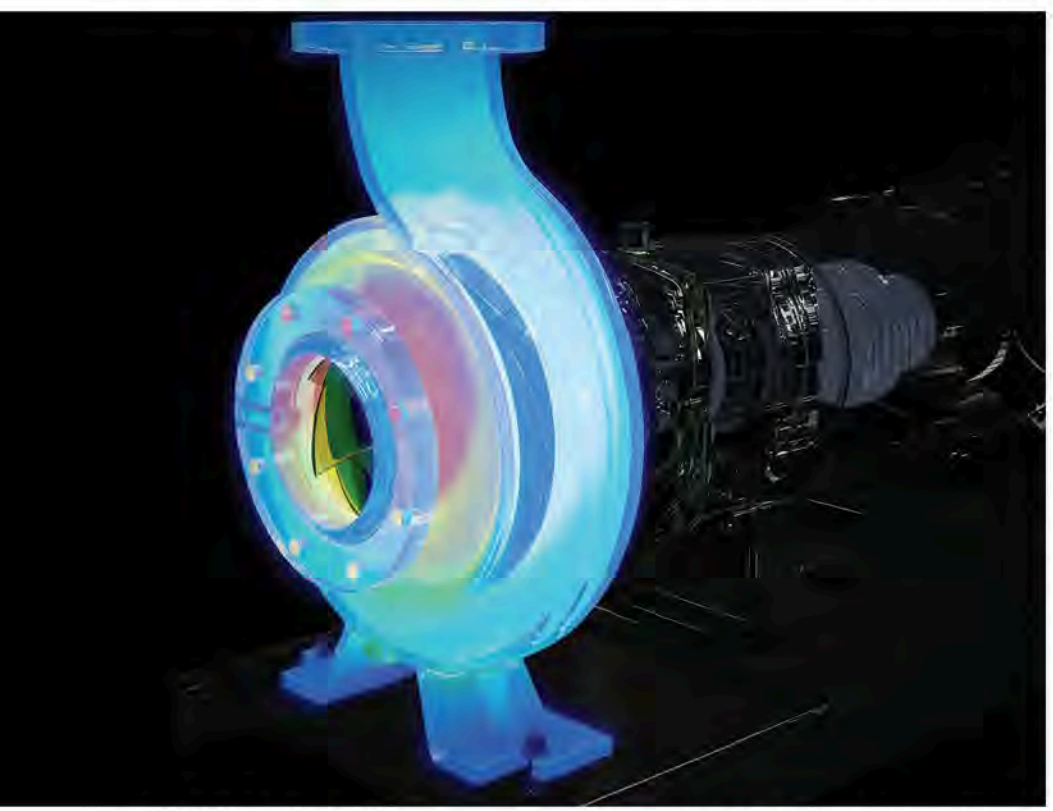
The answer appears to be to use a combination of the tried-and-true carrot-and-stick strategy.

In the case of pump efficiency, the stick is the set of rules established by various regulatory agencies mandating minimum pump efficiency levels. The ante was upped significantly at the beginning of this year when the U.S. Dept. of Energy's "Energy Conservation Standards for Pumps" went into effect.

Under the new rules, pumps are divided into 20 classifications, with each pump model assigned an efficiency rating. Pumps of particular specifications for particular applications are expected to have certain minimum efficiencies.

Then there's the carrot, which, in this case, takes the form of utility rebates given to pump users by electric utilities. These rebates have been taking shape for a few years now as more and more utilities across the U.S. codify their rebate offers and present them to pump users – industrial, commercial, municipal, and residential – in terms that are difficult to refuse. Many of these incentive programs have become well established and are quite successful.

Typically, an electric utility will post a schedule of rebates that pump users can earn if they install pumps of certain efficiency ratings. The smaller utilities might offer $200 to a customer who installs a dual-fuel heat pump or $1,000 for installing a geothermal pump. The larger utilities tend to offer rebates for a broader range of pumps, such as variable-speed pool pumps and ductless mini-split heat pumps. Rebates for tune-ups and improved duct insulation and sealing might also be available.



The CPE ANSI line of high-efficiency process pumps from Sulzer, one of which is pictured here, are designed to improve reliability and minimize total cost of pump ownership. As manufacturers find new ways to design higher efficiency into pumps, the Hydraulic Institute is helping to coordinate the effort to offer utility rebates for efficiency upgrades. — Sulzer photo

Pump-by-pump, it may not sound like much, but the potential for cost savings, when multiplied many times over, is substantial. The U.S. Dept. of Energy estimates that if all of the nearly half-million pumps shipped in the U.S. this year were installed with the maximum achievable efficiency technology, they would bring about more than 180 TWh in energy savings over their service lives.

The Hydraulic Institute steps up

To date, there has been little uniformity in the way these incentive plans are laid out. Now,

the Hydraulic Institute of Parsippany, N.J., has taken a big step toward bringing some consistency to the way the programs are run. In June, the Institute announced the launch of its Utility Resources, a collection of tools and educational materials intended to help utility managers develop and implement incentive programs that advance the use of more efficient pumps.

Incentive programs for electric motors, lighting, and HVACR systems have been around for a while. Why have pumps been left out of the energy efficiency programs of utilities?

According to the Institute, pumps have traditionally been part of custom projects that require an engineer to determine how and where energy savings could be obtained. There's been no one-size-fits-all approach, so incentive programs haven't been uniform.

The Institute worked with the U.S. Dept. of Energy not only to formulate an efficiency requirement but also to standardize the testing and labeling of pumps for efficiency classifications. "Based on these new data, we can now accurately and reliably characterize the likely energy savings from an average pump at the point of sale, similar to other deemed measures," the Institute says.

The new Utility Resources are based on the Institute's Energy Rating Program, which was launched in 2018 to help users compare the energy and cost savings likely to result from upgrades of pump systems.

Using the Institute's online search utility, a pump specifier can enter a rating ID, the pump's basic model number, the name of the participating organization, and whether the pump's intended load is constant or variable. The tool will then search a database for rated pumps that meet the chosen specifications.

Making a persuasive pitch to pump users

The idea is that utilities, equipped with these resources and tools, can pitch an incentive plan to an industrial or commercial customer and present some hard data showing how much money the customer would likely save with a pump upgrade. Judging from how fundamental some of the explanations are, the message is aimed largely at the upper echelons of management where financial decisions are made, but the Institute's materials also provide guidance for tailoring the pitch to people who work directly with pumps and are more knowledgeable about their use.

There are also documents spelling out "key messages" for someone making a pump incentive pitch and a chart spelling out the priorities of people in certain job positions and industry sectors – useful information when presenting a proposal.

For example, the Institute advises that an industrial or process engineer in an industrial setting is "likely to be involved in selecting and installing a pump, with the primary concern being reliability and performance." The person who pays the bills, meanwhile, might be more concerned about reliability and cost. An incentive plan proposal might be adjusted to reflect these priorities.

The "key messages" document provides bullet-pointed lists of benefits that a pump incentive program is likely to bring to everyone along the sales, specifying, contracting, and application chain. For distributors, it's pointed out that promoting premium pumps increases revenue. For building engineers and operators, the message is that more efficient pumps can save money by reducing waste while rendering a facility more "green" and enhancing the facility's public image.

The resources may be downloaded by anyone at no charge from the Institute's website, at *www.pumps.org*. And the tools aren't just for utilities. "Industrial and commercial companies that aim to create internal energy-saving incentive programs can also use these tools to design and implement programs that advance their sustainability goals and reduce associated costs to boost the bottom line," as the Institute puts it.

The reasons *not* to have an incentive program in place for pump efficiency are becoming fewer and fewer. **EA**