

Zap energy use for savings

By JOHN VOGEL

UTILITY electric rates are on the rise. A national energy tax proposal is buzzing Washington, D.C. And your take-home pay is being squeezed by rising costs.

It's time to get that farm energy audit done, and to plug in new energy-saving technologies. Start with an energy audit conducted by a representative of your utility company or an independent energy auditor, suggests Dick Peterson, president of Northeast Agriculture Technology Corp. and a consultant to the N.Y. State Energy Research and Development Authority.

Lighting alone on dairy farms can consume as much as 25% of annual electrical use, he adds. On one farm that he audited, ventilation fans alone consumed more than 26% of the farm's electrical energy.

But there are other incentives for getting it done, notes Peterson. Federal energy-saving tax credits are available. You might also be eligible for energy efficiency grants through USDA's Rural Energy for America Program. State

Key Points

- Get an energy audit to help shrink fast-rising energy bills.
- Energy credits, energy grants are more available than ever.
- Check out energy-savers at farm shows, field days.

grants and tax credits also are possible. And, some utilities offer matching grants.

Prime energy savers

Here are a few tips for cutting electric bills:

- A variable-speed-drive vacuum pump can cut energy costs of milking by 50%. Typical payback is often less than two years, says Peterson.



HOT SAVINGS: At \$118 a year, switching to high-efficiency fans could shave \$354 off annual energy bills.

■ A well-water milk pre-cooler teamed up with a VSD on the milk pump can reduce cooling costs by 30%.

■ Changing from a conventional compressor to a scroll compressor can reduce milk cooling energy use 15% to 20%.

■ Refrigeration heat recovery can cut energy costs \$200 to \$1,200 a year on dairies.

■ Metal-halide and high-pressure sodium lighting work well for freestall barn lighting.

■ Compact fluorescent lamps or T8 fluorescent fixtures can replace most incandescent lights, producing four to five times as much light for the same amount of energy.

■ Light-emitting diode

(LED) lighting promises high efficiency and long life, but the technology isn't yet ready for most ag applications.

■ Replacing a low-efficiency ventilation fan with a high-efficiency fan capable of moving 20 cubic feet of air or more per minute per watt of energy can save as much as \$118 per year.

■ Consider premium efficiency motors that are 5% to 10% more efficient than standard motors for any new installation, or when the cost of rebuilding a motor exceeds 65% of a new motor's price. Always opt for new motors rated for at least 88% energy efficiency.

■ For night-time security lighting, consider motion-detector switches so they click on only when needed.

■ Earth-bermed or super-insulated water tanks require little or no heating to prevent winter freezing.

■ Wind, solar and bio-gas co-generation are also ways to slash your electrical grid consumption.

For more help

Scout out the fast-growing list of alternative energy and energy-saving options at upcoming

He said it



"Quite often, farm electric bills can be cut by 5% or more."

Dick Peterson

field days and farm shows.

For more on energy audits, contact Peterson at 607-725-2741 or e-mail natc244@centralny.twcbc.com.

A host of information on how to boost farm energy efficiency can be found on the National Center for Appropriate Technology Web site, <http://attra.ncat.org>. Click on "farm energy". For free NCAT technical assistance, call 800-346-9140. Or call NCAT's Northeast regional office at Shavertown, Pa., at 570-696-6786.



Big Red Demo Days. Go to bigred.honda.com for details.

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