Call Us for Help

AS YOUR FARM operation changes and grows, so will your electric needs. By planning and anticipating power demands, you can ensure your electrical system won't be overloaded. New construction or renovations also give you an opportunity to install safe and efficient energy measures.

If you wish to upgrade, request a new electric service or are already under construction, please call 1-800-477-5050.

Free Checkup Protects Livestock

If you have a concern about animal contact voltage, please call Consumers Energy at 1-800-252-8658.

We'll conduct a free evaluation of your farm and provide an illustrated booklet that describes animal contact voltage sources, detection and maintenance steps to help prevent them from affecting your livestock.

Visit us on the Internet: www.ConsumersEnergy.com/farm

Agricultural Services Department, PE-A100
Consumers Energy
One Energy Plaza
Jackson, MI 49201

Consumers Energy Count on Us

Consumers Energy Count on Us

AgriCulture

Energy information for the agricultural community SUMMER 2013

WORKING SAFELY AROUND POWER LINES

FARMING ACTIVITIES in the spring and fall can mean working long days, an increased number of people working on your land and the variety of safety concerns that go along with it.

While power lines can often be out-of-sight and out-of-mind, it is important to be sure to identify them as hazards with your workers or contractors and make a plan to always stop, look up and look around.

Also consider the following when working around power lines:

- Safety standards require that anyone working near them stay at least 10 feet away, including 10 feet from any tools or equipment you are using.
- Metal ladders, cranes and some other specialized equipment require a clearance of 20 feet. Higher voltages also may require greater distances.
- If you are planning to do work near power lines and you are unsure if you are able to maintain the proper distance or who the line belongs to, you can call 811 any time, day or night.
- 811 will send a ticket to the appropriate utility, who will meet you on site within 48 hours to discuss voltage information and other safety options, which could include de-energizing the line or relocating it.

For more information on safety rules and safe distances for working near power lines, visit Michigan.gov/miosha or call 800-866-4674.

Future Options for Farmers

POWERING MICHIGAN'S AGRICULTURAL COMMUNITY

EAST LANSING – Solar hot-water research being conducted at Michigan State University could help dairy farmers see significant savings, especially if they use electricity or propane for hot-water heating.

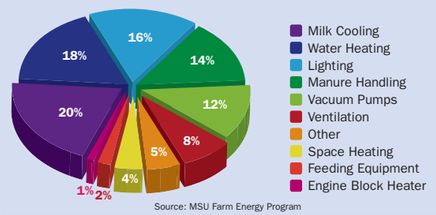
Michigan's dairy farmers use millions of gallons of hot water annually to clean and sanitize their milking systems. But many rely on propane or electricity to heat the water – costing them almost $3,000 annually or 16 percent of their energy use.

"In our travels to Michigan dairy farms, particularly ones that don't have natural gas, we've been asked by farmers if solar is an effective alternative in helping them run a more energy efficient operations and cut energy costs," said Aluel Go, manager of MSU's Farm and Rural Business Energy Audit Program. "We didn't have an answer for them, so we set out on a one year research project that would provide them the answers and data they were seeking."

The research is taking place at an MSU dairy farm that has 155 milking cows and uses around 225 gallons of hot water each day for cleaning/sanitizing its milking system.

The project was initially funded by the Herrick Foundation, with additional support from the Michigan Energy Office. There are two different types of solar panels collecting data at MSU. The first uses six panels of evacuated tube collectors with glycol with a total surface dimension of about 166 square feet. The evacuated tubes capture solar energy and heat the glycol that flows through the tubes. A heat transfer system uses the hot glycol to heat the water for the dairy farm. The solar evacuated tube system is the proven ideal year-round option given Michigan's cloudy and harsh winter conditions. A second solar hot-water test system was set-up when the owners of Sunvelope, a Nevada-based company, found out about the research project and donated six solar panels (retail cost about $9,000 installed) to MSU with a total surface dimension of about 126 square feet.

Energy Use by Michigan Dairy Farmers



Source: MSU Farm Energy Program

continued inside

POWER LINES AND WILDLIFE MANAGEMENT

WHILE WORKING on various circuits in southeast Michigan for the company's Forestry department, I have worked with several farmers to ensure that the right-of-way is cleared properly to supply them and everyone else with safe, reliable electric service.

The first reaction I get most of the time is: "Great, you are going to come in here and clear a large swath out of my property, then what?" My response is to ask them if they hunt deer. A majority of the time they do, and I inform them that they can utilize the space after the company is finished clearing by planting food plots, native warm season grasses (NWSG) or dwarf species of trees such as soft mast trees like persimmons.

Michael E. Rappuhn

I explain to them if the power line right-of-way is an upland area that drains well, they can plant a food plot. In this case, soybeans, corn, or purple top turnips work best. This provides excellent fawning cover and/or brood sites for game birds. Throw in some millet with NWSG, and they will have an excellent bird habitat.

Planting food plots away from the main crop of the farm will lessen the damage done by deer because they have another food source to use. This will ensure the farmers harvest every bushel that the farm can produce.

Another option is to plant soft mast trees and short NWSG like little bluestems in what's called a savanna. A savanna is mostly a grass land and area mixed with few trees sporadically spaced.

If your property is hilly, watch out for planting trees or shrubs at the crest of the hill. They may grow into the power lines and be subject to trimming or removal.

I don't know about you, but I wouldn't want to spend the time nor the money to plant these trees just to have them cut down.

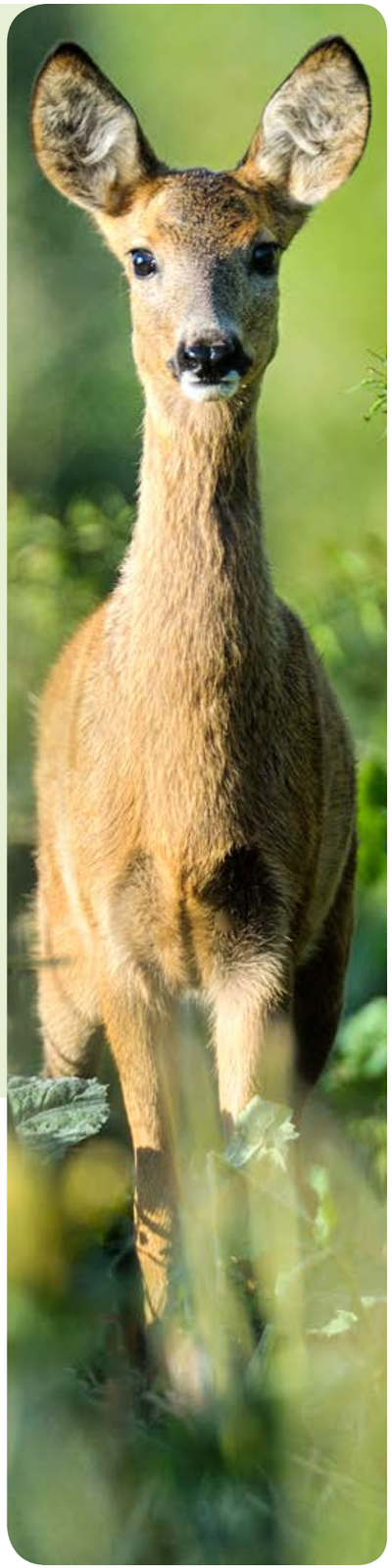
Lastly, building a road on a portion or the entire distance of the ROW will make maintaining the easement much easier and will allow future management practices to be done more efficiently. You may even gain access to a part of your property you never accessed before because we cleaned the row.

Planting food plots away from the main crop of the farm will lessen the damage done by deer because they have another food source to use.

By working together, Consumers Energy can ensure safe, reliable service and you can gain valuable wildlife habitat for generations to come. By incorporating some of the practices mentioned, you can optimize every available inch of your property.

Who knows, you may just shoot the buck of a lifetime off your power line food plot.

Michael E. Rappuhn works as a forest technician for Consumers Energy and is a certified Arborist with the International Society of Arboriculture



MARK YOUR CALENDARS FOR AG EXPO 2013

WHAT: Commercial exhibitors will be on hand to showcase the latest farm machinery and products.

WHERE: Show grounds at the corner of Mt. Hope Road and Farm Lane in East Lansing

SHOW HOURS:

Tuesday, July 16:
9 a.m. to 5 p.m.

Wednesday, July 17:
9 a.m. to 5 p.m.

Thursday, July 18:
9 a.m. to 3 p.m.

SOLAR INVESTMENT PAYS OFF FOR BLUEBERRY FARM

WEST OLIVE – If visitors happen to look up on the roof on the pole barn of Bruce Reenders' popular blueberry farm they will see dozens of solar panels.

What Reenders sees is an investment that he will be able to collect on in about seven years.

Last spring, Reenders Blueberry Farms of West Olive was one of nine solar projects, planned by six businesses, selected in a lottery to participate in Consumers Energy's Experimental Advanced Renewable Program (EARP) for non-residential customers.

The program's goal is to investigate solar energy's potential in Michigan

"I never win anything," said Reenders with a smile. "But I was lucky that day."

Reenders said once he crunched the numbers, it was a "no-brainer" to move forward with the plan to put 92 solar panels on top of the pole barn. He wrote a check for $99,360 but once he received a federal grant and tax credit money the total cost shrunk to $47,000.

A long-term contract he signed with Consumers Energy provides buy back at a fixed rate of 22.9 cents per kilowatt hour – higher than the 10 or 11 cents per kwh that customers are currently charged.

Reenders said early projections show that Consumers Energy will pay him about $7,000 annually for the solar.

"It will pay for itself in seven years," said Reenders. "I guess you can say I have some stock in solar energy."

Consumers Energy's program currently has contracts in place to purchase renewable energy from 191 customer-owned solar generators as part of the utility's renewable energy plan.

EARP provides just a sliver of the 650 megawatts of renewable capacity the utility plans to add to meet Michigan's 10 percent standard. The program's goal is to investigate solar energy's potential in Michigan's often cold and cloudy climate while contributing to the company's broader renewable energy goals.

About 5 percent of the electricity Consumers Energy supplies to customers already comes from renewable sources, making the utility the largest supplier of renewable energy in Michigan. The company plans to develop wind farms and buy wind-generated electricity for the vast majority of its renewable energy expansion.

The company plans to add 4 megawatts of solar electrical capacity by the end of 2014. Ultimately, EARP will total 6 megawatts of capacity.

Consumers Energy plans to continue adding capacity on a quarterly basis and, if qualified applications exceed available capacity, keep holding public drawings to select customers. The next one is scheduled to take place August 21 with applications due by Aug. 7. For more information, visit Consumers Energy.com/EARP.

DID YOU KNOW?

1956 was the year when solar panels first appeared on the market.

Future Options

continued from cover

These solar hot-water panels use an "envelope" concept and heat water directly without the freezing problem that most direct water heating systems have. This system avoids the use of glycol or other synthetic fluids, as well as a heat transfer system, making the system more efficient.

Initial observations show both systems have the potential to provide a significant amount of energy to heat water. They are both guaranteed for 10 years. If projections hold true, there will be an average of about a 50 percent energy savings for the MSU dairy farm with the evacuated tubes coupled with a pre-heater. The Sunvelope system has a potential of doing about the same on its own.

While the research will continue at the MSU dairy farm this summer, Go is confident that, at the very least, it will give farmers an additional option.

From early accounts, it looks like the Sunvelope panels will pay for themselves within six to seven years, while the evacuated tube system within 12-13 years prior to any rebates, grants or incentives, Go said.

"For some farmers that I've spoken with, that's more than enough reason to at least explore the opportunity, especially if you can cut the payback period by up to 1/3 due to rebates, grants or tax incentives," he added.

Energy specialists at Consumers Energy are working with Go in their efforts to improve energy efficiency for the agricultural industry.

"We are always trying to come up with new programs to give our customers the best service possible," said Steve Salter, manager of Consumers Energy's agricultural PILOT program.