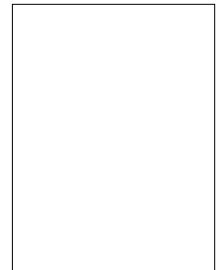


## Reduced heating rate continues

As we have been informing you since February, we are increasing our electric rates this August. Overall, it will be an 8 percent increase in revenues to the cooperative. The average residential member using 1,500 kWh per month will see an 8 percent cost increase on our *standard residential rate*.

We have about 2,000 members on a *reduced electric heating rate*. To qualify, you need an air source heat pump or geothermal system, with an electric water heater and our load control switch. The typical member saves about 15 percent on this rate, compared to our standard residential rate. These heating and cooling systems continue to grow in popularity due to their superior energy efficiency.



Rick Gerdeman  
Manager/CEO

Below is a comparison of our old heating rate, new heating rate, and new standard rate:

### Old heating rate

|                        |   |
|------------------------|---|
| Monthly service charge | \$20/month  |
| kWh energy charge      | \$0.0915/kWh 1st 750 kWh<br>\$0.0765/kWh next 2,000 kWh<br>\$0.0915 all remaining kWh |

### New heating rate

|                        |   |
|------------------------|---|
| Monthly service charge | \$35/month  |
| kWh energy charge      | \$0.0906/kWh 1st 750 kWh<br>\$0.0806/kWh next 2,000 kWh<br>\$0.0906/kWh all remaining kWh |

### New standard rate

|                        |                      |
|------------------------|----------------------|
| Monthly service charge | \$35/month           |
| kWh energy charge      | \$0.0906/kwh all kWh |

The heating rate discount currently is effective eight months of the year from October through May (the heating months). From June to September, these members pay the standard rate. The new heating rate will follow this same calendar.

As you can see, the current heating rate is a 1.5 cent per kWh discount, and the new heating rate is a 1 cent per

# Concrete and energy efficiency mix it up, with Con-Ag and Quality Ready Mix

Con-Ag, Inc., the crushed stone quarry north of St. Marys, and its sister company Quality Ready Mix have staked out a strong competitive position by investing in new processes and product lines in recent years.

Con-Ag has increased sand manufacturing capacity by 150 percent because of dwindling supplies of glacier-deposited sand, said John Hirschfeld, president. The changes have allowed Con-Ag to switch to more of a just-in-time approach to stone production and inventory.

Family-owned for three generations, Con-Ag remains one of the few such stone quarries in Ohio.

In addition to standard construction-use products, Con-Ag (a Midwest Electric member) also manufactures “specialty” products needed in this area such as sand and ag lime for dairy stall

bedding, sand for rural filter bed septic systems, and manure-resistant concrete.

Quality Ready Mix (QRM) has been very progressive in bringing environmentally friendly concrete to the area. Traditional concrete has a large carbon footprint. Four yards of traditional sidewalk mix (which fills an 80-foot sidewalk) resulted in the release of approximately one ton of carbon dioxide during production. One ton of CO<sub>2</sub> is about what one tree absorbs over 100 years, Hirschfeld said.

That carbon impact is being reduced by up to 80 percent, Hirschfeld said, with the increased use of recyclables in concrete.

Fly ash, a by-product of the coal-electric power industry, and slag, a by-product of the steel industry, are used daily to replace cement in concrete and make significantly higher quality concrete at less expense. Ce-

ment is the biggest source of concrete’s CO<sub>2</sub> footprint.

The Ohio Department of Transportation has capitalized on these features, raising its concrete quality standards and making it difficult to meet improved permeability, durability and quality standards for concrete without the use of fly ash or slag hile. “They’re getting longer lasting concrete, a much better deal for taxpayers,” Hirschfeld said.

Recycled material can also be used for concrete filler, which is approximately 70% of concrete volume. This includes used casting sand from area foundries and automotive casting operations.

This pure quartz sand may be used in construction sites for grading in addition to being used in concrete, masonry sand, and asphalt. The quartz foundry sand makes concrete more abrasion resistant by virtue of its hardness; the concrete is



less expensive, and it helps local foundry and casting operations.

Hirschfeld said in many cases it now costs less to install concrete instead of asphalt. And from an energy efficiency standpoint, concrete reflects light, inducing lower temperatures in the vicinity and reducing air conditioning costs. Black asphalt, on the other hand, absorbs light and is hotter. Concrete was found at a St. Marys facility to be 10 to 15 degrees cooler than an abutting asphalt pavement, he said.

Concrete pavement also reduced night lighting costs by 75% and enhanced security at another local facility, he added.

(Midwest Electric chose QRM concrete instead of asphalt for the parking area and driveway that was part of our recent building expansion.)

Pervious concrete, which allows water to flow through it to soak into the ground, adds other benefits including storm water detention, water filtration and natural recycling of water into the ground.

Large growing trees flourish in pervious parking facilities as water is always available, with the trees providing shade, improving property aesthetics and decreasing cooling costs.

In the winter, as pervious concrete surfaces let water pass through, no ice forms, snow melt is instantly gone and surfaces require less plowing as they provide

greater traction the first time the surface is cleaned, Hirschfeld said. Water immediately drains through so slush and puddles do not form and salt does not need to be applied as frequently, he added.

Concrete structures cost less to operate and can be built faster, Hirschfeld says. When walls are made of poured concrete, they provide an energy efficient mass. Heating and cooling demands are greatly diminished; smaller HVAC units are installed and used less, decreasing energy costs. Another example of this energy-efficient building technique is insulated concrete forms, which provide superior energy savings and comfort.

Kentucky requires all new schools to be built from concrete utilizing insulated concrete forms which are not removed, Hirschfeld said. "They specified insulated concrete due to the speed of construction (overall construction done 3 months quicker), HVAC operational savings, lack of repair expense, extremely long-term structural usefulness (50 to 100 years), acoustical dampening properties and utilization of a locally produced material," he said.

In Canada, site cast insulated concrete has become the main structural material in both commercial and residential buildings for the same reasons.

QRM operates advanced



*John Hirschfeld, president*

capability plants in Bluffton, Lima, Wapakoneta and St. Marys, serving nine counties in west central Ohio. Con-Ag / QRM is located at 16672 CR 66A-N St. Marys, OH 45885 and has aggregate inventory for pick-up or delivery. Call 419-394-8870 or visit [www.qrmconcrete.com](http://www.qrmconcrete.com).

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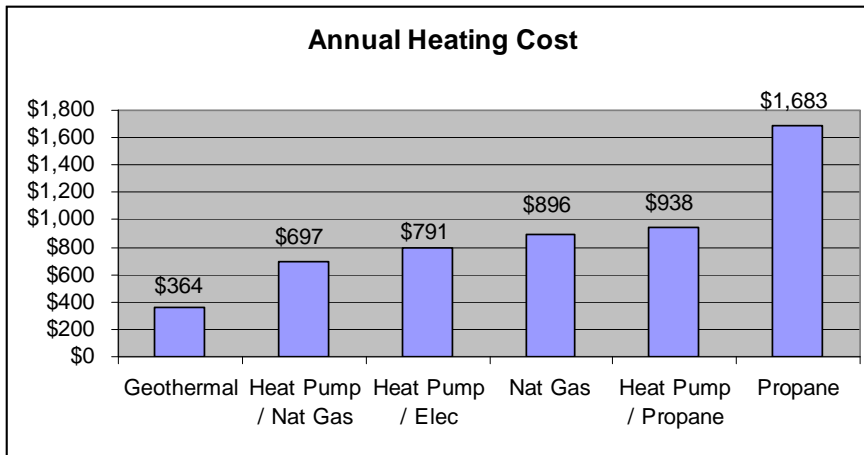
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**Midwest Electric, Inc.**  
A Touchstone Energy® Cooperative

## Reduced heating rate (con't from page 1)



*Ft. Wayne weather; 58 million BTU heating load; \$12/mcf natural gas; \$2.20/gallon propane; 91% efficiency furnaces*

## New Touchstone Energy Homes



Amanda and Merny Gross have a Touchstone Energy Home near St. Marys. It's 3,500 square feet (with basement), was built by Mark's Construction and features an air-source heat pump with electric backup from New Knoxville Supply Company and blown cellulose insulation from Pothast Loxley Insulation. It's guaranteed to cost \$101 per month to heat and cool.

David Budde (left) of Budde Construction built a Touchstone Energy Home for Nicholas Bertke near Cridersville. It has a closed-loop geothermal heating and cooling system from Steve & Ted's Services; and spray foam, fiberglass batt and blown cellulose insulation from Momper's Insulation. Heating and cooling for the 5,500 square foot home (with basement) is guaranteed to be \$88 per month.



Linus Roessner (right) of Roessner Contracting built a Touchstone Energy Home for Josh Link (left) in St. Henry. The 3,800 square foot home (including basement) features spray foam and fiberglass batt insulation from Roessner Contracting and an air-source heat pump with electric backup from Roessner Energy. The home is guaranteed to be heated and cooled for under \$104 per month.

kWh discount. The maximum annual savings on the new heating rate will be \$160 per year compared to the standard rate.

This is in addition to the savings that come from having a more efficient heating system. For example, most families will save about \$500 per year in lower heating costs simply by adding an air-source heat pump to their propane furnace. The savings are twice that, or more, when you go geothermal instead of propane.

With the new heating rate, we wanted to continue to provide an incentive for energy efficiency without creating a subsidy - or an unjustifiable situation where the rest of our members are subsidizing the reduced rate. The new heating rate avoids that subsidy because these members provide increased sales for the cooperative that we can spread over our fixed costs.

### Energy Audit Options

#### Free:

- On-line energy calculators and do-it-yourself energy audit tips, [midwestrec.com](http://midwestrec.com)
- Phone consultation
- In-person basic walk-through

#### \$95:

- In-person thorough energy audit with blower door test to determine air leakage areas

#### \$195:

- Blower door test and infrared thermal camera



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