



From the Manager... Investments in Efficiency Deliver Strong Returns



Ken Maginley

In today's troubled economic climate, people are searching for places to invest

money that offer the promise of a healthy return. While no one can predict when, or if, the stock market will fully recover, crunching a few numbers does show one safe investment alternative: energy efficiency.

Even in good financial times the annual Wall Street return on stocks averages 14 percent, followed by 4.2 percent for 30-year bonds and 3.5 percent for money market accounts. In comparison, incorporating 10 home efficiency measures carries a 16 percent rate of return, according to the U.S. Department of Energy Home Energy Saver program.

Looking at it another way, the energy bill for a typical American home averages \$1,283 per year, while a home that has purchased and installed EnergyStar® products spends just

\$774. That's a savings of more than \$500 annually, a nice profit for smart and efficiency-savvy investors to take to the bank. Even better, you get to keep the money you save on your electricity bill; normal investment incomes are taxed heavily.

The first two energy efficiency areas to invest in – those with the highest rates of return – are lighting and sealing ducts. Upgrading to compact fluorescent lightbulbs (CFLs) and fixtures in a typical home costs about \$200, but with an annual savings of \$80 the initial investment pays for itself in 2.5 years with a 41 percent rate of return. Proper duct sealing, which can cost up to \$250, pays for itself in 2.6 years and matches lighting's high rate of return.

Your next purchase should be an EnergyStar® front-loading clothes washer. Even though one costs an average of \$194 more than a non-efficient model, you reap a 37 percent rate of return – allowing you to recoup the extra expense in less than three years.

A programmable thermostat provides another boost to your

bottom line. With a 30 percent return it pays for itself through energy savings in 3.7 years.

A water heater tank wrap with an R-12 insulation rating should be your next step; the initial cost of \$85 saves you \$23 every year, offering a 28 percent return on your investment. An EnergyStar® refrigerator, heat pump, and dishwasher follow with rates of return ranging from 18 to 27 percent. Finally, adequate air sealing and increasing wall and attic insulation offer between an 8 and 9 percent return.

To find out how you can start investing in your home's efficiency, visit Home Energy Saver at hes.lbl.gov. You can learn about local promotions for EnergyStar® appliances – and save even more – by using the rebate finder at www.energystar.gov.

Should you have questions regarding issues discussed in this column or any of the operations or programs of the cooperative, please contact the Bluestem office.

*Ken Maginley
General Manager*

Holiday Closing



In observance of Memorial Day the Bluestem office will be closed on Monday, May 25

Have a Safe Holiday!

Happy Mother's Day



Bluestem would like to wish all mothers a happy Mother's Day on May 10.

Heptig Celebrates 25 Years with the Cooperative

Kevin Heptig, Operations Foreman for Bluestem East, celebrated his 25th employment anniversary at the cooperative on April 1.

Heptig joined the cooperative in 1984.

He received a 25th anniversary commemorative electric cooperative watch from Ken Maginley, manager at the Bluestem Office in Wamego as a token of Bluestem's appreciation for his service.

The cooperative thanks you for your many years of service and your continued dedication to the cooperative.



General Manager, Ken Maginley (center) presents Kevin Heptig with a watch for his 25 years of service to Bluestem. Seated to Kevin's right is his wife, Daisy, and daughter, Hailey.

Bluestem Members Win Prize at Flint Hills Home Show

Chad Lindsley and family won the George Forman indoor/outdoor electric grill at the Bluestem booth during the Flint Hills Home Show in Manhattan.

The Lindsleys are Bluestem members and live in rural Wabaunsee County.

Congratulations and we hope you get many years of use from your new grill.

Right: Chad Lindsley and family pictured with their new George Forman indoor/outdoor electric grill won at the Bluestem Booth during the Flint Hills Home Show in Manhattan.



Reminder: Lightning & Surge Suppression Special Ends May 31



Bluestem's **Spring Special** on the installation of the meter base lightning and surge protection ring ends May 31. The ring will protect your home, as well as certain electrical appliances and equipment, from lightning and power surges. Your cooperative is offering you an invitation to sign up for lightning and surge protection at a reduced price.

The lightning and surge protection device, installed at your electric meter, will provide protection from lightning strikes and other power surges for your home appliances. You lease the basic package for only \$4.95 per month, which is added to your electric bill. Our technicians do the installation for a one-time fee of \$69.95. **However, if you act before May 31, we'll drop the installation fee to \$34.95.**

If you are considering the lightning and surge protection, call (785) 456-2212 or (800) 558-1580 for the Wamego office, or (785) 632-3111 or (800) 297-8725 for the Clay Center office.

Bluestem Announces 2009 Scholarship Winners

Congratulations are extended to Rachael E. Cox, Morgan L. Eichman, Ryan C. Lund, Eli M. Schooley, Caitlin J. Sherlock and Johnathan M. Yarrow for each being selected to receive a \$500 scholarship from Bluestem Electric Cooperative.

The recipients of the \$250 runner-up scholarships are Graham R. Briggs, Annelle J. Chestnut, Nickolas L. Hartwich and Abby R. Sherbert.

The recipients of the

scholarships were selected based upon scores received from an electric cooperative test, application data and a personal interview in front of six scholarship committee judges.

The scholarship application process allows current high school seniors the opportunity to gain funding for their post secondary education, as well as informative knowledge regarding rural electric co-op history and the benefits of being

a member of an rural electric co-op.

The scholarship judges were impressed with all the contestants and were gratified to know that the future of our country will be in the hands of solid, quality individuals.

The scholarships were sponsored by the Bluestem Electric Cooperative and were available to high school seniors whose parents are members of Bluestem Electric Cooperative.

Meet the Bluestem Scholarship Winners



Rachael Cox

\$500 Scholarship Recipient

Rachael E. Cox, daughter of Michael and Maria Cox from Wakefield. Rachael attends Wakefield High School and plans to attend either Washburn University or Knox College studying in English Education.



Johnathan Yarrow

\$500 Scholarship Recipient

Johnathan M. Yarrow is the son of Jeff and Linda Yarrow from Wakefield. He attends Wakefield High School. Johnathan plans to study Mass Communications at Kansas State University.



Morgan Eichman

\$500 Scholarship Recipient

Morgan L. Eichman, daughter of Steve and Mary Jo Eichman from St. George. She attends Rock Creek High School and plans to attend either the University of Kansas or Saint Louis University to study International Relations and Business.



Graham Briggs

\$250 Scholarship Recipient

Graham R. Briggs is the son of Patrick and Georgia Briggs of Wamego. He attends Rock Creek High School in Flush. Graham plans to study Computer Science at Kansas State University.



Ryan Lund

\$500 Scholarship Recipient

Ryan C. Lund, son of Delbert and LuAnn Lund from Leonardville. He attends Blue Valley High School and plans to attend Kansas State University studying in Construction Science and Management.



Annelle Chestnut

\$250 Scholarship Recipient

Annelle J. Chestnut is the daughter of James and Sally Chestnut from Clay Center. She attends Clay Center Community High School. Annelle plans to study Agricultural Education at Hutchinson Community College.



Eli Schooley

\$500 Scholarship Recipient

Eli M. Schooley, son of Jon and Marcy Schooley from Clay Center. He attends Clay Center High School and plans to attend Kansas State University to study Biology/Pre-Med.



Nickolas Hartwich

\$250 Scholarship Recipient

Nickolas L. Hartwich is the son of David and Susan Hartwich of Wamego. He attends Wamego High School. Nickolas plans to study Mechanical Engineering at Kansas State University.



Caitlin Sherlock

\$500 Scholarship Recipient

Caitlin J. Sherlock is the daughter of Peter and Mary Sherlock of Washington. She attends Washington County High School in Washington. Caitlin plans to study Biology and life sciences at Kansas State University.



Abby Sherbert

\$250 Scholarship Recipient

Abby R. Sherbert is the daughter of Michael and Vicki Sherbert from Wakefield. She attends Wakefield High School. Abby plans to study Business and Accounting at Kansas Wesleyan or Southwestern.

Tankless Electric Water Heaters... the Rest of the Story

Tankless (a.k.a. instantaneous) water heaters are a hot topic these days.

Modern tankless water heaters incorporate computer chips, an array of sensors and high-powered inputs. These briefcase-sized units only heat when the hot water tap is open. The water is heated very rapidly as it flows through a heat exchange coil.

The manufacturers of these units are making claims about big energy efficiency savings. Why would anyone even consider an old-fashioned tank type water heater these days? Unfortunately, they neglect to tell you the down side of this complicated device.

Capacity

Proper sizing is critical with a tankless heater. Tankless units are sized by flow rate as measured in gallons per minute (gpm). Typically a bathtub needs 4 gpm, showers 2.5 gpm, washing machines 3 gpm, dishwasher 3 gpm and each sink 2 gpm. Flow rates from older faucets and shower heads may be much higher.

The size of unit needed is determined from your highest demand for hot water at any one time. Because tankless water heaters must heat water very fast, they have limited capacity and have difficulty supplying multiple hot water needs simultaneously.

For example, you may want to run the dishwasher or wash machine while showering? With a tankless, you may not be able to. If your demand is too great, a second tankless unit may be required or an energy efficient storage tank water heater may be a better heater solution.

Water Quality

Water quality is also an important issue with tankless heaters. The ads talk about long life, but in reality, unless the water is very pure, few will

have longevity.

Because of the extremely high temperatures needed to heat the water in the short trip through the heat exchange unit, many minerals precipitate out of the water and deposit on the coils of the unit – shortening its life. This applies to both gas and electric tankless units. Most warranties are voided if water hardness is too high.

Moderately high dissolved solids (above 500 ppm) or moderately low pH are also problems. You may also need to have your water analyzed for carbon dioxide, chlorides, copper, iron and more.

Before buying a tankless, read the warranty to be sure hard water is covered. Traditional electric tank-type units are much more capable of handling diverse water conditions across the country.

Increased Load

The large load required for a tankless system affects you and the electric cooperative.

Family-sized models require 240 volts and up to 150 amps capacity to operate! This level of demand almost always exceeds that of most residential service. In addition to the cost of the heater, significant wiring upgrades are usually required.

Unfortunately, all of that demand (14 to 30 kW) is pure uncontrollable peak load. Utilities are also faced with disgruntled customers who can no longer get by with their residential transformer and demand an upgrade.

Installation

These are not do-it-yourself installations and definitely not fix-it yourself products. One major brand is sold and serviced only by "factory-trained" technicians who carry 60+ page troubleshooting manuals and a treasure trove of electronic meters, pressure meters and thermometers

due to the sensors and electronics aboard.

Traditional electric tank-type water heaters have only four service parts made up of only two elements and two thermostats. Service calls are relatively easy and straightforward. Parts are a lot cheaper than labor costs these days.

Tank-type water heaters are more 'forgiving'. The stored water acts like a buffer. This is how commercial applications, like hotels, can service large groups of guests who are taking showers at the same time. The same occurs in your home during family visits, holidays and high usage times.

Savings?

True, these microprocessor-controlled wonders do not lose much heat to 'standby' heat loss. Unlike traditional electric elements, their efficiency drops with scale buildup.

Tankless savings figures also come from comparisons to "low-end", traditional heaters. A full-size high efficiency water heater loses only about five degrees in 24-hours! Not much more savings to squeeze out there.

The Rest of the Story

Next time you hear someone wanting a tankless water heater, tell them the "rest of the story."

Twice the installed cost of a tank heater, more service (if you can find it), short life, and no savings over a tank heater - some deal!

Wouldn't you prefer cost-effective and hassle-free water heating with a lifetime warranted electric water heater? Better for you and better for Bluestem Electric.

In addition, Bluestem will give you \$175 rebate toward the purchase of a high-efficiency lifetime electric water heater.



A tankless water heater.