Which refrigerator is more energy-efficient?

You may have heard that older appliances use significantly more energy than new, more efficient models. But how much more energy are old appliances using, and how does that translate into additional costs to you?

Wright-Hennepin (WH) is conducting an experiment to find out exactly what your old appliances are costing you. We’ve hooked up a new Energy Star refrigerator and a Frigidaire model – which was built in the 70s – to meters that will track both units’ usage over the next three months.

Through this set-up, we’ll be able to track the exact amount of energy that both of these devices are using and compare them after the three-month period. You can follow the stats on WH’s website at www.whe.org. Progress reports will be available at http://goo.gl/KPyO7.

This experiment comes at a time when the Department of Energy is working to implement new efficiency standards for refrigerators, cutting their energy use by 25 percent.

According to Midwest Energy News, this is the latest in a string of ever-tightening energy standards since the 1970s that have led to both gains of nearly 75 percent in energy efficiency, and lower prices, even as Americans increasingly move toward larger refrigerators.

The Energy Star refrigerator was loaned to WH for the experiment by Sears in Rockford, Minn. The Frigidaire refrigerator was dropped off at WH as a part of the cooperative’s recycling program.

As a part of WH’s recycling program, for a fee, appliances – including refrigerators, washers, dishwashers, freezers and dryers – can be dropped off at WH between 8 a.m. and 3 p.m. on Wednesdays.

WH also accepts CFLs for recycling.

Prevent ice dams from forming, and extend the life of your roof with an ice melt system

Do icicles or ice dams form on your roof in the winter? Ice dams, icicles and frozen gutters can cause extensive damage to a home. Take action now to prevent damage from happening this winter with a roof melt product from HeatMyFloors.com.

The unfreezing and refreezing of water on your roof can cause moisture to catch under the roof covering and leak into the attic or along exterior walls, which could cause considerable damage and cost a significant amount of money to repair.

Ice dams can be prevented by adding insulation or air sealing the attic space. However, the pitch of some roofs makes it difficult to add additional insulation.

A roof melt system is one of the best ways to prevent ice dams and icicles from forming on roofs when insulation is not enough. Whether you are looking to place a product on top of your existing roof to melt the ice, or if you are planning on having a new roof installed before winter arrives, HeatMyFloors.com has a variety of options to suit your needs. In order to protect your roof all winter long, these systems should be installed before the first snowfall.

STEP Warmfloor roof melt systems are ideal for new construction or existing homes that are being re-roofed. The energy-efficient element is a unique, non-visible solution that works under asphalt or steel roofs. It operates on 24 AC or DC volts. The mat is easy to install under shingles and in roof valleys. The product is so durable that shingles can be nailed or stapled directly through the element to the roof.

The Danfoss product is an electric heating cable that can be placed on top of shingles, making it a perfect option for existing roofs that do not need to be replaced in the near future. Because the product can be installed on top of shingles, it can be easily removed for the summer months when the cables are not needed or left on all-year long. These cables are easy to install and do a great job melting snow.

To learn more about roof melt applications or to find a qualified contractor to install these systems, call (763) 477-3000 or visit www.HeatMyFloors.com.
Change is inevitable...

“Change is inevitable – except from a vending machine.” – Robert Gallagher

For two days last month, the board of directors and I participated in our annual strategic planning workshop. It’s a time when we do a “deep dive” into recent trends and future forecasts that could shape our local operation as well as the electric utility industry in general. We end these sessions by trying to figure out how to turn the identified challenges into opportunities.

Of the things discussed during this year’s workshop, we concluded that kWh growth – the reliable counterbalance to the naturally increasing cost of doing business – could slow considerably for the foreseeable future. That’s a sea change in our operating assumptions. And it’s important to you, because if it happens, it will affect the cost of electricity.

Here are the factors leading to this conclusion:

1. The slow economy. According to the lenders and other industry forecasters who spoke at our meeting, the problems with the U.S. and world economies could last another five to 10 years! This creates a triple challenge for WH. Among them is that new home construction is at a standstill, and has been for at least three years. New home construction is the lifeblood of electric utility growth. But so far this year, new home “connects” in the service territory are down 33 percent from this time in 2010. They are at one-tenth of the peak year of 2005. Kilowatt-hour growth has been stalled, too, because of mortgage foreclosures, particularly in the northeast part of WH’s service territory, leaving many existing homes vacant and without energy use. Additionally, the business closures since the lending crisis and market collapse in 2008 have also slowed WH’s kWh growth.

2. The increasing efficiency of appliances and motors. During the strategic planning workshop, we heard that refrigerators purchased today use only 20 percent of the electricity that they used in the 1970s. Additionally, compact fluorescent lights (CFLs) are making a major dent in the amount of energy needed to illuminate our homes. This revolution in efficiency is taking place with everything that uses electricity. Add this to the more energy-efficient building codes being put into place, and we know that members will likely use less electricity in the future.

3. The growing ease and popularity of energy conservation. New tools like WH’s smart meters and the MyMeter app (available free at www.whe.org, under the “Quick Links” section on the home page) allow members to measure their personal electric usage daily, then analyze how things like weather, the addition of an appliance, house guests and other many other factors affect their baseline electricity use. Nowhere was this growing ease and popularity of energy conservation more apparent than in our recent Littlest User Contest. That contest – which lasted four months – challenged six WH families to see how much energy they could conserve with no cost or low cost changes to their lifestyle. They shocked us all by turning in a whopping 43 percent overall reduction in energy use compared to the same 90-day period last year! (See April through August Hotline Updates at www.whe.org, then click “News & Events,” then “Newsletter Archive,” to follow their stories.) Because this was a competition, the participants were motivated to turn in high performance results, but if members routinely started conserving just 10 to 15 percent of their typical monthly usage, that would fundamentally change WH’s growth curve and many of the assumptions we have used to operate this business for decades.

4. The emergence of substitute energy systems into the mainstream. The price of substitute energy systems like residential solar panels has been reduced 40 percent, according to recent news accounts. We keep hearing that fuel cells may be poised to make an affordable entry to the marketplace sometime in the next decade. Coupling this with the growing number of government and commercial rebates already available for many of these devices suggests that home-generating systems could substitute a fair amount of electricity previously supplied to you by WH. We know, for instance, that the residential-sized solar panels being demonstrated on WH’s campus generate about 15 percent of a typical member’s monthly electric bill. Additionally, R&D projects – like the project WH is conducting with Silent Power Inc. on residential-sized storage batteries – could be a real game-changer for electric utilities.

With the exception of our stalled economy, all of the above are favorable developments and where we need to go as a nation to attain energy independence and security. Contrary to what many politicians will tell you, tremendous progress has been made with energy efficiency, energy conservation and bringing renewable energy into the mainstream. So this suggests that inevitable changes in traditional growth trends could be on the way.

Your board intends to be ready for these changes.

One way WH will prepare is to find additional new revenue and margin contributions like we have successfully done with companies like WH Security, WH International Response Center, WH Services, HeatMyFloors.com and other diversified businesses owned by your cooperative. This unique advantage has helped us enormously in the last few years to preserve WH’s strong financial condition as well as the competitiveness of WH’s retail price of power.

Your board has also directed me to explore the feasibility of WH Holding Company taking additional ownership or investment positions in substitute energy-related businesses, products and services, or other strategic acquisitions as a way to replace lost revenue from traditional WH electric sales. By having WH Holding Company make these investments, rather than Wright-Hennepin Cooperative Electric Association, these investment activities do not have to be funded through your electric bill. Of course, we will also continue to build additional efficiencies into our local electric operation and do all we can to continue to trim the growth of wholesale power costs.

In this way and others, the board of directors endeavors to not only be prepared for the potential of an extended period of low or no growth in traditional energy sales – but to be better prepared than most.

Change may be inevitable. Our goal is to make it a favorable event for WH’s members.

Mark Vogt
WH President and CEO
Expanding the grid with CapX2020

Driving along Interstate 94 between Monticello, Minn. and St. Cloud, Minn. has been a little distracting for commuters throughout the past several months. The towering poles posted along the freeway are interesting enough to look at, but lately, helicopter assisted-line worker acrobatics and periodic implosions have added to the complexity of the skyline. This construction is a part of the CapX2020 project.

The CapX2020 project is a joint initiative of 11 transmission-owning utilities in Minnesota – including Great River Energy, one of Wright-Hennepin’s power suppliers – and the surrounding region to expand the electric transmission grid, ensuring continued reliable and affordable service. Planning studies have shown that customer demand for electricity will increase 4,000-6,000 megawatts by 2020. This project was designed to help the electric grid handle this increase.

The new transmission lines will be built in phases designed to meet this increasing demand as well as to support renewable energy expansion.

In August of 2011, the transmission conductor stringing process began along I94, which involves implosive connections that splice the wires together. These implosions create a bright flash and a loud boom sound near the top of the structure.

Members who heat with electricity may be eligible for a sales tax exemption

If your primary residential heat source is electricity, you may be exempt from state and local sales tax during the heating season. Minnesota law provides that electricity sold to residential users where electricity is the main heat source (more than 50 percent) is exempt from Minnesota and local sales tax during the months of November through April of each heating season. All electricity used through the same meter, whether for heating purposes or not, is exempt during the six month time period.

If you qualify under the terms outlined above, Wright-Hennepin (WH) can provide you with the exemption from sales tax status provided by law when you complete, sign and return an exemption certificate to WH. To fill out the form, visit www.whe.org, click on the “For My Home” tab, then on “Electric Heat Tax Exemption,” and fill out the form on the page. You can also call (763) 477-3000 to have a form sent to your home.

Fall and winter are great seasons to trim trees

When sensitive oak, elm, fruit and nut trees are trimmed in the summer, it leaves them susceptible to disease. That’s why cooler months are a good time for trimming.

Help tell WH’s story

Do you remember when Wright-Hennepin (WH) first brought electricity to Wright and Hennepin counties in the 1930s? If so – or if you know someone who remembers this – we want to hear from you!

As a part of WH’s 75th anniversary, we’d like to hear how rural electrification has changed the local area.

Please contact Lindsay Scherer at (763) 477-3111 or via email at lscherer@whe.org if you have any information that will help us commemorate our 75th anniversary.

U.S. solar industry achieved record cost reductions

The average cost of going solar in the U.S. decreased significantly in 2010 and through the first half of 2011, according to a report released by the Department of Energy’s Lawrence Berkeley National Laboratory.

The average pre-incentive cost of residential and commercial solar PV systems decreased 17 percent in 2010. Costs declined another 11 percent in the first half of 2011. Reductions in the costs of installation labor, balance of systems, overhead and other non-module costs fell 18 percent from 2009 to 2010. Increased market scale would likely achieve additional near-term cost reductions.

Source: press release

Greenhouse gas rule delayed

The Environmental Protection Agency confirmed on Thursday that it would not meet a Sept. 30 deadline for issuing rules governing greenhouse gas emissions from power plants and other major sources. The idea of strict limits on emissions from power plants and refineries terrifies many in the utility, manufacturing, and oil and gas industries, who fear it will drive up energy costs.

Republicans in Congress characterize the proposed regulation as a job killer and are trying to throttle it. Business lobbyists have leaned hard on the White House to delay or modify it. The EPA and its supporters argue that the government is compelled to act to limit emissions by the inexorable science of climate change and by the Supreme Court’s 2007 ruling that the agency must regulate such emissions if it finds they are a threat to human health and the environment.

Source: New York Times

Texas power company affected by EPA rules

A major Texas-based power company said it will close two coal-fired power units in the state and lay off 500 workers in order to comply with an Environmental Protection Agency air pollution regulation. The company, Dallas-based Luminant, also filed a lawsuit aimed at overturning the regulation. The company, Dallas-based Luminant, also filed a lawsuit aimed at overturning the regulation in the state and pushing back a deadline to comply with the new rules. The move could have wide-reaching political ramifications in Washington, where the EPA has become the target of much scorn in GOP circles.

Under the EPA rules, Texas power companies are required to reduce sulfur dioxide (SO2) and nitrogen oxide (NOx) emissions from power plant smokestacks by Jan. 1, 2012. Luminant said that the deadline is unrealistic and will cause significant job loss at the company.

Source: The Hill
Ten ways to save energy this heating season

1. Lower your thermostat. For every degree you lower it, you save about 2 percent on your heating bill.
2. Close furnace vents and doors in unused rooms.
3. Turn down your thermostat during the day while you’re not at home.
4. If you have single-pane windows, add storm windows to cut heat loss by up to 50 percent.
5. Be careful not to block your radiators or heating vents with furniture or drapes. This will cause your furnace to work harder to disperse heat.
6. If you have a fireplace, close the damper when it’s not in use.
7. Clean your radiators, registers and baseboards. These systems operate more efficiently when they are free of dirt and dust.
8. Change your furnace filter regularly. Dirty filters hamper air flow and make your furnace work harder.
9. Keep shades and curtains open on the south side of your home during the day to cool your home during the summer. Heat pumps do not create heat like combustion furnaces, but simply transfer heat from where it is to where you want it to go.

Air source heat pumps

Air source heat pumps (ASHP) can both heat and cool your home by transferring heat from outdoor air into your home and vice versa. With this process, an ASHP can reduce electrical use by as much as 40 percent and deliver as much as three times more heat energy than the electricity they consume. These devices look similar to an air conditioning unit, contain few moving parts and usually require little maintenance, providing that they’re kept free of dirt and debris.

ASHP’s work best when outdoor temperatures are above 28°F. At temperatures lower than 28°F, this device will require an auxiliary or supplementary heat source. Because of this limitation, ASHPs work best in moderate climates and serve Minnesotans best during the spring and fall.

Ground source heat pumps

Ground source heat pumps – which are also known as geothermal systems – work well in all climates and can both heat and cool your home throughout the year.

These devices work by taking advantage of the consistent temperature of the ground 6-8 feet below the surface. The ground temperature is normally warmer than the outside air in the winter and cooler than the air in the summer.

Ground source heat pumps circulate air more frequently than a conventional system to keep the air warmer in the winter and eliminate the hot and cold spots common with conventional systems. They’re also safer than conventional heating systems as there is no open flame or fuel storage system involved.

Although these systems do require a significant initial investment to install, a geothermal system can reduce energy consumption, saving you up to 50 percent in heating costs alone, when compared to fossil fuel systems. That savings allows the devices’ purchasers to recoup their initial investment over time.

If you decide to install a heat pump in your home, Wright-Hennepin’s (WH) Dual Fuel programs work well. Dual-Fuel heat pump programs provide a lower rate on energy costs to members who utilize these systems. WH also has a listing of qualified contractors on its website (www.wh.org) who can install those unique systems.

For more information regarding Dual Fuel programs, visit http://www.wh.org. For more information, call (763) 477-3000 or visit us online at www.wh.org.

Air source heat pumps regulate the temperature in your home by moving heat from outdoor air into your home. They work best at temperatures above 28°F.

If you’d like to learn more about plenum heaters, call (763) 477-3000. Plenum heaters help manage heating costs.

Now you have the power to control your energy bills by switching between Wright-Hennepin’s (WH) electric service and your existing gas or oil furnace. Plenum heaters can be easily added to an existing heating system and allow you to switch from your current fuel source to electric heat. This option can help you control your heating costs when fossil fuel prices rise during the winter.

These devices are installed in the plenum, which is the spot in the ductwork system where ducting and the furnace join. Air is heated as it flows across electric elements and then distributed through the existing ductwork. Plenum heaters can be incorporated into new or existing ductwork and can help you take advantage of WH’s discounted Off-Peak rates.

To learn more about plenum heaters, visit http://twitter.com/#!/WHControlTimes. WH’s Dual Fuel rate has changed very little since the program’s inception.
On an early winter morning last year, a burglar decided to try to break into the Maple Lake VFW through one of the building’s side entrances.

“If we didn’t have a WH Security system, they would’ve gotten in and taken whatever they were looking for,” said Maple Lake VFW Administrator Karen Albrecht.

Luckily, the VFW’s security system alarm sounded when the burglar attempted to pry open the door. After hearing the alarm, the burglar ran, causing only minimal damage to the exterior door and leaving the interior of the business untouched.

The Maple Lake VFW had the system installed more than 15 years ago to provide peace of mind for their employees and to protect the business from theft.

“It was something the administration wanted to do for the building because of the type of business we run,” said Albrecht.

According to Albrecht, things have been taken from the outside of the building in the past, but the VFW has never had a successful break-in.

“This is the closest anyone has come to actually breaking into the building,” said Albrecht.

WH Security systems are monitored 24 hours a day, seven days a week from WH Security’s UL listed monitoring center in Rockford, Minn. With the aid of state-of-the-art technology and redundant communication systems, WH Security’s fully trained and certified personnel respond quickly in any emergency situation.

“I think every business should have a security system,” said Albrecht. “It ensures the safety of employees and protects a business’ assets.”

Albrecht believes that purchasing a WH Security system was a worthwhile investment for the VFW to make.

“We’ve been pleased with WH Security’s service,” said Albrecht. “It’s an inexpensive service for the peace of mind it provides.”

For more information on WH Security systems and services, call a WH Security representative at (763) 477-3000 or go to www.wh-security.com.

Control your home from anywhere

WH Security is the name Twin Cities’ households have trusted for more than 20 years when it comes to protecting against intrusion, fire, carbon monoxide poisoning, freeze damage and more.

With interactive websites and phone apps from WH Security, you can remotely access and control your home’s:

- Lights
- Door locks
- Appliances
- Thermostat
- Security system

Also, receive email or text messages when your security system’s sensors have been activated, alerting you of occurrences like opening doors and motion activity.

*Certain restrictions may apply.
Win this month’s wind or solar generation!

Each month, two lucky members will have their names drawn. One will win the current month’s output of Wright-Hennepin’s wind generator and the other will win the output of the solar panel.

To enter the monthly contest, or find more information and data, go to: http://www.whe.org/for-my-home/resources/wind-solar.html

Average monthly energy output year-to-date:
- WH’s wind generator = 619 kWh
- WH’s solar panels = 180 kWh

Average monthly energy use per household = 1,100 kWh

Last month’s winners:
- Dale Beaudry of Albertville wins a credit for 237 kWh, August output from WH’s wind generator.
- Bruce Horne of Monticello wins a credit for 277 kWh, August output from WH’s solar panels.

Pop Quiz! Win an energy-saving programmable thermostat!

Complete WH’s quiz with the correct answers and be entered for a chance to win a prize!

All the answers for the quiz can be found in this newsletter. Please insert the correct answers, clip out the form and mail it with your electric bill, or submit your answers online at whe.org on the “Newsletter Archive” page, found under the “News & Events” section.

“Completed quizzes are due by November 15.

Name:____________________________________Phone:__________________
Address: _________________________________________________________
City:________________________________State:______Zip:_______________

1. Wright-Hennepin is conducting an energy-efficiency experiment using two _______.
2. Interesting construction techniques are being used on the _______ project, which is taking shape along I94.
3. Karen Albrecht credits a WH Security system with saving the Maple Lake _______ from a burglary.
4. New “connects” are down _______ percent from this time last year.
5. The “A day in the life” series was created to give WH’s membership _______ into the jobs at the cooperative.

*One winner will be selected each month. One entry per month, per household will only be accepted. Winners will be notified by phone or email.

September Quiz Winner: Michael Nelson Annandale, MN
A day in the life

Specialty and support function areas

Editor’s note: About the “A day in the life” series:

At Wright-Hennepin, we combine the skills of 146 employees to provide members with the best services possible. We’ve created the “A day in the life” series for our Hotline Update to give you, our members, insight into the jobs – and the people – behind the company. The next article in the series will be published in December’s issue and will feature your board of directors.

There are many support functions within Wright-Hennepin (WH) that work to provide WH’s members with reliable service. Although WH members may not interact with these individuals often, the people who staff these departments work hard to serve the membership on a daily basis.

“Even though we don’t speak directly with our members, everything we do is for them,” said Accounts Receivable Supervisor Teresa Bruns. “We’re very mindful of that.”

The accounts receivable department begins their billing process with information obtained from smart meters. These meters submit information on customers’ usage directly to WH, eliminating the need for monthly, on-site meter readings.

“The billing department is very customer service oriented,” said Bruns. “We look for large changes in each member’s usage and alert them of these instances. That way, our members can identify what’s causing these extremes before they get out of hand.”

The metering department works to keep the smart-meter system functioning properly at all times to ensure accurate, timely meter reads are received by the billing department.

“Deadlines and accuracy are critical to the metering department,” said Vice President of Technology Steve Nisbet. “Rain or shine, we need to get exact readings and provide them to the billing department.”

Since WH’s implementation of smart meters, the metering department has become more technically oriented in order to maintain the system.

“We need to understand the technology behind the system so we can fix any problems that may occur,” said Automated Metering Infrastructure Supervisor Chad Burau. “We may not be doing on-site meter reads anymore, but we have 60,000 meters to maintain; that keeps us busy.”

While the metering department works to implement and maintain new technology in the field, the information technology (IT) department makes sure everything is running smoothly in WH’s office.

The IT department maintains the software, network, phone systems and personal computers for WH’s employees, which keeps the cooperative’s internal functions operating efficiently.

“If anyone has a piece of software that hiccups, we’re there,” said IT Manager Tony Heid.

WH works to use the latest technology throughout its departments to ensure all operations are functioning as cost effectively and as quickly as possible. This keeps the IT department on their toes.

“What we were working on three years ago is completely different than what we’re doing today,” said Heid. “It definitely makes the job interesting.”

The accounting department gets to see all angles of WH and its subsidiary businesses, as it’s responsible for keeping track of all details of the cooperative’s financials.

“A new opportunity for learning is always coming up,” said Accounting Supervisor Scott Zipp. “Because we hit all aspects of WH, we really get to know the business inside and out.”

The accounting department uses precise attention to detail to make sure the cooperative is using its resources in the best way possible.

“We budget our and monitor financials right down to the individual general ledger to assure costs are kept in check,” said CFO Angie Pribyl. “Our goal is to keep the business financially sound, while keeping our members’ rates competitive.”

Cut down your winter heating costs!

Sign up for the Dual Fuel Off-Peak program and save!

Contact a representative today:
(763) 477-3000 or (800) 943-2667
www.whe.org or info@whe.org

The Dual Fuel program is for members that use electricity to heat their homes, while still having a non-electric, automatic backup heating source.

Participants in this program receive a special reduced electric rate on the electricity used to heat their homes.

September board meeting highlights:

September highlights cont. from page 2

• Guests included:
  • Honeywell Engineer Eric Oh presented the future of security devices and potential new monitoring opportunities.
  • Landis and Gyr’s Engineering Solution Director Al Swanson presented the latest trends and technologies available with WH’s current AMI infrastructure.
  • Xcel’s Manager of Resource Planning and Bidding Betsy Engell presented an overview of wind and other renewable energy activities from the Xcel perspective.