

\$avings for Members

using electric water heaters & air conditioning



Ron Salyer
President & CEO

Pioneer has been a leader since the early 1970s with a program to manage the amount of electricity members use during large “peak” electricity demand times of the year. Many of us understand how prices change for products and services when “peak” periods occur. Invariably, when the “peak” driving season comes along in the early summer, it always seems like gasoline prices rise just when we plan

to take a summer trip. As more people want to use a product simultaneously, the “extra” product costs more to produce, so prices rise.

Electric power generation services the Cooperative purchases for members work the same way. Most of the year, prices are more stable since we can use our low-cost, coal-fired electric generation to supply our members’ needs. However, during the hottest and coldest days of the year, “peak” electrical use times, our cost of producing electricity rises as more expensive natural-gas electric generation is turned on to meet our members’ needs. Pioneer has two specific programs in place to help reduce costs for our members who help us reduce this peak during these times.

Electric Water Heater Load Control Program

By far, Pioneer’s water heater load control program has been our most successful cost-saving effort to reduce electric peaks. Pioneer was the second electric utility in the United States to implement a water heater load control program. In 1972, about 300 members agreed to have a radio-controlled switch installed on their electric water heaters that could prevent heating water during Pioneer’s peak electric use periods. These first pioneering members did not receive any compensation for their efforts. The program has evolved and improved over the years to the highly sophisticated program we have in place now. Today, members who participate still receive a radio switch that is installed on their electric water

heater. The switch is activated by radio signal during peak use times. Nearly 5,800 Pioneer members receive \$12 per year to participate in the program. **That’s nearly \$70,000 in savings directly to members.**



Pioneer’s sophisticated water heater load control program saves members money on their power bills while helping us avoid adding new power plants. The program has saved our members millions of dollars in generation costs since its launch in 1971.

—Ron Salyer,
President/CEO

Cool Returns Air Conditioning Load Control Program

In 2002, Pioneer expanded our peak management options by implementing the central air conditioning load control program. Peak electric use occurs during the hot summer months, and almost 370 of our members are participating in this program. Pioneer understands it’s important to limit cycling air conditioners off so temperatures do not rise to uncomfortable levels in members’ homes. **Participating members receive a one-time bonus of \$100, which equals \$37,000 in savings for these members.**

Both of these programs show “win-win” savings for members and savings for Pioneer as a whole, which helps you and your neighbors save power supply costs. Call today to learn more and start saving!

SMART GRID

Technology – A GOOD THING!

Opposition to implementation of smart metering on electric services has recently gained some media attention. The push-back is based upon incorrect information and misconceptions about what smart grid technology is and how it is used. The fact is an automated metering infrastructure is a great tool for improving electric system reliability, responding to outages, and assisting consumers in controlling their electric use and bills.

Pioneer completed installation of our smart meters between 2007 and 2009. Since that time we have been able to identify areas on our electric system where members experience frequent blinks. Crews then visually inspect poles, wires, other equipment and trees in the area to determine the cause of these momentary service interruptions. We've trimmed trees, installed cover to protect equipment from animal contacts or replaced problematic line equipment in order to reduce and eliminate the blinks.

The storms we've encountered since the meters were installed have left members without power for a much shorter time than would have been possible previously. Pioneer can send a signal to each meter on our system (called "pinging the meter") and expect a response from that meter. When we do not get a response, we know there is no power running through the meter, so service is out. As we restore power in specific areas, we ping all the meters within that area to verify service is back up. We can then identify individual outages that need additional attention to be restored. During the ice storm of 2011, it is estimated that full restoral of electric service would have taken an additional two days had we not had the residential smart meters already in place.

Daily readings from the service meters populate each member's account. When members call in with a concern about a bill, our service representatives can review the daily use with them to help identify shifts in the weather that may have called for additional cooling or heating in the home. Or perhaps there was a time when more people were in the house, causing use to go up. Perhaps there was a problem with some household equipment such as a well pump running constantly. Critics assert that utilities with smart meters can tell exactly what appliances consumers have in their homes and what activities they are engaged in — as if we could spy on them. ***This simply isn't true.*** We see daily or hourly electric use, not equipment or activities that determine the use. Our goal in reviewing the data with members is to assist them in determining why their electric bill was not as they thought it should be. We're launching a pilot program next year that will put that information

directly into the hands of our members who want it on an ongoing basis. Through a link to their Pioneer account via the Internet, they will be able to see their daily meter readings and track their efforts to reduce electric use if they choose.

As for the information we do gather — meter readings and blink information — **nothing is shared with a third party.** Pioneer has never and will never give or sell a member's service or personal account information to another entity without express permission from the member, except if subpoenaed by the courts.

Pioneer wants to exceed our members' expectations of quality electric service and responsiveness. The smart grid technology we have put in place has proven to help us do just that.

Smart Grid: before and after

"Smart grid" isn't easily defined: it means many things to many people. Electric co-ops advocate smart grid technology that benefits consumers by making electricity move more efficiently and affordably. Data exchange and two-way communications are key.



Without "smarts," the electric grid does a great job of getting electricity from a power plant to your home, although information is limited. Electric co-ops must get electricity use data by manually reading meters. That information is then passed back to consumers in a monthly bill. All system upkeep is done manually, meaning co-op staff must travel to maintain all parts of the grid.



With smart grid technology, information and communications are wide open. You can monitor electric use information from your home, and your co-op can do the same remotely. The grid itself can be monitored electronically, making outages easier to pinpoint and repair. Smart grid encompasses information exchange, automation, system visibility, control, and (most importantly) the ability to save consumers money.

Source: National Rural Electric Cooperative Association
Graphics by Funnellinc.com

Seal your home (and wallet)

BY BRIAN SLOBODA,
COOPERATIVE RESEARCH NETWORK

Staying comfortable at home often means turning up the heat or air conditioning. But comfort can be costly if your home is not properly sealed from the elements.

Roughly half of the energy used by a home powers heating and cooling. In a poorly insulated home, conditioned air slips outside.

Sometimes air leaks are obvious. If you pass by a window or door and feel a change in temperature, something is wrong. Some folks think it means they need new windows, and that could be the case. But for most, spending a few minutes and a few dollars to seal a home adds up to big savings.

Cold air enters a home through small openings. To find problem areas, use a lit incense stick or a recently extinguished match and move it around the edge of closed windows and doors. If the smoke stream moves horizontally, you've found a leak that needs to be sealed.

Here are a few remedies to fix the problem:

- Add weatherstripping to the edges of windows and doors. Stripping typically uses sticky tape to adhere to the side of the window and fill gaps.
- If your home uses single-pane windows, consider adding storm windows to the exterior as added insulation.
- Replace old, cracked caulking. Make sure you use caulking designed for the application. There are different types of caulk for exterior, interior and bathroom applications; don't use bathroom caulk on the outside of your home. Also, make sure the caulk can be painted if you want it to blend in with the rest of your home.
- Use insulated curtains to prevent further heat loss.
- Remove window air conditioning units when summer ends.

A quick walk around the outside of your home reveals other prime candidates for quick and easy repairs. Anytime a hole is drilled into a home, it creates potential for energy loss. Check pipe and wire penetrations — they should be sealed on both exterior and interior walls. This not only helps prevent energy loss, but also keeps critters from taking up residence.

The ductwork of a forced-air furnace, central AC unit or heat pump is another source of energy loss. According to ENERGY STAR, sealing and insulating ducts improves system efficiency by as much as 20 percent.

Of course, this requires effort and time. First, focus on ducts running through unconditioned

crawl spaces, garages and attics. Seal ducts using a special duct sealant or metal tape that can be found at most home improvement stores. Despite the name, don't use duct tape — it doesn't last as long as sealant or metal tape.

Once ducts are sealed, check connections at bends and air registers to make sure everything is tight. Once finished, wrap ducts with insulation. Since this may be a dirty and time-consuming job, many homeowners ask an HVAC company to perform this work.

Another dirty job involves adding insulation to the attic and floors exposed to crawl spaces or unheated areas. The amount of insulation needed varies depending on your home's location.

R-values reflect the ability of insulation to resist the transfer of heat. Higher R-values indicate more effective insulation. The typical home will need anywhere from R-38 to R-49 in an attic and R-25 in floors. You can get advice on how much insulation you need at your local hardware store. In an ideal world, wall insulation should also be increased, but this generally is not practical.

Remember, no amount of insulation will help if doors or windows are left open. A rush of cold outside air can cause your heating unit to fire up, especially if the door isn't closed right away. Create a jar and charge repeat offenders \$1 each time a door is left open when someone leaves or enters the home. Use that money to buy caulking and weatherstripping to seal up windows and other cracks.

Sealing your home can even turn into a fun activity. Have each member of the family explore the house and identify problem areas. Whoever finds the most areas to fix gets to be the foreman while the rest of the family fixes the problems. It's a fun and simple way to get the entire family engaged as you work together to seal your home and your wallet!

Brian Sloboda is a senior program manager specializing in energy efficiency for the Cooperative Research Network.



Photo Courtesy of Werner Ladder Co.

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Check out this **BRIGHT** idea!

Pioneer is selling strings of LED Christmas lights at both office locations. These lights can be used for both indoor and outdoor decorating!

- ◆ 36 medium-size (C6) LED lights per string;
- ◆ 210" strand length and sets can be strung together for longer length
- ◆ Available in bright, assorted colors or polar white
- ◆ STAY-LIT feature (if one LED goes out, the rest stay lit)
- ◆ Very low energy use
- ◆ Made for a lifetime — 50,000 hours;
- ◆ 5-year warranty
- ◆ UNIQUE design allows for interchangeable and replaceable LEDs
- ◆ \$12.99 (plus tax) per string



If all decorative light strings sold in America this year were ENERGY STAR qualified, we would save over 2 billion kWh per year and reduce greenhouse gas emissions equivalent to nearly 300,000 cars! ENERGY STAR-qualified decorative light strings — many of which feature LED technology — consume 75 percent less energy than conventional incandescent light strands. Stop in to get yours today!!

Pioneer Electric Cooperative wishes you and your family a wonderful Thanksgiving holiday.



As a reminder, our office will be closed for Thanksgiving and the Friday after to allow our employees to enjoy the holiday with their families.

Emergency service is always available by calling 1-800-762-0997.

We have gift certificates!

Pioneer has gift certificates available! If you have a person who is difficult to buy for why not give them some ENERGY. Electric energy that is! Pick up a gift certificate today!

