Home Automation Means Control for Members

By Derrill Holly

Home automation systems are placing the powers of control in the hands of co-op members, but many questions remain about the best ways to use them to save money and energy.

"Most smart home technology is about comfort and convenience. Consumers interested in saving money on monthly energy purchases should look at internet-connected thermostats first," said Brian Sloboda, program and product line manager for the National Rural Electric Cooperative Association (NRECA).

"Around half of all thermostats sold today are smart thermostats. These devices can learn your preferences and adjust the thermostat when you are not home," Sloboda said. "During the cold winter months, these devices have the potential to save seven percent on energy used to heat the home."

Sloboda has watched home automation systems evolve over the years. He is particularly interested in identifying ways to enhance efficiency and potential savings for co-op members.

Finding Value in Energy Savings

Security system notifications and thermostat controls that adapt to home automation are among the most popular options available. But some consumers are tackling other tasks in ways that actually could help them save or manage energy use effectively.

"There are different kinds of smart when it comes to smart appliances and devices," said Peter May-Ostendorp, principal researcher at Xergy Consulting, which specializes in emerging technologies for energy savings in buildings, including homes.

"For some, smart simply means 'we connected this thing to the network,' which adds minimal value to the consumer," said May-Ostendorp, who also is an energy technology consultant to NRECA. "In other products, smart means that there is some intelligence either built into the product or connected via the cloud that enables a taste of artificial intelligence."

But not every product using artificial intelligence is designed to save energy. In many instances, energy use is secondary to convenience or connectivity features.

Making Connections

"Most smart devices have nothing to do with energy use, grid management or other resource conservation, " said May-Ostendorp. "Generally, the benefits—dollar savings to the consumer—have not been proven, with the exception of smart thermostats, grid-connected water heaters and similar devices."

According to the Environmental Protection Agency (EPA), interest in connected or smart appliances is trending upward among consumers, and manufacturers are responding with a growing list of products.

"If you are thinking of purchasing a smart appliance or thermostat, look for one that is ENERGY STAR®-certified with connected functionality," wrote EPA officials asked about the technology. "Those that meet our criteria are designed to encourage interoperability and offer the following features: low energy use, energy use reporting and consumer ownership of all data."

Besides smart thermostats, the products available now include, room air conditioners, refrigerators and freezers, laundry equipment, light bulbs and fixtures, and power strips.

"While owning a smart product doesn't automatically save you energy, if YOU are smart about using them, they can make a significant difference in your home," wrote the EPA. That means making the investment payoff could take a few lifestyle changes. But dashboards, accessible from computers or tablets, and apps available for smartphones can help.

"I don't think many people want infinite control over dozens of appliances and systems in their homes," said Spencer Sator, president and CEO of Crimson Consulting, another NRECA energy efficiency advisor. "What we really want is 'set it and forget it,' features that we don't have to actively manage," said Sator. "The best devices get installed, adjusted and the consumer can walk away and still potentially save some energy."

According to Sator, consumers are looking for simplicity. That's feeding the popularity of virtual assistant technologies, like Amazon's Alexa and Echo, Google Assistant and Apple HomeKit. Other companies, including Samsung, Logitech and Wink are also offering home-management hubs and platforms designed to help manage connected technology.

Convenience and programming simplicity are among the most important factors fueling consumer acceptance of what Sator

describes as "home ecosystem" products. Home security controls, including locks, alarm systems and lighting are also popular features.

"We're seeing adoption of the technology not necessarily for energy-saving reasons, but for life-enhancing applications, including some that help elderly consumers maintain independence in their homes," Sator said.

Energy advisors agree that controlling devices from various manufacturers that perform different functions with a single system enhances the value of home automation systems.

Command and Control

The challenges for consumers are deciding which features meet their expectations and justify the added investment in automation, and how well various products work together under management of a particular hub device or app.

"This is still the Wild West, from a technology value perspective," said Sator. "When you consider available options and actual performance of the devices available, some gadgets perform well and can save consumers money and energy, while others don't measure up to the hype."

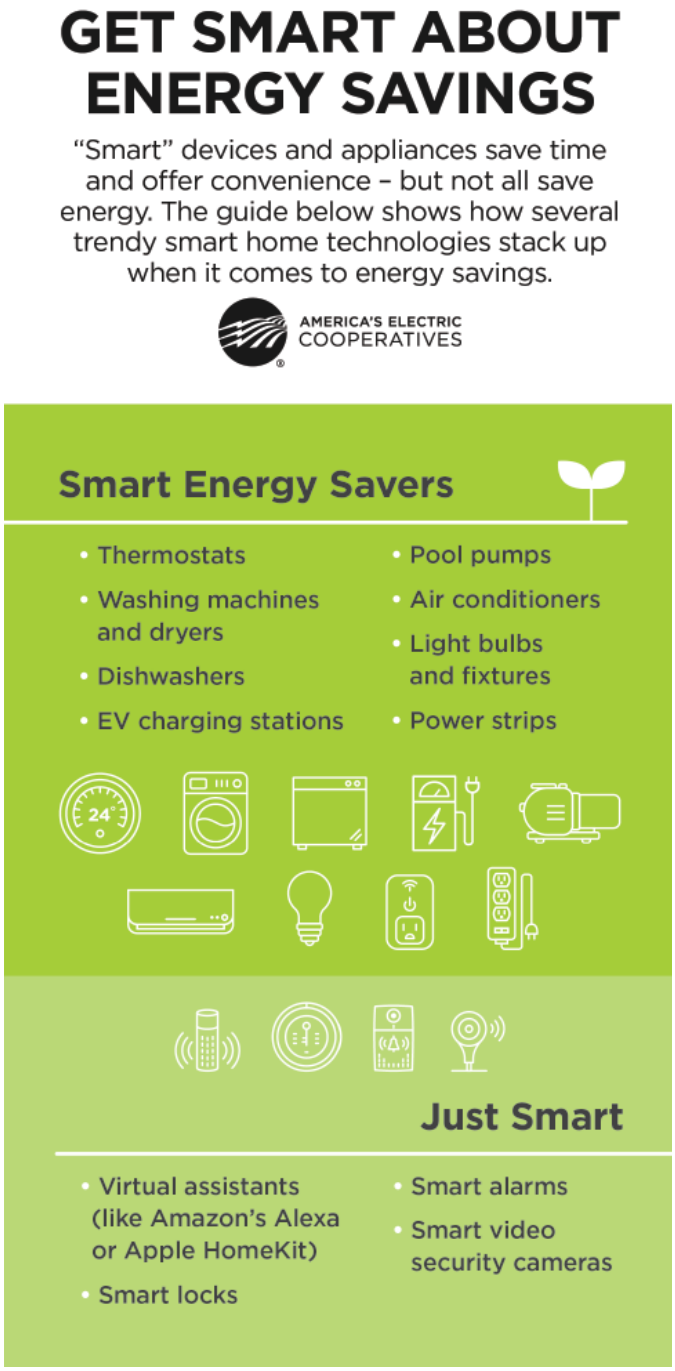
With more than 900 manufacturers marketing about 4,100 connected devices, voice command technology is seen as one way to avoid collections of various remotes that typically wind up cast aside in favor of multifunction control devices.

"The Jetsons-like experience—where your Fitbit recognizes you're awake, tells the coffee to brew, queues up your morning news on a smart speaker, ramps up the heating setpoint—isn't really happening," said Exergy Consulting's May-Ostendorp. "People have thought that Alexa or Google Home might be the answer, but do we all really want to talk to our home, Star Trek style, to accomplish basic tasks?"

In fact, smart speaker technology is primarily used to answer questions, check the weather, get news updates or play music. According to a survey conducted in five major industrialized nations, including the United States, 65 percent of those asked cited those functions, while only six percent reported using the technology to control lighting, televisions or other connected devices.

"No one wants a hodge-podge of technologies that can't communicate with each other," said Crimson Consulting's Sator, adding that the necessary hubs and powered interfaces to connect the devices could actually boost overall energy use. "The technology isn't very smart if devices can't work together." ■

Derrill Holly writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.



SAFE DÉCOR FOR A HAPPY HOLIDAY SEASON

It's almost time to deck those halls! Statistics show that home fires and electrical accidents typically increase during winter months, so keep these holiday lighting tips in mind for a safe holiday season.

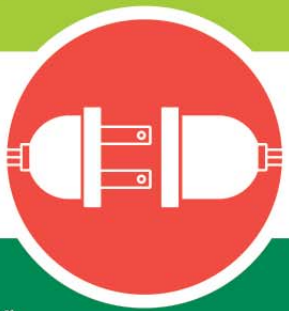
Carefully inspect all electrical decorations before you use them. Cracked or damaged sockets and/or loose or exposed wires can cause serious shock or start a fire.

Consider purchasing LED lights, which use less energy and run cooler than traditional incandescent lights.

Never mount or support light strings in a way that might damage the cord's insulation.

Make sure that cords are not pinched in doors, windows or under heavy furniture, which could damage the cord's insulation.

Always unplug electrical decorations before replacing bulbs or fuses.



Turn off all indoor and outdoor electrical decorations before leaving home or going to sleep.

Source: Electrical Safety Foundation International

AMERICA'S ELECTRIC COOPERATIVES

Alaska Utilities Incorporate Renewable Power

By Michael Rovito

A giant pair of scissors leaned against the fence surrounding Golden Valley Electric Association's new solar farm in the early afternoon hours of October 12. The comically sized cutters could be seen as metaphoric—representing the big idea that went into the Interior electric cooperative's foray into solar generation.

As GVEA board members, staff and other invited guests stood in the fall chill of the Fairbanks air, five rows of towering solar panels angled back to get the best view of the sky gleamed with light frost. At 1,760 panels, the solar farm is the largest utility-scale installation in the state.

With a snip of the ribbon, GVEA officially commemorated the addition of 563 kilowatts of carbon-free renewable electricity. Located on GVEA property behind the co-op's Battery Energy Storage System, the solar farm is a futuristic addition to a location with plenty of sun to shine on those panels.

The annual production from the solar farm, according to GVEA, is expected to be enough to power 71 homes. With the already operating Eva Creek Wind Farm and hydropower purchased from the Bradley Lake Hydroelectric Project near Homer, GVEA just completed a trifecta of renewable generation.

Unlike most of the Lower 48, Alaska is not interconnected to any other state or country. The state is an islanded system, essentially a micro-grid with lots of smaller micro-grids inside it. While the Railbelt utilities and some rural communities are interconnected, the state lacks the robust grid developed during more than a century in the contiguous United States.

GVEA's accomplishments with renewable integration are part of a wide-ranging effort of Alaska electric utilities to control costs and lower emissions through integration of renewable generation. Across the state, electric co-ops have brought renewables of varying sizes and types online in Alaska's harsh climate.

Golden Valley Electric Association Board members commission their new solar facility.

They have done so with an eye to rates, making sure to keep power safe, reliable and affordable as new technologies are integrated.

Western Alaska has seen increased production from wind power as cooperatives such as Alaska Village Electric Cooperative—which serves 58 communities, only one reachable by road—and Unalakleet Valley Electric Cooperative have added wind turbines.

Alaska's Arctic has also seen renewables take center stage. Kotzebue Electric Association, 22 miles above the Arctic Circle, has operated a wind farm for many years, and the co-op is integrating solar power, along with a battery system.

Many coastal communities generate their electricity from hydropower, especially in Southeast Alaska, where water is abundant. Hydropower offers cheap, consistent generation.

Nushagak Cooperative, which provides power to Dillingham and Aleknagik, is in the early stages of exploring integration of hydroelectric in Southwest Alaska, taking advantage of river power and possible interconnection to other communities in an effort to lower the cost of power.

GVEA now generates 10 percent of its electricity from renewables—wind and hydro—with that number expected to increase after the solar farm has been online for all of 2019, according to Corinne Bradish, GVEA's public relations officer.

It's all part of the renewable renaissance taking place in Alaska: utility-driven, consumer-focused integration of renewables, while the technologies behind them mature and projects become economical.

Like much of Alaska's history, there is no one else the state can rely on for electric power. Electric cooperatives must innovate so the essential service they provide not only benefits the lives of consumers, but the economies that need reliable and affordable power to operate efficiently.

GVEA's addition of utility-scale solar power is another example of Alaska's electric utilities leading the way on renewables. ■

Cooking Up Holiday Energy Savings

By Anne Prince

For many of us, the best holidays involve home-cooked meals and wonderful aromas of turkey, stuffing and baked goods wafting throughout the house. It means a busy kitchen and a bustling house full of family and friends.

If this rings true for you, despite the increased kitchen activity, you still have an opportunity to save energy during the holidays.

Cut carbs (carbon) painlessly

In addition to being the "heart of your home," your kitchen could pump savings back into your wallet. According to the Department of Energy, cooking accounts for 4.5 percent of total energy use in U.S. homes.

This number, combined with the energy use associated with refrigeration, dishwashing and hot water heating means that as much as 15 percent of the energy in the average American home is used in the kitchen. So, saving energy here can have a significant impact on your household budget.

For example, when preparing side dishes, baked goods, soups and such, consider using small appliances like a crock pot, toaster oven, microwave or warming plate instead of your conventional oven or stovetop. These small appliances are a smart, energy-saving alternative, typically using about half the energy of a stove.

Seal in efficiency

When using your oven, don't peek! Opening the oven door can lower the temperature by as much as 25 degrees and causes your stove to work harder (consuming more energy) to return to the desired cooking temperature. If your recipe calls for baking the dish more than an hour, it is not necessary to preheat the oven.

If your oven is electric, you can likely turn the oven off for the last five to ten minutes of cooking and allow the residual heat to complete the job. Clean burners and reflectors increase efficiency and offer better heating, so don't neglect this small but important task.

Just as keeping the oven door closed seals in efficiency and enables the stove to operate more economically, the same rules apply to the refrigerator and freezer. Keep the doors closed as much as possible so cold air doesn't escape. However, leaving the door open for a longer period of time while you load groceries or remove items you need is more efficient than opening and closing it several times.

If you are entertaining a large group, you may be able to give your furnace a brief holiday. When your oven is working hard and you have a house full of guests, the heat from the stove and the guests will keep your house comfortable, enabling you to turn down the thermostat.

Clean up with energy savings

When it's time to clean up, extend fellowship to the kitchen, and wash and dry dirty dishes by hand. This uses less energy than a dishwasher. However, don't leave the water running continuously, or you will waste energy.

If you do use the dishwasher and rinse dishes before loading them, use cold water. Run the dishwasher with full loads only, and if possible, use the energy-saving cycle. Note that dishwashers that have overnight or air power dry settings can save up to 10 percent of your dishwashing energy costs.

By adapting these efficient practices in your kitchen, energy savings will be one more thing to be thankful for this holiday season. ■

Anne Prince writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for profit electric cooperatives.

Five Most Popular Thanksgiving Day Traditions

Traditions are a big part of the Thanksgiving holiday, and every American family has their own way of celebrating. From stuffing the turkey to taking in a football game, here are the five most popular.

Turkey and Trimmings

From the first Thanksgiving to today's turkey burgers, turkeys are an American tradition dating back centuries. According to the National Turkey Federation, 95 percent of Americans eat turkey at Thanksgiving. Regional twists offer variations on the traditional roasted bird, including coffee rubbed turkey from Hawaii, salt encrusted turkey from New England, and deep fried turkey from the South.

Time Out for the Pigskin

Throughout the United States, football on Thanksgiving Day is as big a part of the celebration as turkey and pumpkin pie. Dating back to the first intercollegiate football championship held on Thanksgiving Day in 1876, traditional holiday football rivalries have become so popular that a reporter once called Thanksgiving "a holiday granted by the State and the Nation to see a game of football."

Parading Around

The first American Thanksgiving Day parade was held in 1920, organized by Gimbel's Department Store in Philadelphia, not Macy's as most people believe. The NYC Macy's Thanksgiving Day parade tradition actually began in 1924, and has grown into an annual event of balloons, bands, and floats, enjoyed by more than 46 million people each year in person and on TV.

Making A Wish

Does your family fight over the wishbone from the Thanksgiving turkey? Known as a "lucky break" the tradition of tugging on either end of a fowl's bone to win the larger piece and its accompanying "wish" dates back to the Etruscans of 322 B.C. The Romans brought the tradition with them when they conquered England and the English colonists carried the tradition on to America.

Giving Thanks

Last, but certainly not least, Thanksgiving is about giving thanks for the people and blessings of the past year. From pre-meal prayers to providing holiday meals to the homeless, the holiday is truly a celebration of thanksgiving. ■

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Important Dates

November
CVEA Board Meeting: The November meeting of the Board of Directors is 1 p.m. Thursday, November 15, in Valdez

CVEA Offices Closed: The CVEA offices will be closed Thursday, November 22 for the Thanksgiving Holiday

December
CVEA Board Meeting: The December meeting of the Board of Directors is 1 p.m. Thursday, December 20, 2018, in Glennallen

CVEA Offices Closed:
The CVEA offices will be closed Monday, December 24 and Tuesday, December 25, 2018, for the Christmas Holiday, and Monday, December 31, 2018, for New Year's Eve

Round Up for Your Community

The holiday season is a time for giving thanks. Copper Valley Electric would like to thank everyone who rounded up or donated to the CVEA Community Foundation in 2018, and encourage all members to begin rounding up their electric bill next year.

Consider rounding up your electric bill to the nearest dollar amount each month. It's easy and painless. Participants who round up their bill contribute between $.01 and $.99 monthly, an average of just $6 a year, to the Foundation.

Individually this is not a large number, but combined with other Co-op members, it will make a difference. If half of all CVEA members round up their bills each month, the Foundation will bring in an amazing $10,000 each year.

Money raised is used to provide scholarships for students and to help local educational, scientific, and charitable organizations in our communities start new programs and expand existing ones. In 2018, the Foundation awarded $8,000 in scholarships and made $13,800 in contributions to local nonprofit organizations. Stay tuned to see what programs received funding; an announcement will be included in the next issue.

Another really easy way for members to contribute is to add a specific amount to their electric bill each month. Members can also make a one-time donation or even donate their future capital credit disbursements.

If you'd like to help your Cooperative do more for the community by rounding up or adding an amount to your bill, you can do this anytime by simply filling out the donation form located on cvea.org (also available at CVEA offices) and bringing it to the CVEA office in your district, sending it via email to crisp@cvea.org, or mailing it to P.O. Box 45, Glennallen, AK 99588.

For additional information on the Community Foundation or if you have questions about making a donation, contact Sharon Crisp, Director of Communications, at (907) 822-5506, (907) 835-7005, or email crisp@cvea.org.