

WATTS & VOLTS

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SMARTER + SAFER

Home automation can bring extra savings, security



Smartphones have become the central communications hub in most people's lives. Their ubiquity and increasing ease of use have made smartphones not just useful for talking with friends and family, but also managing the many parts of our daily routines. Technology also has made it possible to control with a simple tap or swipe of a finger many of a typical home's appliances and functions.

Making your home a "smart" one is just that on several levels: Convenience and safety are the primary benefits, but automating your home can also help you reduce and optimize your energy use. Here are just a few household appliances and functions you can make "smart" to save money and give yourself peace of mind ...

Locks

Rest assured that your home is secure with a "smart" door lock. Devices like the Schlage Connect combine the familiar security of a deadbolt with the convenience of keyless entry. Many come with keypads and allow you to lock or unlock your door remotely. Most can be a bit pricey, in the \$200-plus range, but not much more than traditional deadbolt door locks.



Thermostat

Optimize your heating and cooling with a "smart" device like the Nest Learning Thermostat. Instead of a set program that doesn't always sync up with your varying schedule, the Nest uses a week of your manual temperature setting to learn your schedule and adjust accordingly. The device's manufacturers claim the Nest saves users an average of 10% to 12% on heating bills and 15% on cooling bills. In addition to its learning feature, the Nest (less than \$300 at most stores) offers remote access from anywhere via your smartphone.

Outlets

Monitor and control the power to appliances such as space heaters, A/C units, TVs, washers and dryers using an outlet device such as Belkin's WeMo Insight Switch (\$50). The WiFi-enabled device resembles a typical three-prong outlet and plugs into your existing wall outlet. The free accompanying smartphone app allows you to create custom power rules, schedules and notifications for the outlet. The WeMo Insight Switch also sends energy and cost reports to your smartphone so that you can optimize your energy use and reduce your monthly bill.



Lighting

Worried that you left that bedroom lamp on before you left for work? The Philips Hue Personal Wireless Lighting system (\$70 at most retailers) allows you to remotely control up to 50 separate lightbulbs using your smartphone. The bulbs cost about \$15 each, and you can also set timers and schedules for each bulb to ensure you don't waste energy powering unneeded lights.

Project will upgrade reliability in areas

Line will link isolated substations, increase access to renewables

Reliability often requires redundancy. Electric utilities try to design and build redundancy into transmission and distribution systems so power can be delivered to any given point despite a single failure to the system. The ability to back-feed power can be the difference between a prolonged outage and no outage at all. Looped transmission and distribution circuits improve system reliability because loops provide the ability to back-feed when a line fault occurs. Over the years, IREA has continued to improve its system by building loops and connecting circuits to better system resiliency and customer reliability.

One area requiring additional redundancy is in the eastern portion of IREA's service territory, in Elbert and Arapahoe counties, where two substations are isolated on a radial transmission line. Under the current system, an outage sustained on any part of this line results in all customers "downstream" going without power until the outage can be repaired. Building a transmission line to connect the radial line from another direction will provide a service loop, allowing power to be back-fed to customers in the event of an outage and during periods of necessary infrastructure maintenance. Without a looped system, maintenance work sometimes requires an outage affecting many customers. IREA has carefully studied how best to interconnect our Kiowa substation in Elbert County with the Brick Center substation to the north in Arapahoe County to create a transmission loop. Residents in that area may remember recent events in the fall of 2015 and spring of 2016, when severe weather and winds caused outages near Kiowa and Elizabeth lasting several hours each. Closing the loop between these two substations



with a new 115-kilovolt line will substantially strengthen the system and prevent such costly, extended outages.

Part of IREA's mission is to provide reliable electric service, and we intend to do so in every part of our service territory. The proposed transmission connection, known as the Eastern Reliability Upgrade, is one of the most important investments we will make in our system in the next few years.

Strengthening the electric system in this area is also necessary because of anticipated economic growth. It will improve the deliverability of health and welfare services in northwestern Elbert and southern Arapahoe counties. The availability of large-scale, reliable power delivery is key to a modern economy and healthcare services.

Over the coming months we will share our plans with our members, area property owners and other stakeholders. We are committed to identifying the best route for the new line, and we welcome public input in that analysis. Many factors must be considered, in addition to engineering constraints and project costs.

IREA currently is considering more

than 50 distinct criteria to identify several route options. In the coming months, we will host several open house events at which route options will be shared and explained. Paper maps and GeoVoice, a unique computer application that uses Google Earth to zoom into areas of interest, will allow members of the public to share comments IREA will use to narrow the corridor selection. Additional information stations at the open house events will provide information regarding the engineering, environmental assessment, permitting, schedule, project description and need. Open house dates will be publicized via Watts & Volts, www.IREA.coop, IREA's Facebook and Twitter accounts, and local newspapers.

IREA's mission is to provide reliable service at an affordable price. As a member-owned cooperative, we are careful in our infrastructure investment decisions. The Eastern Reliability Upgrade is IREA's solution for reliability and renewable energy needs in our eastern service area. We look forward to working with all interested persons to develop this project.

What to expect from IREA in 2017

The new year brings with it several items of note regarding Intermountain Rural Electric Association:

No rate increase

Of most interest to customers, perhaps, is that IREA expects no rate increases in 2017. This will be the fourth consecutive year in which residential energy rates have not increased, as IREA has not had a general rate increase since early 2013. IREA remains committed to providing reliable, low-cost service to our customers.

Capital credit refunds

IREA returned to customers \$13.6 million in capital credits in 2016, and in the last three years has returned more money to customers than in any other three-year period in our co-op's history. We plan to extend that trend in 2017 by making another large refund.

IREA's board of directors will vote on the final amount to be returned at

its Jan. 19 meeting. Most refunds will appear as credits on customers' March electric service bills. If you would prefer to instead receive your capital credit refund in the form of a check, go to www.IREA.coop/capital-credits to download the Opt-In/Opt-Out form.

Visit www.IREA.coop/capital-credits for more information about capital credits.

Updated website, social media

In early 2017, IREA will be launching a modernized version of our website, www.IREA.coop. In addition to the updated look and feel of the site, users will find it far easier to navigate, access important information and log in to "My Account" for personalized account information. Later in the year, we expect to roll out an improved customer self-service page on our website.

IREA is also working to increase our level of customer communication via our social media pages on Facebook and Twitter. Those who follow us on

Twitter or "like" our Facebook page will get up-to-the minute information via these platforms regarding outages, community events, scam alerts, legislative updates and much more.

Join us today on Twitter (@IREAColorado) and Facebook (@IntermountainREA).

Annual Meeting

IREA's Annual Meeting of Members will be held at 10 a.m. Saturday, April 29, at IREA's headquarters in Sedalia. This marks the first time the Annual Meeting will be held at IREA's office. At the meeting, IREA's board of directors, chief executive officer and general counsel will provide reports on the 2016 fiscal year financials and other association business.

Three director district seats are also up for election in 2017. Association members not voting by mail may cast a ballot at the meeting. IREA's Sedalia office is located at 5496 North U.S. Highway 85, Sedalia, CO 80135.

IREA accepting education grant applications



Do you know a graduating high school senior? Encourage them to apply for an Intermountain Rural Electric Association Education Grant.

Each year IREA awards 21 graduating high school seniors grants of \$1,000 each toward higher education expenses. The names of three students from each of the seven IREA director districts are randomly drawn to receive the grants. Applications must be received by June 15, 2017, and the drawing will take place at the Board of Directors meeting on June 22, 2017.

To be eligible, the applicant – or applicant's parent or guardian – must be an IREA customer. The applicant must:

- Be a graduating high school senior in 2017;
- Submit an acceptance letter from a college, university or vocational/trade school; and
- Return a completed entry form by 5 p.m. June 15 to the IREA Sedalia office.

Applications are available at www.irea.coop/education-grants, or you can have one mailed to you by calling (720) 733-5478.

Victory Solar facility complete

After two years of planning and construction, the Victory Solar facility north of Bennett is complete and online.

The 150-acre facility produces up to 12.831 megawatts of power from more than 50,000 photovoltaic panels. IREA has agreed to purchase all of Victory Solar's output over 25 years. Victory Solar has the capacity to power more than 2,000 typical homes. It features single-axis tracking that allows the photovoltaic panels to follow the sun's path and maximize solar exposure.

IREA is evaluating the possibility of also making

available to members portions of the facility's generated power via a community solar garden arrangement. If you are interested in participating, call Michelle McAndrew, IREA Rates and Engineering Services Director, at (720) 733-5497.

Look for updates detailing Victory Solar's Dec. 16 grand opening, as well as other info about IREA's renewable energy projects, in future issues of Watts & Volts, as well as via IREA's website, www.IREA.coop, and Twitter (@IREAColorado) and Facebook (IntermountainREA).



Contact your legislator via email, legislative alerts

In December, we shared with you a list of newly elected and reelected legislators who represent constituents within our service territory. We've also compiled a list of their email addresses so that you can communicate with them during the upcoming legislative session. If you are unsure of who your legislators are, visit leg.colorado.gov/find-my-legislator.

If you are interested in more frequent updates regarding key legislative developments, please sign up for IREA's Legislative Alerts via www.IREA.coop. From the IREA homepage, click the "Sign up for Legislative Alerts" box and enter your email address. We will send you updates regarding the current legislative session and, in some cases, may ask for your help in voicing your opinion to your legislator regarding specific pieces of legislation that may affect you.

We are looking forward to working with all of these legislators to protect and advance the interests of IREA's customers.

Colorado State House of Representatives

District 13	KC Becker (D), Boulder kcbecker.house@state.co.us
District 19	Paul Lundeen (R), Monument paul.lundeen.house@state.co.us
District 20	Terri Carver (R), Colorado Springs terri.carver.house@state.co.us
District 22	Justin Everett (R), Littleton justin.everett.house@state.co.us
District 25	Tim Leonard (R), Evergreen tim.leonard.house@state.co.us
District 30	Dafna Michaelson Jenet (D), Commerce City repmichaelsonjenet@gmail.com
District 36	Mike Weissman (D), Aurora mike.weissman.house@state.co.us
District 37	Cole Wist (R), Centennial cole.wist.house@state.co.us
District 39	Polly Lawrence (R), Roxborough Park polly.lawrence.house@state.co.us
District 40	Janet Buckner (D), Aurora janet.buckner.house@state.co.us
District 44	Kim Ransom (R), Lone Tree kim.ransom.house@state.co.us
District 45	Patrick Neville (R), Franktown patrick.neville.house@state.co.us
District 56	Philip Covarrubias (R), Brighton <i>* Email not available as of print date</i>
District 60	James Wilson (R), Salida james.wilson.house@state.co.us
District 64	Kimmi Lewis (R), Las Animas kimmi.lewis.house@state.co.us

Colorado State Senate

District 1	Jerry Sonnenberg (R), Sterling senatorsonnenberg@gmail.com
District 2	Kevin Grantham (R), Canon City kevin.grantham.senate@state.co.us
District 4	Jim Smallwood (R), Parker senatorsmallwood@gmail.com
District 9	Kent Lambert (R), Colorado Springs senatorlambert@comcast.net
District 16	Tim Neville (R), Littleton tim.neville.senate@state.co.us
District 20	Cheri Jahn (D), Wheat Ridge cheri.jahn.senate@state.co.us
District 22	Andy Kerr (D), Lakewood andy.kerr.senate@state.co.us
District 25	Kevin Priola (R), Henderson kevin.priola.senate@state.co.us
District 26	Daniel Kagan (D), Cherry Hills Village <i>* Email not available as of print date</i>
District 27	Jack Tate (R), Centennial jack.tate.senate@state.co.us
District 28	Nancy Todd (D), Aurora nancy.todd.senate@state.co.us
District 29	Rhonda Fields (D), Aurora rhonda.fields.senate@state.co.us
District 30	Chris Holbert (R), Parker chris.holbert.senate@state.co.us