

The Buzz About Electric Cars

The appeal of electric vehicles is gaining momentum. The push for greater mileage in terms of MPG, which began in the second half of the last century, has been joined by the push for greater miles per charge. But before getting too far into this transportation evolution, a quick history lesson about EVs is in order.

The first known electric car was developed in 1837 in Aberdeen, Scotland. Early variants were powered by galvanic cells rather than rechargeable batteries. The lead-acid battery was invented in France in 1859, with further French development leading to manufacturing of these batteries on an industrial scale in the early 1880s. This allowed a rechargeable battery to be installed on the vehicle.

Soon, manufacturers were selling a wide array of EVs, ranging from trams to trolleys, to cars, and even locomotives. Interest in electric cars blossomed in the late 1890s and early 1900s. As roads improved and became more extensive, demand for greater range emerged. A variety of solutions were put forth, including the first battery exchanges by an electric utility in Connecticut in 1910 and the first hybrid automobile in 1911. It would not be long until America led the world in number of EVs on the roads.

The rapid expansion of the country, and the limitation of electricity to major cities and towns, spelled the end of the electric car. The world wanted to be mobile, and EVs simply did not have the range required. Enter Henry Ford and the mass-produced, affordable internal combustion engine, and the EV's fate was sealed.

Fast-forward to modern times, and EVs are dominating the automotive news. Thanks to the electric cooperative movement, electricity is available everywhere in the U.S., the majority of roads are paved, and environmental concerns are increasing awareness.

While many of EV's drawbacks are gone, there is still a major concern limiting EV growth, dubbed "range anxiety." This stems from the persistent limited range of all EVs. While the Tesla offering provides 270 miles for its all-wheel drive model and 355 miles on standard models, that pales in comparison to most internal combustion cars. And, the lack of a rapid charging infrastructure is an ongoing impediment. Just like their 20th century predecessors, pure EVs are great "city cars."

Fortunately, advances in battery technology are hammering away at the range issue. Range is steadily expanding and battery management systems are squeezing out more miles. At the same time, more companies and utilities are installing efficient charging stations at their places of business and in popular public locations.

Range anxiety notwithstanding, EVs have a bright future. Prices are dropping and range is expanding, so owners can confidently drive nearly everywhere with a little bit of planning. On top of this, the cars are just plain cool. The Tesla Model 3 promises a minimalist interior with all the necessary controls and information presented on a large touchscreen in the center of the console as opposed to using the traditional instrument cluster.

Further, if you've never driven an electric vehicle, you are in for a treat. While an internal combustion engine must rev up to speed, an EV has full power at its disposal instantly. Of course, there are limits on this 0-60 mph capability to prevent inexperienced and overeager drivers from launching themselves into accidents and speeding tickets. They are quiet, well-appointed inside and allow you to forever bypass the lines at the gas station — unless you are in need of some snacks and a slushy.

One final word. If you do purchase an EV, be sure to let your electric cooperative know. The service to your home is sized to meet the demands of your house as it existed when service was connected. Adding the EV charger creates a risk of overloading the wires and transformers powering your home. Overloaded services can fail and leave you in the dark with an uncharged electric vehicle.

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Meet Your Co-op!





Kelby Maestas joined the SLVREC and Ciello customer service team in April of this year. He came to us from Del Norte Bank, a position he had held since graduating from Adams State University. Kelby graduated from ASU with a Bachelor of Science in Finance; the banking world seemed like the perfect fit. This has been very advantageous to us here at REC also.

Kelby decided that being part of REC and Ciello would mean serving a larger base of the Valley, and he relished the opportunity to reach out to the communities. He has found his time here to be both enjoyable and challenging.

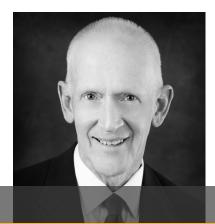
Great customer experience and one-stop shopping for members and customers are Kelby's main goals in his position. We are certainly glad to have him on our team!

The Kiwanis Club of South Fork is planning their 16th Annual Free Valley-wide Community Thanksgiving Dinner.

They always have a clothes/toy/food drive so please start digging around your closets/pantries and kids' rooms for any items that you don't use anymore to bring to the dinner!

The dinner will be November 23, 2017 from 11 a.m. - 2 p.m. Questions or to volunteer to help, call Karen at 719-873-5466





LOREN HOWARD

Energy Vampires

Perhaps you are familiar with an undesirable aspect of the electronic and IOT (Internet of Things) revolution: vampire loads. Vampire loads come from devices that use electricity even when they appear to be off. The primary culprits are chargers, set-top television boxes (often known as a cable box), instant-on televisions and gaming systems. There are others, but these four represent the major offenders.

Let's look at how these vampire loads occur and why they are approaching 10 percent of average household electric use according to the Environmental Protection Agency.

Chargers take the 120 VAC (volts alternating current) power at the outlet and reduce it down to the voltage required by the connected device, usually 5 to 12 VDC (volts direct current). Obviously, when your device is charging, the charger is using electricity, but you might be surprised to learn that chargers are still using small amounts of energy even when they're not connected to a device.

Television set-top boxes also consume energy when they appear to be inactive. Anytime the set-top box's lights are on, it is using power. Like chargers, they use more when the television is on, but they are always working — even when the TV is off. This is especially true for those devices with a DVR function that records your favorite TV shows.

The instant-on television is another culprit. The intention of the "instant-on" feature is instant gratification for the viewer, meaning no waiting for the TV to turn on and warm up. Unfortunately, for that convenience, the TV must be on at nearly full power. So, in this mode, it can be a real energy drain. The typical gaming console can use as much energy as a regular refrigerator even when it's not being used. Make sure to check the console settings and disable automatic updates, which is where the energy drain comes from. Games on the console are frequently updated, which requires a lot of electricity.

Fortunately, there are remedies. You just need to change how you handle these energy-sucking electronics. Here are a few suggestions

- Unplug chargers when not in use.
- Invest in smart power strips. These look like normal power strips but have a twist; one of the outlets is the "master" that receives power all the time. The others are off. When the device connected to the master outlet turns on, the rest of the outlets receive power too. Ingenious and perfect for entertainment set-ups. Have the television in the master outlet and when you turn it on, the set-top box, speakers, streaming devices, etc. will turn on too. They are also ideal for PCs and their peripherals.
- Turn off your TVs instant-on function. Turn off set-top boxes that do not contain the DVR functionality or use a smart power strip.
- Disable automatic updates in gaming consoles and turn the console completely off when you finish using it.
- When replacing any device or appliance, look for an Energy Star rated product.

Vampire loads are a real problem that will only continue to grow as the digital age advances. But you can fight the vampires with vigilance and application of the above recommendations.

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SAFETY FIRST

WHAT TO DO: IF YOUR CAR **CRASHES INTO** A UTILITY POLE

Accidents happen. Would you know what to do if your car crashed into an electric utility pole? Knowing what to do could be the difference between life and death

Always consider power lines and other electrical equipment to be live and dangerous!

40 ft

IF A POWER LINE FALLS ON YOUR VEHICLE AND THERE IS NO FIRE:

Your safest option is to stay inside your vehicle until help arrives. The vehicle acts as a path for the electrical current to travel to reach the ground. You are safe inside the vehicle, but if you get out, you could be electrocuted.

Call 911 or your local electric utility for help.

IF A POWER LINE FALLS ON YOUR VEHICLE AND THERE IS A FIRE:

Only attempt to leave your vehicle if it is on fire.

To exit safely:

- Jump out of the vehicle, making sure NO part of your body or clothing touches the ground and vehicle at the same time.
- Land with both feet together and in small, shuffling steps, move at least 40 ft. away from the vehicle.

• The ground could be energized. Shuffling away with both feet together decreases the risk of electrical shock.

Call 911 or your local electric utility for help.

AUTUMN CROSSWORD PUZZLE

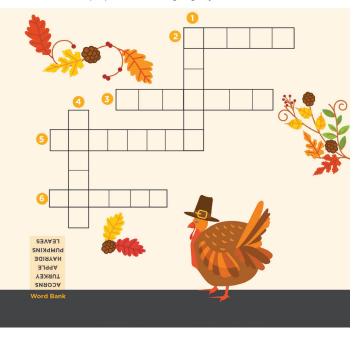
Autumn is finally here! Complete the crossword puzzle below by filling in the Autumn words that fit the clues. If you need help, use the word bank at the bottom of the page.

ACROSS

- 1. Fruit you bob for.
- 3. This is a fun outing that usually takes place in autumn and can be
- enjoyed from a wagon, truck or trailer as long as it's filled with hay
- 5. These are orange and can be carved to decorate your home during Halloween.
- 6. These change colors during autumn months.

DOWN

- 2. These fall from oak trees and squirrels love to collect them.
- 4. This is what most people eat on Thanksgiving Day.



:nera

Explorers

RECIPES OF THE MONTH

INGREDIENTS

1 onion 2 carrots 1 tomato 1 zucchini 4 garlic cloves 1 bunch lacinato kale 1 handful parsley 2 tablespoons olive oil A pinch dried chili flakes 10 sage leaves 15-ounce can cannellini beans (or 1¹/₂ cups cooked) 1 quart vegetable stock Kosher salt and fresh ground pepper Multigrain or wholegrain sourdough bread Parmesan cheese

Tuscan Vegetable Stew

Dice the onion, carrots, tomato, and zucchini. Mince the garlic cloves. Remove the stems from the kale, then roughly chop the leaves. Remove the leaves from the parsley.

In a large saucepan or pot, heat 2 tablespoons olive oil. Add the onion, garlic, carrots, chlli flakes, and sage; cook over low heat for 20 minutes until softened but not browned. Add the parsley, tomato, and zucchini; cook for a few minutes.

Add the kale and beans (drained if canned), and cover with vegetable stock. Bring to a boil, reduce the heat and simmer for 30 minutes. Season with kosher salt and fresh ground black pepper to taste.

Chop the bread into cubes. To serve, in separate bowls, arrange the bread cubes in the soup and add Parmesan cheese shavings and a drizzle of olive oil.

INGREDIENTS

- 1 pound fresh chorizo sausage, casings removed
- 2 1/4 cups all-purpose baking mix (such as Bisquick)
- 1 (8 oz.) pkg. pre-shredded extra-sharp Cheddar cheese
- 1/2 cup roasted sweet potato, mashed and chilled
- 1/8 teaspoon ground cinnamon
- 1/8 teaspoon kosher salt
- 6 tablespoons plum jam
- 2 tablespoons Dijon mustard

Sweet Potato and Chorizo Sausage Bites

Preheat oven to 350°F. Lightly grease a baking sheet.

Stir together sausage, baking mix, cheese, mashed sweet potato, cinnamon, and salt in a large bowl. Roll into 48 (1 1/2-inch) balls, and place about 1 inch apart on prepared baking sheet. Bake in preheated oven until sausage balls are cooked through and deep golden brown, about 20 minutes.

Stir together jam and mustard in a small bowl until well blended. (If your jelly is too stiff to blend, microwave mixture at HIGH in 15-second increments until soft enough to stir.) Serve with sausage balls.

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POWERING A VITAL VALLEY

P.O. Box 3625 Monte Vista, CO 81144

November 2017





SLVREC's office is open from 7 a.m. to 5 p.m. Monday through Thursday. The office is closed Friday through Sunday.

ENERGY ASSISTANCE 866-HEAT HELP (866-432-8435) www.energyoutreach.org

SCHEDULED MEETINGS

Board Meeting — November 28 @ 9:30 a.m. The REC Board of Directors meets the last Tuesday of each month unless otherwise stated. Members are welcome.

This institution is an equal opportunity employer.



