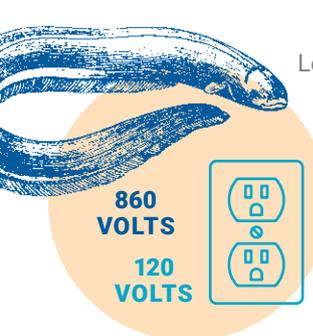


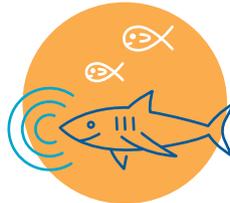
The Wild World of Electric Animals

Different types of animals all around the world use electricity in their daily lives. Eels, fish, and even land animals like us all rely on electric currents to move, communicate, get food, and defend themselves.

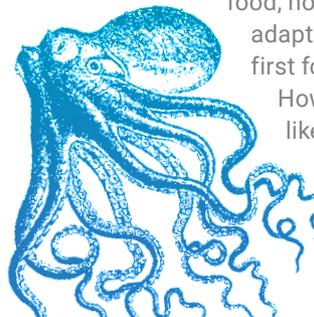


Let's start with the most familiar — **electric eels!** One of South America's most apex predators, this freshwater eel generates electric pulses up to 860 volts of power to stun its prey. Their bodies contain specialized electric organs called electrocytes that store power like a battery.

Sharks, on the other hand, are electroreceptive — detecting electric pulses rather than generating them. Muscle movements of fish emit electric currents that are detected by organs in the shark called Ampullae of Lorenzini. A fish thrashing in distress is quickly discovered by a shark!



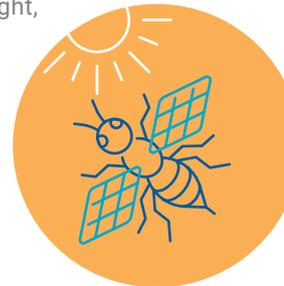
Octopus, cuttlefish, and squid all use electricity to blend in seamlessly with their surroundings and attract mates. Electric impulses from the brain and skin activate specialized cells called chromatophores which act as tiny water balloons filled with colored pigment — showing more colors as they expand. And they can put on quite the display!



Bumblebees use electricity to communicate with members of their hive. Their wings move so fast that when collecting pollen, they can change the electric charge around a flower. The message left, "I've already got the pollen from this flower, move on to the next one!"



How about a solar powered **hornet**?! The oriental hornet's skin pigments convert sunlight into energy! Some tissues in the hornet's exoskeleton trap light, while others generate electricity. They still get almost all of their energy from food, however this adaptation is a first for animals! How would you like built-in solar panels?



Hydropower Word Scramble

Did you know? We purchase 100% of the energy produced by the Robert V. Trout Hydropower Plant at Carter Lake. Two spinning turbines generate enough energy for 1,000 PVREA members.

READ THE FACTS ABOUT HYDROPOWER BELOW, THEN UNSCRAMBLE EACH BOLDDED WORD. CHECK YOUR WORK IN THE ANSWER KEY.

1. **YROHD** _____ means "water" in Greek.
2. Water flowing down a **EVRRI** _____ is used to spin large turbines that help make the hydroelectricity.
3. When the turbines spin, a large **TROAEGREN** _____ spins, which makes the electricity.
4. The amount of water used to generate hydropower is controlled through use of large **MDAS** _____.
5. Hydropower is a form of **ELNERAEWB** _____ energy.

Answer Key: 1. HYDRO 2. RIVER 3. GENERATOR 4. DAMS 5. RENEWABLE

Teacher Roll Call!

APPLY FOR OUR

EMPOWER GRANT PROGRAM

Teachers in Larimer, Weld or Boulder County can **earn up to \$2,000** for projects in their classroom!

Applications accepted
August 15–November 1, 2021

Program details and application requirements available at www.pvrea.coop/empower-grant-program



Scholarships for the 2022 school year are now available!

High school seniors who have been accepted for admission at any credited college, university, community college, or vocational school may apply. Applicants must be dependents of parents, or consumers themselves, who currently receive electric service from us. Deadlines for applications are February 2022.



As a cooperative, we have a focus on education. And as your local co-op, we are also here to enrich the lives of the communities we serve. As such we award these

scholarships to high school seniors who are furthering their education. These awards are part of our College Scholarship Fund, which is sponsored entirely through unclaimed member credits.

Apply today at www.pvrea.coop/scholarships

Educational Safety Demos

Safety is a cornerstone of who we are. We want to teach you, your kids, your friends, and your neighbors about electric safety. Because that's also our community, and we want to keep our community safe. We have two educational presentations that we bring to you.



POWER TOWN

This is a tabletop demonstration with live electricity, depicting how electricity is used and what can happen if you don't stay safe. It's great for classroom demonstrations of all ages.

HIGH VOLTAGE DEMONSTRATION

Here our own lineworkers bring a trailer display that has actual poles, transformers, and power lines to demonstrate how electricity works, how power outages happen, and how to stay safe. Great for larger crowds!



Reserve your spot today at
www.pvrea.coop/electrical-safety-demonstrations

Electrical Safety for College Students

There are more than 3,500 fires on college campuses every year. Help prevent fires by understanding electrical safety or by sharing these tips with your loved ones.

- Extension cords are only for temporary use. If you must use one, use it temporarily and unplug it when not in use.
- Use light bulbs with the correct wattage for lamps. But if no indication is on the fixture, use a bulb that is 60 watts or less.
- Discard or repair damaged electronics. It may be tempting to use an electronic with a frayed cord or damaged plug-in, but these can cause shock, electrocution or fires.
- Know what to do in case of a fire! Be aware of nearby fire extinguishers, escape routes, and meeting plans.

Safe Electricity has a great list of tips to share with your college student at www.safeelectricity.org/public-education/tips/campus-electrical-safety/

Pay As You Go

**Take control of your energy.
That's the power of prepay!**

Prepay for your electricity use ahead of time instead of waiting on your monthly bill. When your account runs low on funds, you simply put more money into your account. So you control how much money you spend.

THE BENEFITS:

- No deposit required
- Easier budgeting
- No late fees
- Timely information about electric usage
- No collection or reconnect fees

See if **Pay As You Go** fits your lifestyle at www.pvrea.coop/prepay



Go Paperless

**Receive your bill via email or text notification.
Follow these steps to sign up today!**

1. Log into your online account or PVREA App.
2. Navigate to 'My Profile' in the menu
3. Select 'My Information'
4. On the left-hand side of the page, select 'Update My Printed Bill Settings' tab
5. Here you can toggle your printed bill status to 'Off'



AUGUST 2021

ENERGY EFFICIENCY TIP OF THE MONTH



WHEN SHOPPING FOR NEW LIGHTBULBS, KNOW THE DIFFERENCE BETWEEN LUMENS AND WATTS.

Lumens measure the amount of light produced by the bulb. Watts measure energy consumption. Energy-saving LEDs come in a variety of colors and brightness levels and last 15-25 times longer than incandescent bulbs.

Source: energy.gov