JANUARY 2024

ENERSTAR ELECTRIC CO-OP HOME PAGE

NEWSLETTER FOR CO-OP MEMBERS OF ENER TAR ELECTRO COOPERATIVE

INSIDE

18B

Beginners guide to grid

18C

Thinking about renewables

18D

Planned outage notification call list



A Touchstone Energy® Cooperative 😥

11597 Illinois Highway 1 Paris, IL 61944 800-635-4145 Monday through Friday 7:30 a.m. to 4:30 p.m.

Youth to Washington APPLY TODAY TO REPRESENT ENERSTAR IN D.C.

For more than 50 years, the electric cooperatives of Illinois have given tomorrow's leaders the opportunity to learn from today's public officials, and EnerStar is on the hunt for two outstanding students to represent our co-op at Youth Tour this year. EnerStar's Youth Tour is actually two separate events: Youth Day in Springfield and the Youth to Washington trip.

YOUTH DAY IN SPRINGFIELD – MARCH 20, 2024

Each year, nearly 300 outstanding students get an up-close, first-hand look at democracy in action when they meet their elected representatives during Illinois Electric Cooperatives Youth Day.



YOUTH TO WASHINGTON – JUNE 14-21, 2024

Those individuals selected will also travel by charter bus for an all-expense, week-long tour of Washington, D.C where they will create lasting memories and visit all the Washington must-see sites including Gettysburg, George Washington's Mt Vernon, Smithsonian museums, Arlington Cemetery, and much more!



HOW TO APPLY

Applicants should be high school freshmen, sophomores or juniors during the 2023-2024 school year. In addition, the students must reside in the EnerStar service territory and receive their electricity from EnerStar.

Visit www.enerstar.com to find the application in the Community Section. Applications are due Jan. 31, 2024. Good luck!

Beginner's guide to the electric grid

Electricity plays an essential role in everyday life. It powers our homes, offices, hospitals, and schools. We depend on it to keep us warm in the winter (and cool in the summer), charge our phones, and binge our favorite TV shows. If the power goes out, even briefly, our lives can be disrupted.

The system that delivers your electricity is often described as the most complex machine in the world, and it's known as the electric grid.

What makes it so complex? We all use different amounts of electricity throughout the day, so the supply and demand for electricity is constantly changing. For example, we typically use more electricity in the mornings when we're starting our day, and in the evenings when we're cooking dinner and using appliances. Severe weather and other factors also impact how much electricity we need.

The challenge for electric providers is to plan for, produce, and purchase enough electricity so it's available exactly when we need it. Too much or too little electricity in one place can cause problems. So, to make sure the whole system stays balanced, the electric grid must adjust in real-time to changes and unforeseen events.

At its core, the electric grid is a network of power lines, transformers, substations, and other infrastructure that span the entire country. But it's not just a singular system. It's divided into three major interconnected grids: the Eastern Interconnection, the Western Interconnection, and the Electric Reliability Council of Texas. These grids operate independently but are linked to transfer electricity between regions when backup support is required.

Within the three regions, seven balancing authorities known as independent system operators (ISOs) or regional transmission organizations (RTOs) monitor the grid, signaling to power plants when more electricity is needed to maintain a balanced electrical flow. ISOs and RTOs are like traffic controllers for electricity.

The journey of electricity begins at power plants

Power plants can be thought of as factories that make electricity using various energy sources, like natural gas, solar, wind, and nuclear energy. Across the U.S., more than 11,000 power plants deliver electricity to the grid.

EnerStar receives wholesale power from our generation and transmission (G&T) co-op, Wabash Valley Power Alliance. We work closely with Wabash to provide electricity at the lowest cost possible. Being part of a G&T benefits members like you by placing ownership and control in the hands of your co-op, prioritizing affordability and reliability, supporting local economic development, and fostering a sense of community.

We need a transportation system to get the electricity from power plants to you

High-voltage transmission lines act as the highways for electricity, transporting power over long distances. These lines are supported by massive towers and travel through vast landscapes, connecting power plants to electric substations.

Substations are like pit stops along the highway, where the voltage of electricity is adjusted. They play a crucial role in managing power flow and ensuring electricity is safe for homes and businesses.

Once the electricity is reduced to the proper voltage, it travels through EnerStar's distribution power lines, like the ones you typically see on the side of the road. Distribution lines carry electricity from substations to homes, schools, and businesses. Distribution transformers, which look like metal buckets on the tops of power poles or large green boxes on the ground, further reduce the voltage to levels suitable for household appliances and electronic devices.

After traveling through transformers, electricity reaches you--to power everyday life

We're proud to be your local, trusted energy provider. From when it's created to when it's used, electricity travels great distances to be available at the flip of a switch. That's what makes the electric grid our nation's most complex machine– and one of our nation's greatest achievements.

HOW ELECTRICITY GETS TO YOU



step 1 Generation Electricity is generated from various sources.

step 2 Step-Up Transformer Voltage is increased to push the electricity over long distances.

Transmission Power Lines

Lines carry electricity over

Transmission Substation

Voltage is lowered so electricity

can travel across the local system.

long distances.

step 4



EnerStar Steps In Voltage is lowered further for safe distribution.



Distribution Power Lines Electricity travels across these lines in your community.

step 7







Member-owned renewable energy systems

Due to state financial incentives, solar energy is becoming a popular choice for homeowners in Illinois. But before deciding, gathering all the necessary information is essential. EnerStar is here to guide you through the process of adding solar to your home. As your trusted energy advisor, we offer unbiased and professional information for free.

Choosing a reputable solar vendor is crucial. Ask for references and verify their credibility. Unfortunately, not every vendor has your best interests at heart. Some may only be interested in making a sale and not provide you with all the relevant information.

Contact your accountant or do your own research to verify your eligibility for federal tax rebates. Also, speak with your insurance agent to confirm that you have adequate coverage on your homeowner's insurance.

During your discussion with EnerStar, we will review several essential topics for you to know. These topics include specific engineering requirements to verify your solar array is safely connected to our electric grid and proper solar array sizing to fit your home's energy profile.

Understanding your energy production and how that affects your monthly electric bill is also important. Your home will first consume the energy you generate. At times, you will overproduce energy, more than your home can consume. Excess generation is pushed back onto the grid, resulting in a per kilowatt credit on your electric bill, assuming you do not have battery storage. At times, say at night, you will underproduce and need more electricity to power your home – that electricity you purchase from the cooperative just like you do now.

Since your array is connected to the EnerStar grid, your monthly electric bill will still include a Grid Access Fee. This fee covers the cost and maintenance of the electric equipment at your service location.

We can verify that the vendor's assumptions about future electricity costs are reasonable. EnerStar's rates have been relatively stable for many years. Overinflating future energy costs can significantly impact the potential payback of the system, making it appear sooner than actual.

You can find most of this information on our website, with fact sheets and videos. We encourage those considering solar to call our office at 800-635-4145 to discuss further before making any financial commitments.

Our commitment to renewables

EnerStar and its wholesale power supplier, Wabash Valley Power, have a track record of smartly incorporating renewable energy into their power mix portfolio. The point of this article is to emphasize the value that EnerStar can provide as your trusted energy advisor as you consider solar energy.

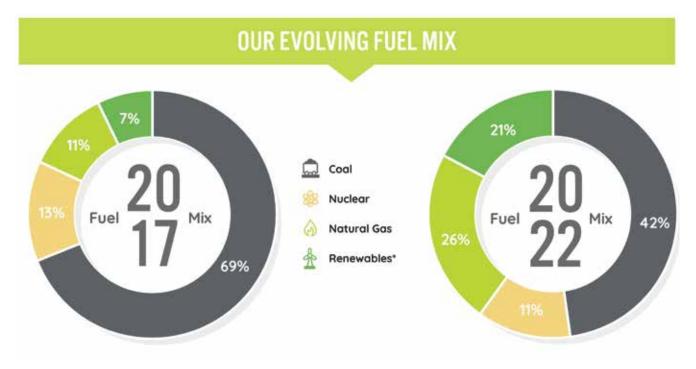
Sign up with SmartHub! And get updates on outages!



Visit www.enerstar.com or download our free, secure mobile app!

HOLIDAY OFFICE CLOSING DEC. 29 & JAN. 1





Over the years, Wabash Valley Power, EnerStar's wholesale power provider, has had an evolving power fuel mix with an increase in clean, renewable energy. As early as 2002, Wabash began investing in landfill gas generation and now, with 15 plants and 55.2 MW of baseload capacity, leads the Midwest in landfill gas ownership. Assets and purchased power agreements include significant wind and solar energy.

Planned outage notification call list

If you depend on life support equipment, contact EnerStar

EnerStar does its best to keep the power on 24 hours a day, 7 days a week, and 365 days a year. Yet despite our best efforts, outages do occur. For most members, this is an inconvenience, but for those who depend on electricity to power life support equipment, an outage can present a real challenge. To protect yourself, be prepared by installing

a generator or having some other form of backup plan.

While most outages are weather-related, a few are planned in advance for maintenance and construction purposes. In instances of a planned outage,

EnerStar maintains a Planned Outage Call List for those members with a verified medical necessity. These members receive notification in the event of a scheduled power outage.

If you or a relative depend on electrically powered life support equipment and would like to be put on the call list for medical reasons, it is necessary for the member's doctor to send a letter to EnerStar

> indicating the need for electrically operated life support. The letter should include information regarding the person needing life support equipment, the type of equipment, and location information. It is the member's respon-

sibility to keep all contact information updated with EnerStar. If your business depends on uninterrupted power supply, the use of an electric generator is highly recommended, and computers should have some sort of a battery back-up system.

It is important to stress that by being placed on the planned outage call list, **EnerStar is in no way guaranteeing uninterrupted power supply.** Members must make personal arrangements for both unplanned and planned outages.

To apply for the Planned Outage Call List, send an email to EnerStar's Kayla Foos at kfoos@enerstar.com or call her at (800) 635-4145, extension 112.

