



West Central Electric Cooperative's

Youth Tour & CYCLE

2023!

Essay Contest
Information Packet

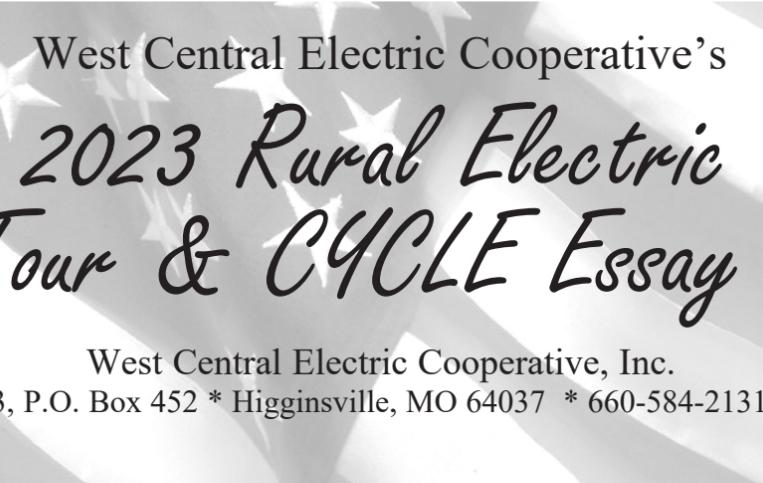
2022 Rural Electric Youth Tour sponsored by:



West Central Electric
Cooperative, Inc.
Higginsville, MO 64037
A Touchstone Energy Cooperative







West Central Electric Cooperative's
*2023 Rural Electric
Youth Tour & CYCLE Essay Contest*

West Central Electric Cooperative, Inc.
7867 S. Highway 13, P.O. Box 452 * Higginsville, MO 64037 * 660-584-2131 or 1-800-491-3803

Dear Student,

Thank you for your interest in the 2023 Rural Electric Youth Tour and CYCLE essay contest and the trips to Washington, D.C and Jefferson City.

This packet contains a list of contest details, and various sections of information which should help you write a winning essay. Information is also available from several web sites, addresses for which you will find on the Contest Details sheet, or on the WCE website at www.westcentralelectric.coop. There are also links to various cooperative organizations such as Associated Electric Cooperative, Inc. (AECI), The Association of Missouri Electric Cooperatives (AMEC), the National Rural Electric Cooperative Association (NRECA), Touchstone Energy, etc.

The essay topic is listed on the Contest Details sheet. **Please follow the directions listed on the Contest Details sheet carefully.**

The top 8-10 finalists (number of finalists depends on the number of entries received) on the written portion of the competition will present their essays during an oral competition in Higginsville on **Wednesday, April 12, 2023**. Following the oral competition, we will name three or four winners (depending on the number of essays received) who will receive the all-expense-paid trips to the Rural Electric Youth Tour to Washington, D.C. This year's **Youth Tour trip is June 12-18, 2023**. The five runners-up will receive an all-expense paid trip to the Cooperative Youth Conference and Leadership Experience (**CYCLE**), **a leadership conference in Jefferson City scheduled for July 19-21, 2023**.

Again, thank you for your interest in the Rural Electric Youth Tour and CYCLE. Good luck writing your essay, and we hope to see you in Higginsville on **April 12, 2023** for the oral competition and reception!

Sincerely,

Heather Hoflander, Communications Specialist
Youth Tour Coordinator

West Central Electric Cooperative's
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Contest Details

The Topic: Students will write an essay on the following topic, taking it in any direction they desire:
"Electric cooperatives -- demonstrating responsibility to their members"

As a member-owned electric cooperative, we operate on the belief that we have a responsibility to our members – a responsibility to provide safe, reliable and affordable electricity; to support our local communities and to always look out for our members' best interests. Your essay should discuss ways electric cooperatives show responsibility to their members.

Examples:

- ♦Describe how the electric cooperatives balance their responsibility to provide our members with affordable and reliable power with their responsibility to take care of the environment.
- ♦Describe cooperatives' diverse power portfolio and how we are always on the lookout for how laws and regulations might negatively affect members' electric rates;
- ♦Talk about how WCE demonstrates responsibility to their members and local communities through programs such as Operation Round Up, electrical safety programs, teacher education programs like Energy in Today's Classroom, etc.

Assignment: Contestants should submit a 600-word, typed, creative essay on the above topic. On a separate cover sheet, include the following information: Your name and address, telephone number, parents' names, school, teacher's name and title of your essay. Also include the title at the TOP OF PAGE ONE of your essay. DO NOT PUT YOUR NAME ON ANY PART OF THE ESSAY -- COVER SHEET ONLY

Resources: This packet contains research material which should provide you with the needed resources to write your essay. However, feel free to add other sources for your essay if you wish. You are also welcome to interview someone, or use any other additional sources you find helpful. Please include them at the end of the essay in a bibliography or works cited page. Some websites which you may find helpful:

- ♦National Rural Electric Cooperative Association (www.nreca.org)
- ♦Associated Electric Cooperative, Inc. (www.aeci.org)
- ♦West Central Electric Co-op (www.westcentralelectric.coop)
- ♦Members First (www.membersfirst.coop)

**These websites are GREAT places for information that directly relate to the topic!*

Mail essays to: Heather Hoflander, Youth Tour Coordinator
West Central Electric Cooperative, Inc.
P.O. Box 452
Higginsville, MO 64037
(Please coordinate this with your teacher so he or she can mail all of your school's essays together if there are several entries.)

Entry Deadline: Essays must be received in the Higginsville office no later than 4:30 p.m. Friday, February 10, 2023.

**How essays
will be scored:**

There are 100 points possible based on five areas:

- | | |
|---|---------------------------------|
| 1. Knowledge of subject | 4. Composition |
| 2. Originality | 5. Grammar, spelling & neatness |
| 3. Content (ability to adhere to topic) | |

Essays will be blind-judged. (Before being sent to the judges, your cover page will be omitted so judges will not know who the writer is, what school the writer attends, etc.) Essays will be judged by other Youth Tour coordinators from around the state. *Please note that essays which do not adhere to the assigned topics will be disqualified and will not be sent to the written judges.

**How do I
become a finalist?**

After all essays are turned in, they will be given to three written judges who will read and judge each essay. After each judge assigns each essay a score, the three scores will be combined for a final written score. The top eight (or more depending on number of essays received) final written scores will comprise the list of finalists. Each finalist will then be invited to present their essay before another panel of three oral judges at **7 p.m. Wed., April 12, 2023** at West Central Electric's main office in Higginsville. Family members, teachers and principals will be invited to attend the evening's event, along with members of West Central's board of directors, staff and other invited guests.

**How the
oral judges
score finalists:**

There are 100 points possible from three oral judges. Scores are based on five areas:

- | | |
|---|-------------------------|
| 1. Speaking ability | 4. Originality |
| 2. Knowledge of subject | 5. Presentation of self |
| 3. Content (ability to adhere to topic) | |

**Who are the
oral judges?**

Oral judges are selected from the employee pools of other electric cooperatives or from area communities. Oral judges may include other Youth Tour coordinators at neighboring cooperatives, or community members experienced in public speaking.

**How the
winners are
chosen:**

Each finalist's combined written score will be added to each of the three oral judges' scores for a final contest score. The winners will be announced that evening as West Central's delegates and the winners of the trip to Washington, D.C. **June 12-18, 2023.** **We will send at least three delegates to D.C. with a potential of five, depending on the number of essays received.*

**Five finalists
will win a
trip to CYCLE:**

Five students will also be named winners of a trip to Jefferson City for the cooperative-sponsored "Cooperative Youth Conference and Leadership Experience" (C.Y.C.L.E.), a 3-day leadership conference is scheduled for **July 19-21, 2023.**

"If you are selected as a finalist, you are expected to attend whichever trip you win. If you know that you will not be able to attend the D.C trip, please let us know ASAP, as we can swap places among the winners if necessary. If you are chosen as a finalist and know you will not be able to attend either trip, please notify us immediately so we can give the next person in line your place in the finals and a chance at a trip to D.C. Please don't cheat someone else (maybe one of your classmates!) out of the experience!"

**Do I have to be
in an organized
high school class
to enter?**

No. You may enter this contest on your own by following the procedures on this sheet. There have been several independent entries (including home school students) over the years who have made the finals and won the trips to Washington, D.C. and Jefferson City.



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Please provide us with the following information to be used if you are selected as a finalist. This information will be used for the finalist reception program, to introduce you if you are selected as a finalist, and for a news release if you are selected as a finalist. THIS INFORMATION SHEET MUST ACCOMPANY YOUR ESSAY.

Name:

Age:

Parents:

Address:

Email address (that you WILL CHECK on a regular basis):

BEST Telephone number to reach you:

School:

Teacher:

School activities in which you participate:

West Central Electric Cooperative, Inc.
MEDIA RELEASE FORM

I understand that through my participation in the West Central Electric Cooperative Rural Electric Youth Tour competition, my name, image and information provided by me to the cooperative may be used in various forms of media (print, video, web, etc.) while reporting and promoting information about the Youth Tour competition.

I hereby consent and authorize the use of my image and information by West Central Electric Cooperative, Inc. and anyone authorized by West Central Electric Cooperative.

Signature: _____

Printed Name: _____

Address: _____

Phone Number: _____

Signature of parent or guardian (if minor): _____

**Please include this form with your essay entry.*

Rural Electric Youth Tour Scoring

Written Essay (100 points possible)

Knowledge of Subject **30 points**

(Demonstrates a basic understanding of the Rural Electric program as it relates to his or her chosen topic.)

Originality **30 points**

(Essay shows thought beyond the facts given in the resource packet, not just a regurgitation of the materials provided.)

Content (ability to adhere to topic) **20 points**

(Essay clearly elaborates on the topic chosen with facts to back up the writer's opinions.)

Composition **10 points**

(Essay is composed in an organized format, flows well, and has good transitions.)

Grammar, Spelling and Neatness **10 points**

(Words, sentences and paragraphs follow the standard rules of grammar; words are spelled correctly, and essay is typed or computer-generated without messy corrections.)

Oral Presentation (100 points possible)

Speaking Ability **30 points**

(Student is able to speak clearly, has eye contact and expression, speaks rather than recites.)

Knowledge of Subject **20 points**

(Demonstrates a basic understanding of the Rural Electric program as it relates to the chosen topic.)

Content (ability to adhere to topic) **20 points**

(Essay clearly elaborates on the topic chosen with facts to back up the writer's opinions.)

Originality **20 points**

(Essay shows thought beyond the regurgitation of facts from sources provided.)

Presentation of self **10 points**

(Neat appearance, demonstrates a positive attitude and poise, seems excited to be a part of the contest, and exhibits a strong desire to be chosen as a delegate for the Rural Electric Youth Tour.)

Explaining Cooperatives

What is a cooperative?

Electric cooperatives are locally-owned and operated businesses committed to putting their consumers first, and being responsive to local needs. With the help of Franklin D. Roosevelt, who established the Rural Electrification Administration in 1935, friends and neighbors banded together to create a new kind of electric utility, where the voice of every person made a difference. Electric cooperatives brought electric power to the rural areas when no one else would. Today, America's electric cooperatives provide much more than competitively-priced, reliable energy. They are committed to improving the quality of life in their communities.

Who is West Central Electric Cooperative?

A member-owned nonprofit cooperative, West Central Electric Cooperative was formed in 1939 to bring electricity to rural west central Missouri. Rural Missourians began the co-op when existing utilities believed that energizing the countryside wasn't a profitable venture. There are 40 rural electric cooperatives in the state of Missouri. WCE now provides power to more than 13,800 meters through nearly 2,600 miles of line in five counties, including Lafayette, Johnson, Eastern Jackson and a small part of Cass and Pettis counties. The company's headquarters is located in Higginsville, Missouri, with a branch office in Oak Grove.

West Central Electric operates as a cooperative system which is regulated by a set of bylaws. This means that when someone signs up for service, they become a member, and therefore a part owner of the cooperative. A board of directors is elected from among the members, and the board meets monthly to make decisions concerning the cooperative's business. Members of the cooperative have an equal vote on all amendments, bylaws and directors.

What are Capital Credits?

As a member of West Central Electric Cooperative, this is your business. While other electric consumers are paying some huge corporation for their electricity, WCE members are basically paying themselves for their own electricity.

After operating expenses for the co-op are met each year, any funds (profits) that remain are assigned to the members in the form of capital credit allocations which are your share of the amount paid for actual electric service, based on the cost of your electricity for the year. Capital Credits are the cooperative's equity. They make it possible to secure loans and maintain facilities and services. When the equity level is high enough, the board of directors authorizes the disbursement of capital credits.

As of Dec. 2015, West Central Electric has repaid more than \$25 million in capital credits to its members!

What else do Electric Cooperatives do?

Obviously the number-one goal of a rural electric cooperative is to provide safe, reliable and affordable electricity to our members. But that is just one of the ways electric cooperatives work for their member-owners.

Safety Programs--We offer several safety programs and demonstrations appropriate for all ages from preschool children to adults at schools, businesses, area 4-H meetings, businesses and community groups.

Rural Electric Youth Tour -- Each year, West Central Electric sends delegates to Washington, D.C. for the National Rural Electric Youth Tour.

Scholarship Programs -- West Central offers three scholarship programs to students in our service area.

Energy Efficiency/Rebate Programs -- West Central Electric offers rebates to members who install energy-efficient appliances and provides its members with information on using electricity efficiently and easy steps they can take to reduce their energy consumption and therefore save money on their electric bills.

Commitment to Local Communities -- One of the core values of Touchstone Energy Cooperatives is a commitment to their local communities. WCE donates both time and money to various community events and organizations. One of the cooperative's biggest areas of interest is area 4-H and FFA. The cooperative helps sponsor county 4-H and FFA fairs, and cooperative employees donate time to judge at area fairs, serve as 4-H project leaders and judge at area and district speech contests. The cooperative is also a sponsor of various school and community events throughout its service area, and co-op employees also serve on many different boards and leadership teams from chambers of commerce to economic development boards to coordinators of programs like CHOICES.

Balance is Key to Future Success

Associated Electric's focus on member-owners' priorities remains clear

In an unpredictable year for energy companies, the leadership at Associated Electric Cooperative continues to focus on reliable and affordable electricity for its six transmission owners, their 51 local distribution cooperatives and the 2.1 million people who receive electricity from the three-tiered system.

Associated was created by members in 1961 to ensure member control of electric supply. Throughout its history, the goals of Associated and its member-owners haven't changed.

"Our mission, to provide economical and reliable power supply, has served us well throughout decades of change in the power generation industry," says John Killgore, a board member for United Electric Cooperative and vice-president of Associated's board of directors. "We never forget that focus."

Climate change proposals won't change member focus

Evaluating federal climate change proposals to reduce or eliminate carbon is among Associated's top priorities as the Biden administration seeks to quickly and fundamentally change how energy companies generate electricity. The current administration's goals propose to reduce carbon from electric generation 50% by 2030 and envision net zero carbon by 2035.

As our nation continues to debate, one thing is clear: Associated's member-led board of directors and staff believe in putting members and their needs first.

Rush to renewables creates concerns

"As a member-owned and governed wholesale power generation cooperative, we are alarmed by a rush to renewables without technologies available today to ensure reliable power at affordable prices," said David Tudor, Associated Electric's CEO and general manager. "Member-owners clearly prioritize reliability and affordability in the electricity they depend on. We cannot sacrifice reliable electric supply or affordable rates."

Associated's generation sources have evolved through the years. The primary way Associated preserves reliability and affordability for members is with a balance of generation sources. By maintaining a diverse mix — coal, natural gas, wind and hydropower — the cooperative has options to ensure reliable power at a competitive cost.

Member reliability is not for sale

Aggressive climate change proposals from Washington, D.C., challenge Associated's balanced strategy.

"Today, there are attempts to get energy companies like ours to take a deal for money and agree voluntarily to close fossil fuel plants and replace them with renewables," Tudor said. "We don't see that as a path that preserves reliability, so we cannot support that approach. Our members' reliability is not for sale."

Tudor points out that since 2005, Associated's carbon emissions have been reduced more than 33%. "We take generating electricity in responsible ways seriously. Safeguarding the environment is not a recent development for us. Reliability and affordability co-exist with responsible generation at our cooperative and have for a long time."

A key part of Associated's member-focused power strategy includes significant wind energy and hydropower as part of its generation mix. In 2020, Associated added generation from two more wind farms, bringing its total to eight farms and 1,240 megawatts of energy. Those additions continued a legacy of leadership: the power generation cooperative brought the first utility-scale wind power to the region with wind farms starting in 2007. Hydropower from lakes and dams provide another 478 megawatts of renewable power.

"We value the land, air and water we and everyone in our cooperative network depends on. That's why our power generation always considers how best to generate reliable and affordable power in a way that preserves our natural environment," Killgore says.

Technology, transmission and time key to transition

The **technology** does not exist today to replace all fossil fuel plants with renewable generation and battery storage. Reliability will suffer and prices will go up. While adding large volumes of generation like wind and solar, which are not constant, to replace 24/7/365 generation like coal and natural gas may sound good, adding too much too quickly will have reliability consequences.

The current **transmission** system has been designed and used for years to manage member energy load, not for a future where energy from intermittent sources like renewables displaces consistent electricity from coal and gas.

"Trying to force climate-change initiatives by 2030 or 2035 will not work. In fact, that's a reckless approach. **Time** is needed to thoroughly think through realistic options," Tudor said. "I'm concerned when all the attention is on quickly eliminating coal and natural gas power plants, with no technological solution for their replacement."

The historic 2021 winter storm, when our three-tiered system kept the lights on while many other utilities were forced into blackouts, serves as an important reminder and demonstrates the value of a balanced electric generation strategy for member-owners and the nation.

"We will continue to make sure our members' needs come first. It's a time-tested and proven strategy that has resulted in real benefits," Killgore said.

Protecting our natural resources

Generating Electricity Responsibly

An old saying states that people who live and work in rural America are the original environmentalists. After all, communities so connected to the land, air and water for their well-being are naturally tuned to safeguard them today and for future generations. When it comes to power generation for member-consumers, Associated Electric Cooperative reflects the values of the people who receive its electricity.

Power generated the right way

Balancing reliable and affordable electricity with environmental responsibility is a long-standing commitment that Associated Electric makes to those receiving its electricity. By adding significant amounts of wind power to diversify generating sources, investing in environmental controls and staying up to date with regulations and technologies, Associated continues to comply with environmental regulations at an affordable cost for members. This requires teamwork throughout the generation cooperative.

Significant investments make the difference

Our land, water and air quality are important to all of us, and we back up our words with our actions. Our power supplier, Associated Electric Cooperative, along with you and all other member-owners have invested more than \$1 billion since 1994 to improve air quality and care for our land and water resources. We spend more than \$45 million a year on environmental control measures to enhance the quality of our air.

A legacy of environmental excellence

Associated Electric received the U.S. Department of Interior's highest honor for its innovative, successful reclamation that improved water quality and transformed 1,000 acres that previously served as a coal mine into productive pasture, wetlands and forest. Today, the land features ponds that provide fishing and wildlife habitat, woodlands that provide shelter for many species, land leased to neighboring farmers for pasture, soil and crop research and planted habitat for Monarchs and other pollinators.

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The environmental modifications we've made to reduce emissions at our coal plants meet or exceed regulatory requirements. Associated was one of the first utilities to convert to 100 percent low-sulfur coal, reducing sulfur dioxide emissions 90 percent in 1994. We were one of the first to install selective catalytic reduction equipment to reduce nitrogen oxides emissions. Along with our investments in environmental controls, Associated has led the way with proactive research into lower-cost, effective technologies for protecting air, land and water quality.

But it's not just about coal. Hydropower has been part of our power mix since the beginning. We have long-term wind energy purchase agreements in Missouri, Kansas and Oklahoma.

Wind power diversifies generation sources

Associated was the first utility provider in Missouri of large-scale wind power and remains a leader. Already receiving power from seven wind farms, an eighth wind farm later this year means Associated will have 1,240 megawatts of wind power delivered from 626 wind turbines across three states. Locking in long-term, fixed-cost wind power helps Associated diversify its generation sources for years to come.

However, since wind cannot be counted on to blow whenever you need power, we must rely on fuel-based power to supply your on-demand electricity. That is why we have added more natural gas to our portfolio of energy.

By having a diverse set of resources, we can provide a balance of clean, affordable and reliable electricity to you, our member.

Electric cooperatives comply with net metering laws

While large utility-sized solar installations have yet to make sense for Associated, about 30 megawatts of solar power is being produced by member-consumers connected to Associated's member systems. Net metering laws mandate the process for local cooperatives to purchase any excess energy produced by the solar systems located at the homes and businesses of member-consumers.

Whether the challenge is managing generation sources or making investments to ensure land, air and water are protected, Associated Electric takes its responsibilities seriously. Members wouldn't have it any other way.

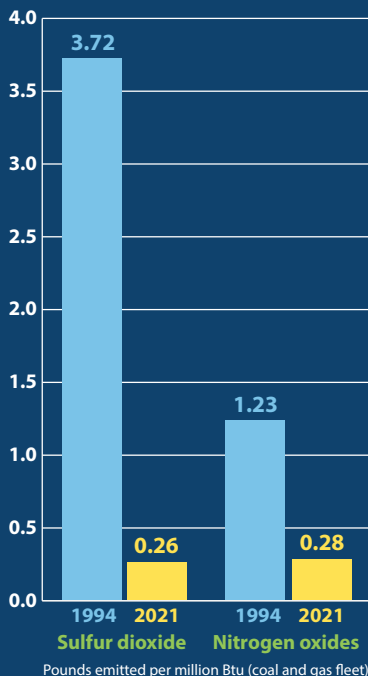
BALANCE

Reliable • Affordable • Responsible

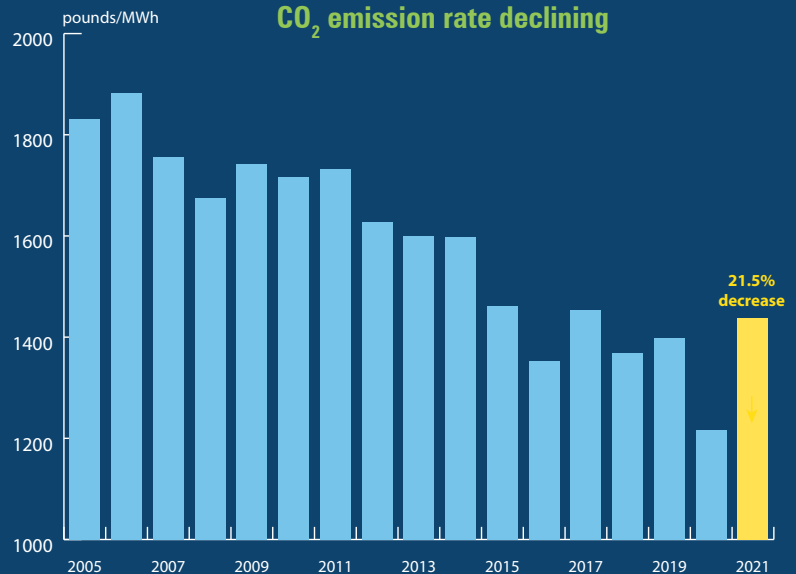
RESPONSIBLE

- Nationally recognized for mine reclamation.
- A leader in wind energy with 1,240 MW of capacity.
- Researching low-cost, effective methods for improving air quality.
- Reduced mercury emissions voluntarily years before new rule went into effect.
- Invested more than \$1.1 billion since 1994 to improve air quality.

Improving air quality



CO₂ emission rate declining



AFFORDABLE

- Member co-ops on average pay less for wholesale power than nonmember co-ops in eight surrounding states.
- Nationally, Associated is 3rd lowest among 53 G&Ts reporting member revenue per megawatt-hour, a measure of what member systems pay for power.

RELIABLE

- Ranked among the best by members for reliable electricity and customer service.
- Using a mix of resources – coal, natural gas, wind, hydropower and energy efficiency – to ensure reliable, responsible and flexible power supply.
- Investing in high-voltage transmission facilities.

Associated Electric Cooperative is owned by and generates wholesale power for six regional and 51 local electric cooperatives in Missouri, southeast Iowa and northeast Oklahoma that serve more than 935,000 meters.

Why we need a diverse power supply

Associated Electric Cooperative Inc.

A Touchstone Energy® Cooperative



Power supply facts

**... to ensure
reliable,
affordable
electricity**

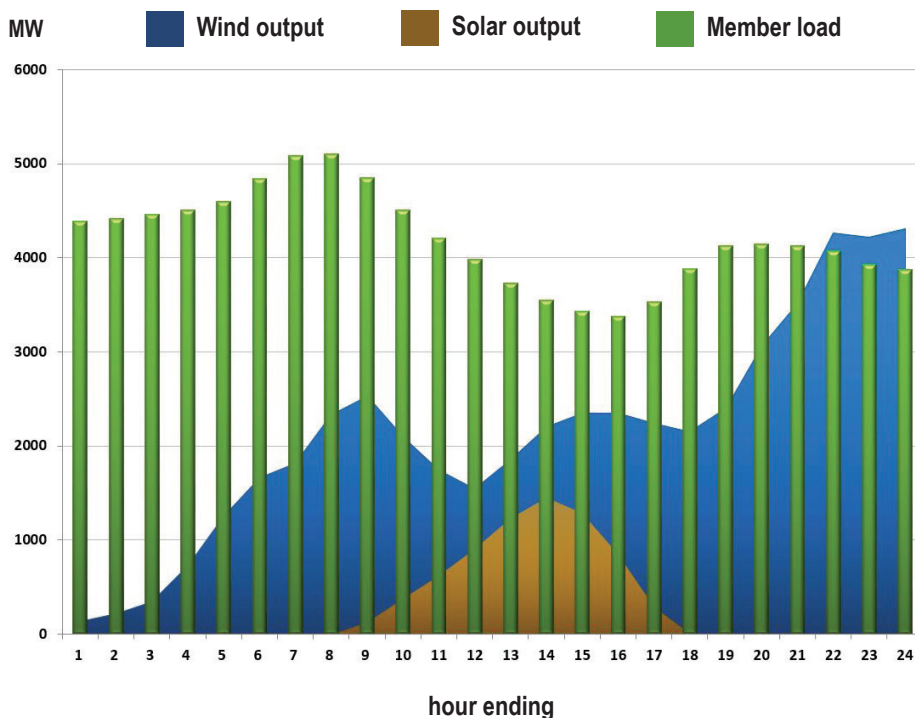
*There are some that
would have you believe
the solution to climate
change is as simple as
building more wind and
solar generation.*

The simple truth is generation output from a solar array or wind turbine does not typically coincide with when we need resources to meet our member peak load – early in the morning on a cold winter's day or late in the day on a hot summer day.

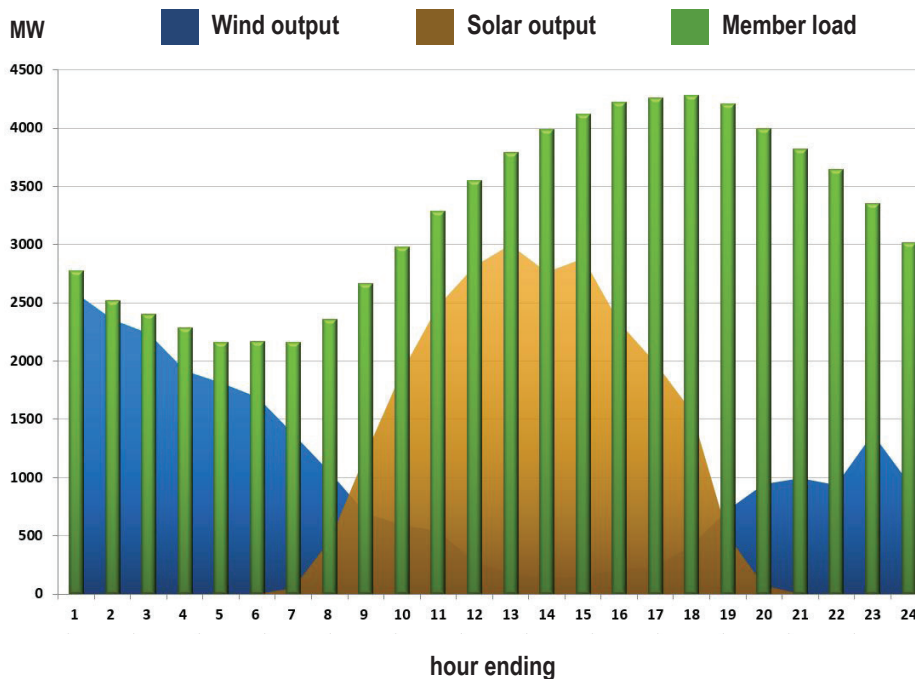
That is why having a diverse power supply that includes baseload resources like coal and gas is so important. The charts show that replacing our existing 5,000 megawatts of coal and gas with 5,000 megawatts of wind or solar would not meet our members' need for power.

Chart information is based on actual hourly output from existing AECl wind generation and the Platte-Clay Solartech community solar project extrapolated to equal 5,000 megawatts of capacity. Charts use Jan. 17, 2018, winter peak, and July 22, 2017, summer peak, as examples.

Peak load comparisons – Winter



Peak load comparisons – Summer



Diverse fuels

Associated Electric Cooperative Inc.

A Touchstone Energy® Cooperative



Power supply facts

Ensure reliable, economical power supply

Your electricity is produced using a mix of fuels and technologies: coal, natural gas, hydropower, wind and energy efficiency. This allows for flexibility while providing reliable, affordable and responsible electricity.

Our wholesale power supplier, Associated Electric Cooperative, typically uses the lowest-cost resources first to serve member load. Resources include hydropower, coal, wind or natural gas. AECI also looks for opportunities to purchase power from other utilities at a cost that is lower than it can generate.

Hydropower

AECI receives supplemental and peaking power from Southwestern Power Administration, the federal power marketing agency that supplies power from 17 reservoirs across Oklahoma, Arkansas and Missouri. While hydropower is one of our cheapest resources, it is a limited commodity dependent on rainfall and the capacity of lakes and dams to store the water.

Coal and natural gas

Coal generation historically supplied the bulk of members' electricity, and continues to play an important role; however, lower natural gas prices have led to increased natural gas generation the last few years. And while supplemental hydropower is the lowest-cost source, coal and natural gas typically are less expensive fuels for electricity generation than intermittent wind or solar sources. In addition, power plants can operate around the clock, respond when wind or solar energy is not available, and do not depend on the ability of storage like wind, water and solar power. As a result, fossil-fuel-based generation is currently the most reliable form of electricity for members.

Wind

Rural electric cooperatives took the lead in Missouri wind power when AECI teamed up with Wind Capital Group to bring four wind farms to Missouri totaling 300,000 kilowatts.

Associated's signing of long-term agreements, as well as its high-voltage transmission system, made these wind farms a reality.

Associated signed two more long-term wind power purchase agreements for 300 MW from BP Wind Energy's Flat Ridge 2 farm, operational in late 2012; and for 150 MW from Enel Green Power North America's Osage wind farm in northeast Oklahoma, completed in June 2015.

Locking in long-term, economical fixed-cost wind power helps Associated mitigate expected fuel cost increases. The Kansas and

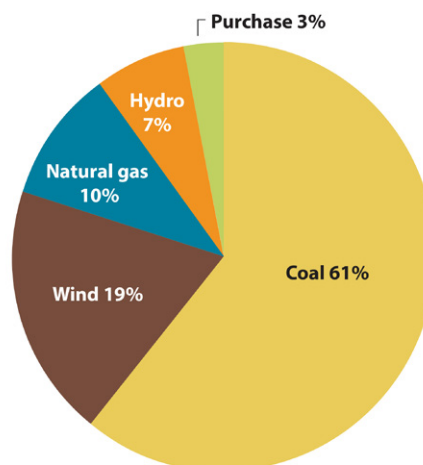
Oklahoma wind farms add geographic diversity to the Missouri wind farms.

Associated then signed power purchase agreements for an additional 471 MW of wind energy in northwest Missouri. The 235-MW Clear Creek wind farm came online in May 2020, and the 236-MW White Cloud came online in December 2020. Today, Associated's contracted wind energy totals about 1,240 MW of nameplate capacity.

Because it is intermittent, however, wind cannot be relied on to produce electricity during periods of peak demand. Some form of electric generator that can be depended on to produce electricity when it is called for, such as coal or natural gas, backs up wind generators to ensure reliable power for members.

AECI remains open to evaluating economical options for adding power supply to the system. To satisfy electricity demand, we must look at all cost-effective generation resources that are available. In addition, we continue to implement energy efficiency and equipment rebate programs that reduce energy consumption, as well as reduce the need for new electricity plants.

2021 generation to supply members



Missouri's wind energy leader

Associated Electric Cooperative Inc.

A Touchstone Energy® Cooperative 



Power supply facts

Our power supplier, Associated Electric Cooperative, was the first and remains a leading provider of Missouri wind power to consumers.

The cooperative buys all the power from Missouri's first utility-scale wind farms. This commitment, as well as the strong high-voltage transmission system owned by Associated Electric Cooperative and its members, brought wind power to Missouri.

Associated has long-term wind power purchase agreements for 1,240 megawatts of wind energy, including 318 megawatts from Missouri's first utility-scale wind farms.

Associated continues to consider renewable energy options that meet its member systems' needs, and the cooperative added two Missouri wind energy projects in 2020 that total more than 470 MW of nameplate capacity. The 235-MW Clear Creek Energy Center was declared commercial May 4, and the White Cloud project began commercial operation in December 2020.

Locking in long-term, economical fixed-cost wind power helps Associated mitigate the impact of expected increases in fuel and power prices. In addition, the Kansas and Oklahoma wind farms add geographic diversity to Associated's wind farm portfolio.

Contracted wind farms generated 16% of members' energy in 2020.

Because wind is an intermittent resource, Associated supplements it with fuel-based generation to ensure reliable, affordable electricity for members.

Associated sells and does not retain or retire all of the environmental attributes of energy generated by more than 1,240 megawatts of contracted wind facilities. This brings in revenue that helps keep members' electricity affordable.

Bluegrass Ridge Wind Farm

27 2.1-MW turbines
50 MW contracted
10,000 acres
Gentry County, Mo.

Commercial operation, 2007

Conception Wind Farm

24 2.1-MW turbines
50 MW contracted
7,000 acres
Nodaway County, Mo.

Commercial operation, 2008

Cow Branch Wind Farm

24 2.1-MW turbines
50 MW contracted
7,000 acres
Atchison County, Mo.

Commercial operation, 2008

Lost Creek Wind Farm

100 1.5-MW turbines
168 MW contracted
20,000 acres
DeKalb County, Mo.

Commercial operation, 2010

Flat Ridge 2 Wind Farm

194 1.6-MW turbines
300 MW contracted
66,000 acres
Barber, Harper, Kingman,
Sumner counties, Kan.

Commercial operation, 2012

Osage Wind Farm

94 1.6-MW turbines
150 MW contracted
8,500 acres
Osage County, Okla.

Commercial operation, 2015

Clear Creek Energy Center

111 Vestas turbines
235 MW contracted
31,000 acres
Nodaway County, Mo.

Commercial operation, 2020

White Cloud Wind Farm

89 turbines
236.5 MW contracted
40,000 acres
Nodaway County, Mo.

Commercial operation, 2020

Co-ops ensure air quality

Associated Electric Cooperative Inc.

A Touchstone Energy® Cooperative



Power supply facts

Associated works 24/7 on environmental compliance

How does Associated Electric Cooperative know its sulfur dioxide emissions are well below permitted levels at its coal-based power plants? How does it measure nitrogen oxides, carbon dioxide and carbon monoxide emissions? How does it determine environmental controls are working efficiently?

Those data come from continuous emissions monitoring (CEM) equipment at its gas and coal power plants.

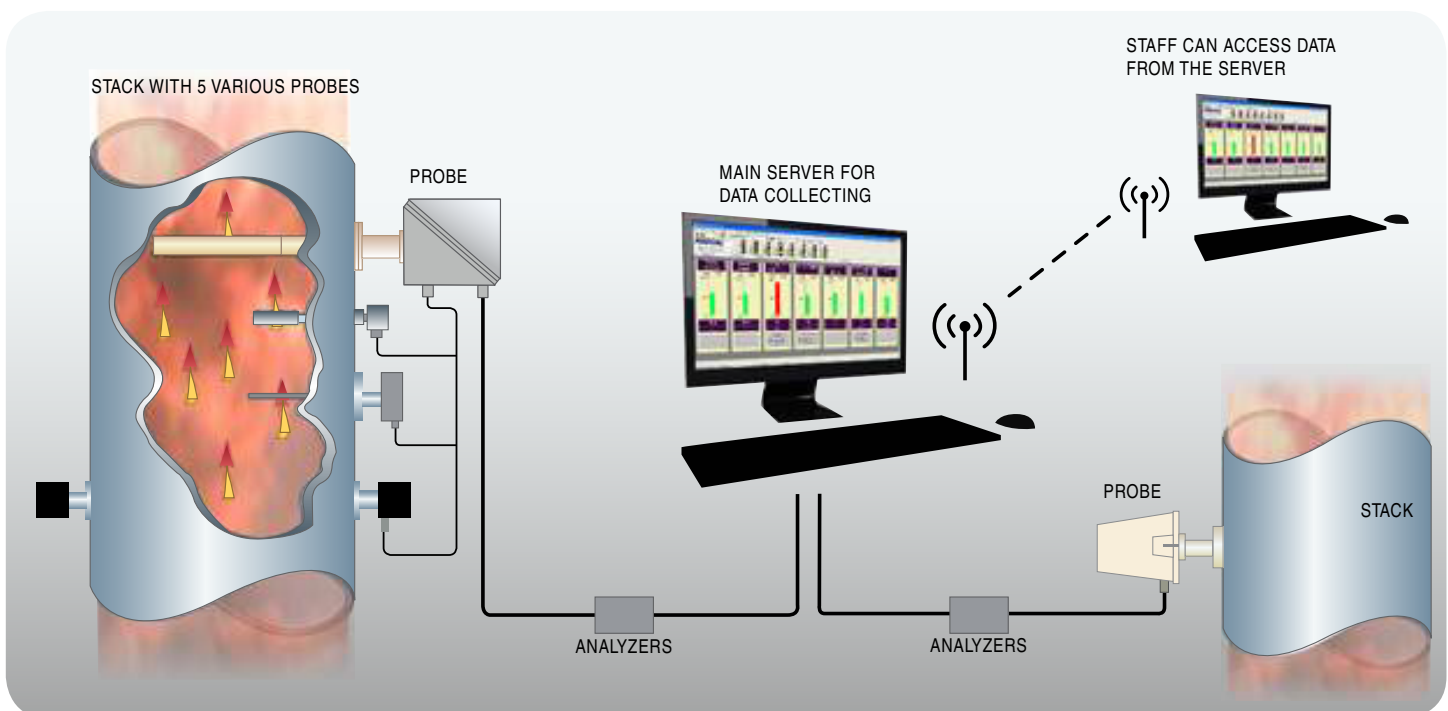
Staff in the environmental health and safety departments annually audit CEM systems at the power plants. Internal audits include quality assurance tests, monitoring downtime periods, instrument checks and record-keeping of valid calibrations.

The monitoring equipment is vital to meeting Associated's

requirements to report emissions every hour of every day. Staff conducts a thorough internal audit to ensure Associated is in full compliance with EPA regulations.

At all the power plants, the instrumentation departments maintain the CEM equipment, but that isn't all they do. The departments' overall responsibilities include operating electronics and controls for all boiler and turbine systems.

At Thomas Hill, for example, 12 technicians perform development testing, maintenance, calibration and modification for daily, weekly and monthly records on the analyzers. CEM analyzers run 24/7 and are required to be available, even if a unit is offline.



Sensors in continuous emissions monitoring system analyzers at each power plant continuously record concentrations of gas levels emitted. Emissions data from the monitors are transmitted for calculation into mass emissions, and emission rates for accurate quarterly reports are sent to the state and federal agencies to ensure compliance with Associated's permitted air emissions limits.

AECI reduces mercury emissions years ahead of time

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Power supply facts

Stewardship has always been part of the culture at Associated Electric Cooperative, which prides itself on producing affordable, reliable electricity balanced with protecting the natural resources our members depend on for their livelihoods and quality of life.

Often, Associated Electric has taken the lead with innovative, cost-effective and proactive solutions. It did the same thing when it came to meeting the Mercury Air Toxics Standards, effective in April 2016 for the cooperative.

Staff started early to craft a compliance plan. Parts of the plan worked together to put Associated's emissions of mercury, particulate and hydrogen chloride well below new requirements set by the Environmental Protection Agency.

AECI started reducing mercury 20 years ago

Associated began reducing mercury emissions long before the EPA proposed its first mercury rule in 2005.

In 1995, Associated converted all five coal units to low-sulfur coal – one of the first in the country to do so – and reduced sulfur dioxide emissions 90%. Lower in mercury and hydrogen chloride too, this coal forms the foundation for Associated's air quality compliance.

In 2011, Associated reduced mercury emissions another 40% from its cyclone units when employees led the nation with implementation of refined coal technology. This also was added in 2014 on Thomas Hill Unit 3, a pulverized unit, decreasing its mercury emissions about 40%.

Associated then invested in and completed construction

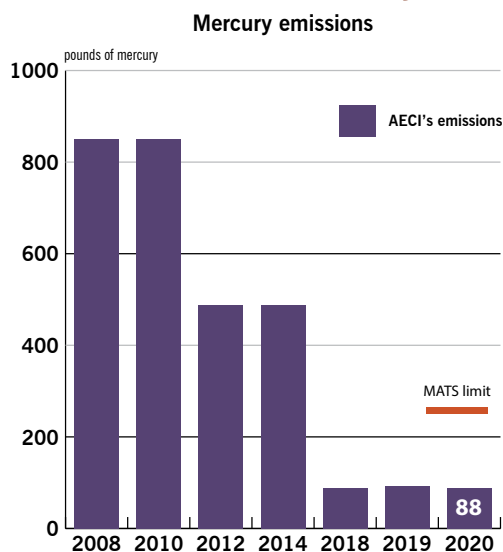
of activated carbon injection systems on all five coal units; completed maintenance on three coal units' electrostatic precipitators to improve capture of particulate matter, reducing these emissions to one-half of the MATS standard; and installed sorbent trap monitoring systems on the three largest coal units. Associated's smaller Thomas Hill units 1 and 2 are very low-emitting and only require periodic emissions testing, which reduces costs.

Associated staff also is working to obtain "Low Emitting Generating Unit," or LEE status, for particulate matter (PM) and hydrogen chloride on all its coal units. This status is achieved after 12 consecutive quarters of stack emissions test results showed the unit's particulate matter was less than 50% of the MATS limit of 0.03 pounds/mmBtu (per million British thermal unit).

LEE status on all the coal units as of mid-2020:

- New Madrid Unit 1 has LEE status for PM and seven consecutive quarters for the low LEE limit on HCL.
- New Madrid Unit 2 has achieved four consecutive quarters for LEE status on PM; it has eight consecutive quarters toward LEE status on HCL.
- All three Thomas Hill units have LEE status for PM.
- Thomas Hill Unit 1 has LEE status for HCL.
- Thomas Hill Unit 2 has four consecutive quarters for HCL.
- Unit 3 has seven consecutive quarters for HCL.

AECI reduces mercury 85%



Overall, Associated has reduced its mercury emissions about 85% compared to baseline emissions in 2010, before refined coal or activated carbon injection emission controls, and is below the MATS requirements today.

Associated Electric Cooperative Inc. is owned by and provides wholesale power to six regional and 51 local electric cooperative systems in Missouri, southeast Iowa and northeast Oklahoma that service about 935,000 meters. AECI's mission is to provide an economical and reliable power supply and support services to its members, including the "Take Control & Save" energy efficiency program, www.TakeControlAndSave.coop. AECI is a Touchstone Energy Cooperative; an Equal Opportunity Employer and provider/disability/veteran.

Partnering to protect pollinators

Associated Electric Cooperative Inc.

A Touchstone Energy® Cooperative



Power supply facts

AECI collaborates to help members and monarchs

Associated Electric Cooperative is proactively working to protect the monarch butterfly, as well as other pollinators. At the same time, it strives to keep electricity reliable and affordable for the six regional and 51 local electric cooperatives that own the member-owned wholesale power generator.

The population of monarch butterflies has declined 90% in the last 20 years, putting them at risk for placement on the endangered species list. Such a listing could have an adverse impact on Associated and its members by creating restrictions that make it more difficult and costly to site and maintain transmission facilities and rights of way.

Instead, Associated has partnered with other groups to protect pollinators, which play an important role in agriculture, natural landscapes and our quality of life.

Co-op matches grant for monarch habitat

Associated Electric Cooperative received a

\$45,000 grant through the Missouri Conservation Heritage Foundation to develop pollinator habitat at its Thomas Hill Energy Center. Associated matched those grant funds with a budgeted \$30,000 and in-kind labor.

Located on the cooperative's reclaimed Prairie Hill mine, 32 acres were seeded by staff with wildflowers and other plants beneficial to pollinators as a result of the grant. Staff continues to maintain and develop the seven plots.

Benefiting butterflies



- Staff also is planting four acres of pollinator habitat at New Madrid Power Plant and another acre of habitat at Thomas Hill Energy Center.
- At Thomas Hill, Associated adopted a mowing schedule on 100 acres to accommodate the monarch butterfly and other pollinators. These areas, previously mowed multiple times a year, are mowed only once in the July timeframe as recommended to ensure usable habitat and avoid impact to monarch caterpillars munching milkweed and monarch migration.

AECI builds habitat at Thomas Hill Energy Center.



West Central Electric Cooperative
Published by Heather Lynch Hoflander · June 6 ·

Great to be at 4-H Camp Bobwhite in Knob Noster with Cass, Clay, Henry, Johnson, Lafayette, Ray & St. Clair county 4-Hers today! We'll be back Wednesday!

West Central Electric Cooperative Inc.
A Touchstone Energy Cooperative

See insights and ads [Boost post](#)

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West Central Electric Cooperative
Published by Heather Lynch Hoflander · August 2 ·

#TakeControlAndSave TakeControlAndSave.coop









Energy Efficiency Tip 45

For households with 1 or 2 members, a 115 F water heating setting may work fine.

Members First
August 2 ·

Saving energy and money can be easy! We have over 101 easy ways to save. Tip #45: For households with 1 or 2 members, a 115 degrees Fahrenheit water heater setting may work fine. Learn more: www.TakeControlAndSave.coop #TakeControlAndSave #EasyEnergyTips #SaveEnergy #SaveMoney

2022 West Central Electric Cooperative Scholars
\$1,300 scholarship winners

 Mason Rumsey	 Abigail Richner	 Luke Othic	 Tyler Ward	 Christopher Brunner
 Andrew Roth	 Savannah Moore	 Addison Richards	 Emma Lohe	 Brady Hinton
 Trenton Day	 Regan Shaffer	 Mattie Nussbaum	 Carson Smith	 Emilie Forrest

*The West Central Electric Cooperative Scholarship is available to students whose parents or legal guardians are current members of the cooperative. The funds are awarded to students graduating high school and planning to attend a college, university or trade or technical school the fall following their graduation.

This information taken from WCE Facebook posts and newsletters. WCE Facebook and newsletters on our web-site at www.westcentralelectric.coop are great resources.

West Central Electric Cooperative
Electrical Distribution Systems **2020**
Scholarship Winners

West Central Electric Cooperative is proud to announce Connor Lamphier and Dylan Lilleman as the winners of the 2020 West Central Electric Cooperative Electrical Distributions Systems Scholarship.

The scholarship program offers a college scholarship worth up to \$5,000 per year to an area student or students interested in pursuing a degree or certificate in electrical distribution systems in an accredited EDS program. This scholarship also provides on-the-job training, including a required, paid internship at West Central Electric Cooperative, as well as employment with the cooperative following the successful completion of the program and internship.

Both Lamphier and Lilleman begin their respective programs this year with internships slated for summer 2021.

Connor Lamphier

Lamphier is a 2016 graduate of Lafayette County C-I High School, and is the son of Mark and Monica Lamphier of Higginsville. He will attend Metropolitan Community College through a one-year course culminating in lineman certification. Lamphier enlisted in the Marine Corps Reserves in March 2017, and holds the rank of Lance Corporal.

"My ultimate goal would be to gain employment with West Central Electric and build a career here and remain within the community I grew up in," he said. "I value family and my community, and want to build my family in this community."

Dylan Lilleman

Lilleman is a 2020 graduate of Lafayette County C-I High School, and is the son of Kerrick and Kelly Lilleman. He will be attending State Technical College of Missouri where he will work toward an EDS degree through a two-year program.

Lilleman said he chose electrical distribution systems for several reasons.

"First and foremost, I enjoy helping and serving others, and love being outdoors and working with my hands," he said. "Additionally, I love a challenge that requires me to use my hands and mind to solve it. I will work hard to continuously improve my skills and stay current with the ever-changing technology that affects the industry."

Congratulation Connor and Dylan!

What is Operation Round Up?

Operation Round Up is a program designed to collect donations that will be used to benefit charitable organizations and the communities within the WCE service territory.

How did Round Up begin?

The program was created by Palmetto Electric Cooperative in South Carolina in 1989. Since that time, the program has been adopted by more than 200 electric cooperatives nationwide and 18 cooperatives in Missouri. WCE has participated in the program since Sept. 1, 2018.

How does Round Up work?

WCE members who want to participate have their monthly bill rounded up to the next dollar. For example, if your bill is \$65.50, it would be rounded up to \$66.00. A bill of \$59.99 would be rounded up to \$60.00. The funds collected are placed into the WCE Round Up Foundation and are donated to charitable organizations through an application process. WCE Round Up Foundation does not keep any of the money collected. On average, a member will donate \$6.00 a year. Your donation is tax deductible, and you may opt out simply by contacting the cooperative if you do not wish to participate.

Why get involved in Operation Round Up?

WCE exists to serve the changing needs of members by enhancing the quality of life through support of community developments and identifying and serving the members' energy needs. By adopting the Operation Round Up program we can continue our commitment to our local com-

Operation Round Up Grant Recipients:

- Holden Food Pantry
- Odessa Community Services
- Holden Senior Center
- Trinity Lutheran School – Alma
- Partners for Odessa Parks & Rec
- Concordia School District
- Mayview Missouri Foundation
- Church Women of Higginsville
- Chilhowee Park Board
- Tri-County Outreach – Waverly
- Concordia Senior Center
- Higginsville Senior Center
- MU Extension of Lafayette & Johnson Counties
- Good Shepherd Care Community
- Mayview Fire Protection District
- Warrensburg Middle School
- Binding Hearts Quilt Ministry
- Montessori Schoolhouse – Higginsville
- Concordia Fire Protection District
- Assembly of Good – Higginsville
- Lafayette County Enterprises
- Johnson Co. Livestock Committee
- Big Brothers, Big Sisters of Johnson Co.
- Corder Fire Protection District
- Lafayette Co. C-1 Phys. Ed. Dept.
- Concordia High School Backsnack Program
- Chilhowee Baptist Church
- Santa Fe FFA Backsnack Program
- Knob Noster Footsteps
- Health Care Coalition of Lafayette Co.
- Lafayette Co. 4-H Fairboard
- Chilhowee School District
- Refuge on Ming
- Crest Ridge School District

How much of a difference can Operation Round Up really make?

WCE has over 12,000 members. If 50% of our membership participates in the program, Operation Round Up could raise approximately \$36,000 per year. With those funds going to charitable organizations within our communities, the possibilities are endless.

Did you know your pocket change could change a life?





Applications and awarding of funds procedures

GEOGRAPHIC FOCUS

Applications will be accepted from individuals or entities located geographically within the area served by the Cooperative. Organizations or individuals providing activities, programs, or benefits to people who live in the Cooperative geographic service area are eligible for funding consideration.

EVALUATION FACTORS

The following factors will be considered in the evaluation of all funding requests:

- Potential benefit to the area residents and the entire community; or,
- Level of the community support for the program or project or the organization requesting the funds; or,
- Fiscal and administrative capacity of the organization to deliver on proposed activities; or,
- Available balance of WCEF accounts; or,
- Provide predictable and evaluative results.

FUNDING RESTRICTIONS

Contributions shall not be made for the following:

- Political, lobbying, fraternal, labor organizations.
- Fund-raising dinners, raffles, and other events.
- Capital fund campaigns.
- National fund drives.
- Advertising.
- Scholarship programs or individual scholarships.
- Uniforms or general sponsorships for league or traveling sports teams.
- Internal payroll expenses of an organization.
- Donations to organizations associated with a school district shall be limited to \$10,000 per calendar year.
- Organizations or individuals located outside the Cooperative geographic service area requesting support for activities occurring outside the Cooperative geographic service area.



Major Funding Categories

- Community Service
- Economic Development
- Education and Youth
- Environment
- Disaster Relief

