

FEBRUARY 2020 | Vol. 43, No. 2

# ENERGY LINES

## FIBER INTERNET TO THE HOME

*How a co-op built an infrastructure to provide internet access to all. PAGE 3*

### A STRATEGIC FOCUS

Hoosier Energy executives discuss strategic priorities. **PAGE 2**

### ELECTRIC CAR OWNERSHIP

Find out what it's like owning an electric vehicle in southern Indiana. **PAGE 8**

### 25 ACTS OF KINDNESS

Co-op engages with membership during year-long celebration. **PAGE 9**

## INTERNATIONAL NEWS



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## China increases coal-fired generation

Efforts made by China to reduce its use of coal are losing steam. According to The Wall Street Journal (WSJ), the world's largest carbon emitter is building more coal-fired power plants than the rest of the world combined. The WSJ report states that China's efforts to boost its economy through infrastructure investment have led to an increase in energy demand.

## CYBERSECURITY

## Hackers increase attacks against electric utilities

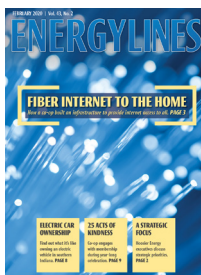
Hackers are increasingly targeting the North American electric sector, according to a report from the cybersecurity firm Dragos.

This is taking place through supply chain vulnerabilities and connected industrial control systems (ICS) capable of creating disruptions across multiple industries, as reported by UtilityDive.com.

The "most dangerous and capable" group, Xenotime, has expanded its attacks from the oil and gas sector to include electric utilities, reports Dragos.

## ON THE COVER

SCI REMC works to provide fiber internet for all of its members. The results – they are increasing affordability and reliability.



## RENEWABLE ENERGY

## Tax deal to affect renewable tax credits

Tax credits for solar weren't extended at their current level of 30 percent and will drop 4 percentage points this year, according to The Wall Street Journal. Commercial and utility installations will see a similar decrease in 2021 and a decrease of 10 percent in 2022.

\$9B

## LARGEST CLEANUP OF ITS KIND

This is what it might cost Duke Energy to clean 80 million tons of coal ash at six power plants in the Carolinas.

## Duke Energy to clean up coal ash

Duke Energy has agreed to move 80 million tons of coal ash located at six power plants touted as the largest cleanup of its kind in U.S. history.

According to a Wall Street Journal report, Duke Energy will spend between \$8 billion and \$9 billion to close all of its ash basins in the Carolinas. Some of its ash storage basins are lined, others are not.

The electric utility will close all of its basins by 2034, according to a Duke Energy spokesperson.

According to UtilityDive.com, the Southern Environmental Law Center (SELC) and other environmental groups have been pushing the utility to commit to full excavation of its coal ash, spurred by smaller spills during Hurricane Matthew in 2016 and Hurricane Florence in 2018.

Utility Dive reports that the plan requires the coal ash at six plants be removed and placed in lined landfills.

Two sites will have ash remain underground. The state permitted the utility to build lined landfills over the ponds at those two plants. [EL](#)



## FIND US ONLINE

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## Eight ways Hoosier Energy works to succeed

These are the strategic priorities that the Hoosier Energy workforce strives to achieve every day.

EMERGING  
TECHNOLOGIES

MEMBER  
FOCUS

RISK  
MANAGEMENT

GOVERNANCE

COMPETITIVE  
RATES

COST MANAGEMENT  
AND PERFORMANCE

SUPPLY  
PORTFOLIO

OPERATIONAL  
EXCELLENCE

# A strategic focus

Three-part series asks senior staff to discuss what Hoosier Energy is focusing on related to strategic priorities

**Question:** *Of the primary categories of risk management, what will be of most importance this year related to power production?*

**Matt Mabrey,**  
Vice President, Operations

The safe, reliable and cost-effective operation of generating assets depends on highly trained, experienced workers. Power production is experiencing a high rate of employee retirements, which is expected to continue for the next several years. This increased turnover of retiring workforce results in the loss of tacit, or 'tribal knowledge' of experienced workers, presenting risk with regards to safe and reliable operations of the generating assets. Tacit knowledge is defined as undocumented knowledge that resides with a particular individual, or in



Mabrey

the collective knowledge of a group that may not be captured or passed on easily to peer employees or management.

To mitigate this risk, efforts will be increased on the skills training program, which is utilized to bridge the knowledge base gap between new employees and employees possessing decades of experience. A combination of training methods, including classroom, operations simulator, trade-specific hands-on, and on-the-job, is utilized to prepare new workers. Additionally, new employees are paired with more experienced employees to enhance the opportunity to capture tacit knowledge, assuring continued safe and reliable operations.

**Question:** *What can members look forward to related to services provided by Hoosier Energy this year?*

**Scott Bowers, Vice President, Public Policy and Member Services**

It's important that we consistently evaluate and ensure that our services align with the needs of our member systems and their member-consumers. Those needs are changing more rapidly than ever before due to technology. Our members should expect to see the results of the comprehensive assessment of Hoosier's current roster of services, new opportunities in the emerging technology space and an intensive analysis of the Marketing Department's services and programs in 2020.

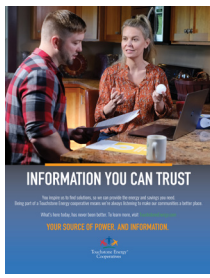


Bowers

NEXT MONTH

>> EnergyLines asks Chief Financial Officer Adam Roberts about how Hoosier Energy will continue to identify cost-efficiency gains for members throughout the year.





# Driving member engagement

Touchstone Energy ad campaign promotes local member relationships

Helping member-consumers learn about the value their electric cooperative offers is the basis of the Touchstone Energy 2020 advertising campaign.

The campaign contains family-focused imagery with the main message centered on the co-op being the leading source of power and information in their community. This messaging aids in members understanding that their co-op is a trusted source for energy and information.

Hoosier Energy works with a media buying team and member systems to identify the media outlets that are right for each individual co-op. The campaign will run from April through December and the advertisements will be used in print, online, radio and social media channels. This provides the ability to reach consumers at home and on the go. [EL](#)

# PROVIDING ACCESS TO ALL

*Fiber internet project at SCI REMC incorporates strategic foundation as it builds member service*

Process increases affordability, reliability and connectivity by connecting to main internet hub in Indianapolis



**I**n December 2017, South Central Indiana REMC board of directors made the decision to create SCI Fiber, a business division that would not only provide high-speed internet access to its members, but also a smart grid to improve system reliability and lay the foundation for broader infrastructure that could elevate Indiana's connectivity standing in the country.

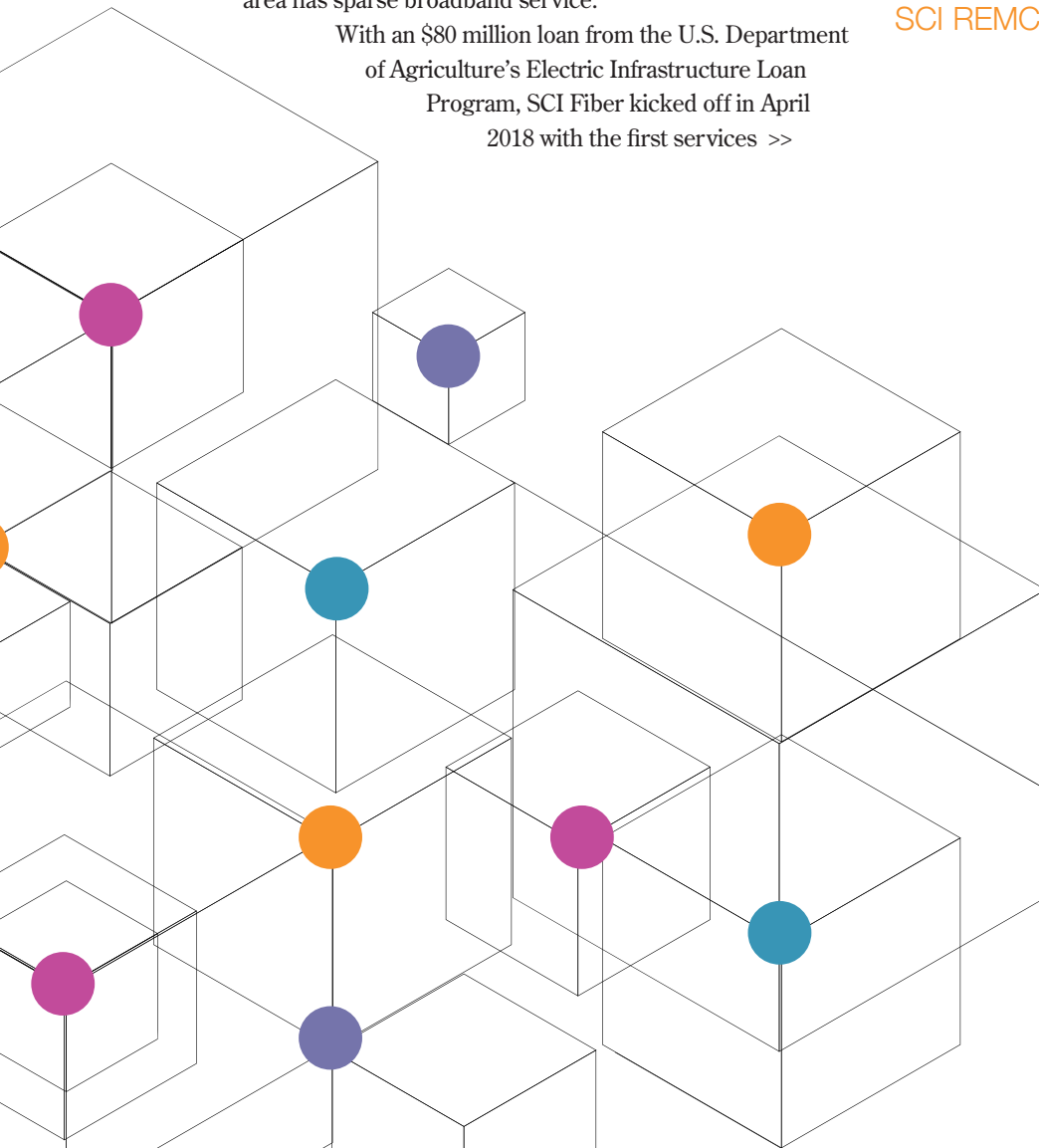
This fiber-to-the-home venture initially began as a request of SCI REMC members after other service providers were unable to make the financial leap and commitment to provide them with high-speed internet access.

"If one member was going to be served, we wanted all members to have the opportunity to have reliable, affordable, high speed internet," says James Tanneberger, president and CEO of SCI REMC, which serves Owen, Brown, Morgan, Monroe and parts of Johnson, Clay and Putnam counties. "The majority of our service area has sparse broadband service."

With an \$80 million loan from the U.S. Department of Agriculture's Electric Infrastructure Loan Program, SCI Fiber kicked off in April 2018 with the first services >>

**"If one member was going to be served, we wanted all members to have the opportunity to have reliable, affordable, high speed internet."**

**JAMES  
TANNEBERGER**  
President and CEO,  
SCI REMC





Submitted photos

**HOME INSTALLATION:** At left: A Network Interface Device is attached to the side of a SCI REMC member home. Inside, SCI Fiber Installation Specialist Josh Wien completes internet connections.

being installed in March 2019. So far, 700 of 1,400 miles of fiber backbone and distribution cable have been constructed with over 2,000 members connected. At the current pace, Tanneberger expects to have 5,000 members hooked up before the end of the year.

“We’re doing a five-year project, but plan to be mostly finished in the next two years,” he says.

The primary motivator for pursuing this venture was to create the communication infrastructure necessary for the “smart grid,” an electricity supply network that uses digital communications technology to detect and react to local changes in usage. This also allows the cooperative to have instant communication with equipment in the field, which shortens outage times and gets members back online sooner, according to Tanneberger.

“We’re providing that high-speed service, but we’re also providing a communications network to the

**“Fiber is the infrastructure off of which all communications networks will be built and will be vital to running the electric grid of the future.”**

**JAMES TANNEBERGER**  
President and CEO, SCI REMC

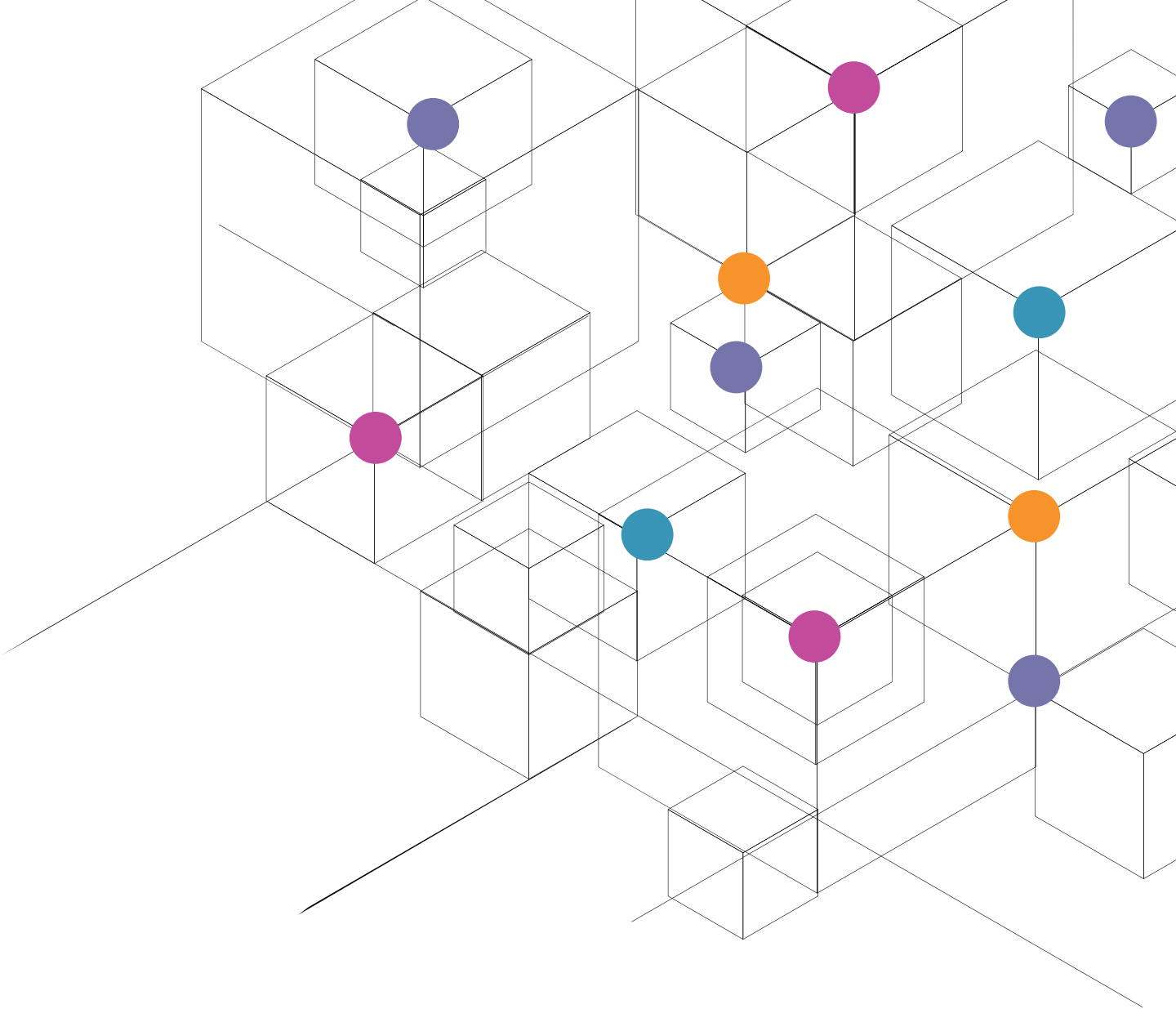
individual home that allows us to prepare for the future,” he says.

“Some of our areas are gaining in population, instead of declining, and people are crediting that to fiber being on the way. Currently, students in areas without broadband have difficulty completing assignments and participating in online school settings, and folks who want to run a home business can’t do that. They have to go to another location. We’re changing that. It’s a huge economic development

booster,” Tanneberger adds.

A substantial component of the expansion has been purchasing a fiber conduit system and constructing a backbone fiber route to the regional telecom hub at Henry Street in Indianapolis. This connection means SCI Fiber is now a tier 2 provider of bandwidth and can connect directly with tier 1 providers, which are the large national networks that operate as backbone of the internet.

“In order to provide internet to our members, we have to tie to the internet. We either pay someone else for that connectivity, or we can own it. Owning it means we provide a much better value for our members,” says Jerry Haver, manager of fiber strategy and business development. “When we connect to other co-ops, we can provide better value to their members, and now co-ops control pricing. If co-ops don’t control pricing, we’re at the whim of those who are quoting us, and it can be very expensive. Co-ops will be working together to figure out ways



to benefit the whole, getting better pricing and service.”

Having the Henry Street connection isn't just beneficial from a pricing perspective, but also reliability, because it offers a new diverse path from southern Indiana to the Henry Street hub. Usually a provider will offer internet service using two different paths – for instance, using the direct line to the Henry Street hub

and another path through a different provider. This allows the customer to have continued service if one pathway gets severed, because service will automatically switch to the second path.

“Fiber is the infrastructure off of which all communications networks will be built and will be vital to running the electric grid of the future,” says Tanneberger, adding that any knowledge SCI REMC has gained in

the process is readily available to co-ops that want to duplicate the process.

“This opens a lot of doors for cooperatives that were traditionally confined to their service territories. We are bringing the critical infrastructure that businesses need in rural America. If co-ops connect these networks together, Indiana can be one of the most connected states in the country. Right now, we're 35 out of 50.” [EL](#)

# The smart grid index

Framework identifies key elements needed for smart grid effectiveness

The modernization of the electric grid is taking place to integrate smart grid technologies. As power delivery systems across the nation add distributed energy resources, such as solar arrays, wind turbines and energy storage systems, they come with challenges, including cyber threats and the management of behind-the-meter assets. This is why the Smart Grid Index was developed. This framework, developed by the SP Group, examines seven dimensions.

What this means for co-op member-consumers is that their energy consumption data is accessible in real-time. This is empowering them to make informed decisions about their energy use.

For member-consumers, this level of control is often applied through the Smart Hub app. This software allows consumers to set thresholds so they will know when they are using more energy than they want to and make adjustments. Together, Hoosier Energy and member co-ops implement this framework to provide reliable integration of smart grid technologies. [E](#)

## SEVEN DIMENSIONS OF A SMART GRID

According to the SP Group, these are the dimensions that work together to create a smart grid that provides continuous awareness of its status.

### MONITORING AND CONTROL



Supervisory Control And Data Acquisition  
Distribution Management System

### DATA ANALYTICS



Smart meters  
Data analytics

### SUPPLY RELIABILITY



System Average Interruption Duration Index  
System Average Interruption Frequency Index

### DER INTERGRATION



DER integration management  
Grid scale energy storage

### GREEN ENERGY



Renewable energy growth  
Electric Vehicle integration

### SECURITY



Information technology cyber security  
Operational technology security

### CUSTOMER EMPOWERMENT



Real time data  
American customer satisfaction index

Sources: T&D World, SP Group

*Did you  
know?*

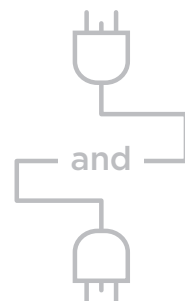
## CO-OP ENERGY GENERATION AND MIX

Co-ops across the nation are improving reliability and efficiency of the grid for member-consumers.

Co-ops generate

**5%**

of total U.S. electricity



sell

**13%**

of all U.S. electricity

## INDUSTRY NEWS

### Tri-State power plan includes closure of all coal-fired generation

Tri-State Generation & Transmission Association, located in Westminster, CO, released its generation plan called "Responsible Energy Plan" in January. Consisting of eight solar and wind projects, the plan will result in 50 percent renewable energy use within its 43 cooperatives by 2024.

According to a report at UtilityDive.com, the plan will include the closure of all coal-fired power plants, cancellation of its Holcomb coal project in Kansas, more flexibility in allowing members to develop local, self-supplied renewable energy and support for expanded electric vehicle infrastructure and electrification.



# Going all-electric in southern Indiana

How a co-op member is using his electric vehicle to help make his commute less costly and more enjoyable

Electric vehicles (EV) are converging on the Midwest, albeit slowly. With their entrance, new challenges are being identified for members and cooperatives alike. EnergyLines was able to reach out to Southern Indiana Power member-consumer Bradley Lynch to discuss the challenges he faces with owning an all-electric car in Southern Indiana.

Lynch has discovered that owning an electric car in a rural area brings with it a bit of celebrity. “People ask if they can take pictures of the car and are usually amazed with the performance of the electric motor,” said Lynch.

He owns a Tesla Model S, but people continually ask him if it is a hybrid vehicle, going as far as to physically look underneath for an engine, transmission and tailpipes.

Lynch researched several EV’s when thinking about his next car. He drives over 100 miles for his work commute every day, leading to increased fuel and car maintenance costs. He looked into the Chevy Volt plug-in hybrid and the Nissan Leaf. A coworker convinced him to schedule a test drive with the Tesla dealer in Indianapolis.

“Once you get in one of those cars, nothing else compares,” said Lynch.

Lynch mainly uses the car for daily work-related drives and local weekend trips. He has yet to take an extended road trip in it. That will take some planning to make sure there is a super charger on his route. At this time, there are no super chargers (level 3) in Southern Indiana. The super chargers allow for fast charging. The destination



HE photo

**PLUGGED IN:** Southern Indiana Power member-consumer Bradley Lynch drives his Tesla Model S. His 100-mile commute to and from work led to his decision to purchase an all-electric vehicle.

**“The features on this car, with the auto pilot, make my long commute a little less stressful.”**

**BRADLEY LYNCH**  
Southern Indiana Power  
member-consumer

chargers take more time to get the electric battery back up to full charge. There are several destination chargers in the area.

Lynch has an app that helps him find chargers that are nearby or at his end destination.

“We went to Holiday World several times this year and not only did I get to

charge my car, I got a front row parking spot because that is where the chargers are located.”

To help with the charging, Lynch installed a level 2 charger at his home several months before purchasing the Tesla.

Lynch stated that he would absolutely repeat his purchase but also emphasized that a potential buyer needs to do research on the vehicle and the charging in advance. This should not be an impulse purchase.

“The features on this car, with the auto pilot, make my long commute a little less stressful. When I am stuck in a long traffic jam with other cars stopping and going, the car deals with that and I can sit back and relax,” said Lynch. [EL](#)



Submitted photo

**COMMITMENT TO COMMUNITY:** Alyssa Brandes and Randy Ballinger, from left, of Whitewater Valley REMC, brought fleece blankets for the residents of a nursing home as part of the co-op's '25 Acts of Kindness' effort that ended last year.

## Co-op kindness – one act at a time

Whitewater Valley REMC shows its commitment to community

Co-op  
value.

If you visited Whitewater Valley REMC last year you might have seen a lot of fleece. That's because employees were making fleece tie blankets for residents of a local nursing home.

The blankets were made for the co-op's 25 Acts of Kindness campaign that took place throughout 2019 to recognize 25 years since Fayette-Union and Wayne County REMC combined to form Whitewater Valley REMC.

With 25 kindness acts identified by employees and the board, employee engagement was important. Sandy Cason, Director of Member Services and Corporate Relations at the co-op, led the effort.

"As we completed each act and our employees remained engaged for each one, I was reminded how special everyone here is, how great it is to work with such caring people. Then, as I went out and partnered with groups in the community, I thought, wow, look at what you're doing – you're amazing," said Cason.

## Community engagement

This experience provided opportunities for the co-op to work closely with organizations and members in the communities they serve. What they found was a wide-range of work being done to help those in need.

"These acts helped us find new ways to talk about what we do in our community with our members," said Mary Jo Thomas, the co-op's President and CEO. >>

## Social session

Members took to social media to share diverse messages with member-consumers. RushShelby Energy provided updates about energy efficiency rebates while Bartholomew County REMC asked members to review distracted driving laws.

**RushShelby Energy**  
Tuesday at 8:40 AM · 🌐

Rebates will remain the same in 2020. For more information visit our website, [www.rse.coop](http://www.rse.coop) or call the member services department 765-544-2600.

**2020 Energy Efficiency Rebate Program**

**Water Heaters (Stand-By Tank or Tankless)**

Rebate	Amount
Standard Water Heater (40-50 Gallon)	\$500
High-Efficiency Water Heater (40-50 Gallon)	\$1,000

**Geothermal Heat Pumps**

Rebate	Amount
Geothermal Heat Pump (New Construction)	\$1,000
Geothermal Heat Pump (Retrofit)	\$1,000

**Air Source Heat Pumps (Mini-Split or Dual Fuel Heat Pumps)**

Rebate	Amount
Mini-Split Heat Pump (New Construction)	\$1,000
Mini-Split Heat Pump (Retrofit)	\$1,000
Dual Fuel Heat Pump (New Construction)	\$1,000
Dual Fuel Heat Pump (Retrofit)	\$1,000

**PLEASE NOTE:** Rebates are available for new construction and retrofits. Rebates are available for new construction and retrofits. Rebates are available for new construction and retrofits. Rebates are available for new construction and retrofits.

**ASK YOUR CO-OP ABOUT THESE OTHER ENERGY SAVING PROGRAMS**

**LED Light Bulb Rebate:** \$1.00 per bulb (up to 100 bulbs per household)

**Energy Management Systems:** \$1,000 per system (up to 10 systems per household)

**APPLIANCE REPAIRING:** \$100 per appliance (up to 10 appliances per household)

**TEAM UP!** Together We Can Save.

4 Shares

(FACEBOOK)  
RushShelby Energy

**Bartholomew County REMC**  
Yesterday at 7:25 PM · 🌐

Let's end distracted driving together.

Familiarize yourself with Indiana's distracted driving laws: <https://www.EndDD.org/state-laws/>.

via End Distracted Driving #Safety

**Bartholomew County REMC**

Opens in Messenger

Send Message

1 Share

Like Comment Share

(FACEBOOK)  
Bartholomew County REMC



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shuoshu

**“... As I went out and partnered with groups in the community,  
I thought, wow, look at what you’re doing – you’re amazing!”**

**SANDY CASON**, Director of Member Services and Corporate Relations at  
Whitewater Valley REMC



HE photo

**COMMUNITY ENGAGEMENT:** Veterans received toiletry items as part of Whitewater Valley REMC’s 25 Acts of Kindness effort. Co-op employees standing among veterans are Sandy Cason, Suzie Day and Randy Ballinger.

## A rewarding journey

National holidays provided opportunities for the co-op to identify ways they could show kindness. As November rolled around, Veterans Day came to mind. The co-op had a plan to help local veterans through the Journey Home project. Cason reached out to find out how they could help. What she learned was that they were in need of toiletries. She thought, We can do that!

Toiletry kits, including towels and toothbrushes, were assembled and personalized with individual thank you cards. Employees brought in homemade treats for the residents as well. The veterans were happy to receive the gifts and were moved by how they were personalized.

## Communication is key

The acts of kindness were communicated on Facebook and in local newspapers. The response from member-consumers was positive.

“This helped us show that we are more than just your energy provider,” said Cason.

Back at the co-op, with stacks of fleece in the board room, employees were completing blankets at a steady clip as they reached their goal of 47. In December, the blankets were wrapped up as Christmas presents and given to residents of a local senior living facility.

“I am proud of our employees and everyone that contributed to make these acts a success,” said Thomas. [EL](#)



# 2020 Indiana Festival guides

Co-ops support Indiana tourism since 1972

For nearly 48 years, Hoosier Energy and member cooperatives have supported Indiana tourism by sponsoring the Indiana Festival Guide. A popular and comprehensive tourism publication, which includes more than 600 festivals, craft fairs, holiday shows, historical re-enactments and community celebrations, is available free of charge from member co-ops.

Electric cooperatives are committed to the communities they serve. That is why they are pleased to help highlight some of the best and exciting events coming to communities throughout the state.



## Commitment to community

Hoosier Energy started the Festival Guide as a community service for its member cooperatives in 1972. Each year 500,000 copies are distributed covering events across the state.