

APRIL 2021 | Vol. 44, No. 4

ENERGYLINES



**When mother nature
causes power outages,
what happens next?**

THE OUTAGE RESTORATION PROCESS, PAGE 3



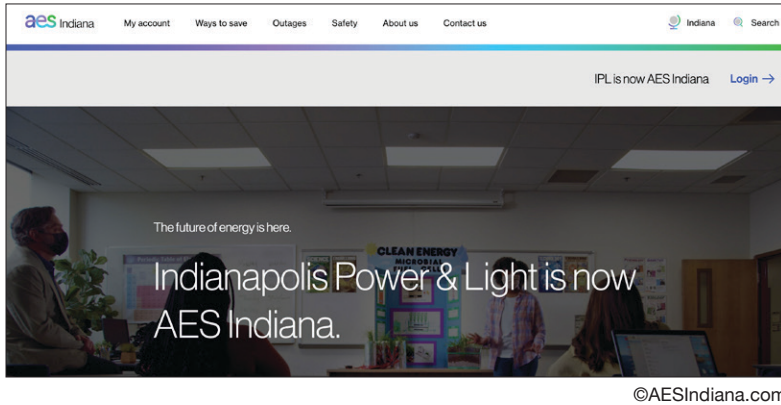
THE BEETLE BATTLE

**Emerald Ash Borer
mitigation shows
success. PAGE 5**

UNWAVERING DSM GOAL

**How DSM programs
are helping member-
consumers. PAGE 9**

INDUSTRY NEWS



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Investor-owned utility Indianapolis Power and Light rebrands as AES Indiana

Investor-owned Indianapolis Power and Light (IPL), a subsidiary of The AES Corporation, is now AES Indiana. Rebranding efforts include a new logo. AES acquired IPL in 2001 and the utility serves more than 500,000 customers in and around Marion County. The AES Corporation is headquartered in Arlington, Virginia.

INDUSTRY NEWS

Texas seller of electricity files for bankruptcy

Just Energy Group Inc. filed for bankruptcy protection stemming from large bills following the outages due to frigid February weather in Texas. According to the Wall Street Journal (WSJ), the company faces more than \$250 million in charges.

Just Energy is asking that ERCOT suspend collecting invoices until questions raised by government authorities about the February outages have been investigated, addressed and resolved, reports the WSJ.

Established in 1997, Just Energy provides electricity, natural gas and renewable energy in the U.S. and Canada to more than 1 million customers.

INDUSTRY NEWS

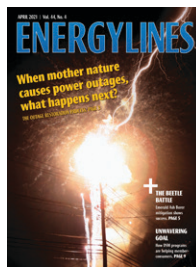
Duke Energy to retire coal-fired plant in Indiana

Duke Energy is planning to retire its 63-year-old coal-fired station in New Albany, Ind., sooner than expected, according to The Indianapolis Business Journal. The R. Gallagher plant, located along the Ohio River, will close by June 1.

Duke Energy states that lower power demand during the pandemic has led to the early retirement plan. The two units in operation at the station output 280 MW.

ON THE COVER

How power outages are tracked by Hoosier Energy include crews backed by technology.



16

MEMBERS SERVED BY G&T

With a combined 700,000 member-consumers served, Brazos Electric Power Cooperative in Texas has filed for bankruptcy following the outages in February.

Texas G&T files for bankruptcy

Generation and transmission co-op Brazos Electric Power Cooperative in Texas has filed for bankruptcy. The cooperative is facing a \$2.1 billion energy bill from the winter weather affecting the state in February, according to the Wall Street Journal.

Headquartered in Waco, the cooperative filed for Chapter 11 protection following invoices from the state's grid operator for the cost of purchasing energy during a week-long period of high energy costs.

In a sworn declaration, Executive Vice President and General Manager Clifton Karnei said, "Simply put, Brazos Electric suddenly finds itself caught in a liquidity trap that it cannot solve with its current balance sheet."

The WSJ reports that credit-rating firms have flagged ERCOT co-ops, municipalities and power authorities as being at increased risk following the energy crisis, downgrading them or placing them on negative credit watch.

Brazos EPC provides energy to its 16 members who serve 700,000 member-consumers across the state.



FIND US ONLINE

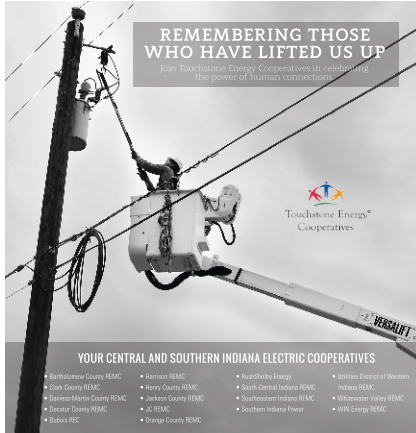
To subscribe or to read back issues, visit HoosierEnergy.com/news/energylines

Strategic Priorities

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



NEVER FORGET

Touchstone Energy media plan to communicate cooperative history

Never Forget is the theme for the 2021 advertising campaign developed by Touchstone Energy for Hoosier Energy members. Beginning in April and running through October, print, digital and radio ads will be placed in local co-op media markets.

The ads are designed to communicate co-ops' commitment to their communities and the decades-long role they have had providing power.

Coordinating this year's ad campaign is Hoosier Energy's Video Producer Chris Johnson. He works to brand these messages with co-op logos before they are placed in local media channels. [EL](#)

“These ads are designed to drive member-consumers to co-op websites and increase engagement with their co-op.”

CHRIS JOHNSON
Video producer

CORRECTION

An omission occurred in the March issue related to co-ops who sent line workers to help restore power following severe weather in Kentucky and Virginia. The complete list of co-ops providing assistance include:

VIRGINIA RESPONSE: Clark County REMC, Harrison REMC, Henry County REMC, JCREMC, Utilities District of Western Indiana REMC, Whitewater Valley REMC

KENTUCKY RESPONSE: SCI REMC



How outages are tracked and the tools used to restore power

Glance up to the sky and the answer likely lies above. Nine times out of 10 when those clear blue skies change, electric service is threatened.

How can you outguess Mother Nature? You can't. But that doesn't sway the Hoosier Energy Power Delivery team. It challenges them.

They are always monitoring the weather, and if a storm rolls in or lightning

strikes, they are ready.

"To help us when the weather changes, we have an online program that helps us track storms including lightning strikes," says Gary Brown, System Control Coordinator Outage and Planning, a 22-year veteran of system operations.

Load that can be restored by SCADA (electronic) control is restored quickly and member co-ops involved are notified. Distance fault recorders (DFRs), a tool Hoosier Energy technicians were instrumental in developing more than three decades ago, are invaluable in identifying the problem area within a very short distance of a fault.

"Using Distance Fault Recorders and switching diagrams, we can open up switches to isolate a fault and restore service as soon as possible," said Brown.

The DFRs help system control identify where a fault is, but if it cannot be sectionized remotely from the control center, system control relies on power delivery personnel to locally isolate the fault and visually determine the cause.

The team's ground assault comes in different forms including technological controls that divert energy to nearby lines while crews work to fix the problem area. Mobile substations can help crews keep energy flowing while working on

equipment. Recently, a mobile substation was placed in service while crews replaced a transformer at the Jacksonville substation.

Equipment failure

Over time, the elements take their toll on the grid, contributing to equipment failure. Nearly half the sustained outages on the Hoosier Energy system are due to equipment failure or vegetation. High winds can upend trees, flinging them into a right-of-way in a matter of seconds while severe weather can cause the inner workings of the equipment to deteriorate.

Animals

Animals also cause outages. In January, a raccoon snuck into the Abington substation in Whitewater Valley REMC territory causing high-side fuses on the 69 kv side of the transformer to blow. Crews replaced the fuses and service was restored.

Accidents

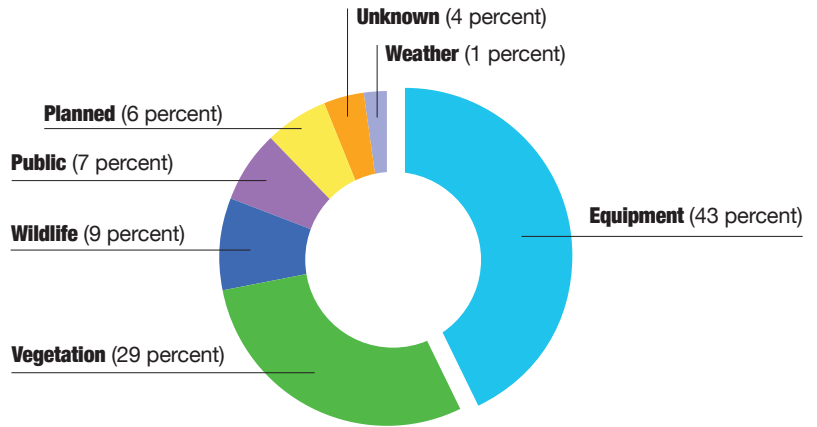
Accidents involving automobiles and farm equipment can take out poles or lines, causing damage to the system and potentially outages.

No matter the cause, every outage is recorded in an interruption report, charted and diagnosed to prevent a similar reoccurrence.

The biggest deterrent to an outage are the proactive measures the crews take to prevent one from occurring. Workers in the field perform routine checks of gauges, relays, switches and lines. Through the \$248 million capitol work plan, grid improvements will encompass more than 250 projects across transmission, distribution, communication and network systems. [E](#)

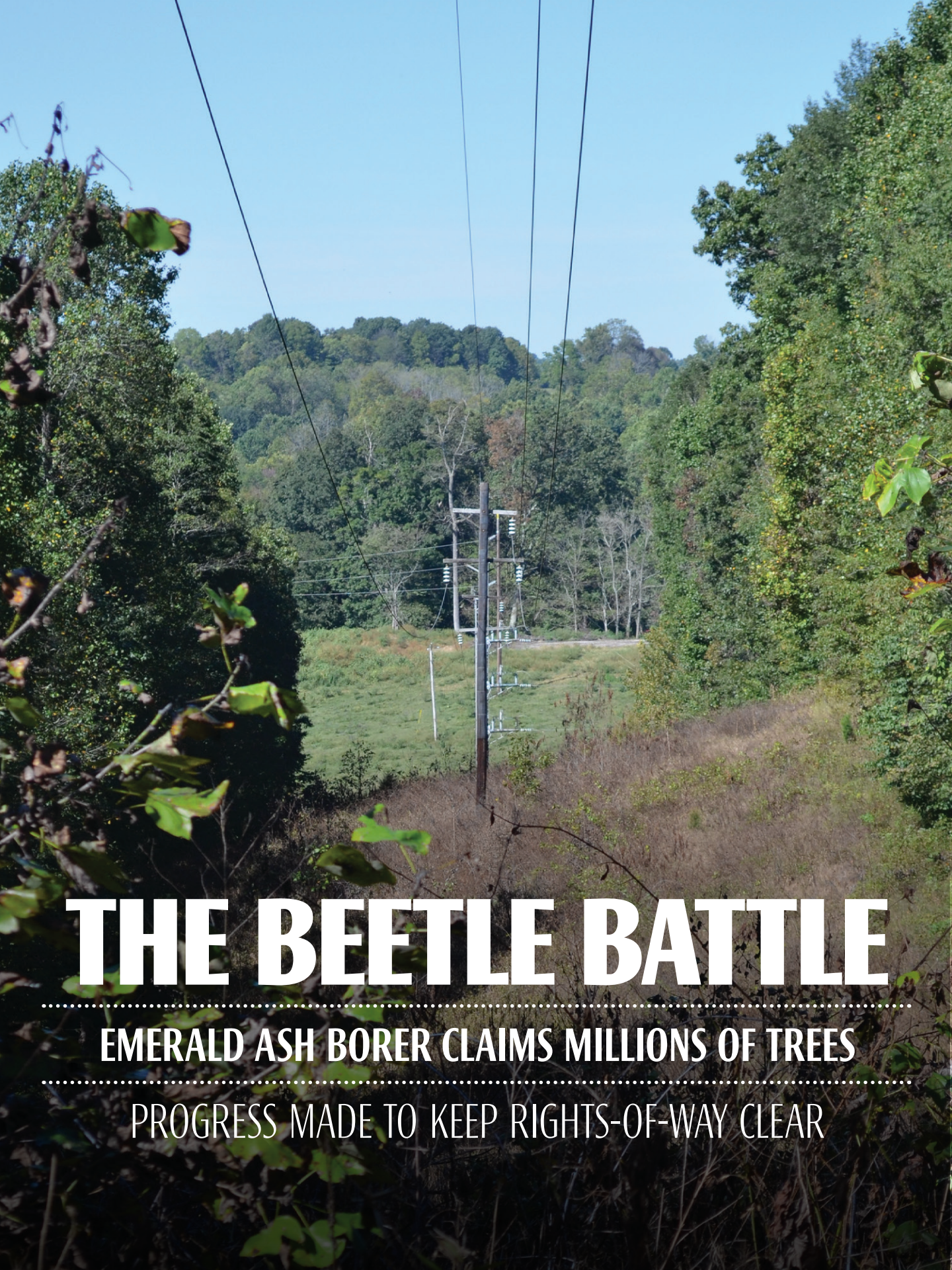
Seven classifications of power outages

Hoosier Energy has identified seven classifications of power outages. A common cause is the result of equipment exposed to the elements. When it is difficult to determine the source of an outage it is labeled as “unknown.” These outages are often due to tree limbs blowing onto lines during storms.



HE Photo

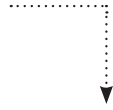
MOBILE RESCUE: Hoosier Energy’s mobile substation ensures continued service to member systems while field crews work on transmission equipment.



THE BEETLE BATTLE

EMERALD ASH BORER CLAIMS MILLIONS OF TREES

PROGRESS MADE TO KEEP RIGHTS-OF-WAY CLEAR



Twice every year, Jared Murphy climbs into a helicopter to patrol miles and miles of transmission rights-of-way that crisscross southern Indiana and southeastern Illinois.

As Vegetation Management Coordinator, Murphy is looking for dead trees, overgrown brush or any other vegetation growth threatening to interfere with power lines along Hoosier Energy's nearly 1,700-mile transmission network.

Targeting dangerous trees before the dead hulks topple into power lines and potentially cause an outage or worse, a fire, is a big part of the vegetation management program at Hoosier Energy.

In 2016, about 900 clusters of dead trees were threatening power lines on the grid. The largest majority were ash. It was clear that the Emerald Ash Borer had hit the area. This wood-boring beetle native to Asia first surfaced in Michigan in 2002. Two years later it had moved into Indiana and has continued a steady destructive march throughout 30 states since, killing millions of ash trees in its wake.

Hoosier Energy took swift action, and today, the light at the end of the tunnel to mitigate damage from the tiny beetle can be seen. During the past five years, the ways to combat the beetle have evolved and the process in place today begins with technology.

With more than 147 million ash trees in Indiana and about 25,000 or so in or near utility rights-of-ways, Murphy knew the speed of removing affected trees needed to increase.

"I called everyone I knew to find out what they were doing. Some had success with large four-foot aerial saws to cut vegetation away from rights-of-ways so I looked into this and liked what I had learned," said Murphy.

Carried by a helicopter, the four-foot saw is lowered into the tree canopy to cut affected trees. Up to 200 trees can be cut in a day.

This single change helped reduce the time needed to remove targeted trees in Hoosier Energy rights-of-way from a year to just a few weeks. This has reduced the

cost of treating affected ash trees by 60 percent.

As Murphy takes to the skies in a helicopter, he uses software from surveying and engineering firm Bledsoe Riggert Cooper James that connects problem areas with GPS coordinates. This data is what crews using the aerial saw review to target problem areas.

What the saw leaves behind is a trunk that is short enough that if it did fall, it would not affect utility equipment. When the trunk remains, there are habitat benefits as well.

"The remaining tree trunks can be used by wildlife that require dead or hollow trees for shelter," said Murphy.

The process to remove dead trees in a timely, cost-effective way, consistent with state and federal regulations, is ongoing. The ash borer has affected Hoosier Energy and nearly every member system with those on the eastern side of Indiana hit the hardest.

"Our plan to mitigate the emerald ash borer is working well as we comply with NERC-regulated lines and bulk power system lines," said Murphy. [EL](#)

How the Emerald Ash Borer destroys trees, emerges in the spring

The green beetle lays eggs in the bark of every type of ash tree found in America. When the eggs hatch into larvae, these worm-like creatures bore into the tree to eat, destroying the tree's vascular system for water and nutrients. In the late spring, the adult beetle emerges from a distinctive D-shaped hole to start the cycle again. Another sign of EAB infestation is the presence of woodpeckers, which tear apart the bark of the tree to reach the larvae.

Source: RE Magazine



Renewable energy growth in southern Indiana

Hoosier Energy partners with Capital Dynamics for 150 MW of solar

Hoosier Energy recently signed a long-term power purchase agreement with Capital Dynamics CEI to buy 150 megawatts of power generated by the Ratts 2 Solar Project in Knox County, Indiana. Construction is expected to begin in 2022 with commercial operation anticipated in 2023.

“Hoosier Energy’s PPA with Capital Dynamics is an important step toward achieving our long-range plan of adding diverse projects to our energy portfolio that focus on lowering costs for our members and reducing our carbon footprint,” said President and CEO Donna Walker.

Capital Dynamics owns two separate projects, Ratts 1 Solar and Ratts 2 Solar, named for the retired Frank E. Ratts Generating Station. These solar arrays interconnect with that primary substation where Hoosier Energy’s first power plant once stood.

When the Hoosier Energy Board of Directors announced last year to retire the Merom Generating Station, the search began for a replacement portfolio focused on member-consumer rates, rate stability and predictability, environmental stewardship, environmental sustainability and generation diversity.

Heath Norrick, Senior Manager, Portfolio, said the request for proposals brought in enough bids to replace the Merom Generating Station’s 1,070 megawatts 20 times over. The Portfolio Team began separating projects into buckets, identifying about 500 megawatts of solar to acquire.

“We are familiar with Ratts 2 Solar because it interconnects with our system. It’s a great

SOLAR, continues on Page 10



MEMBER FOCUS

Custom video productions created by Chris Johnson and Ben Turner help co-ops communicate

When Chris Johnson and Ben Turner – Hoosier Energy’s video producers – show up at a co-op, they’re often greeted with smiles and gratitude. Since the two have been building relationships with members for 14 and 18 years, respectively, they have a keen understanding of the members’ perspectives and the ability to go from initial concept or idea to produce high-quality, professional videos to meet members’ needs.

“The co-ops really enjoy the fact that they can just call us and get a video made,” Turner said. “We’re here for the members and Hoosier Energy employees. They can call us anytime.”

Johnson said that he and Turner would shoot any videos or photos – whether it be special events or projects, distribution line rebuilds, education, training, marketing and communications, or more – that co-ops want for their members and employees. “If anyone has an idea, we want to hear it! We are here to produce any video or take photos co-ops need,” Johnson said.

From working through an initial video idea

or concept, to helping with the script, shooting footage, adding graphics, editing and creating a final product, Johnson and Turner are available to offer assistance or full production services.

In preparation for annual meeting season, Turner and Johnson have been speaking with each member cooperative to determine the level of help they need. For some, they are creating videos that become the entire annual meeting session. For others, they're creating a hybrid video that includes some live and some recorded footage.

"We're not just producing the videos," said Turner. "We're producing a live national anthem, board minutes, president and CEO speeches, invocations, Pledge of Allegiance." Johnson added, "For a couple of members, we're literally producing a video that is their entire annual meeting, and then they'll just hit play as if the meeting is live."

Besides development of new annual meeting concepts, Johnson and Turner are producing economic development videos. These videos are helping promote specific sites in member communities to help attract new commercial and industrial businesses.

"These videos are another tool to help to attract jobs, investment and load to communities. We're doing our small part and believe it can have a big impact," Turner said, and Johnson added, "If something is best conveyed through a video, that is what we are here for." **EL**

ONLINEEXTRA

>> View videos produced on YouTube at:

URL: [YouTube.com/MyHoosierEnergy](https://www.youtube.com/MyHoosierEnergy)

Custom video productions

Ben Turner and Chris Johnson have a combined 32 years of electric utility experience that they put to use to help co-ops communicate with their members. From annual meeting videos to energy efficiency tips, their customized video content engages audiences.



Turner



Johnson



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DSM program development

A new subcommittee, made up of member co-op employees, was formed to evaluate, assess and provide recommendations on future DSM programs. A focus on beneficial electrification initiatives drove many discussions by the group of co-op and Hoosier Energy employees. By showing member-consumers the value electric devices bring, member engagement can flourish.

New pilots have launched with a focus on helping member-consumers use energy efficiently at home. Heating and cooling an all-electric home is the largest energy use member-consumers have. That led to a smart thermostat pilot project at Jackson County REMC. Partnering with the National Rural Electric Cooperative Association, the co-op is testing ecobee thermostats for energy management during times of peak load demand.

Engaging member-consumers outdoors is where the Electric Lawn Care Equipment Pilot provides value. This rebate program will help member-consumers experience how all-electric equipment has advanced in recent years, competing with gasoline equipment.

SOLAR,

Continued from page 7

utilization of existing infrastructure, built by us, to provide value into the future,” Norrick said, adding about Capital Dynamics, “We have had a decent, long-standing relationship and familiarity with them and we have a high level of confidence in their ability to build a project.”

This partnership not only expands Hoosier Energy’s renewable portfolio by purchasing from a solar array, but also purchasing accredited renewable energy and offering it to

“A positive experience with electric lawn mowers, string trimmers or leaf blowers can set the stage for larger purchases in the future – maybe even an electric vehicle.”

BLAKE KLEAVING

Energy Management Solutions

“A positive experience with electric lawnmowers, string trimmers or leaf blowers can set the stage for larger purchases in the future – maybe even an electric vehicle,” said Kleaving.

The data gained today through these programs will help member cooperatives show their experience with residential electric equipment.

“Electric equipment pilots like these help show that co-ops are moving quickly to meet consumer preferences as certain segments move into smart technologies and consumers upgrade to all-electric household equipment,” said Kleaving.

The process of building and marketing these pilots show how multiple departments across Hoosier Energy and member cooperatives are collaborating to research and implement new programs. [EL](#)

the membership. When members purchase renewable energy credits, they are ensured to be purchasing from renewable generation, according to Ryan Henderson, Senior Manager, Emerging Energy Resources.

“When meeting with commercial and industrial customers who are exploring renewable energy installations in order to achieve their renewable goals, we also offer them renewable energy credits as an alternative. In most cases they accept the RECs alternative we provide because it achieves the same goals at a much lower cost,” Henderson said. [EL](#)



Video series helps co-ops communicate efficiency

Hoosier Energy video producers created 10 home efficiency tips for use by member cooperatives. The videos can be customized for each member's needs. The videos include information ranging from HVAC equipment maintenance to kitchen appliance tips.

The 10 videos can be placed on social media channels individually or they can be combined into a single video to help member-consumers improve the efficiency of their homes.

VIDEO VALUE

Learn more about the member focus video productions take for co-ops on Page 7.