

PJM (

COMMUNICATIONS PLAN FOR A

LOAD SHEDDING EVENT

Caryn Whitney, OEC Statewide Communications Ryan Strom, Power Delivery Engineering Services Jade Guthrie, Butler Rural Brian Barger, Mid-Ohio



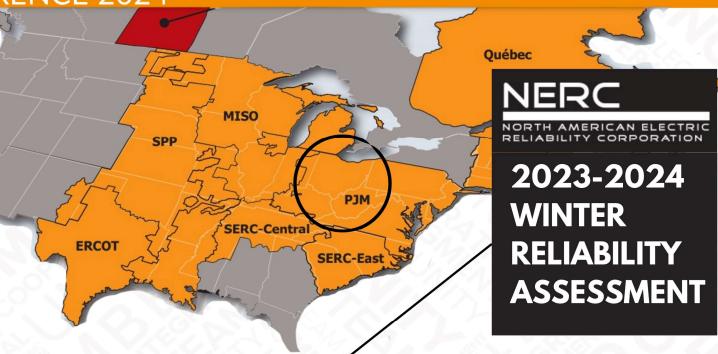
SO HOW DID WE GET HERE?

BASELOAD, RELIABLE ALWAYS AVAILABLE POWER GENERATION IS DECREASING



A PROJECTED INCREASING DEMAND FOR ELECTRICITY DUE TO MORE ELECTRIFICATION IN SOCIETY

THE WARNING SIGNS



A large portion of the North American BPS is at risk of insufficient electricity supplies during peak winter conditions



Fewer coal plants

Higher demand



WINTER IS OUR GREATEST RISK

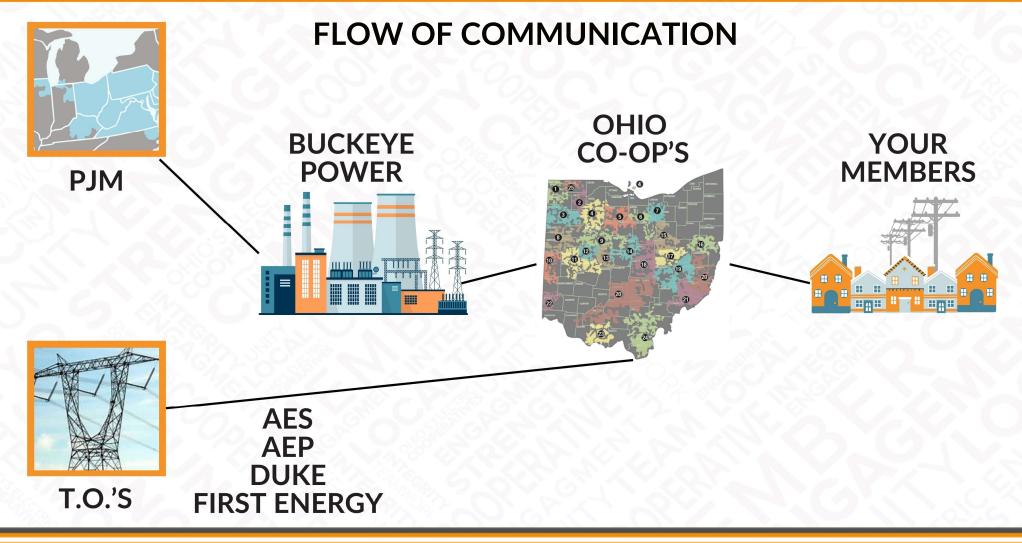
THE NEED FOR A LOAD SHED WILL BE COMMUNICATED TO CO-OPS IN TWO WAYS:

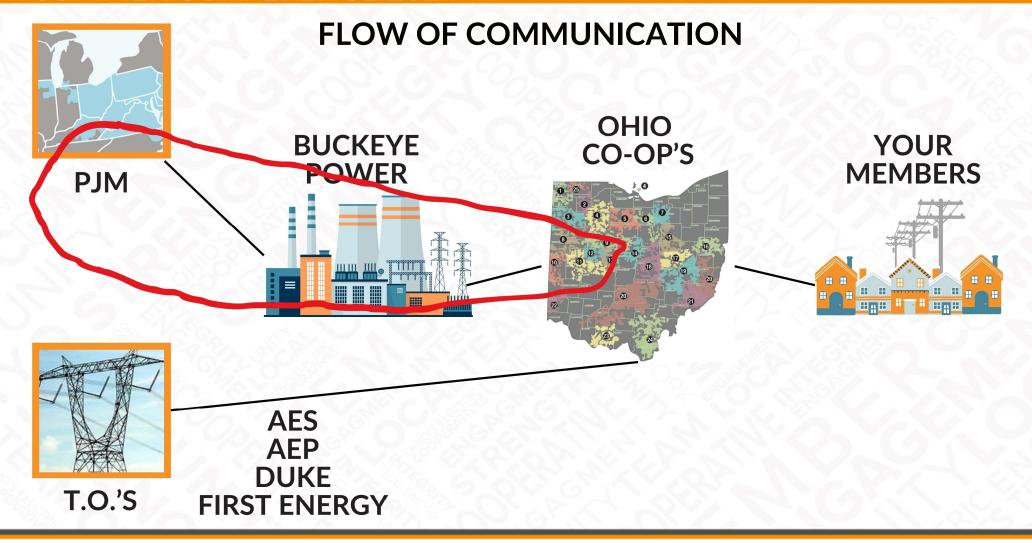
FROM BUCKEYE FROM T.O.'S

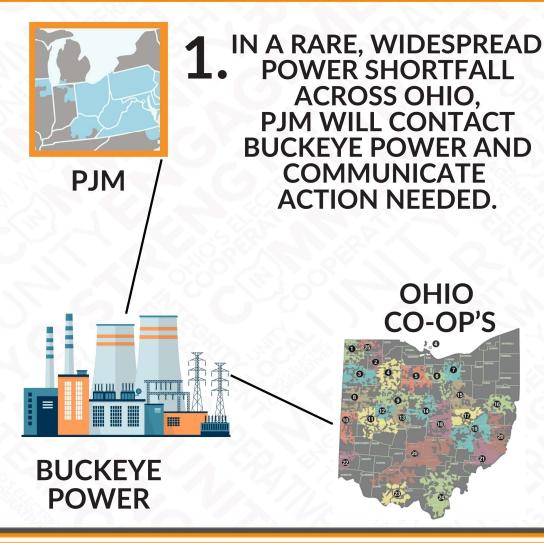








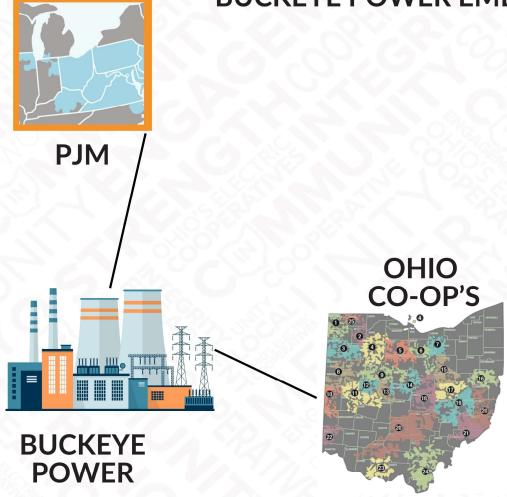




FLOW OF COMMUNICATION

2. BUCKEYE POWER WILL SHARE PJM ACTION NEEDED WITH OHIO CO-OP'S.

BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN





Buckeye Power, Inc. - Emergency Load Reduction Plan

Ì	Current Version:	NERC Applicable?	NERC Standards:	NERC ID #:
	REV #0	No	EOP-011-4	NCR00700

DESCRIPTION

1.0 Purpose

The purpose of this procedure is to establish and document actions required to be taken by Buckeye Power, Inc. (Buckeye) at the direction of PJM and/or Transmission Owners during emergency events. Under NERC reliability standards, Buckeye is not identified as an entity responsible for load shed. However, Buckeye may be directed, and required to comply, with load shed orders in the event of a power supply or transmission grid emergency, or at any time that such operation is necessary to maintain the reliability of the system as determined by PJM (through NERC Standards as either the Transmission Operator (TOP), Balancing Authority (FBA), Regional Transmission Organization ("RTO"), Reliability Coordinator ("RC")), or if required by law. Additionally, when coordinating with PJM, the Transmission Owners ("TOS") in Ohio and Indiana, including AEP, ATSI, AES, and Duke, control aspects of each Transmission Zone, and may act as the TOP for local considerations. As described by PJM, a Load Shed is the emergency procedure of last resort. It is a controlled interruption of power to customers, which operators turn to after exhaustion all other options for maintaining stability.

2.0 Entities Affected

Buckeye Power, Inc.:

This Emergency Load Reduction Plan is for Buckeye, as a PJM Member and designated Load Serving Entity (LSE) for the Distribution

Cooperatives in Ohio.

Distribution Cooperatives:

Member cooperatives are responsible for fulfilling tasks associated with the LSE role on behalf of Buckeye in accordance with the "Delegation and Agency Agreement for Compliance with PJM Governing Agreements and

PJM Directives".

3.0 PJM Emergency Categories (PJM Manual 13: Emergency Operations)

4.1 Transmission Security Emergencies (Transmission Loading Relief)

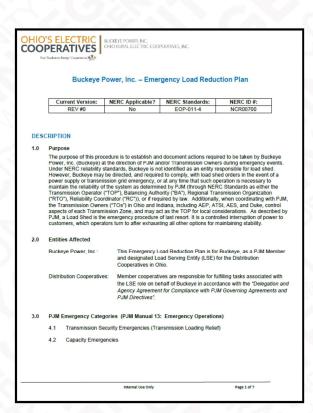
4.2 Capacity Emergencies

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BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN

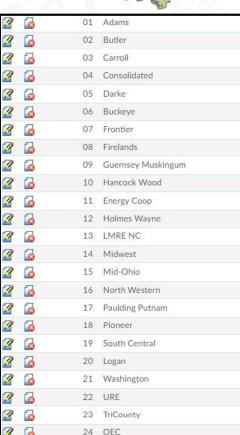




Upon receiving emergency messages, information and/or operational directives from PJM, the Buckeye operations and communications teams will:

- Utilize their respective notification contact lists to communicate the information and/or operational directives to member cooperatives.
- Contact will be made via SMS text alerts, email using OneCallNow. Buckeye operations team members will also call co-op operations staff.





BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN





BUCKEYE POWER OPERATIONS HAS ISSUED AN ENERGY WATCH DUE TO INFORMATION RECEIVED FROM PJM AND/OR T.O.'S THAT HIGH DEMANDS AND/OR SYSTEM CONDITIONS MAY NEGATIVELY IMPACT GRID RELIABILITY IN THE NEXT 24 HOURS.



TAKE STEPS NOW TO CONSERVE ENERGY:

- ACTIVATE LOAD CONTROL SWITCHES
- ENCOURAGE MEMBERS TO SAFELY CONSERVE ENERGY
- BUCKEYE POWER OPERATIONS WILL EMAIL-PHONE WITH FURTHER DIRECTIVES

AN **ENERGY WARNING** WILL BE ISSUED IF CONDITIONS DO NOT IMPROVE.

OHIO'S ELECTRIC COOPERATIVES

ENERGY WATCH

Upon receiving information from PJM and/or T.O.'s that high demands or system conditions may negatively impact grid reliability, the Buckeye operations and communications teams will issue an Energy Watch notice to member cooperatives.

BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN



BUCKEYE POWER OPERATIONS HAS ISSUED AN ENERGY WARNING DUE TO ADDITIONAL INFORMATION RECEIVED FROM PJM AND/OR T.O.'S THAT HIGH DEMANDS AND/OR SYSTEM CONDITIONS PERSISTS DESPITE INITIAL CONSERVATION MEASURES. GRID RELIABILITY COULD BE NEGATIVELY IMPACTED IN THE NEXT 0-12 HOURS.



URGENT ENERGY CONSERVATION NEEDED:

- URGE COOPERATIVE MEMBERS TO SAFELY CONSERVE ENERGY
- BUCKEYE POWER OPERATIONS WILL EMAIL-PHONE WITH FURTHER DIRECTIVES

AN ENERGY EMERGENCY WILL BE ISSUED IF CONDITIONS DO NOT IMPROVE.



ENERGY WARNING

Upon receiving information from PJM and/or T.O.'s that high demands or system conditions are likely to require load shed or rolling blackouts, the Buckeye operations and communications teams will issue an Energy Warning notice to member cooperatives.

An Energy Warning is likely to accompany a request from PJM to consumers for electricity conservation. Distribution cooperatives should communicate this message to their members and estimate/measure the total load reduction produced from this action.



BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN





BUCKEYE POWER OPERATIONS HAS ISSUED AN ENERGY EMERGENCY DUE TO CONTINUED INFORMATION RECEIVED FROM PJM AND/OR T.O.'S THAT HIGH DEMANDS AND/OR SYSTEM CONDITIONS REMAIN. GRID RELIABILITY IS AT IMMEDIATE RISK.



URGENT ENERGY CONSERVATION NEEDED NOW TO AVOID ROLLING OUTAGES:

- URGE COOPERATIVE MEMBERS TO SAFELY CONSERVE ENERGY NOW TO AVOID ROLLING OUTAGES
- BUCKEYE POWER OPERATIONS WILL EMAIL-PHONE WITH FURTHER DIRECTIVES

A MANDATORY LOAD SHED DIRECTIVE MAY BE ISSUED.



ENERGY EMERGENCY

Upon receiving information from PJM and/or T.O.'s that load shed actions have been implemented and that cooperative members may be impacted; the Buckeye operations and communications teams will issue an Energy Emergency notice to member cooperatives.

BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN



MANDATORY LOAD SHED DIRECTIVE

- LOAD CONTROL IMPLEMENTED FOR SWITCHES
- VOLTAGE REDUCTION INCLUDED IN YOUR CO-OPS LOAD SHED PLAN
- IMPACTED CO-OPS IMPLEMENT DIRECT LOAD SHED PLAN IF PREVIOUS REDUCTION EFFORTS HAVE NOT MET MANDATORY REDUCTION ORDERED FROM PJM AND/OR T.O.'S.





BUCKEYE POWER OPERATIONS WILL EMAIL-PHONE WITH FURTHER DIRECTIVES

MANDATORY LOAD SHED DIRECTIVE

Upon receiving a directive from PJM and/or T.O.'s that cooperative members of Buckeye must implement load shed actions, the Buckeye operations and communications teams will utilize their respective notification contact lists to inform members that a mandatory directive to shed load has been ordered. All relevant information contained in the directive such as location and/or the percentage (%) of load to reduce, will also be conveyed.

BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN



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BUCKEYE POWER OPERATIONS WILL EMAIL-PHONE WITH FURTHER DIRECTIVES

MANDATORY LOAD SHED DIRECTIVE

Buckeye will implement load control using its load management system if the cooperative(s) impacted by the load shed directive have included water-heater and/or air-conditioner Radio Controlled switches in their load shed plan.

Member cooperatives impacted by the load shed directive will implement voltage reduction if included in their load shed plan.

Member cooperatives impacted by the load shed directive will implement their direct load shed plan if the level of load reduction attained through previous steps is insufficient to meet the mandatory reduction ordered through the load shed directives from PJM and/or T.O.'s.

BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN



LOAD SHED DIRECTIVE CANCELLED



FROM BUCKEYE POWER OPERATIONS PJM, AND/OR T.O.'S

OHIO'S ELECTRIC
COOPERATIVES

BUCKEYE POWER OPERATIONS WILL EMAIL-PHONE WITH FURTHER DIRECTIVES ON LOAD RESTORATION

LOAD SHED DIRECTIVE CANCELLED

Upon receiving notice from PJM and/or T.O.'s that load shed actions have been cancelled/terminated, the

Buckeye operations and communications teams will inform member cooperatives that load restoration can begin.

BUCKEYE POWER EMERGENCY LOAD REDUCTION PLAN



BUCKEYE POWER OPERATIONS HAS ISSUED AN ENERGY WATCH DUE TO INFORMATION RECEIVED FROM PJM AND/OR T.O.'S THAT HIGH DEMANDS AND/OR SYSTEM CONDITIONS MAY NEGATIVELY IMPACT GRID RELIABILITY IN THE NEXT 24 HOURS.



TAKE STEPS NOW TO CONSERVE ENERGY:

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OHIO'S ELECTRIC



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OHIO'S ELECTRIC COOPERATIVES



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OHIO'S ELECTRIC COOPERATIVES

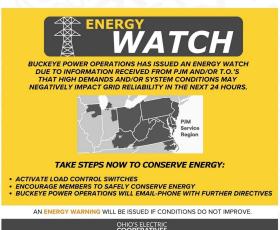


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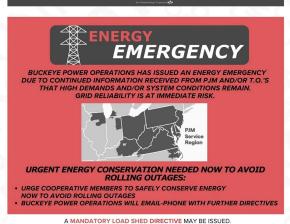




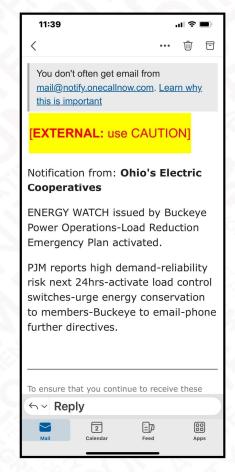
COMMUNICATIONS - EMERGENCY LOAD REDUCTION PLAN



OHIO'S ELECTRIC



OHIO'S ELECTRIC COOPERATIVES





ENERGY WATCH from Buckeye-PJM reports high demand-reliability risk next 24hrs-activate load control switchesurge conservation-Buckeye to email-phone directives

COMMUNICATIONS - EMERGENCY LOAD REDUCTION PLAN



CUSTOMIZABLE GRAPHICS FOR ENERGY WATCH



Extreme cold temperatures are causing high demand for power. The region's electric grid manager, PJM, is asking all users of electricity to safely conserve energy to avoid power supply shortages.

Thank you.

PLEASE CONSERVE ENERGY

Extreme cold temperatures are causing high demand for power. The region's electric grid manager, PJM, is asking all users of electricity to safely conserve energy to avoid power supply shortages.

Thank you.

COMMUNICATIONS - EMERGENCY LOAD REDUCTION PLAN



CUSTOMIZABLE GRAPHICS FOR ENERGY WARNING



Extreme cold temperatures are causing high demand and could exceed power supply. Our regions electric grid manager urges immediate energy conservation by all electricity users to avoid power disruption.

Thank you.



Extreme cold temperatures are causing high demand and could exceed power supply. Our regions electric grid manager urges immediate energy conservation by all electricity users to avoid power disruption.

Thank you.



COMMUNICATIONS - EMERGENCY LOAD REDUCTION PLAN



CUSTOMIZABLE GRAPHICS FOR ENERGY EMERGENCY & MANDATORY LOAD SHED DIRECTIVE



Extreme cold temperatures have caused power demand to exceed power supply. Our region's electric grid manager, PJM, has implemented rolling power outages to balance the grid. All electricity users are urged to conserve and prepare for possible outages in the area.

Thank you.



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Thank you.



COMMUNICATIONS - EMERGENCY LOAD REDUCTION PLAN



CUSTOMIZABLE GRAPHICS DURING A LOAD SHED EVENT

BEST WAYS TO CONSERVE THE MOST ENERGY

- 1. Turn off dishwasher.
- 2. Turn off laundry machines.
- 3. Adjust your thermostat.

KEEPING YOU PREPARED

Make a kit with flashlights, batteries, blankets, a cell phone charging cord for your car, and a battery-powered radio.

HOW TO PREPARE FOR ROLLING POWER OUTAGES

- Prepare a kit with flashlights, batteries, a car phone charging cord, batteryoperated weather radio, blankets
- 2. Know the location of local warming shelters.
- Have a place to stay in extended outage.
- If you depend on a powered medical device, make plans for alternate power source ahead of time.

COMMUNICATIONS - EMERGENCY LOAD REDUCTION PLAN



CUSTOMIZABLE GRAPHICS DURING - AFTER A LOAD SHED EVENT

ROLLING POWER OUTAGES OCCUR

When electricity supply is low and can't keep up with consumer demand, rolling outages, or blackouts, help balance the electric grid to prevent widespread power outages, or the collapse of the grid. The regional grid manager implements rolling outages, not local utility companies or electric cooperatives.



WHAT SHOULD YOUR COOPERATIVE BE DOING NOW, BEFORE A LOAD SHED EVENT?



RELIABILITY EDUCATION



"The push to rapidly replace always-available energy could spark rolling blackouts across America."

-David Tudor CEO, Associated Electric Cooperative

OHIO'S ELECTRIC COOPERATIVES



WHAT SHOULD YOUR COOPERATIVE BE DOING NOW, BEFORE A LOAD SHED EVENT?



RELIABILITY EDUCATION



BLACKOUTS What do they mean?

WHAT SHOULD WE BE DOING NOW, BEFORE A LOAD SHED EVENT?

RELIABILITY EDUCATION



Time for a change

A flew working in the electric willity business for nearly 40 years, 1 still manved at the working of our interconnected electric gover network that we commonly refer to as the grid. It has taken equal parts of engineering, ingeniuty, and hard work to design, haid, and swattian a network that makes electricity available every how or of every dar on matter how hot or how cold the weather outside may be. I hope you have the chance to read ancrea about the basic working or the power grid in our article on page 4.

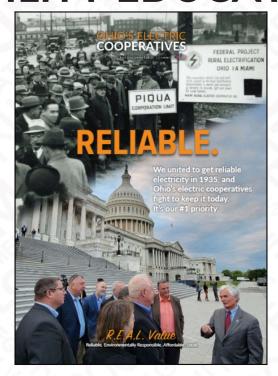
Unfortunately, as summer approaches this year, we can no longer take that 34/7 availability of partnet. Over the past secenal year, we have experienced a lightening of the supply-demand balance that's critical to the function of our power god. Since 2030, each time a large area of the country has experienced externe temperatures for men than a day or two, the supply of electricity has proved inadequate to meet demand and forced regional grid operators to shut. of lower to roosulement for hours or even daw at at late in the seet the world in four contains.

Across the country, we are facing the disorderly retirement of baseload coal and nuclear power plants because of poorly conceived and harmful energy policies that include:

- Overreaching and unreasonable environmental regulations that result in unnece high costs while providing only minimal environmental benefits.
- Poorly designed electricity market rules that under-compensate reliable baseload power plants that provide a steady and controllable output, while over-compensating less reliable and intermittent sources.
- Unreasonable goals and time frames to achieve greater reductions in carbon emission from electricity providers, despite the fact that the U.S. electric sector has cut CO₂ emissions by 36% since 2005 while producing nearly 5% more electricity.

Organizations charged with ensuring a reliable electric grid such as the North American Electric Reliability Corporation (nerc.com) and the PJM interconnection (pim.com) have each, independently, published reports that outline concerning trends that are resulting in

nite the mission of your electric cooperative has not enanged and our communication, you, our members, has not wavered, the harsh reality is that providing a safe, reliable, fordable, and environmentally responsible supply of electricity is getting more and more tallension. We need changes in the policies that affect our electricity supply. (2) As summer approaches thi year, we can no longer take 24/7 availability of electricity for granted.



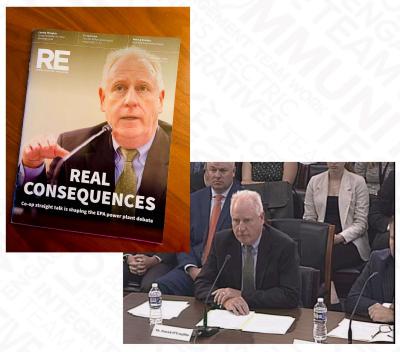


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WHAT SHOULD YOUR COOPERATIVE BE DOING NOW, BEFORE A LOAD SHED EVENT?

RELIABILITY EDUCATION









Distribution Load Shed Plan

Jade Guthrie, Manager of Communications & Marketing

Segmentation

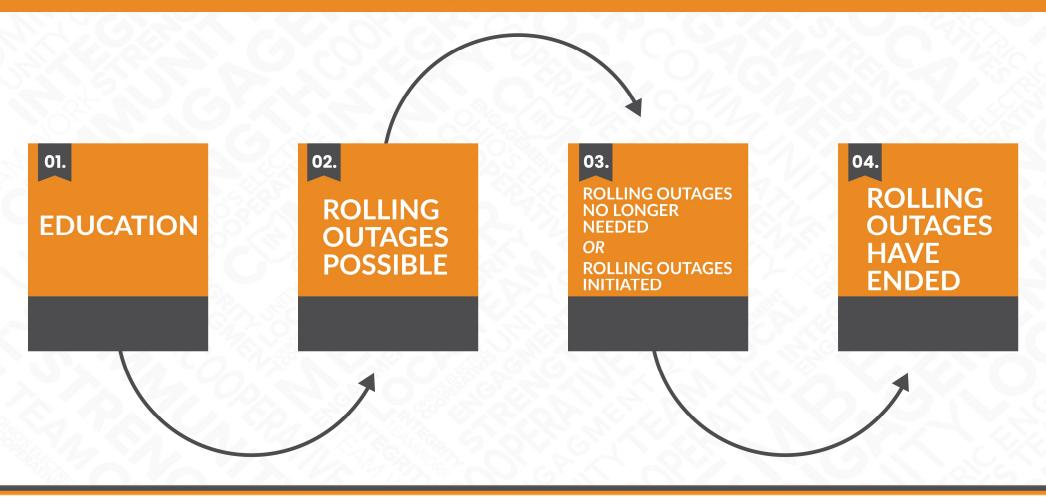
- > Prioritized communication with three audiences
- > Customized communication for each audience

KEY ACCOUNTS CRITICAL LOADS

Emergency management agencies, nursing homes, etc.

RESIDENTIAL MEMBERS

Residential Member Communication Plan



Educating members **now** can ease the situation if load reduction becomes necessary in the future.

ROLLING POWER OUTAGES POSSIBLE



Rolling outages will impact *all* electric utility consumers, not only co-op members.

Rolling Outages No Longer Needed

- PJM has balanced power supply and demand in our area
- Thank you for conserving energy

ROLLING POWER OUTAGES
NO LONGER NEEDED
THANK YOU FOR CONSERVING ENERGY!



ROLLING POWER OUTAGES HAPPENING NOW

CLICK HERE TO LEARN MORE →

ROLLING POWER OUTAGES NO LONGER IN EFFECT

THANK YOU FOR YOUR PATIENCE + UNDERSTANDING

Your cooperative has a mandatory obligation to follow the reliability directives of the regional grid manager.

HOW WE CAN help

COMMUNITY ROOM BACKUP
GENERATOR
PROGRAM

TRIFECTA PROGRAM

SUMMER CONFERENCE 2024



Distribution Load Shed Communications

How are we prepping members & key accounts?

Before...

- Educate members & public
 - Electric grid basics
 - Encourage members to prep & have a plan
 - Conservation tips
- Meet with large power members, local emergency management agencies
 - Identify large users; key accounts
 - Establish contacts / direct lines for event correspondence
 - Learn EMA plans for shelter areas
 - Are there places we should be prioritizing due to a designation as a community meeting points?
 - · Two school districts (Elgin & Ridgedale)



Letter to Key Accounts

RE: Meeting request to discuss electric service during grid-related outage events

Dear Mid-Ohio Energy member,

I hope this letter finds you well. As a large power user who receives electric service from Mid-Ohio Energy Cooperative, we value you as a member-consumer. We hope to connect with you to discuss important information regarding your electric service.

As your trusted electric service provider, providing you with affordable and reliable service is a top concern of ours.

Recently, the North American Electric Reliability Corporation (NERC), the regulatory authority overseeing the reliability and security of our nation's power grid, issued its 2023-2024 Winter Reliability Assessment. In the assessment, NERC noted that this region of the United States (which includes Ohio) is at an elevated risk of insufficient electricity supplies during peak winter conditions.

Substantial increases in electricity demand (driven primarily by data centers and other large loads), combined with a significant number of retirements of stable thermal generation assets (such as coal and natural gas), has resulted in uncertainty in our country's power grid. Mid-Ohio Energy and our power supplier Buckeye Power maintain healthy reserves of generating capacity, but we are only a small part of the larger grid and are still subject to the potential for broad regional shortages.

Data from page 5 of the NERC 2023-2024 Winter Reliability Assessment



To prepare for these potential scenarios, Mid-Ohio Energy is requesting meetings with our system's largest power users to discuss grid-related outage planning and strategies for potential load shed scenarios (such as voltage reduction and/or generator use) that may be necessary. This is particularly important during the winter months, as the demand for electricity often peaks during periods of extreme cold.

Previous attempts to reach you by the phone number(s) listed on your account have been unsuccessful. Having accurate contact info on file allows us to reach the right people quickly in case of power outages, emergencies, or other critical situations. This helps us coordinate planned maintenance and services to minimize any disruptions to your operations. Rest assured that the information you provide will remain confidential and be used solely for communication and account management purposes.

We appreciate you as a valued member and look forward to talking with you soon

To schedule a meeting and/or arrange to update your emergency service contacts, please call me at 419-767-9015 or feel free email me at barger@midohioenergy.com.

Brian Barger

Dir. of Communications & Marketing Mid-Ohio Energy Cooperative

Other considerations?

Sending letters to members identified as having special medical needs (medical certification)



BE PREPARED CONSIDER THE POSSIBILITY THAT POWER OUTAGES MAY OCCUR

Despite our best efforts, uninterrupted electric service cannot be guaranteed

As a member-owned electric cooperative, we operate with our members best interest in mind. We work hard to keep your lights on around the clock. However, we realize that some outages can't be avoided. Therefore, we encourage all of our members to have a plan in place to stay safe in case of a possible extended power outages.

Due to the complex nature of power delivery, uninterrupted electric service cannot be guaranteed to any member. Unforeseen incidents such as powerful storms and equipment damage from animals can occur at any time. In the winter months, ice accumulation can be particularly problematic. During times of high demand for electricity, grid-related rolling outages are also possible. Our goal is to limit the number of service interruptions and restore power quickly and safely when outages cannot be prevented. In any case, it's best to form a plan to keep you and your loved ones safe.

Having a plan is especially critical for those who may suffer from a medical condition where loss of electric utility service would be dangerous or life threatening, and/or those who depend on medical equipment that requires electricity to operate. If you use medical equipment in your home that requires electricity, talk to your doctor or health care provider about what you may be able to do to keep it running during a power outage.

Please see the reverse side of this sheet, "Plan to stay ahead of power outages" for helpful tips & information on forming a plan for unplanned/extended outages. Additional tips and resources can be found online at the U.S. Department of Homeland Security's website https://www.ready.org.

If you have any questions or concerns, please contact our offices during business hours (Monday through Friday, 7:30 a.m. – 4:00 p.m.).

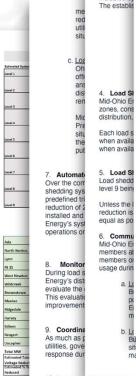
Using all available communications channels (testing prior)

- Website (https://www.MidOhioEnergy.com)
- Social Media feeds (including Facebook, Instagram, Twitter (X))
- Local media outlets (list on file and maintained by communications personnel)
- AS NEEDED: Member phone calls (One Call system containing member phone numbers)
- AS NEEDED: Text alerts (Information sent via text message to member phone numbers on file)
- AS NEEDED: Special edition e-newsletter (Email bulletin to members on the co-op's email distribution list)

Load Shed Plan

Sections of the Load Shed Plan

- Assessment of the systems Demand Patterns
- Identification of Critical or Essential Services
- Load Shedding Criteria and Triggers
- · Load Shedding Zones
- · Load Shedding Levels and Schedule
- Communications and Public Awareness
- Automated Load Shedding System
- · Monitoring and Evaluation
- · Coordination with Stakeholders
- Load Shedding Plan (the 9 levels)



The criteria Energy's de



Distribution Load Shed Plan

Due to the recent large-scale reduction of thermal generation resources within the PJM footprint, Mid-Ohio Energy along with other electric utilities have been forced to focus on the potential of blackout situations occurring at certain times due to a lack of available generation resources connected to the power grid. Mid-Ohio Energy's load shedding plan requires careful consideration of various factors, including the demand patterns, infrastructure capacity, and member needs. Load shedding is the controlled reduction of electricity consumption during peak demand periods or emergencies to prevent widespread blackouts. Below are the key components of Mid-Ohio Energy's load shedding plan:

1. Assessment of Demand Patterns:

Mid-Ohio Energy's staff has analyzed historical data to identify peak demand periods, such as extreme weather conditions or certain times of the day/year when electricity consumption is at its highest. Staff also understands the different customer categories (residential, commercial, industrial) and their respective electricity consumption

2. Identification of Critical Infrastructure and Essential Services:

Staff has determined critical infrastructure and essential services that should be exempt from load shedding, such as hospitals, emergency services, water pumping stations, etc. Among Mid-Ohio Energy's current membership critical infrastructure would be Trillium laying sites, large dairy sites, and large hog operations. All are critical especially during hot summer events.

Staff has contacted all critical sites identified to review each members on-site generation capabilities. Staff also maintains a contact list that will be used in the event a load shed emergency occurs to discuss with the member the situation and to check in adequate back-up generation is on-line at the member's site.

The following is a list of service locations that is considered critical as well as the amount of known backup generation resources on site:

- 1. Trillium Mt. Victory site 1,200 kv diesel generators
- 2. Trillium Marseilles site 1,200 kv diesel generators
- 3. Natural Choice Dairy 600 kv diesel generators

situation will likely cause a load shedding situation, and load management is likely to be activated. Mid-Ohio Energy will utilize social

All levels o

President a

Attached is the specific load shedding plan by level of reductio

Defining criteria & triggers

Load shedding protocol will be activated in response to the following triggers:

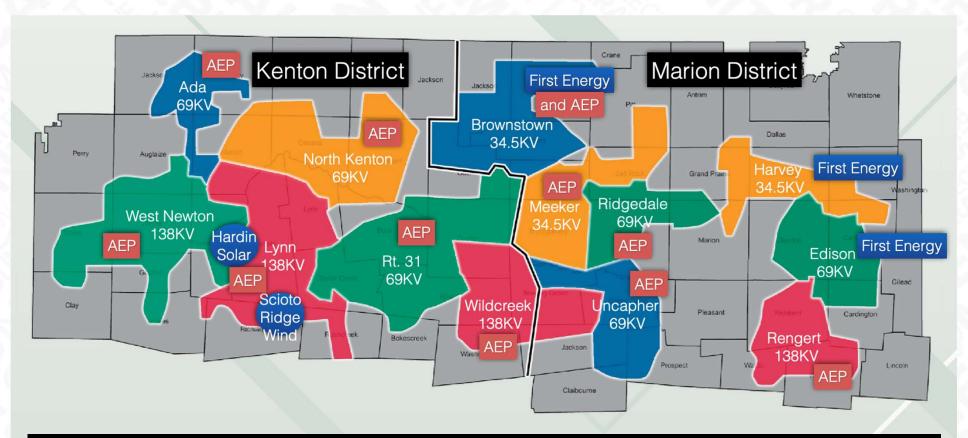
- a. An order from PJM (through Buckeye Power) to reduce demand (Only after full load management control has been engaged)
- b. Overload of a local circuit due to failures within Mid-Ohio Energy's distribution system an/or local transmission outages
- c. An emergency request from the Transmission operator (AEP or First Energy) and only in the event that the load cannot be transferred to neighboring substation sources.

Distribution Load Shed Levels of Action

		0/ T-1-1 C-1-1	5-1	Estimate Total System MW
	Description	% Total System Reduction	Estimate Total System MW	Reduced
Estimated System Peak Load			30.48	0%
Level 1	Notify Member is conserver load and Load control switches actived by Buckeye/OEC. Notify Communication Department for Communication to Members			
Level 2	Active 1% voltage reduction at the substation regulators at (AEP 138v)W Netwon, Lynn, Rt 31, Wildcreek, and Rengert Subs	2.3%	29.79	0.69
Level 3	Active 1% voltage reduction at the substation regulators at (AEP) Ada, N Kenton, Meeker, Ridgedale, and Uncapher Subs	4.1%	29.23	1.25
Level 4	Active 1% voltage reduction at the substation regulators at (First Energy) Brownstown, Edison, and Harvey Subs	4.8%	29.02	1.46
Level 5	Active 2% voltage reduction at the substation regulators at (AEP 138) W Netwon, Lynn, Rt 31, Wildcreek, and Rengert Subs	7.1%	28.33	2.15
Level 6	Active 2% voltage reduction at the substation regulators at (AEP) Ada, N Kenton, Meeker, Ridgedale, and Uncapher Subs	8.9%	27.77	2.71

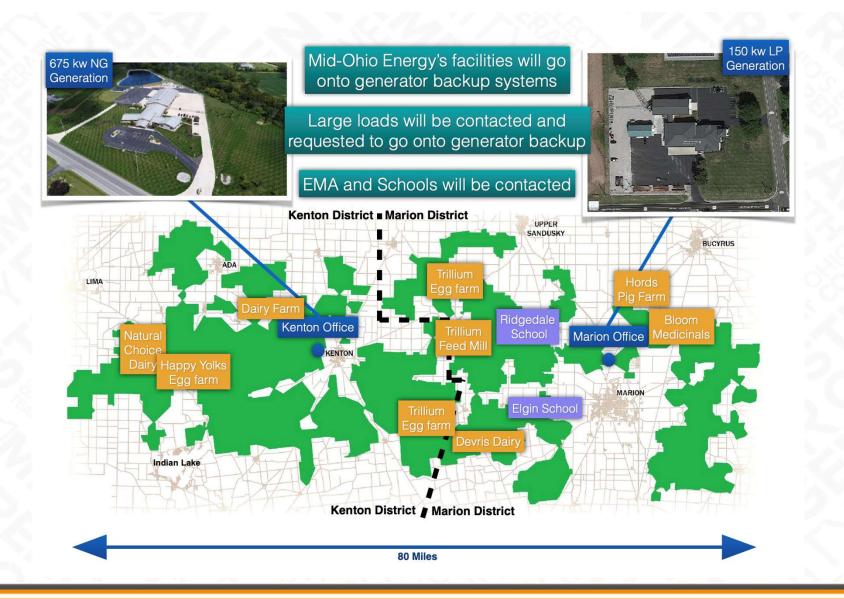
Distribution Load Shed Levels of Action

	Description	% Total System Reduction	Estimate Total System MW	Estimate Total System MW Reduced
Estimated System Peak Load			30.48	0%
Level 7	Active 2% voltage reduction at the substation regulators at (First Energy) Brownstown, Edison, and Harvey Subs	9.6%	27.56	2.92
Level 8	Active Max 2.5%-3% voltage reduction at the substation regulators at all substations. Notify Communication Department of current status	11.0%	27.13	3.35
Level 9	Contact Larger Power account and ask them to switch over to genterator power and reduce load. Mid-Ohio Energy Offices switch over to generator power. Communication Department Notify Key Account Members	29.0%	21.18	9.30
	Open substation breakers on non-essential feeders for rotating service interruptions for <u>alternating time periods of 45 mins-1hour time</u> per circuit. Communicate to the			
Level 10	Members of periodic outage.	56%	13.4	17.08
Level 11	Open the remaining substation breakers with no alternating time period. Communicate to member of current status.	100%	0	30.48



13 Distribution Substations (AEP & First Energy) - Each substation has a circuit model detailing the exiting circuits (2 to 4 per substation)

In January, we tested the actual voltage reduction limits compared to our engineering model.



- (Pre-Level 1): Potential for grid strain is being forecast
 - Notify members that use on the grid is elevated; encourage them to be mindful of energy use
 - Remind them brush up on their emergency plan
 - Encourage them to check for updates (website, social media)

- (Level 1 Level 7): Request to conserve
 - Explain cause of potential load emergency & decision-making authority (PJM,TO)
 - Explain the concept of "working together to conserve" and how widespread efforts to reduce load can improve the situation.
 - Share energy conservation tips that make the biggest impact on load (thermostats, large appliances, etc.)

- (Level 8 9): Increased voltage reduction + Load shed for Key Accounts
 - Internal communications prepped for member contacts; contact with Key Accounts as likelihood for interruptions is increased at this point.
 - Request large loads to go to generator backup.
 - Contact EMA and schools.

- (Level 10): Rolling blackouts in effect (substation-level outages)
 - Open substation breakers on non-essential feeders for rotating interruptions
 - (alternating time periods of 45 mins-1 hour time per circuit)
 - Utilize maps and descriptions for substations to help inform members what areas are currently affected; if available – notify members that will be affected as part of the "next wave"

- (Level 11): Widespread or total system outages in effect
 - Provide details (as known) of areas that are affected by outages.
 - Refer them to materials explaining the "why" behind rolling blackouts
 - Remind members how/where we will be communicating any updates and information as we have it