

In the Matter of the Establishment of a	)	
Working Case for the Development of Best	)	File No. OW-2025-0314
Practices for Wildlife Mitigation in Missouri	)	

QUESTIONS FOR ELECTRICAL CORPORATIONS

A. Foundational Questions

1. Describe and document how current policies, procedures and plans consider the risks of wildfires. In your response, specifically consider the current vegetation management plan, policies and procedures regarding infrastructure inspection standards, and other emergency or restoration plans.

Answer:

The Empire District Electric Company (“EDE”) current policies and procedures includes vegetation inspections and maintenance to prevent contact with overhead electric lines, infrastructure inspections to detect and repair potential equipment issues, and emergency protocols aligned with fire danger ratings. EDE also intends to restrict operations, provide crew training, and coordination with emergency services based on fire risk levels to prevent ignitions and ensure safe and responsive restoration practices. EDE’s Emergency Operations Plan (EOP) outlines procedures and responsibilities for responding to various emergencies, both natural and man-made, that could affect utility operations and the community. It details how EDE will maintain essential services, protect personnel and infrastructure, and coordinate with other agencies during and after an emergency.

2. Describe your experience communicating with state and local governments regarding wildfires and/or wildfire risk in your service territory.

Answer: EDE has not had occasion to notify state and local governments regarding wildfires and/or wildfire risks. EDE has a working relationship with state and local government agencies in the event of an emergency.

3. Do you have insurance coverage for wildfire damage? If yes, does your insurance coverage require you to have a wildfire mitigation plan (WMP) or make any special preparations regarding wildfires? Please explain.

Answer: Yes, insurers are currently asking for WMP from all electric insureds as part of the renewal process.

4. Have you developed a Public Safety Power Shutoff (PSPS) policy with respect to wildfires? If a PSPS policy exists, please describe:

- a.) How customers are notified.
- b.) Whether medically vulnerable or critical infrastructure customers are prioritized for communication or assistance.
- c.) How commercial and industrial or other customer types are notified.

Answer: No, the risk is not currently at a level for EDE to develop a PSPS policy. Discussion continues to evolve around the need.

5. **If you do not currently have a wildfire-specific policy or WMP, do you plan to develop one? What is the anticipated timeline?**

Answer: EDE currently has a fire prevention plan with US Forest Service as part of its Special Use Permit in the Mark Twain National Forest. The Company is in the process of exploring the components of a system-wide wildfire specific policy for our electric system.

B. Risk Assessment & Mapping

1. **Please explain, for planning purposes, your ability to reliably model various climate and weather scenarios. Specifically, discuss your ability to understand how changing weather patterns impact wildfire risk across your grid.**

Answer: EDE uses U.S. Forest Service fire danger ratings and National Weather Service alerts (e.g., Red Flag Warnings) to guide operational decisions and fire mitigation protocols to maintain situational awareness during fire and other emergency events. These tools help EDE assess how changing weather patterns impact fire risk and adjust field activities accordingly to protect infrastructure and public safety.

2. **If you have implemented a WMP, what types of climate and weather scenarios have been modeled?**

Answer: EDE has not implemented a WMP or used any weather modeling services. However, EDE does have a fire prevention plan with US Forest Service as part of its Special Use Permit.

3. **Have you included sources of ignition from external causes when developing the WMP?**

Answer: EDE has not implemented a WMP, but EDE has included consideration of external ignition sources such as lightning, wildfires, and human activities (e.g., vandalism, arson, etc.) as part of its fire hazard assessment and mitigation strategy.

4. Are there any utility-owned models or partnerships (e.g., with universities or NOAA) for fire spread or risk prediction?

Answer: EDE is currently exploring opportunities.

C. Situational Awareness & Forecasting

1. Describe the types of weather variables collected for your situational awareness during weather or other unforeseen events, including wildfires.

Answer: EDE looks at weather variables such as temperature, humidity, wind speed, and fire danger ratings from the U.S. Forest Service and National Weather Service to maintain situational awareness during fire and other emergency events. These inputs guide operational decisions, including crew deployment, equipment use, and fire safety protocols.

2. Describe the types of weather variables collected for forecasting purposes.

Answer: EDE relies on fire danger ratings and alerts from the U.S. Forest Service and National Weather Service, which are based on variables such as temperature, humidity, wind speed, and fuel moisture.

3. Do you use third-party weather services or modeling software (e.g., IBM's Weather Company, NCAR tools) for predictive analytics related to wildfire conditions?

Answer: No. EDE primarily relies on publicly available data from the U.S. Forest Service and National Weather Service for fire danger ratings and weather alerts. However, incorporating predictive analytics tools could enhance forecasting capabilities and support more proactive wildfire risk management.

4. How is situational data integrated into operational systems (e.g., SCADA, ADMS)?

Answer: Liberty currently uses real-time fire danger ratings and weather alerts from the U.S. Forest Service and National Weather Service to guide operational decisions in the field.

D. Grid Design & System Hardening

1. Please describe how you prioritize WMP initiatives across your service territory.

Answer: EDE has not implemented a WMP therefore it has not prioritized any such initiatives.

2. Have any overlap with components of your vegetation management or major asset maintenance plans been identified? If so, please explain.

Answer: When replacing aging or damaged poles (a common asset maintenance activity), EDE considers relocating them to areas with reduced vegetation encroachment risk. Simultaneously, during capital projects vegetation management teams may coordinate to clear or trim nearby trees, minimizing future contact risks and reducing the likelihood of outages.

3. Please describe if you have deployed or plan to deploy:

- a.) Covered conductors
- b.) Fire-resistant poles or hardware
- c.) Remote fault indicators
- d.) Undergrounding of lines in high-risk areas

Answer: EDE was awarded an IJIA DOE grant (DE-GD0000899) to implement distribution automation. Project DA targets the deployment of automated vacuum recloser devices (autoreclosers), Fault Location, Isolation and Restoration (FLISR) software systems governing their operation, adjustments to the Company's SCADA infrastructure, along with renewal and reinforcement of supporting and adjacent pole and conductor assets, sectionalization of the affected circuits, deployment of device-to-device communication modems, and updates to upstream substation capacity and protection schemes. As envisioned by the project, autoreclosers will provide enhanced reliability performance and grid resilience benefits through three near-simultaneous processes: (a) fault detection, (b) fault isolation (i.e., use of reclosers to limit the effect of the fault on the broader system), and (c) automatic re-energization of circuit segments unaffected by a fault by connecting them to neighboring feeders. Using the FLISR capabilities, autoreclosers detect faults on electrical lines and automatically de-energize the affected portions to minimize potential damage. The devices then test the conductor to check whether the fault persists or if it was momentary. If the fault is momentary, autoreclosers restore power to the electrical line and effectively convert what would otherwise be sustained outages into momentary outages.

E. Asset Management & Inspections

1. Has an inventory of assets and a condition rating of those assets been conducted?

Answer: EDE performs ongoing routine infrastructure inspections of its transmission and distribution assets per Missouri 20 CSR 4240-23.020(3). The routine inspections establish a pass/fail condition rating of the inspected assets. Any asset which does pass inspection has a corresponding condition rating assigned. EDE has completed at least one full cycle of these inspections.

Additionally, EDE is currently conducting a data collection of its distribution assets, including secondary and service assets not specified in Missouri 20 CSR 4240-23.020(3). As a component of this collection, the condition is being assessed and recorded to establish a health index for each asset. The data collection program is scheduled through 2027 and is subject to revision.

2. **Describe how your inspection practices, including, but not limited to, inspections conducted pursuant to 20 CSR 4240-23.020, may be leveraged for development of a WMP.**

Answer: It is possible to implement health index data collection for infrastructure assets while performing routine inspections pursuant to 20 CSR 4240-23.020(3). The additional detail of the health index provides insight into an asset's condition throughout its useful life rather than focusing on end-of-life condition requiring remediation. The additional data may be leveraged to increase accuracy when evaluating the associated failure risk of an asset. This insight may be beneficial in managing assets located within areas of elevated wildfire risk.

F. Vegetation Management & Inspections

1. **What level of vegetation inventory and condition assessments have been made within your service area?**

Answer: A vegetation inventory of the distribution system is continuously updated during scheduled maintenance. The only condition assessments completed are for danger trees. A transmission system vegetation inventory is less detailed, but also completed. Satellite imagery is being used on the transmission system to identify trees in decline and encroachments.

2. **Do you use remote sensing (LiDAR, satellite, or drone imagery) to support vegetation assessments?**

Answer: EDE uses some satellite imagery for vegetation assessment and occasionally LiDAR.

G. Grid Operations & Protocols

1. **Has an analysis been made of the various protective equipment and device settings that would be needed or used to implement a WMP?**

Answer: No, there has not been an analysis of protective equipment or relay settings with regards to a WMP.

H. Data Governance

1. **Have you considered what types of data it would be necessary to utilize for the implementation of a WMP, and how and where that data would be stored? If so, please explain?**

Answer: Yes, consideration has been given to other utilities' operating models. The dataset would be maintained within our current data environment.

2. **Have you analyzed existing data, or collected new data to be used in developing and implementing a WMP?**

Answer: Yes, the Company has reviewed our existing infrastructure GIS data, more attention would need to be given to reviewing available fire risk data.

3. **Have you evaluated data aggregation and identified any sources of data that are siloed which need to be incorporated?**

Answer: No. Existing data is not siloed; however, new data would need to be evaluated and brought into our environment.

I. Resource Allocation Methodology

1. **Has an analysis been conducted that would designate how existing resources could be utilized in the implementation of a WMP?**

Answer: Additional analysis would need to be performed to assess the impact versus risk on rural vs urban or Ozark Highlands vs Cherokee plains regions.

2. **Has any analysis been done of utilization of the existing resource allotment based on varying risk scenarios?**

Answer: Additional analysis would need to be done to identify the needs for varying risk scenarios.

3. **Have any additional needed resources required to implement a WMP been identified?**

Answer: Additional analysis would need to be done to identify what additional resources are needed to implement a WMP.

4. **Are there internal or external constraints limiting the ability to fully implement a WMP?**

Answer: Until any requirements are known and a plan is developed to include those requirements, it is difficult to quantify constraints. Potential factors could be additional resources, technologies, and equipment.

J. Emergency Planning & Preparedness

- 1. If a WMP has been created, please describe if or how it has been integrated with any other overall disaster or emergency plans (prepared by any State or local entity).**

Answer: As explained above, EDE has not yet developed its WMP. EDE would currently rely on our Emergency Operating Plan (EOP) for a wildfire issue and lean on the fire prevention plan with the US Forest Service as a baseline for operations to prevent ignition.

- 2. Do you participate in annual tabletop or full-scale wildfire response exercises with state or local agencies?**

Answer: EDE participates in tabletop drills but those drills are not specific to wildfire.

- 3. Have you collaborated with investor owned utilities, rural electric cooperatives and/or municipally owned electrical suppliers for communication and integrating emergency plans?**

Answer: Yes, EDE has discussed WMPs with other investor-owned utilities nationally and regionally.

K. Stakeholder Cooperation & Community Engagement

- 1. Has a procedure been developed to share information and support other utilities your utility coordinates with, including rural electric cooperatives and/or municipally owned electrical suppliers?**

Answer: A procedure is in development. EDE has met with other investor-owned and Cooperatives to discuss WMPs and is an active member in the Midwest Mutual Assistance Group ("MMAG") that coordinates emergency response within the Midwest region.

- 2. Please describe if there has been any education or involvement of the public about the various components of an existing (or proposed) WMP.**

Answer: No, EDE has not pursued any outreach at this time.

3. **Are you willing to share your GIS system maps with the Missouri Public Service Commission and/or State Emergency Management Agency during emergencies? If no, please explain why. If you would be willing but there are constraints, please specifically explain them with citations if necessary.**

Answer: Yes, EDE is willing to partner with the Missouri Public Service Commission and State Emergency Management during emergencies, identify any data needed that would be applicable to the emergency, and develop safeguards to ensure any confidentiality will be maintained.