McKenzie Electric
COOPERATIVE

WILDFIRE MITIGATION PLAN

McKenzie Electric Cooperative

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Table of Contents

Table of Tables

Table of Figures

1 Introduction/Executive Summary

McKenzie Electric Cooperative (MEC) aims to protect public safety and preserve the reliable delivery of electricity. Wildfire mitigation is among MEC's top priorities. While an electric utility can never fully eliminate the risk of fire, MEC is committed to taking all practical actions available to prevent the devastation a wildfire could bring to the people and communities MEC serves. This Wildfire Mitigation Plan (WMP) lays out the processes and practices MEC utilizes to do its part in minimizing wildfire risks.

1.1 Purpose of the Plan

The WMP describes MEC's strategies, programs, and procedures designed to mitigate the threat of electrical-equipment-ignited wildfires and addresses the unique features of its service territory such as topography, weather, infrastructure, grid configuration, and areas most prone to wildfire risks. This includes the maintenance of its transmission and distribution (T&D) assets as well as the management of vegetation in the Right-of-Ways (ROWs) that contain these assets. This plan also considers the nature of first responders and the importance of the electric system in supporting emergency response across MEC's unique territory.

The WMP is a requirement of MEC's Corporate Policy 414: Wildfire Mitigation. Policy 414, which is reviewed and approved by MEC's Board of Directors, establishes the minimum requirements and actions that MEC must follow with respect to its overall wildfire mitigation program. MEC's Operations Department is responsible for its implementation. The WMP is a living document that will be reviewed and updated periodically. Primary accountability for plan implementation resides with the Operations Department.

1.2 Objectives of the WMP

The main objective seeks to implement an actionable plan to create increased reliability and safety while minimizing the likelihood that MEC assets may be the origin or contributing factor in the ignition of a wildfire. This plan was developed to be consistent with the current industry's best management practices, compliance with local and state laws, and the National Electric Safety Code (NESC) regulations and guidelines.

The secondary objective is to measure, through the annual evaluation of certain performance metrics, the effectiveness of the specific wildfire mitigation strategies. Where a particular action, program component or protocol proves unnecessary or ineffective, MEC will assess whether modification or replacement is suitable.

Estimated cost of implementation and execution of this plan is minimal and will be provided to the Board of Directors in the annual wildfire mitigation plan status report. The annual wildfire mitigation plan status report compiles the performance of the plan to the objectives set forth and is shared with the MEC Board of Directors each year.

1.3 Utility Profile and History

- MEC was incorporated in 1945
- The first meter MEC served was energized in December 1947
- MEC has 4,844 members & 13,737 Meters
- MEC serves 7 counties across North Dakota and Montana
- MEC is governed by a Board of Directors with 9 members
- MEC provides power to residential, farm/ranch, oil industry, and other industries
- MEC's 2024 Average Load was 775 Megawatts

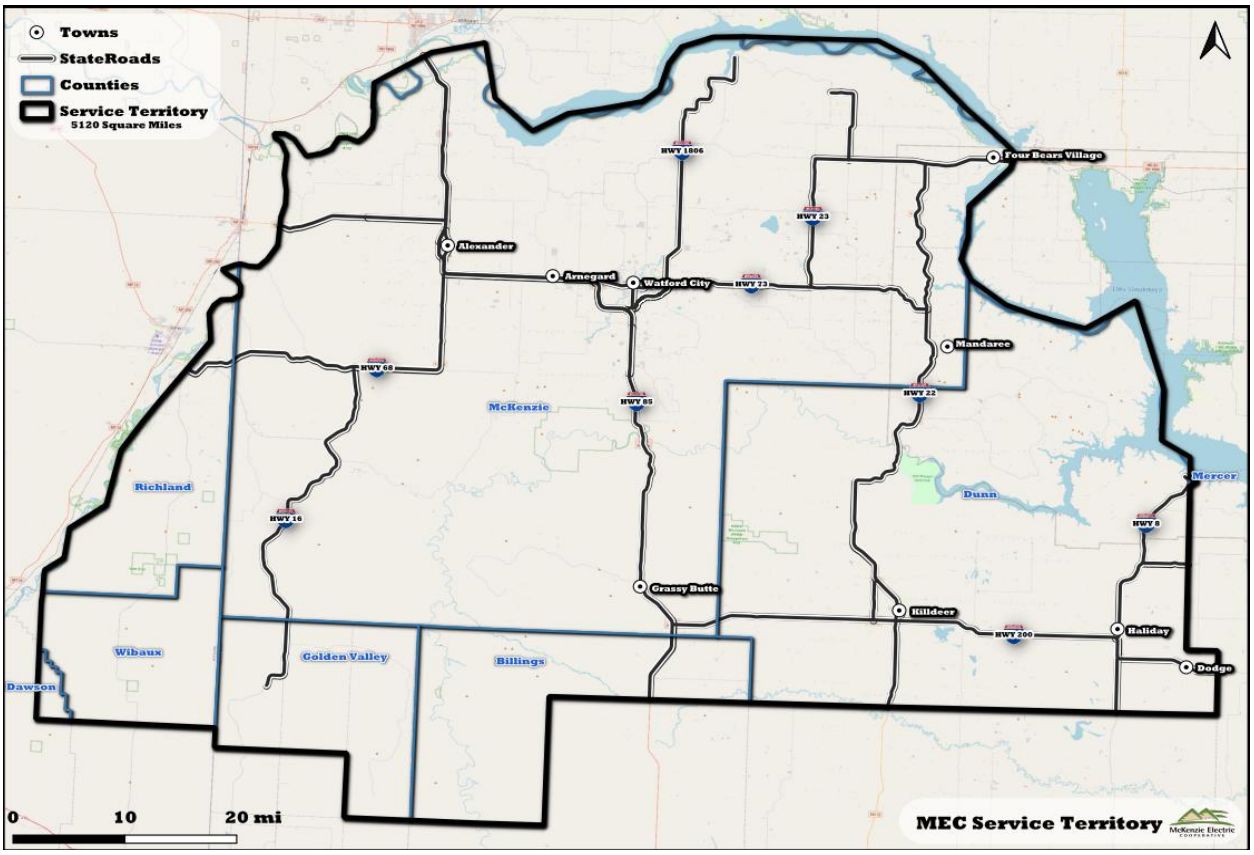
Note: These metrics are reflective of 2024 data and are subject to change.

1.4 The Service Area

The main office is located in Watford City, North Dakota, with an outpost in Killdeer, North Dakota.

- Serves portions of the following counties: McKenzie, Dunn, Billings, Golden Valley and Mercer in North Dakota and the counties of Richland and Wibaux in Montana
- Service area is a mixture of towns, federal grasslands/badlands, and farmlands with an average annual rain fall of 15.66", an average high temp of 111°F, and an average low temp of -37°F.

Figure 1. Service Area



2 Utility Asset Overview

Table 1 provides a high-level description of MEC's T&D assets.

Table 1. Asset Overview

ASSET CLASSIFICATION	ASSET DESCRIPTION
Transmission Line Assets	Approximately 443 miles of conductor, transmission structures and switches at 115 kilovolts (kV).
Distribution Line Assets	Approximately 2,715 miles of overhead (OH) and 1,375 miles of underground (UG) conductor, cabling, transformers, voltage regulators, capacitors, switches, lined protective devices operating at or below 25kV.
Substation Assets	Major equipment such as power transformers, voltage regulators, capacitors, reactors, protective devices, relays, open-air structures, switchgear, and control houses in 82 substation/switchyard facilities.

3 Risk Analysis and Risk Drivers

3.1 Fire Risk Drivers Related to Construction and Operations

MEC evaluated other utilities' fire causes and applied its own field experience to determine the critical potential risk drivers. The categories listed below were identified as having the potential for causing powerline sparks and ignitions:

- Equipment/facility failure
- Foreign contact
- Vehicle/Equipment/Foreign Object impact
- Standard expulsion fuses
- Cross-phasing
- Legacy tree attachments
- Age of assets
- Vandalism
- Weather
- Switching
- Operation of vehicles/equipment

3.2 Fire Risk Drivers Related to the Service Area

- Topography
- Accessibility
- Climate
- Vegetation types/fuels
- Fire history
- Tree mortality/tree failure
- Lightning
- Fire Weather

3.3 Key Risk Impacts

Ignitions caused by the aforementioned risk drivers have many possible outcomes. The list below outlines some of the worst-case scenarios; the prevention of which is the impetus for the development of this WMP:

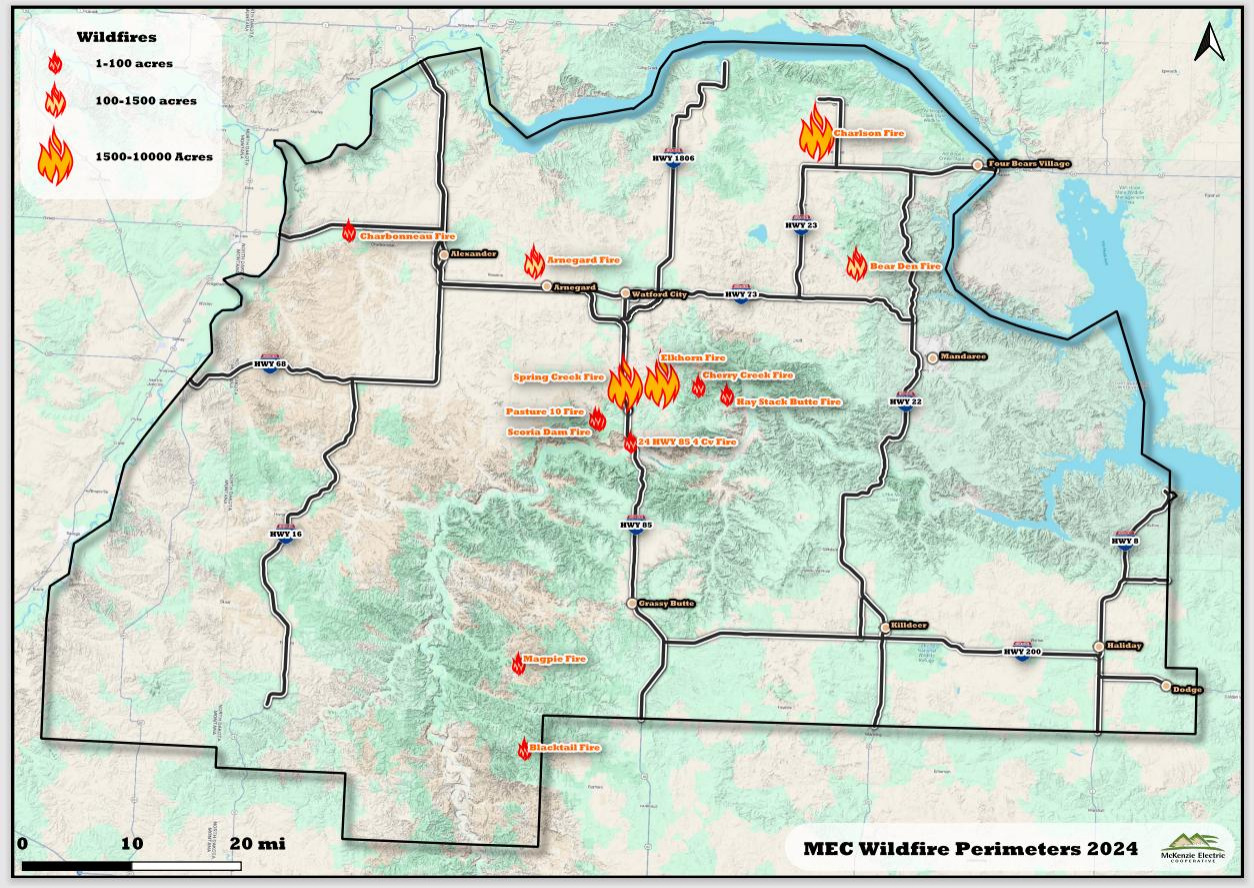
- Personal injuries or fatalities to the public, employees, and contractors
- Damage to public and/or private property
- Damage and loss of MEC-owned infrastructure and assets
- Impact on reliability and operations
- Damage claims and litigation costs, as well as fines from governing bodies
- Damage to MEC's reputation and loss of public confidence

3.4 Wildfire History and Outlook

While wildfires can happen anytime, historically, the service area has been generally low in the magnitude of fires, until the year 2024. Severe drought and record high wind caused some of the largest wildfires in North Dakota history.

- Locations of large wildfires in 2024 are shown in Figure 2.
- Typical causes of large wildfires in the territory include road hazards, oil well flares, and powerline arcing.
- Annual fire season varies from year to year but generally takes place from June to November each year.

Figure 2. Wildfire Perimeters 2024



3.4.1 Wildland Urban Interface

The United States Forest Service (USFS) defines the wildland urban interface (WUI) as a place where humans and their development meet or intermix with wildland fuel. Communities that are within 0.5 miles of the zone are included. According to the USFS, the land area considered WUI has grown by 42.9% in North Dakota from 1990 to 2010, with the number of homes increasing by 27.8%[1]. Across the entire state, there are now over 52,234 homes in North Dakota located in the WUI[2].

The WUI is composed of both interface and intermix communities. The distinction between these is based on the characteristics and distribution of houses and wildland vegetation across the landscape. Intermix WUI refers to areas where housing and wildland vegetation intermingle, while interface WUI refers to areas where housing is in the vicinity of a large area of dense wildland vegetation. Figure 3 illustrates the distribution of WUI areas in the service area.

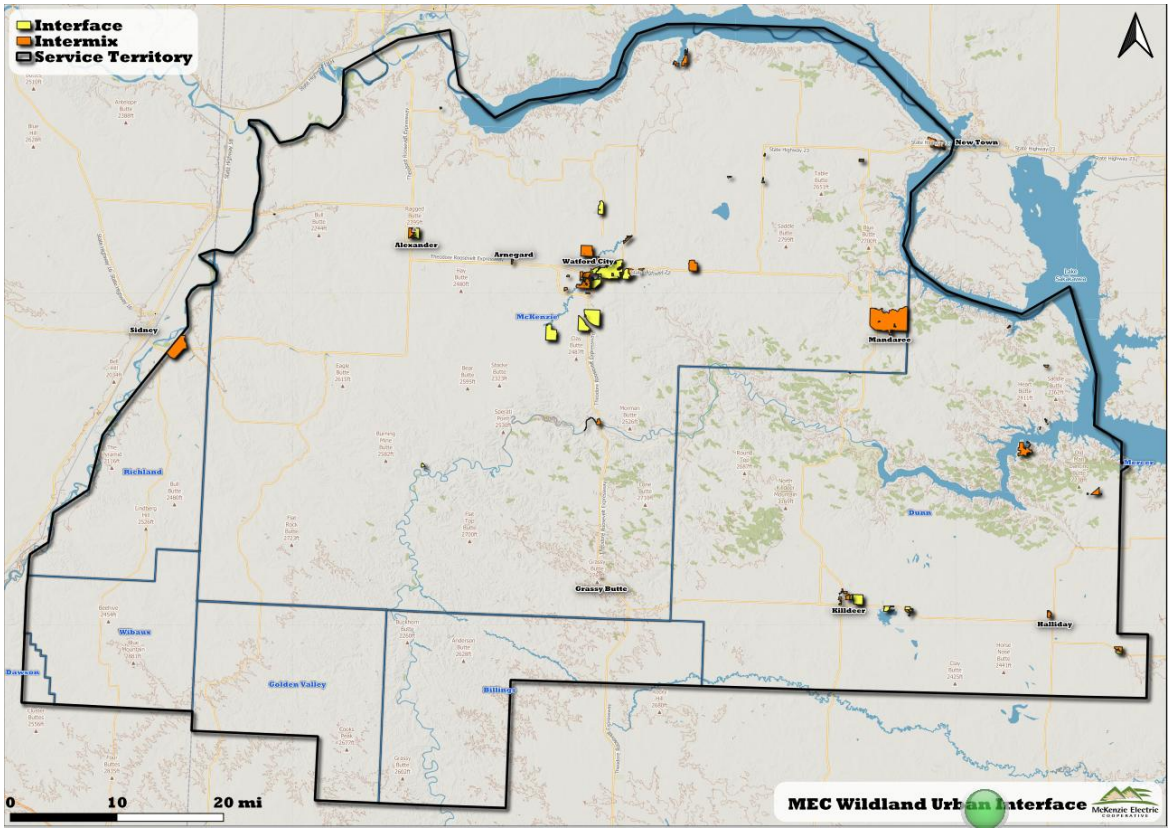
[1] https://www.nrs.fs.fed.us/data/wui/state_summary/

The USFS has established five classes of WUI in its assessment:

- **WUI Intermix**: Areas with ≥16 houses per square mile and ≥50% cover of wildland vegetation
- **WUI Interface:** Areas with ≥16 houses per square mile and <50% cover of vegetation located <1.5 miles from an area ≥2 square miles in size that is ≥75% vegetated
- **Non- WUI Vegetated (no housing):** Areas with ≥50% cover of wildland vegetation and no houses (e.g., protected areas, steep slopes, mountain tops)
- **Non-WUI (very low housing density):** Areas with ≥50% cover of wildland vegetation and <16 houses per square mile (e.g., dispersed rural housing outside neighborhoods)

McKenzie Electric's service area is depicted below in Figure 3, outlining areas within the service territory that meet the definitions of WUI Intermix and WUI Interface designations.

Figure 3. Wildland Urban Interface



3.5 Fire Threat Assessment Mapping

The Wildfire Hazard Potential (WHP) map used in this plan is a raster geospatial dataset produced by the USFS Fire Modeling Institute (FMI). It is intended to inform evaluations of wildfire risk or prioritization of fuels management needs across large landscapes. The specific objective of the WHP map is to depict the relative potential for wildfire that would be difficult for suppression resources to contain.

The WHP-2023 dataset was built upon:

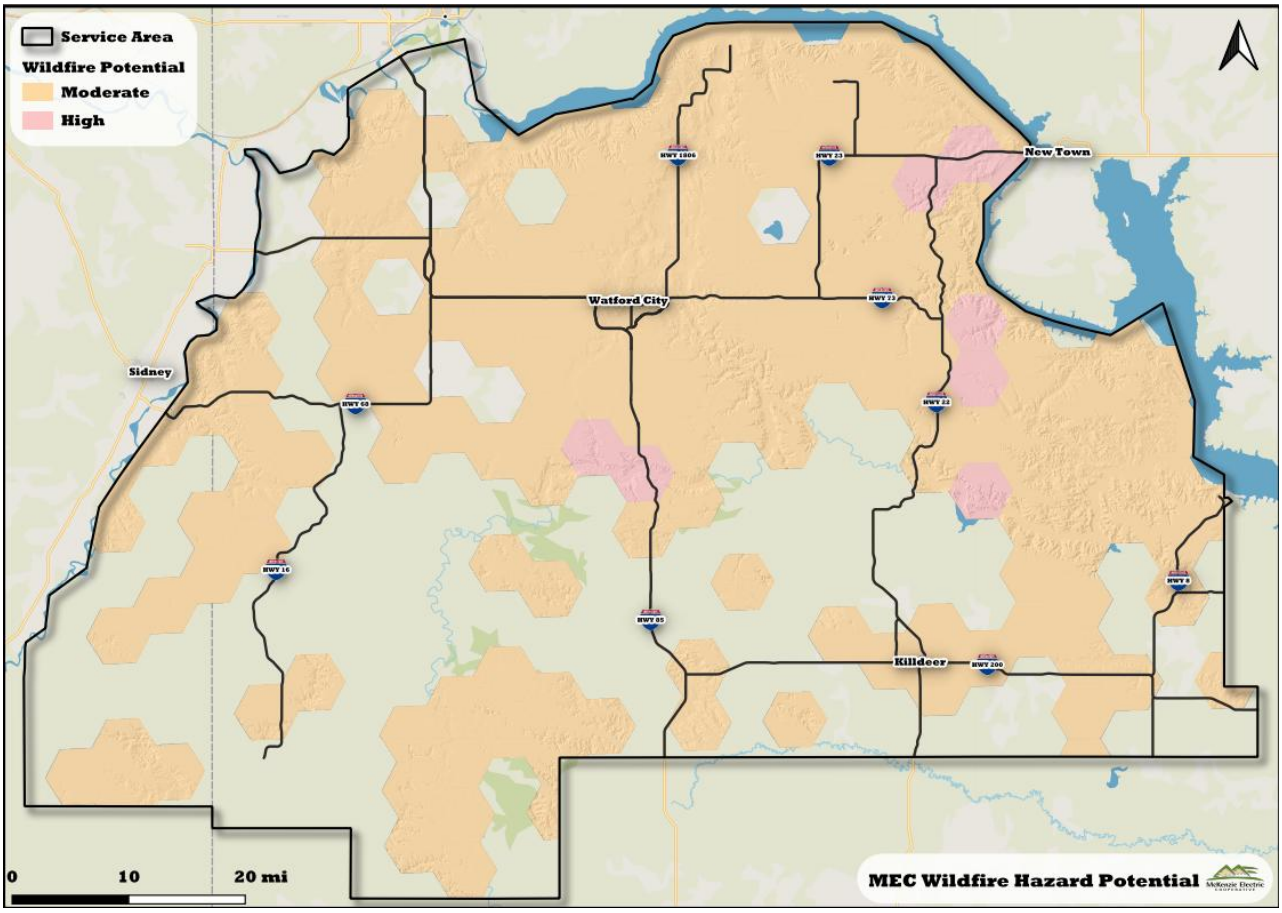
- Spatial vegetation and wildland fuels data from *LANDFIRE 2020* (version 1.4.0). The *LANDFIRE* Fire Behavior Fuel Models layer is a primary input to the *Large Fire Simulator* (FSim) Burn Probability (BP) and Fire Intensity Level (FIL) datasets and forms the foundation for WHP.
- Spatial datasets of wildfire likelihood and intensity were generated for the conterminous U.S. with the *Large Fire Simulator* (FSim). FSim simulates the growth and behavior of hundreds of thousands of fire events for risk analysis across large land areas using geospatial data on historical fire occurrence, weather, terrain, and fuel conditions. Effects of large-fire suppression on fire duration and size are also simulated. This research aims to develop a practical method of quantifying geospatial wildfire impacts, including annual probabilities of burning and fireline intensity distributions at any point on the landscape.
- Point locations of past fire occurrence from 1992 through 2020

Areas mapped with higher WHP values represent fuels with a higher probability of experiencing torching, crowning, and other extreme fire behavior under conducive weather conditions. An essential aspect of the WHP method is the use of "resistance to control weights" at the end of the mapping process. This serves to reduce the WHP index in areas with light fuels, such as grass and shrubs.

On its own, WHP is not an explicit map of wildfire threat or risk, but when paired with spatial data depicting highly valued resources and assets such as communities, structures, or powerlines, it can approximate relative wildfire risk to those resources and assets. WHP is not a forecast or wildfire outlook for any particular season as it does not include any information on current or forecasted weather or fuel moisture conditions.

The WHP map is used to prioritize vegetation management activities, determining the location for focused recloser operational protocols, and future sectionalizing studies and associated remedial actions. The WHP for MEC's territory is depicted below in Figure 4.

Figure 4. Wildfire Hazard Potential



4 Overview of Utility's Fire Prevention Strategies

This WMP integrates and interfaces with MEC's existing operations plans, procedures, asset management, and engineering principles, which are themselves subject to change. The wildfire urban interface (WUI) and the wildfire hazard potential (WHP) are also used in MEC's engineering and operations as related to wildfire mitigation strategies. Future iterations of the WMP will reflect any changes to these strategies and will incorporate new best management practices as they are developed and adopted.

Table 2 summarizes MEC's mitigation strategies. The five sections below highlight the primary mitigation components with associated programs and activities that support MEC's ongoing commitment to wildfire prevention and mitigation.

Table 2. Mitigation Strategies

DESIGN AND CONSTRUCTION
Strategic undergrounding of distribution lines
Electronic field reclosers
Covered jumpers and animal guards where needed
Avian protection construction standards
Proper fusing and coordination
Increase overhead wire spacing to reduce wire to wire contact
Substation perimeter fencing for security and protection
INSPECTION AND MAINTENANCE
Infrared inspections of substation equipment
Unmanned Aerial Vehicle (UAV) T&D line inspections when needed
Wood pole intrusive inspection and testing
Distribution system line patrols and detailed inspections
T&D system vegetation management program
Documented work tracking
Thermal imaging inspections
Enhanced line patrols during periods of increased fire risk
OPERATIONAL PRACTICES
Work procedures and fire hazard training for persons working in locations with elevated fire risk conditions
Proper and adequate fire response equipment available on vehicles
Community outreach/wildfire safety awareness
Staff safety training and orientation for vegetation management work
Fire suppression equipment on worksite during fire season
SITUATIONAL AWARENESS
Weather monitoring in the service area

Monitoring of Red Flag Days
RESPONSE AND RECOVERY
Coordination with local Department of Emergency Management
Emergency Restoration Plan

5 Wildfire Prevention Strategy and Programs

MEC implements a multitude of programs to aid in the mitigation and prevention of wildfires. Listed below are proactive programs and actions put in place to aid in the prevention of wildfires within its service territory.

- Operational practices *(5.1)*
- Inspection programs including intervals, tracking, record keeping, etc. *(5.2)*
- Pole testing *(5.2.4)*
- Vegetation management *(5.3)*
- Fire mitigation construction *(5.4)*
- Fire extinguisher inspections *(5.4.1)*
- Infrared inspections *(5.4.2)*
- Avian protection *(5.4.3)*

5.1 Transmission and Distribution System Operational Practices

5.1.1 De-energization – Public Safety Power Shutoff

A Public Safety Power Shutoff (PSPS) preemptively de-energizes power lines during high wind events combined with hot and dry weather conditions. When considering de-energization, MEC examines the impact on fire response, water supply, public safety, and emergency communication.

MEC considers the external risks and potential consequences of de-energization while striving to meet its main priority of protecting the communities and members we serve.

Risks include:

- Potential loss of water supply to fight wildfires due to loss of production wells and pumping facilities.
- Negative impact to emergency response and public safety due to disruption to the internet and mobile phone service during periods of extended power outages.
- Loss of key community infrastructure and communication facilities.
- Medical emergencies for members of the community requiring powered medical equipment or refrigerated medication.
- The lack of air conditioning or heating can negatively impact medically vulnerable or the general population.
- Negative impact on medical facilities.

- Traffic congestion resulting from the public evacuation in de-energized areas can lengthen response time for emergency responders.
- Negative operational impact to oil and other local industries and potential risk to other health and safety related consequences.
- Egress and response to other emergency responses requiring electric service.

The risks and potential consequences of initiating a PSPS are significant and extremely complex. Based on the above considerations, MEC does not routinely implement a PSPS. MEC believes the risks and consequences of implementing a PSPS far outweigh the probability of utility infrastructure igniting a catastrophic wildfire. The PSPS provides a last resort tool and another mitigation option in a potential crisis that may be enacted on a limited basis at MEC's discretion.

On a case-by-case basis, MEC has historically and will continue to consider de-energizing a portion of its system in response to a known public safety issue or response to a request from an outside emergency management/response agency. Any de-energizing of the lines is performed in coordination with key local partner agencies. However, the final determination is made by MEC.

5.1.2 Recloser Operational Practices and Protection

MEC deploys reclosers and other means of protection throughout its system to isolate and manage faults that occur from time to time due to a variety of potential factors. MEC makes decisions on when and where reclosers and other protective devices are utilized, and operational changes are made on a case-by-case basis and where they are located. Factors considered include public safety and operational logistics.

5.1.3 Situational Awareness

Situational Assessment is the process by which current operating conditions are determined. Situational Awareness is the understanding of the working environment, which creates a foundation for successful decision making and the ability to predict how it might change due to various factors.

MEC's System Operators rely on various resources to monitor evolving fire weather and climatological conditions that may lead to fire events. Sources for weather information include, but are not limited to the following:

- **USFS-Fire Environment Mapping System (FEMS):** For immediate and short-term situational awareness, mapping tools from the USFS-FEMS help determine daily and short-term forecasted risk, with daily or weekly fire weather status maps produced as needed to assess PNW wildfire conditions. (https://fems.fs2c.usda.gov/)

- **The National Weather Service (NWS):** The NWS provides online predictive fire weather forecasting tools in the form of a current fire-weather outlook, 2-day, and a 3-8 day outlook. (https://www.spc.noaa.gov/products/fire_wx/)

- **NOAA Weather and Hazards Data Viewer:** This online map provides historic or real-time surface observations including wind speed and direction, wind gust, dew point, relative humidity, and sea level pressure collected from remote automated weather stations (RAWS). Extreme-weather alerts such as fire weather watch, high wind watch, and red flag warning are provided from this resource. (https://www.wrh.noaa.gov/map/?wfo=psr)

5.2 Infrastructure Inspections and Maintenance

Recognizing the hazards of equipment that operate high voltage lines, MEC maintains a formal inspection and maintenance program for distribution, transmission, and substation equipment which plays an essential role in wildfire prevention. MEC currently patrols its system regularly and is increasing the frequency of inspections in high-risk areas. Table 3 summarizes the inspection schedule for all assets, while the following sections outline inspection practices for the utility.

Table 3. Inspection Program Summary

ASSET CLASSIFICATION	INSPECTION TYPE	FREQUENCY
Transmission	Routine Safety Patrol Inspection	Daily
	Detailed Inspection	50% each year
	Wood Pole Test and Treatment	10% each year
	UAV Inspections	As Needed
Overhead Distribution	Routine Safety Patrol Inspection	Daily
	Detailed Inspection	20% each year
	Wood Pole Test and Treatment	10% each year
Underground Distribution	Routine Safety Patrol Inspection	Daily

Substation	Preventive Maintenance	Once every 5 years
	Routine Inspection	Monthly
	Detailed Inspection	Monthly
	Infrared Inspection	Annually

*Substitute "Annually" or "As needed" where applicable

5.2.1 Definition of Inspection Levels

- **Routine Safety Patrol Inspection:** A simple visual inspection of applicable utility equipment and structures designed to identify obvious structural problems and hazards. Patrol inspections may be carried out during other company business. Routine Safety Patrols may not always be documented.

- **Detailed Inspection:** Individual pieces of equipment and structures are carefully examined visually and through use of routine diagnostic testing as appropriate. If practical and useful information can be gathered, equipment may be opened, and the condition rated and recorded.

- **Wood Pole Inspection:** Inspections involving sound test, movement of soil, taking samples of the wood pole for analysis, and/or using more sophisticated diagnostic tools beyond visual inspections. Chemical treatments may be applied as needed.

- **Substation Preventive Maintenance:** A proactive strategy involving detailed inspections, cleaning, and scheduled servicing of electrical substation equipment to identify and fix potential issues before they cause failure. This includes tasks like testing transformer oil, checking circuit breaker contacts, and cleaning insulators to ensure reliability, extend equipment life, and prevent costly downtime. MEC on average, but not limited to, conducts Preventative Maintenance on 20% of the Substations each year.

5.2.2 Routine Safety Patrol Inspections

Routine safety patrol inspections may be conducted during the course of other company business and may not always be documented. Examples of issues typically identified during a routine safety patrol include, but are not limited to:

- Low clearance of primary conductor, secondary wires, and service drops

- Excessive splicing
- Objects too close to electric lines
- Encroachments
- Physical damage to facilities
- Deterioration of facilities
- Bird nests

5.2.3 Detailed Inspections of Transmission and Distribution Lines

The annual inspection should identify deficiencies in the MEC electrical distribution and transmission system. The inspection process will consist of both visual inspection and applicable testing processes to fully assess system integrity. In general, the visual inspection will be completed from ground level, however the use of aerial devices may be warranted to acquire a closer inspection of specific areas or types of equipment. The use of technology may augment the annual inspection process. All inspection results and records will be stored centrally at MEC and, as appropriate, stored in MEC's mapping software. Inspections may be conducted by MEC employees or contracted services. MEC follows utility standards and best practices as guidance to the inspections being conducted. Additionally, MEC utilizes qualified staff to conduct the inspections.

Except as provided in this WMP, each inspection shall be documented. Both acceptable and unsatisfactory conditions shall be part of the line inspection activities. Unsatisfactory conditions shall be evaluated for severity. Conditions that impose an immediate threat to public safety or impose a certain impact on reliability shall be resolved without undue delay. Corrective action shall be assigned to all other unsatisfactory conditions and be scheduled and coordinated through MEC's work management system. Identified unsatisfactory conditions should be completed within a timely manner.

The following is a list of components of the distribution and transmission system that shall be evaluated as part of the annual line inspection activities. The list also identifies unsatisfactory conditions that should be identified and repaired. This is not an all-encompassing list; additional areas identified shall be documented.

- Deteriorated/compromised poles, structures, and cross arms
- Oil leaks or rust on oil switches, line device(s), reclosers, transformers, regulators, and capacitors
- Damaged distribution equipment
- Missing or illegible numbers and/or decals on all installations
- Areas of discoloration or indication where heat/contact may be present
- Devices damaged by tampering, vandalism, public vehicle contact, or any other means of alteration
- Loose attachments on buildings or poles
- Broken insulators and loose tie wires
- Broken, missing or lose ground wires on equipment stations and tangent line poles
- Broken or destroyed lightning arrestors

- Broken or missing pole hardware
- Damaged service wires and/or connectors
- Tree conditions which could cause interruption of service

5.2.4 Wood Pole Testing and Treatment

To maintain MEC's wood poles, a formal Wood Pole Assessment Plan was initiated with the goal to inspect 10% of the system each year. Wood pole inspections are carried out on a planned basis to determine whether they have degraded below the National Electric Safety Code (NESC) design strength requirements with safety factors.

A third-party contractor inspects and tests all poles on an established cycle, complying with the recommendation outline in RUS Bulletin 1730B-121. Circuits are identified, mapped, and scheduled for inspection and testing using latest industry standards and practices. Poles suspected of deficiencies are subjected to intrusive inspection to determine and identify problems such as rot, decay, or insect damage. Based on the results of the intrusive test, wood treatments may be administered.

5.2.5 Substation Inspections

The Preventive Maintenance Plan provides for regular inspections of MEC's substations monthly. Qualified personnel will use prudent care while performing inspections following all required safety rules to protect themselves, other workers, the general public, and the system's reliability.

The substation inspection involves a thorough look at the system to confirm that there are no structural or mechanical deficiencies, hazards, or vegetation issues. Individual pieces of equipment and/or structures receive careful visual examination and routine diagnostic tests as appropriate. MEC also has an active supervisory system to assist in monitoring a substation's operation.

5.2.6 Prioritization of Repairs

MEC considers and prioritizes maintenance work by assessing the most urgent needs. The inspector will document the overhead and underground systems' condition, recording defects, deterioration, violations, safety concerns, or any other factors requiring attention on the inspection records. The inspection focuses on any hazards that could affect the system's integrity or the safety of line workers and the public.

Inspection data (overhead & underground) will be prioritized and issued as follows:

- **Priority # 1** (**Red) – Immediate hazard:** Conditions that may affect the integrity of the system or present a hazard to workers or the general public. Priority #1 tags will be responded to without undue delay and appropriate action taken until the hazardous condition is remedied.

- **Priority # 2 (Yellow) – Non-emergency repair condition:** Conditions that require maintenance that can be scheduled to maintain the integrity of the system. Priority #2 tags will be prioritized by urgency and will be scheduled to have appropriate repairs made to correct the conditions where practicable.

5.3 Vegetation Management (VM)

MEC maintains a robust vegetation management program that identifies areas of focus from the annual line inspection program. Vegetation management is completed by both MEC staff as well as contracted outside services. Tree trimming areas are tracked in the MEC mapping application, which stores all MEC line inspection/line corrective maintenance actions. MEC has a formal standard operating procedure for vegetation management that employees follow.

State and Federal Agencies require maintenance of the ROW under or around the MEC's power lines. MEC is authorized by RCW 64.12.035 to trim or remove any tree or vegetation that poses an imminent hazard to the general public or is a potential threat that could damage electric facilities. Tree-trimming crew employees are responsible for trimming trees and vegetation around MEC's energized power lines, utility poles and pad-mount transformers to obtain clearance with due regard to current and future tree health.

5.3.1 Vegetation to Conductor Clearance

MEC has the responsibility and is required by State and Federal Agencies to maintain the right of way, under or around its power lines. MEC will meet at least the minimum standards for conductor clearances from vegetation to provide safety for the public and utility workers, reasonable service continuity and fire prevention.

Vegetation management (VM) operations are scheduled to ensure all lines are cleared of vegetation hazards and prioritized based on condition. During tree work, contractors aim to achieve the clearance specifications described below.

- **OH distribution:** 10 feet from the conductor
- **Roadside transmission with distribution underbuilds:** 10 feet from the conductor
- **Transmission ROW (defined width):** 20 feet between the conductor and the rooted tree stem. Defined width ROWs are generally found on cross-country corridors.
- **Trees under conductors:** Trees that are under conductors should have crowns reduced to a height 10 feet below the primary conductors or be removed.
- **Overhanging branches:** Removed to a height of 10 feet above all distribution conductors and from conductor to sky on all transmission lines.
- **Secondary conductor:** Trees near open wire secondary are pruned to provide a minimum of 10 feet of clearance.

5.3.2 Vegetation Trimming Standards

MEC's contractors follow American National Standards Institute (ANSI) A300 concepts and utility directional pruning, which supports proper pruning/tree health while achieving and

maximizing the pruning cycle. The VM program was developed with RUS, ANSI A300, ANSI C2, National Electrical Safety Code (NESC), and FAC 003-4 standards in mind.

Work performed to the above guidelines provides reasonable service continuity, public safety, and guards against wildfire damage caused by supply conductors. Consideration is given to the impact of pruning on power line reliability, individual tree condition, and tree aesthetics. While the annual inspection program has historically provided timely identification of normal vegetation management practices, MEC consumers and members of the public are able to notify MEC of areas of concern. MEC will evaluate such concerns and take action as deemed appropriate.

5.3.3 VM Trimming and Inspection Schedule

MEC personnel and contractors perform annual, ground-based inspections of tree conductor clearances and hazard tree identification for MEC ROWs and easements for the identified areas. These inspections are generally in conjunction with our routine transmission and distribution line inspection. MEC contracts tree trimming crews as needed for vegetation management work. Proactive maintenance during routine operations and prompt action during emergency events maintain system reliability, a safe work environment, and reduce fire danger. Scheduled patrols ensure lines are inspected for vegetation hazards and systematically trimmed. Ongoing, year-round field patrols identify targeted areas for vegetation pruning or removal and ensure compliance with state and federal regulatory requirements.

5.3.4 Hazard Trees

A subset of Danger Trees[3], A Hazard Tree is defined as any tree or portion of a tree that is dead, rotten, decayed, or diseased and which may fall into or onto the overhead lines or trees leaning toward transmission and distribution facilities. These trees are sometimes located beyond the easement or ROW. Any tree that is located outside of the ROW and is deemed a hazard tree will be removed or topped to ensure safe utility infrastructure.

A hazard tree will have one or more of the following characteristics:

- Dead or dying - all dead or dying trees along, or outside the MEC ROW may be removed depending on the height of tree and the direction of the lean, as allowed by applicable law.
- Leaning trees - trees that have such a lean toward the ROW that they cannot be trimmed without removing the tops and slanting the tree back. Removal depends on height and species of the tree and direction of the lean.

5.3.5 Controlling Incompatible Vegetation

In addition to patrols by MEC field staff observing and reporting on incompatible uses and encroachments, MEC makes efforts to educate public and private landowners about incompatible

[3] As defined by ANSI 300 Part 7 standards

vegetation that can pose risks if planted under or near utility infrastructure. MEC will work to address incompatible vegetation that poses a risk to utility infrastructure.

5.4 Fire Mitigation Construction

MEC uses many different construction methods to aid in risk reduction of arcing and ignition sources. Examples include:

- Covered jumper wire
- Covered secondary crimp connectors
- Increased conductor spacing (see also Aviation Protection Program guidelines)
- Undergrounding distribution lines when necessary
- Fireproof pole-wrap or coatings when necessary
- Fault detection
- Polymer crossarms
- Removal of bolted (split bolt) connectors when possible
- Shorter overhead span lengths
- Stronger class poles

5.4.1 Fire Extinguisher Inspections

MEC fire extinguishers are inspected on a monthly basis to ensure proper functionality and readiness in the event of an emergency. Additionally, fire extinguishers installed on company vehicles are inspected as part of routine truck inspections to ensure they remain in good working condition while in the field. All fire extinguishers also undergo a comprehensive annual inspection and certification process in accordance with applicable fire safety regulations and industry standards.

5.4.2 Infrared Inspections

MEC utilizes infrared (thermal) inspections to assess transmission and distribution equipment as needed, aiding in the early detection of potential issues such as overheating, loose connections, or equipment degradation. This non-invasive diagnostic tool supports proactive maintenance, enhances system reliability, and minimizes the risk of equipment failures.

5.4.3 Avian Protection Program

MEC follows an Avian Protection Plan to minimize potential avian contacts with utility lines and in doing so minimizes the potential for the ignition of fire.

6 Emergency Response

6.1 Preparedness and Response Planning

MEC has created documentation and processes to aid in the recovery and response time to outages and major weather events, including an Emergency Action Plan (EAP), a Hazard Communication Plan (HCP), and a Storm Response Procedure (SRP) all of which are reviewed and updated yearly.

6.1.1 Emergency Management Communication and Coordination

In response to active emergencies, MEC coordinates and collaborates with the local Department of Emergency Management (DEM) and relevant state agencies as a peer partner. During such emergencies, MEC may provide a utility representative to the local DEM to ensure effective communication and coordination.

MEC's primary coordination point is with the Director of Emergency Management. A representative from MEC's Operations Department will contact the local DEM and establish themselves as the duty officer for coordination. The MEC representative acts as the communications officer during an emergency.

6.1.2 Public Agency and Customer Communications for Outages

When MEC has a planned outage or PSPS, staff identify and evaluate the impacted members. Impacted members are contacted generally 48 hours ahead of a planned outage, unless circumstances dictate otherwise, and inform them of the dates and projected time frames for the outage. Social media can also be utilized to supplement notification of planned and unplanned outages. An outage viewer on the MEC website is also available during outage events. Special considerations for communications companies and emergency services are noted.

6.1.3 Community Outreach

- Mckenzie Electric has resources available to the public containing information about electrical safety, including online at MEC's website, at the MEC office, and during MEC's annual membership meeting.
- MEC posts information on its social media pages routinely and as events occur.
- MEC hosts events on electrical safety for First Responders.

6.2 Restoration of Service

If an outside emergency management/emergency response agency requests a power shutdown (MEC will consider, but not guarantee, the requests on a case-by-case basis), or if MEC elects to de-energize segments of its system due to extreme weather or disaster or any other cause, MEC staff will patrol the affected portions of the system before the system can be re-energized. Suspect equipment or utility infrastructure that cannot immediately be patrolled will remain de-energized until MEC staff can do so. Poles and structures damaged in a wildfire must be

assessed and repaired, rebuilt, or replaced as needed prior to re-energization. Updates will be provided for the membership on the progress of outage restoration.

6.2.1 Service Restoration Process

After a widespread outage, MEC crews take the following steps before restoring electrical service after a loss of power event. These measures are intended to protect MEC staff, members, the public, and the system's reliability.

- **Patrol:** Crews patrol every de-energized line to ensure no hazards have affected the system during the outage. If an outage is due to wildfire or other natural disasters, as soon as it is deemed safe by the appropriate officials, crews inspect lines and equipment for damage, foreign contacts and estimate equipment needed for repair and restoration. Lines located in remote and rugged terrain with limited access may require additional time for inspection. MEC personnel assist in clearing issues, such as a downed tree, as needed that impact the utility infrastructure and the ability to make safe and perform restoration activities.

- **Isolate:** Isolate the outage and restore power to areas not affected.

- **Repair:** After the initial assessment, MEC staff meet to plan the work needed. Rebuilding commences as soon as the affected areas become safe. Repair plans prioritize substations and transmission facilities, then distribution circuits serving the most critical infrastructure needs. While the goal is to re-energize all areas as quickly as possible, priority is given to emergency services, medical facilities, and critical utilities when resources are limited. Additional crews and equipment are dispatched as necessary.

- **Restore:** After repairs are made, power is restored to homes and businesses as quickly and safely as possible. As restoration progresses, updates are communicated periodically on the status of the restoration.

7 Performance Metrics and Monitoring

7.1 Plan Accountability

Staff responsibilities for plan implementation and general communications are described below:

- The Board of Directors (BOD) makes policy decisions relative to the utility. They will be responsible for approving and adopting the Wildfire Mitigation Policy – Policy 414. The Wildfire Mitigation Plan follows the requirements set forth in Policy 414.
- The CEO is overall responsible for ensuring MEC is compliant with the WMP and provides direction to Management Staff in satisfying the requirements.
- The Director of Operations is responsible for the overall execution and updating of the WMP. Staff will be directed as to their roles and responsibilities in support of the WMP.

7.2 Monitoring and Auditing of the WMP

The WMP will be reviewed annually for the purpose of updating the plan as needed to reflect knowledge gained in the preceding year and modified accordingly. An annual report will be prepared and presented to the Board of Directors.

7.2.1 Identifying Deficiencies in the WMP

The Director of Operations & Safety Manager will be responsible for ensuring that this WMP meets all public agency guidelines to mitigate the risk of MEC's assets becoming the source or contributing factor of wildfire. Staff responsible for assigned mitigation areas have the role of reviewing current procedures and recommending changes or enhancements to build upon the strategies in the WMP. Updates to the plan will consider such items as changes in regulations, technology, or prior events that have occurred. Updates to the plan will be communicated to the MEC Board of Directors as part of the annual wildfire status update.

MEC's Director of Operations & Safety Manager or their designee will be responsible for leading the action for addressing any plan deficiencies and collaborating on solutions when updating the WMP. At any point in time when deficiencies are identified, the Supervisors or their delegates are responsible for making the appropriate adjustments. MEC staff and qualified stakeholders are encouraged to bring any potential deficiencies to the attention of their supervisor. The Director of Operations, along with the appropriate staff, will evaluate each reported deficiency, and if determined to be valid, shall record the deficiency for further action.

7.3 Programmatic QA/QC processes

7.3.1 Transmission and Distribution System Inspection QC Process

MEC follows its Line Inspection Standard Operating Procedure (SOP) to determine how much of the system is inspected annually. MEC staff and contractors conduct thorough inspections in these areas and document their findings. Operations personnel review the inspection results, generate job tickets for any issues identified, and schedule corrective actions on a case-by-case basis. All corrective actions are properly documented in the MEC inspection software, and random audits of the inspections are performed to ensure accuracy and completeness.

7.3.2 Vegetation Management QC Process

Vegetation management crews perform scheduled clearing and maintenance throughout the system. Operations staff review a sampling of areas where vegetation management work has been completed to verify quality and adherence to standards. Any necessary follow-up actions are documented in the MEC inspection software and random audits are conducted to ensure accuracy and completeness of the inspections.

7.4 Plan Approval Process

7.4.1 Board Presentation

Corporate Policy 414: Wildfire Mitigation is approved by the MEC Board of Directors. A copy of the Wildfire Mitigation Plan will be presented to the Board for awareness. Staff are responsible for complying with and maintaining the WMP. An annual report will be compiled for the Board of Directors, which will provide an investigation summary from prior wildfires, overall compliance with WMP and any updates to the WMP.

7.4.2 Training

Training of the Wildfire Mitigation Plan will occur as part of the initial orientation for affected employees and annually thereafter. Other training or communications may occur following any significant update or other major change to the plan.

Appendix A: Plan and Mapping Disclaimers

WILDFIRE MITIGATION PLAN DISCLAIMER

The information provided in this report was developed by McKenzie Electric Cooperative, Inc. personnel and is intended for MEC's internal planning purposes only. MEC does not warrant the accuracy, reliability, or timeliness of any information in this report, and assumes no liability for any errors, omissions, or inaccuracies in the information provided. MEC shall not be held liable for losses caused by using this information. Portions of the data may not reflect current conditions. Any person or entity who relies on any information obtained from this plan, does so at their own risk. This report is presented solely for internal use AS-IS by MEC personnel. MEC makes no representations or guarantees expressed or implied regarding the accuracy or completeness of the report.

WMP MAPPING DISCLAIMER

Maps in this report were created from multiple datasets from various public and private sector sources and may include utility Geographic Information System (GIS) data. The geographic information contained in the map(s) is not to be used as a "legal description" or for any purpose other than general planning and reference. Every effort has been made to ensure the accuracy of the map(s), but errors in source documents do occur and inherent mapping ambiguities are not shown.

Maps are for information purposes only and may not represent actual current conditions. End users assume all liabilities incurred by them, or third parties, as a result of their reliance on the information contained in the map(s). MEC, including, without limitation, its employees, agents, representatives, officers, and directors, may not be held responsible or liable in any way for any information and/or data, or lack thereof, provided in the map(s). Information and/or data included in the map(s) is used solely at the discretion of the recipient.

MEC make no claims, representations, or warranties, expressed or implied, concerning the validity or accuracy of this data. MEC assumes no liability for any errors, omissions, or inaccuracies in the information provided regardless of their cause. MEC-produced maps are not to be copied or distributed without permission.

Appendix B-ND: Code Citation

N.D.C.C. § 49-01-01. Definitions. In this title, unless the context or subject matter otherwise requires:

1. "Commission" means the public service commission.
2. "Commissioner" means one of the members of the public service commission.
3. "Public utility" includes any association, person, firm, corporation, limited liability company, or agency engaged or employed in any business enumerated in this title.
4. "Rate" means and includes every compensation, charge, fare, toll, rental, and classification, or any of them, demanded, observed, charged, or collected by any public utility for any service, product, or commodity, offered by it to the public, and any rules, regulations, practices, or contracts affecting any such compensation, charge, fare, toll, rental, or classification.

N.D.C.C. § 49-02-01. General jurisdiction of the public service commission over public utilities. The general jurisdiction of the commission shall extend to and include:

1. Contract and common carriers engaged in the transportation of persons and property, excluding air carriers.
2. Telecommunications companies engaged in the furnishing of telecommunications services as provided for in chapter 49-21.
3. Pipeline utilities engaged in the transportation of gas, oil, coal, and water.
4. Electric utilities engaged in the generation and distribution of light, heat, or power.
5. Gas utilities engaged in the distribution of natural, synthetic, or artificial gas.
6. All heating utilities engaged in the distribution of heat.
7. All other public utilities engaged in business in this state or in any county, city, township, or other political subdivision of the state.

N.D.C.C. § 49-02-01.1. Jurisdiction of commission limited as to certain utilities - Exemption.

1. Nothing in this chapter or in chapter 49-21 authorizes the commission to make any order affecting rates, contracts, services rendered, adequacy, or sufficiency of facilities, or the rules or regulations of any public utility owned and operated by the state or by any city, county, township, or other political subdivision of the state or a public utility, that is not operated for profit, that is operated as a nonprofit, cooperative, or mutual telecommunications company or is a telecommunications company having fewer than eighteen thousand local exchange subscribers. However, a telecommunications utility that is operated as a nonprofit, cooperative, or mutual telecommunications company or has fewer than eighteen thousand local exchange subscribers is subject to sections 49-21-01.4, 49-21-02.4, 49-21-23, 49-21-24, and 49-21-25, subsections 6 through 14 of section 49-21-01.7, and to sections 49-21-01.2, 49-21-01.3, 49-21-06, 49-21-07, 49-21-09, and 49-21-10, regarding rates, terms, and conditions of access services or connection between facilities and transfer of telecommunications between two or more

telecommunications companies. Nothing in this section limits the authority of the commission granted under chapters 49-03 and 49-03.1 or sections 49-04-05 and 49-04-06.

N.D.A.C. § 69-09-02-35. Installation and maintenance - Conformance to National Electrical Safety Code. The installation and maintenance of electric supply and communication lines shall conform to rules and regulations established in the 2017 edition of the National Electrical Safety Code which is adopted by reference. Copies of these regulations may be obtained from the public service commission, state capitol, Bismarck, North Dakota 58505-0480. History: Amended effective September 1, 1984; January 1, 1988; December 1, 1990; August 1, 1993; July 1, 1997; March 1, 2003; July 1, 2008; April 1, 2013; July 1, 2017. General Authority: NDCC 49-02-04 Law Implemented: NDCC 49-02-04, 49-20-02

Appendix B-MT: Code Citation

MCA § 69-1-101. Definition of "commission."
As used in this title, the term "commission" means the public service commission provided for in 2-15-2602. Montana State Legislature

MCA § 69-1-103 (or related provisions). Composition and districts of the Public Service Commission. Montana State Legislature

MCA § 69-3-601. Definitions (in the context of utility regulation / small power production).

1. "Commission" means the Montana Public Service Commission. Montana State Legislature+1
2. "Electric cooperative" means a rural electric cooperative organized under Montana law or a foreign corporation admitted to do business in Montana. FindLaw Codes+1
3. "Qualifying small power production facility" means a facility that (a) uses renewable resources (biomass, water, wind, etc.), (b) produces electricity (and possibly thermal energy) in cogeneration, (c) has capacity ≤ 80 MW (combined), and (d) is owned by a person not primarily engaged in generation or sale of electricity beyond small power production. Montana State Legislature+1
4. "Utility" means any public utility supplying electricity and regulated by the commission. Montana State Legislature+2FindLaw Codes+2

MCA § 69-3-201. Requirement for utilities to provide adequate service at reasonable charges. Every public utility is required to furnish reasonably adequate service and facilities. The charges for heat, light, power, water, or regulated telecommunications service must be just and reasonable. FindLaw Codes

MCA Title 69, Chapter 5, Part 1 (e.g. § 69-5-112). Commission jurisdiction over agreements among electric facility providers.
All agreements between electric facilities providers must be submitted to the commission for

approval, with delineation of geographic service areas, customer transfers, notice, etc. Justia Law

MCA Title 69, Chapter 12, Part 1, § 69-12-101. Definitions for motor carriers / public carrier regulation.
Unless the context requires otherwise, in this chapter the following definitions apply:

1. "Between fixed termini" or "over a regular route" means the termini or route between or over which a motor carrier normally operates.
2. "Certificate" means a certificate of public convenience and necessity or certificate of compliance under this chapter. Justia Law