

Other Attachment File(s)

* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

Project/Performance Site Location(s)

Project/Performance Site Primary Location ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 1 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 2 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location(s)

Project/Performance Site Location 3

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Missoula Electric Cooperative, Inc

UEI: Q428K1JFAUA5

* Street1: Various Locations in Mineral County

Street2:

* City: Alberton

County: Mineral

* State: MT: Montana

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 59820-000

* Project/ Performance Site Congressional District: MT-001

Project/Performance Site Location 4

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Missoula Electric Cooperative, Inc

UEI: Q428K1JFAUA5

* Street1: Various Locations in Powell County

Street2:

* City: Helmville

County: Powell

* State: MT: Montana

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 59843-0000

* Project/ Performance Site Congressional District: MT-001

Project/Performance Site Location 5

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Missoula Electric Cooperative, Inc

UEI: Q428K1JFAUA5

* Street1: Various Locations in Ravalli County

Street2:

* City: Florence

County: Ravalli

* State: MT: Montana

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 59833-0000

* Project/ Performance Site Congressional District: MT-001

Additional Location(s)

Add Attachment

Delete Attachment

View Attachment

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

03/15/2023

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Missoula Electric Cooperative, Inc.

* b. Employer/Taxpayer Identification Number (EIN/TIN):

81-0168065

* c. UEI:

Q428K1JFAUA5

d. Address:

* Street1: 1700 W Broadway St

Street2:

* City: Missoula

County/Parish:

Missoula

* State: MT: Montana

Province:

* Country: USA: UNITED STATES

* Zip / Postal Code: 59808-2016

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

* First Name:

Mark

Middle Name:

* Last Name: Hayden

Suffix:

Title: General Manager

Organizational Affiliation:

Missoula Electric Cooperative, Inc.

* Telephone Number: 4065416340

Fax Number:

* Email: markh@meccoop.com

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

N: Nonprofit without 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

National Energy Technology Laboratory

11. Catalog of Federal Domestic Assistance Number:

81.254

CFDA Title:

Grid Infrastructure Deployment and Resilience

* 12. Funding Opportunity Number:

DE-FOA-0002740

* Title:

BIL Grid Resilience and Innovation Partnerships (GRIP)

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

1253-LocationMap.pdf

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Strategic Distribution System Modernization for Resilience and Wildfire Safety

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="2,749,071.00"/>
* b. Applicant	<input type="text" value="2,749,070.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="5,498,141.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Grid Infrastructure Deployment and Resilience, DE- FOA-0002740	81.254	\$	\$	\$ 2,749,070.00	\$ 2,749,071.00	\$ 5,498,141.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 2,749,070.00	\$ 2,749,071.00	\$ 5,498,141.00

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 1

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Grid Infrastructure Deployment and Resilience, DE- FOA-0002740				
a. Personnel	\$ 969,031.00	\$	\$	\$	\$ 969,031.00
b. Fringe Benefits	436,764.00				436,764.00
c. Travel	0.00				0.00
d. Equipment	2,596,690.00				2,596,690.00
e. Supplies	519,525.00				519,525.00
f. Contractual	340,912.00				340,912.00
g. Construction	0.00				0.00
h. Other	161,380.00				161,380.00
i. Total Direct Charges (sum of 6a-6h)	5,024,302.00				\$ 5,024,302.00
j. Indirect Charges	473,839.00				\$ 473,839.00
k. TOTALS (sum of 6i and 6j)	\$ 5,498,141.00	\$	\$	\$	\$ 5,498,141.00
7. Program Income	\$ 0.00	\$	\$	\$	\$ 0.00

Authorized for Local Reproduction

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Grid Infrastructure Deployment and Resilience, DE-FOA-0002740	\$ 2,749,071.00	\$	\$	\$ 2,749,071.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 2,749,071.00	\$	\$	\$ 2,749,071.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 419,654.00	\$ 104,913.00	\$ 104,913.00	\$ 104,913.00	\$ 104,915.00
14. Non-Federal	\$ 419,655.00	104,914.00	104,914.00	104,914.00	104,913.00
15. TOTAL (sum of lines 13 and 14)	\$ 839,309.00	\$ 209,827.00	\$ 209,827.00	\$ 209,827.00	\$ 209,828.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	Grid Infrastructure Deployment and Resilience, DE-FOA-0002740	\$ 523,533.00	\$ 562,113.00	\$ 617,434.00	\$ 626,336.00
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 523,533.00	\$ 562,113.00	\$ 617,434.00	\$ 626,336.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges: 10% de minimus
23. Remarks:	

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013

Expiration Date: 02/28/2025

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name <input type="text" value="Missoula Electric Cooperative, Inc."/> * Street 1 <input type="text" value="1700 W Broadway St"/> Street 2 <input type="text"/> * City <input type="text" value="Missoula"/> State <input type="text" value="MT: Montana"/> Zip <input type="text" value="59808"/> Congressional District, if known: <input type="text" value="MT-001"/>		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: <input type="text" value="US Department of Energy"/>	7. * Federal Program Name/Description: <input type="text" value="Grid Infrastructure Deployment and Resilience"/> CFDA Number, if applicable: <input type="text" value="81.254"/>	
8. Federal Action Number, if known: <input type="text" value="DE-FOA-0002740"/>	9. Award Amount, if known: \$ <input type="text"/>	
10. a. Name and Address of Lobbying Registrant: Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> * Street 1 <input type="text" value="N/A"/> Street 2 <input type="text"/> * City <input type="text" value="N/A"/> State <input type="text"/> Zip <input type="text"/>		
b. Individual Performing Services (including address if different from No. 10a) Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> * Street 1 <input type="text" value="N/A"/> Street 2 <input type="text"/> * City <input type="text" value="N/A"/> State <input type="text"/> Zip <input type="text"/>		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature: <input type="text" value="Keelie Montalban"/> * Name: Prefix <input type="text"/> * First Name <input type="text" value="Keelie"/> Middle Name <input type="text"/> * Last Name <input type="text" value="Montalban"/> Suffix <input type="text"/> Title: <input type="text" value="CFO"/> Telephone No.: <input type="text" value="4065416359"/> Date: <input type="text" value="03/15/2023"/>		
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)



Strategic Distribution System Modernization for Resilience and Wildfire Safety

FOA Number: DE-FOA-0002740

Topic Area 2: Smart Grid Grants (BIL section 40107)

Entity Type: Non-Profit

Proposed Budget: \$5,498,141

Proposed Non-Federal Cost Share: \$2,749,071 (50%)

Proposed Federal Cost Share: \$2,749,070

Proposed Award Duration: 60 months

Business Point of Contact:

Keelie Montalban, Chief Financial Officer, Missoula Electric Cooperative, Missoula, MT

- Email: keelie@meccoop.com
- Office: 406-541-6359

Technical Point of Contact:

Erik Langaunet, Senior Electrical Engineer, Missoula Electric Cooperative, Missoula, MT

- Email: erikl@meccoop.com
- Office: 406-541-6342

Missoula Electric Cooperative Team Members:

- **Mark Hayden** – Project Manager, General Manager
- **Keelie Montalban, CPA** – Chief Financial Officer
- **Erik Langaunet, PE** – System Engineer
- **Dan Rogers** – Energy Services Manager
- **Keven Kuhn** – Chief Technology Officer
- **Kelsey Lodge** – Manager of Communications and Public Relations

Project Location:

Various counties within Missoula Electric Cooperative's service territory in western Montana. This includes Missoula, Mineral, Lake, Granite, Ravalli, and Powell Counties.

BACKGROUND

Missoula Electric Cooperative, Inc. (MEC) is a not-for-profit, member-owned electric cooperative founded in 1936. As the third largest electric cooperative in Montana, MEC serves energy across 16,000 meters in six Montana counties and one Idaho county. The Cooperative is dedicated to service excellence while delivering safe, affordable, and reliable electricity to over 13,000 members. MEC is proud to provide innovative energy solutions and a deep-rooted commitment to the communities we serve.

The Cooperative's service area, located in western Montana and northern Idaho, is positioned within a complex system of mountainous terrain with multiple sub-basins intersected by five major rivers. The distribution system traverses portions of the Lolo, Bitterroot, and Flathead National Forests. MEC has a combined 1,060 miles of 24.9kV and 12.47kV overhead (OH) distribution line on its network. Approximately 654 miles are located within high and very high "Wildfire Hazard Potential" areas. Much of the system is located in areas where the Wildland Urban Interface intersects these hazard potential areas.

Montana's 2017 Climate Assessment concluded that between 1950 and 2015, annual average temperatures (minimums, maximums, and averages) have risen by 2.0-3.0°F across the state. An increase in fire risk, including size, severity, and frequency, has occurred, and is expected to continue in the coming century. This is due to prolonged fire seasons and increased fuel loads resulting from past fire suppression policies.

Increased fire risk is not the only challenge; climate change has brought increases and decreases in seasonal temperatures, with shifts in precipitation, and a pronounced increase in severe winter weather events. In fact, two of the most destructive and expensive events in MEC's history have occurred in the past four years. These events resulted in multi-day power interruptions during the cold of winter, placing lives and property at risk.

Over the past decade, MEC has made a significant investment in a resilient system, but there is more work to be done. While a considerable portion of MEC's annual operating budget is consumed by vegetation management work, it is simply not feasible, legal, or cost-effective to remove every tree or tree branch within striking distance of the OH lines. In 2013, MEC formalized a strategic System Maintenance and Reliability Taskforce (SMART) program, which included a comprehensive approach to system hardening. The goal of this program is improved service reliability and a reduction in the threat of powerline sparked wildfire. In 2020, MEC implemented Montana's first Wildfire Mitigation Plan (WMP). The WMP identifies five key components that create a comprehensive wildfire preparedness and response plan. The principal focuses are meticulous construction standards, fire prevention through system design, proactive operations and maintenance programs, specialized operating procedures, and rigorous employee training.

PROJECT OVERVIEW

A recloser is an automatic, high-voltage electric overcurrent protection device. Like a circuit breaker in a household electric panel, these devices shut off electricity when an issue occurs, such as a short circuit. During periods of normal operation, our reclosing equipment senses faults on the overhead lines such as occasional vegetation contact. The equipment will allow the source of the fault an opportunity to clear the line by automatically interrupting and restoring the source of power up to three times. If the problem was temporary, the recloser automatically “closes in” and restores power. This is the normal operation cycle which provides reliable electricity to our members. While this process enhances overall reliability, it can increase the risk of powerline-sparked wildfire as the device tries to restore power.

A recent wildfire mitigation strategy employed by utilities in the west is to remotely set reclosers to “non-reclose” or “fire-safe” mode from their operations center at the onset of high fire threat conditions (a red flag warning, high wind warning and/or temperatures combined with low humidity). This fire-safe mode prevents the equipment from closing in after the first contact with vegetation. This can be a highly effective strategy if performed quickly and at scale. Once the fire threat subsides, the utility will remotely return the recloser back to normal operating mode. This strategy is a reasonable compromise between safety and reliability since the reclosers remain in fire-safe mode for the duration of the threat. However, to do this, a utility must have the financial resources to deploy modern electronic reclosers and connect them to their operations center via Supervisory Control and Data Acquisition (SCADA).

As described in MEC’s WMP, during periods of elevated fire risk, red flag events, or forecasted severe weather, the Cooperative has proactively chosen to adjust the operation of our system to “non-reclose.” The process of converting our system from “automatic reclosing” to “non-reclosing” is a *manual process* requiring crews to travel across our expansive system, sometimes hundreds of miles, to adjust settings at each site. Because of the manual nature of the system conversion, timely response to events can be difficult. Once the adjustment is made, these settings are typically not returned to normal for extended periods of time resulting in more frequent power interruptions for our members. Furthermore, if a power outage does occur, restoration crews are required to visually inspect 100% of the downstream distribution system impacted by the outage. This process can take considerable time, leading to longer overall outage times and diminished reliability for our consumers. This is of particular concern during red flag weather events which typically last for a few hours, up to a day or two, after which the system could be returned to normal operation. The MEC distribution system includes approximately 173 reclosing devices, none of which have remote control capabilities.

With the help of Department of Energy (DOE) funding, it is MEC’s goal to progressively replace all oil-filled hydraulic reclosers with modern microprocessor-enabled, remotely monitored and controlled devices over five years. This system will be further enhanced by deploying a real-time weather monitoring system through a network of weather stations strategically located throughout the Cooperative’s service territory. The daily situational weather monitoring system was piloted by MEC in 2022, and provides timely, actionable information to improve our

operational decision making to mitigate fire risk. The electronic reclosers we have selected have wireless communication capabilities, and when coupled with localized and accurate situational weather data, will allow for a uniquely innovative solution to address the evolving challenges of wildfire mitigation in real-time, and will help bring MEC into the 21st century.

As a member-owned electric cooperative, MEC obtains all funding through its members' contribution to capital via power purchases and loan funding. For a project of this magnitude, a significant rate increase would be required to offset the investment made in the given time frame. Without DOE funding, this project would require investments for years or even decades, dramatically extending the time horizon for completion. The goal of this project is to mitigate the risk of a utility-caused wildfire using new and improved technologies that will facilitate improved decision making as well as the capability to react and respond to increased wildfire risk in a matter of minutes rather than days. Without DOE funding, the opportunity to mitigate wildfires, a well-known risk factor, would be drastically delayed. This could lead to potentially avoidable wildfires.

MEC exists to improve the quality of life in the communities we serve. This project will result in improved electric service reliability, a reduction in wildfire risk, and a decrease in the hazardous air quality wildfires produce. The anticipated benefits will be realized by all cooperative members including those in Disadvantaged Communities (DACs) in and around our service territory. The Cooperative intends to use this project as an opportunity to engage with members, community organizations, and project stakeholders. Some will be established relationships, while others will be forged through the project. These new partnerships will help us improve our understanding of the needs of our underserved and disadvantaged communities, social justice issues, ecological issues, economic issues, and environmental and climate issues. We understand that for this project to be successful, this must be a key focus. Our Community Benefit Plan (CBP) identifies several goals to maximize project benefits including stakeholder meetings, support of Disadvantaged Business Enterprises (DBEs), Diversity, Equity, Inclusion, and Accessibility (DEIA) trainings and benchmarking, and community wildfire education and training. We will leverage the positive relationship MEC has established with our labor union to create apprenticeship, pre-apprenticeship, and internship opportunities focused on project management, operations, and engineering. The success of our CBP and workforce strategies will play a key role in the success of our overall project.

As defined in Appendix C of the FOA, the project outlined in this document involves the construction, alteration, maintenance and/or repair of public infrastructure located in the United States. All devices will be installed at locations where equipment currently exists, and there are no anticipated constraints on local communities regarding access to natural or cultural resources. We will recycle equipment as it is removed from the field. Communities will not be burdened with cleanup costs and waste and neighborhoods will remain healthy and safe.

In summary, this project proposal is an innovative and transformative way to address the adverse impacts of our rapidly changing weather and climate in western Montana. By coupling remotely monitored and controlled electronic reclosers with actionable, real-time weather data, our ability to respond to threats posed by severe weather or drought is greatly improved. The weather data gathered by the Cooperative will be made available to local fire laboratories and climate researchers to further their studies of our ever-changing ecosystem. Additional benefits of the weather stations will include timely locations of lightning strikes and identification of solar production opportunities which can be shared with first responders and members interested developing carbon-free renewable generation in the communities we serve.

TECHNICAL DESCRIPTION

Electronic Vacuum Reclosers with Remote Capabilities

The proposed project will replace the Cooperative's oil-filled hydraulic reclosers with modern microprocessor-controlled devices over a five-year period. Electronic reclosers with remote capabilities would allow for changes in system settings to be made remotely, thereby eliminating the need to travel to each site. This welcome change would allow for timely adjustments to system settings when faced with severe weather events or elevated wildfire risk. It would also allow the Cooperative to return to normal operations once the threat no longer exists. The selected electronic reclosers are equipped with both cellular and radio frequency (RF) capabilities. MEC will partner with the manufacturer to provide reliable and secure SCADA communication capabilities, even in the most remote parts of our system. The positive impacts of a modern SCADA-connected electronic vacuum recloser system includes:

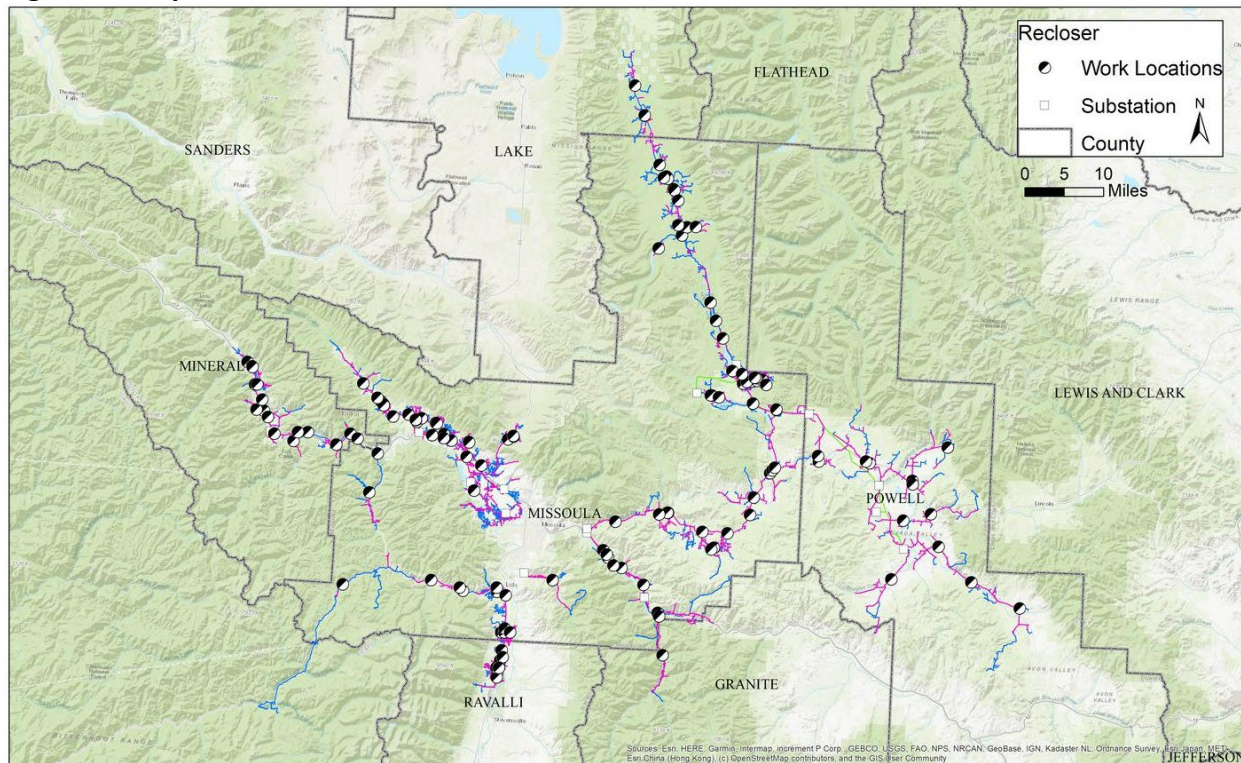
- Remote ability to instantly adjust operations in response to escalating fire danger.
- Remote system monitoring and reporting.
- Faster low energy arc interruption with long contact and interrupter life.
- A reduction in maintenance demands associated with traditional recloser devices, which contain oil and utilize electromechanical mechanisms.
- Avoidance of unnecessary truck rolls and related operation and maintenance expenses.
- Mitigation of wildfire risk and a reduction in outage times for members.
- The elimination of the need to preemptively de-energize power lines due to hazardous wildfire conditions, which provides community safety benefits.

MEC will partner with Schweitzer Engineering Laboratories and G&W Electric Company for equipment and technology needed for the project. These companies have collaborated on the development of technologies and equipment for electrical distribution system fire mitigation. Detailed product specifications for the recloser equipment are included in Table 1.

Table 1. Electronic Vacuum Recloser Specifications

Category	Selection
Firmware	Standard
Recloser Interface	G&W Viper-SP (10-Pin)
Enclosure	Swing Open, Painted Aluminum with Three-Point Latch
Conformal Coat	None
User Interface	Standard Plus Configurable Labels and USB
User Inputs/Outputs	(1) Input (12 Vdc), (1) Standard Output, and (1) Alarm Output
Communications Interface	(2) 10/100BASE-T, EIA-485
Communications Protocol	Standard
Power Supply	120/230 Vac or 125/250 Vdc
Battery Option	12 V, 16 Ah
Installed Accessories	3-Pin Receptacle for Incoming Power

Figure 1 shows the existing locations of hydraulic oil circuit reclosers (OCRs) on MEC's system that would be replaced with electronic devices.

Figure 1. Proposed Recloser Work Locations

The addition of electronic reclosers to a utility distribution system is known in the industry as *Enhanced System Protection*. The electronic reclosers proposed for this project have been designed to respond to a variety of conditions, each of which pose a unique risk to starting a fire. One operational feature that MEC will deploy is Downed Conductor Detection. Downed Conductor is a condition when overhead conductors are damaged and come in contact with the ground or objects connected to the ground, creating a fault current on the system. In analog systems, the fault current created would need to exceed the preset trip levels before the device would attempt to isolate the problem from the system. If the minimum trip levels of the fault current are not generated, the energized conductor will come in contact with the poorly conductive object creating what is known as a high-impedance fault. Modern recloser controls proposed for deployment will have the ability to analyze disruptions on the system reducing the chance of a downed conductor igniting a wildfire.

A second feature that MEC will deploy with electronic reclosers is the customization of timing curves. Current analog reclosers deployed on MEC's system have a factory-defined response curve that is set to coordinate with downstream expulsion fuses. Many times, complete coordination between the recloser and the fuse is not possible. This leads to instances when the recloser cannot prevent a fuse from blowing, which can create an ignition source. Utilizing custom electronic recloser "fire" settings, the recloser can operate through the entire fault range before downstream fuses blow and create a possible ignition source.

Weather Monitoring and Daily Situational Awareness

As previously noted, the MEC service territory covers a large portion of western Montana. With a service territory spanning approximately 100 miles by 100 miles at varying elevations, the weather conditions on the ground can be considerably diverse across the system. The ability to access accurate localized weather data is critical to making informed, timely operational decisions, including:

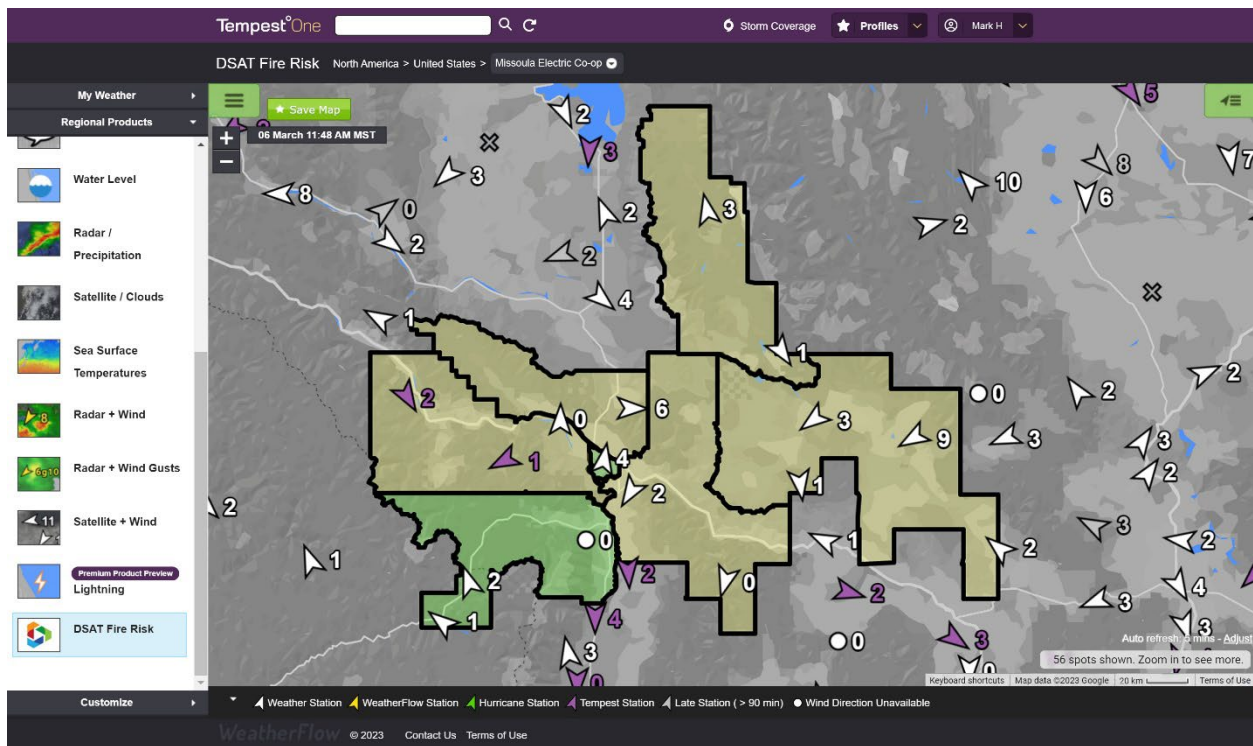
- Recloser settings
- Public safety power shutoffs
- Pre-positioning of line crews and equipment
- Line crew standby/callup
- Interagency communications
- Public messaging
- Construction and maintenance work scheduling

Situational assessment is the process by which current operating conditions are determined. *Situational awareness* (SA) is an understanding of the working environment, which creates a foundation for successful decision-making and the ability to predict how it might change due to multiple factors. To improve its SA, MEC began subscribing to a fire danger forecasting system known as the Daily Situational Awareness Tool (DSAT) in 2022. Currently, the DSAT uses publicly accessible weather data and fire danger indicators to describe fire danger in terms of normal,

elevated, and extreme operating conditions. These operating conditions are used to govern daily field activities. DSAT provides day-ahead adjective fire danger rating forecasts for each of MEC's seven geographically unique service areas. This data allows the Co-op to modify operations in accordance with forecasted weather conditions. The DSAT is particularly helpful in predicting red flag events in advance.

The DSAT also provides timely weather alerts and data in a format that is actionable and operationally friendly. Real-time notifications such as customized wind alerts (speed, direction, average, and peak gust), precise lightning strike locations (differentiating between positively and negatively charged strikes), and other similar capabilities will vastly improve operational awareness. This combination of publicly available and best-in-class subscription weather data will allow MEC to make informed system and operations decisions. A sample of MEC's service territory as viewed in the DSAT online reporting dashboard is included in Figure 2.

Figure 2: Tempest Daily Situational Awareness Tool

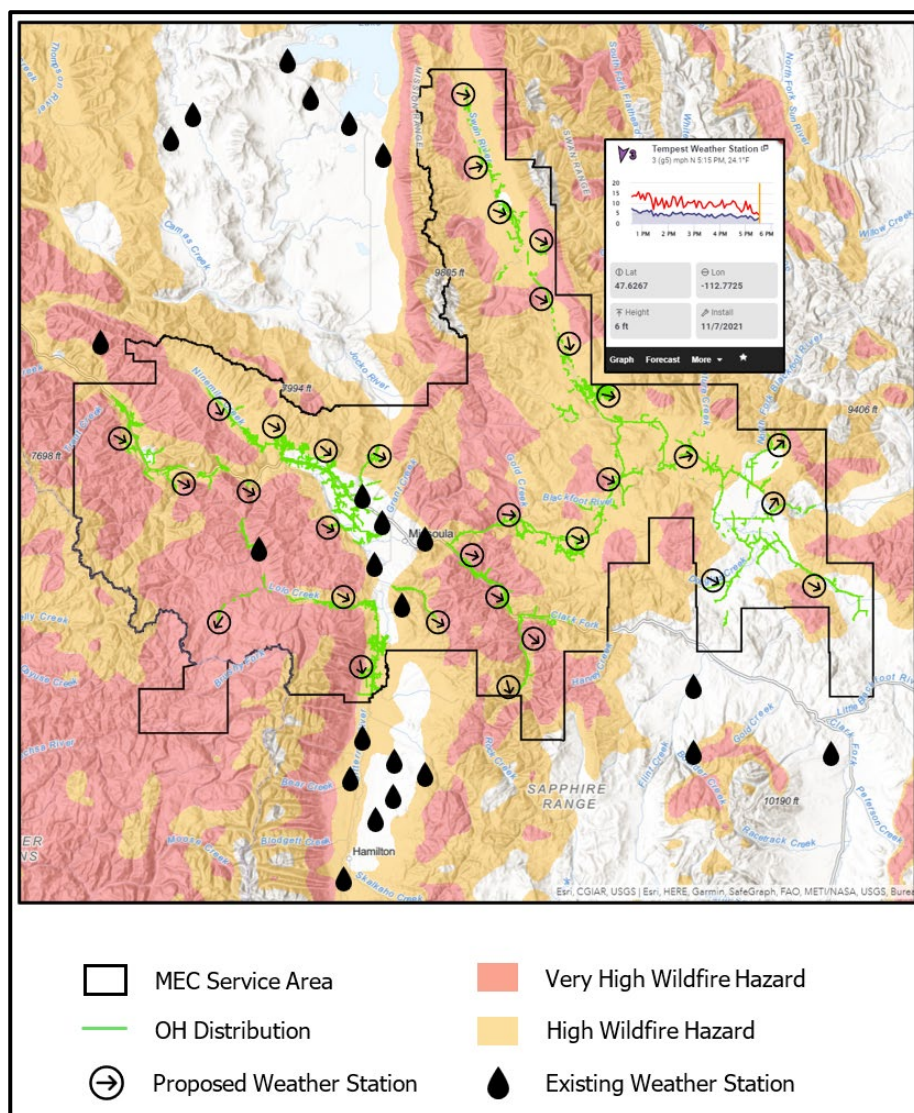


While the DSAT tool has improved our situational awareness capabilities, the quantity and location of existing weather data gathering instrumentation is limited in much of the service area. The existing station locations are sparse, and generally located at elevations that are not representative of MEC's distribution assets or are positioned in lower risk wildfire hazard areas. Through DOE funding, MEC would strategically deploy an array of 31 weather monitoring stations across the service area. This would allow for site-specific weather observations, which, when paired with forecasted fire danger data, will provide the critical information needed to deploy safer, timelier operational decisions.

In developing its Wildfire Mitigation Plan (WMP), MEC determined where the highest risk is based on the Wildfire Hazard Potential (WHP) dataset. This dataset is produced by the USDA Forest Service Fire Modeling Institute (FMI). WHP 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.

Shown in Figure 3 are the overhead assets in relation to wildfire risk, and where the Co-op would benefit from more granular and timely information. Also shown are the proposed weather station sites where we would deploy advanced weather stations to bolster our awareness in high-risk areas. With better data comes better decisions.

Figure 3. Proposed Weather Station Installations



MEC has selected the TempestOne weather station, developed by WeatherFlow, as the technology solution for weather station deployment. Specifications for the TempestOne weather monitoring stations are included in Table 2, below. WeatherFlow's team of atmospheric scientists, forecasters, and developers specialize in weather networks, data science, and forecast modeling. The Tempest app leverages real-time data, advanced forecast modeling and in-house meteorologists, and is used by the National Weather Service, Coast Guard, Defense Threat Reduction Agency, and thousands of satisfied consumers across the globe. Data from each Tempest is processed with advanced machine learning which checks the information for accuracy, allowing users to apply daily calibrations and ultimately improve forecasting over time.

Table 2. TempestOne Weather Monitoring Station Specifications

Measurement	Range	Sampling Interval	Accuracy*	Resolution
Air Temperature	-40°C to 60°C (-40°F to 140°F)	1 minute	± 0.2° C	0.1° C
Relative Humidity	0 to 100%	1 minute	± 2%	1%
Barometric Pressure	300 to 1100 mbar	1 minute	± 1 mbar	0.1 mbar
Lightning Activity	0 to 40 km (25 miles)	Event Based	± 2 km	1 km
Wind Speed	0 to 45 m/s (100 mph)	3 Seconds	greater of ± 0.5 mph or ± 2%	0.04 m/s (0.1 mph)
Wind Direction	0 to 359°	3 Seconds	± 5°	1°
Ambient Light	1 to 128,000 Lux	1 minute	± 100 Lux	1 Lux
UV Index	0 to 14 UVI	1 minute	± 0.5 UVI	0.1 UVI
Solar Radiation	0 to 1900 W/m2	1 minute	± 5%	1 W/m2
Rain Rate	0 to 400 mm/hour (0-15.7"/hour)	1 minute	± 10%	0.1 mm / hr
Rain Accumulation	Unlimited	1 minute	± 10%	0.1 mm
Rain Duration	Unlimited	1 minute	± 2 minutes	1 minute

INNOVATION AND IMPACT

By leveraging these three advanced technologies, MEC hopes to reduce perceived risks for project deployment by other cooperatives and encourage further deployment and private sector investment. MEC is a member of statewide, regional, and national associations. These associations provide forums and publications for cooperatives to share information, strategies, and lessons learned. Throughout the project, MEC intends to share our experiences with others to encourage grid enhancements and smart grid development nation-wide. We feel that if we can encourage similar strategies and applications, especially in our wildfire prone region, a significant decrease in utility started wildfires could be realized.

Additionally, MEC hopes our project can serve as an example of how smart grid investment can support state, local, tribal, regional, and national resilience, decarbonization, and other energy goals. Our project aligns and supports several efforts and plans created by government agencies. Missoula County has developed a Community Wildfire Protection Plan and the Seeley-Swan Fire Plan. The Confederated Salish and Kootenai Tribes (CSKT) also developed a

Community Wildfire Protection Plan. These plans outline wildfire risk in the area and put forth a cohesive strategy approach to limiting wildfire risk. Our proposed project supports the plans by implementing mitigation programs, improving public education and outreach, and supporting fire departments. Missoula County and the City of Missoula have developed a Pre-Disaster Mitigation Plan. The CSKT have also developed a Pre-Disaster Mitigation Plan. Both plans identify wildfires as a significant natural hazard in our area. Our proposed project supports both plans by implementing fire protection methods and advancing data used for fire warnings, advisories, and restrictions. Missoula County, the City of Missoula, and Climate Ready Missoula have developed a Climate Action Plan. As part of the plan, one of their goals is to ensure a clean, reliable, affordable energy system in the context of increased heat, drought, extreme weather, wildfire, and population growth. Our proposed project supports the plan by reducing utility infrastructure fire ignitions in very hot/dry periods and increasing grid flexibility. The US Forest Service has developed a National Cohesive Wildland Fire Management Strategy to protect critical infrastructure within communities which is in direct alignment with our efforts.

RISK ASSESSMENT

MEC acknowledges there is a certain level of risk in deploying modern technologies. Our proposed strategies will limit this risk by relying on proven technologies and a project team that has considerable experience in deploying projects of comparable size, scope, and technical requirements. We recognize that supply chain risk may impact the availability of the equipment necessary to complete the project but have partnered with reputable vendors fully capable of meeting our delivery timelines.

We have also identified risks related to cyber, physical and data security that will be addressed. MEC has a robust cyber and physical security program that includes frequent penetration testing, employee training, and secure back-up procedures, and will apply the same high standards to the successful completion of this project. All equipment will have firewall protection, information transfers will occur via VPN, and all data will be encrypted while in transit. Our headquarters and warehouse facilities are equipped with a 24/7 monitored security system and include multiple camera locations. The materials we procure for the project will be stored in a secure and locked storage facility while awaiting installation, and a portion will ultimately be installed in locked and fenced substation yards. Much of this equipment will be installed in remote areas of our system. Occurrences of intentional property damage to utility assets, particularly from ballistic weapons, have increased in recent years and would be difficult to prevent in these areas.

MEC has experienced project delays relating to the National Environmental Policy Act (NEPA) approval process on previous projects. Since nearly all installations we are proposing will replace equipment that exists today, the scope of review necessary for environmental and cultural impacts is expected to be minimal.

Anytime work is completed in the communities we serve the risk of public acceptance must be considered. MEC has conducted significant outreach regarding this project to community organizations and the response has been overwhelmingly positive. Wildfire prevention is a collective goal in western Montana, and this project supports numerous city, county, state, federal, and local tribal resilience, climate, air quality and fire preparedness goals. Therefore, MEC has received written support for the project from numerous organizations as evidenced by the numerous letters of support accompanying this application. We also intend to include community stakeholders in the Risk Assessment process at the beginning of the project.

WORKPLAN

Project Objectives

The purpose of the project is to build an intelligent network of high-voltage overcurrent devices, also known as reclosers, that can be operated remotely based on risk data gathered by a network of weather monitoring devices strategically located throughout the Cooperative's service territory. Once the project is complete, reclosers can be remotely adjusted to a custom wildfire mitigation mode during periods of elevated fire risk. The goal being improved reliability and a reduction in the probability of utility-caused fire starts from vegetation contact with high-voltage power lines.

Currently, MEC switches all reclosers to non-reclose when fire danger is elevated, and they remain in this condition until fire season ends. In wildfire mitigation mode, reclosers would be set to proactively sense electric arcs. Prior to reaching the full heat of the arc, power would be cut from a section of line nanoseconds before vegetation comes in contact with it. The remote ability to change recloser settings using DSAT data will reduce unintended outages as the system fluctuates between periods of low and high fire danger.

The expected outcomes of the project are as follows:

- Modernize the existing network with advanced, microprocessor-controlled electronic reclosers.
- Enable remote, real-time modifications to our network of reclosers in response to rapidly changing weather and fire danger conditions through the addition of SCADA controls.
- Strengthen the quality and quantity of weather data used to make operational decisions once high-tech weather stations are in place.
- Create a smart recloser operation schema through the integration of weather monitoring station data with the DSAT, to guide management of reclosers in high fire danger areas.

MEC has confirmed, and reconfirmed, with the manufacturer and distributor of both the electronic reclosers and SCADA control equipment that they meet the Buy American requirements of this grant. We have been assured that they meet all requirements. MEC also reached out to the manufacturer of the weather monitoring stations and received the following response: "All design and engineering of hardware, software, and critical meteorological

technology (the beating heart of our solution) is done 100% in the USA. We manufacture parts for the Tempest weather station hardware overseas. Our solution is approximately 80% software and meteorological technology, and 20% plastic bits.” Given this response, a waiver may need to be requested on the weather monitoring stations, however these units only represent 0.4% of the total equipment and supplies budget for our project.

Technical Scope Summary

The project will be managed over a timeline consisting of five performance periods. The overall scope of work has been organized in a logical sequence of discrete actions or set of actions intended to systematically reduce wildfire risk as the project progresses. The WMP developed in 2020 identifies those areas of the MEC system with the greatest wildfire hazard potential. That data has been used to plan and prioritize the sequence in which work will be completed. The project will generally be organized to address those areas of the electric system identified as having the highest risk of wildfire in the first performance period (Priority Level 1), followed by Priority Levels 2, 3, 4, and 5 in subsequent periods.

Installation of reclosers, controls and communications equipment located throughout the service area will be executed by the Operations Department. The Operations Department consists of three fully equipped line crews located at one location in Missoula and a satellite location in Seeley Lake, Montana. Together these crews service all areas of the service territory. Work required to change all line reclosers will be divided between the three crews to maximize efficiency. Crews will focus on recloser replacement and site-specific communications equipment during the off- season when new construction jobs taper off in the fall and before work picks up again in the spring. Substation equipment installation will be performed by the Cooperative’s Apparatus Lineman who is responsible for inspecting and coordinating maintenance of the substation as well as the various protective devices including reclosers. In addition, the Apparatus Lineman will oversee the installation of additional field communications equipment including any radio transmitters, receivers, and repeaters. The installation of SCADA office equipment, as well as commissioning of communications equipment will be managed by the Chief Technology Officer with the assistance of the Apparatus Lineman.

The second component of the new system is the network of weather monitoring stations. The Cooperative will partner with member-owners who reside in locations contiguous with the locations identified by the WMP where additional weather data is desired. Participating members will be provided with a weather station at no cost. Participation will require members to connect the weather station to their local wireless network in order to provide a communication link between the station and the manufacturer’s cloud servers. In return for participating in the program, members will receive free access to view their weather station data online as well as a small monthly credit on their power bill to help offset a portion of their internet service or other data charges.

Performance Period One

The first performance period will be focused on finalizing all planning activities for the project beginning with the completion and submission of the Project Management Plan (PMP), documentation of NEPA compliance, and the completion and submission of the Cybersecurity Plan. As planning is completed, equipment required to complete the technical effort in the performance period will be requisitioned. A propagation study of communication capabilities will be completed for the entire system to determine the communication methods that will be required at each equipment location on the system. Work to be completed also includes the installation of communication equipment at 3 substations and 22 recloser sites including related SCADA equipment at all locations identified as Priority Level 1. In addition, hydraulic reclosers at these 22 sites will be replaced with electronic versions.

Outreach will begin as outlined in the Community Benefits Plan (CBP) including outreach and communication with community stakeholders, the creation of a project website, the completion of a community stakeholder survey, and the development of Community Benefit Agreements with multiple stakeholders. An internal audit of MEC's DEIA performance will be conducted, MEC's Human Resources and Communications Managers will complete a DEI Certificate Program, and anti-bias and DEIA training will be held for all employees. An Annual Stakeholder Meeting will be held in Q4 of performance period one.

At the completion of performance period one, it is expected that all SCADA hardware, software and related equipment in MEC 's headquarters building will be installed, tested and fully operational. It is expected that the installation of all equipment identified as Priority Level 1 will be complete and fully operational. In addition, it is expected that all 31 weather monitoring stations will be deployed and integrated into the DSAT resulting in a fully functional weather monitoring system in the first performance period. The first performance period will close with the Continuation Briefing in which the project will be assessed based on performance relative to project success criteria, milestones, and the Go/No-Go Decision point documented in the PMP.

Performance Period Two

The second performance period will build on the progress made in period one. Work will continue to document NEPA compliance and adherence to the Cybersecurity Plan for all proposed work in performance period two. Work to be completed also includes the installation of communication equipment at 2 substations and 35 recloser sites including related SCADA equipment at all locations identified as Priority Level 2. In addition, hydraulic reclosers at these 35 sites will be replaced with electronic versions. As the project progresses, work will continue to build on year one CBP milestones while also implementing a Wildfire Safety Program for schools and first responders, establishing an internship program for up to 3 interns, conducting a third-party audit of MEC's existing DEIA program, and anti-bias and DEIA training will be held for all employees. Meetings will be set up with representatives from Salish Kootenai Tribal College and Accelerate Montana to build a pipeline of potential interns and understand if mutually beneficial programs can be established. An Annual Stakeholder Meeting will be held in Q4 of performance period two.

At the completion of performance period two it is expected that the installation of all equipment identified as Priority Level 2 will be complete and fully operational. The second performance period will close with the Continuation Briefing in which the project will be assessed based on performance relative to project success criteria, milestones, and the Go/No-Go Decision point documented in the PMP.

Performance Period Three

The third performance period will build on the progress made in period two. Work will continue to document NEPA compliance and adherence to the Cybersecurity Plan for all proposed work in performance period two. Work to be completed also includes the installation of communication equipment at 3 substations and 31 recloser sites including related SCADA equipment at all locations identified as Priority Level 3. In addition, hydraulic reclosers at these 31 sites will be replaced with electronic versions. As the project progresses, work will continue to build on all previous CBP milestones while also implementing a program to share weather and fire risk data with stakeholders. An Annual Stakeholder Meeting will be held in Q4 of performance period three.

At the completion of performance period three, it is expected that the installation of all equipment identified as Priority Level 3 will be complete and fully operational. The third performance period will close with a Continuation Briefing in which the project will be assessed based on performance relative to project success criteria, milestones, and the Go/No-Go Decision point documented in the PMP.

Performance Period Four

The fourth performance period will build on the progress made in period three. Work will continue to document NEPA compliance and adherence to the Cybersecurity Plan for all proposed work in performance period four. Work to be completed also includes the installation of communication equipment at 5 substations and 40 reclosers sites including related SCADA equipment at all locations identified as Priority Level 4. In addition, hydraulic reclosers at these 40 sites will be replaced with electronic versions. As the project progresses, work will continue to build on all previous CBP milestones. An Annual Stakeholder Meeting will be held in Q4 of performance period four.

At the completion of performance period four, it is expected that the installation of all equipment identified as Priority Level 4 will be complete and fully operational. The fourth performance period will close with a Continuation Briefing in which the project will be assessed based on performance relative to project success criteria, milestones, and the Go/No-Go Decision point documented in the PMP.

Performance Period Five

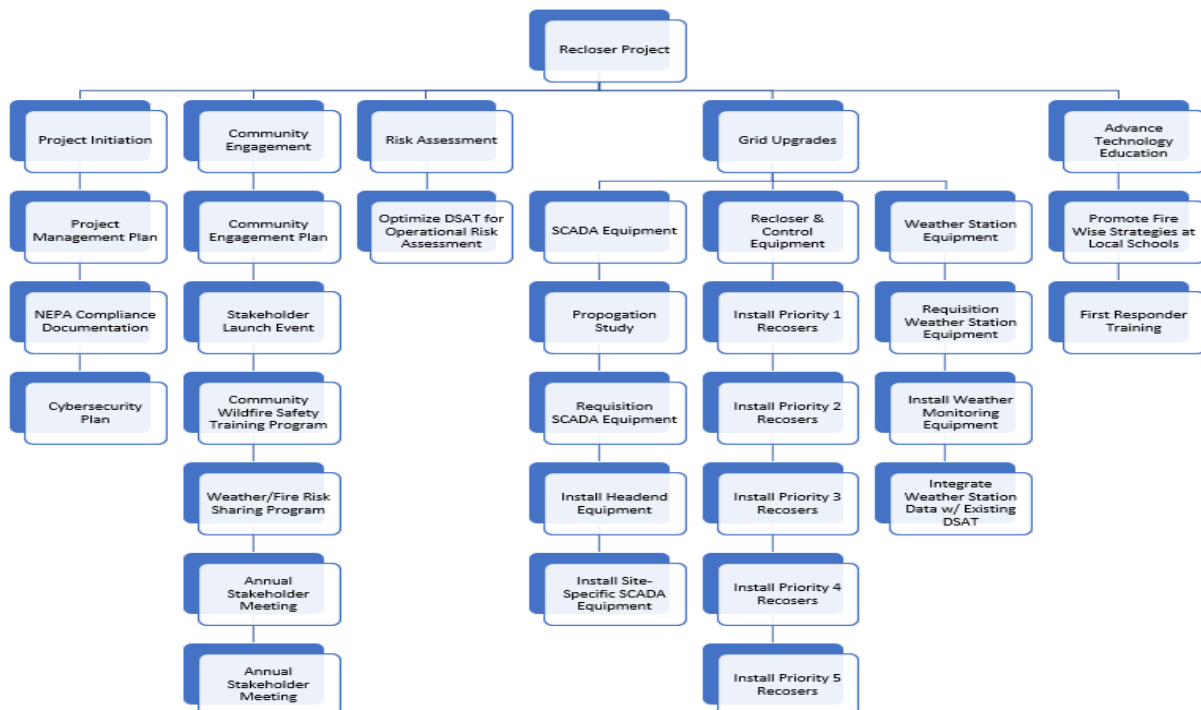
The fifth performance period will serve as a project closeout period. Work will continue to document NEPA compliance and adherence to the Cybersecurity Plan for all proposed work in performance period five. Work to be completed also includes the installation of communication equipment at 4 substations and 45 reclosers sites including related SCADA equipment at all locations identified as Priority Level 5. In addition, hydraulic reclosers at these 45 sites will be

replaced with electronic versions. As the project progresses, work will continue to build on all previous CBP milestones while also implementing a program to expand MEC's apprenticeship and pre-apprenticeship program and expand internal employee training opportunities at MEC. The fifth performance period will close with the completion, evaluation and reporting on all milestones and activities outlined in the PMP. It is expected that on or before the completion of the fifth performance period, the entirety of the technical effort will be complete.

Work Breakdown Structure (WBS)

Work will be divided into 5 major tasks with several subtasks. Task 1 includes all aspects of Project Management and Planning including the creation of a Project Management Plan, NEPA compliance, enhancements to our Cyber Security Plan, and Continuation Briefings. Task 2 includes all aspects of Community Engagement including yearly milestones related to the Community Benefits Plan. Task 3 involves the development of a risk assessment tool including testing and collecting data. Task 4 involves the design, construction, and operation of grid upgrades including SCADA Equipment, Electronic Reclosers, Weather Monitoring Station Equipment, and site-specific communication equipment. Task 5 includes advancing technology education for schools, first responders, and fire departments. Further information on each task and subtask can be found in the Summary of Plan Objectives (SOP) and Figure 4 below.

Figure 4. WBS Tasks & Subtasks



Milestone Summary

SMART technical milestones will be verified through the closure of work orders created for each recloser or control location. In addition, further verification can be shown by tracking changes to our utility plant as old units are retired from the plant and new units are added. Smart Technical milestones will only be considered complete once the system installations have been certified, tested, and verified to function as intended. Quarterly milestones are summarized in Table 3.

Table 3. Quarterly Milestones

Performance Period	Quarter	Milestone
One	Q1	Complete Propagation Study for SCADA
	Q2	Project Risk Assessment Completion
	Q3	Stakeholder Launch Event
	Q4	Full integration of Weather Monitoring System and DSAT Completed
Two	Q1	Identify MBE's, DBE's, WBE, & VBE's in immediate DAC
	Q2	Hire Outside Consultant to Audit DEIA Performance
	Q3	Establish Internship Program
	Q4	Full Integration of Priority Level 2 Sites Complete
Three	Q1	Conduct annual anti-bias and DEIA training for employees
	Q2	Share Weather and Fire Risk Data with at least 5 stakeholders
	Q3	Complete Annual Safety Training for schools and first responders
	Q4	Full Integration of Priority Level 3 Sites Complete
Four	Q1	Conduct annual anti-bias and DEIA training for employees
	Q2	Evaluate Internship Program Successes
	Q3	Complete Annual Safety Training for schools and first responders
	Q4	Full Integration of Priority Level 4 Sites Complete
Five	Q1	Expansion of Line worker Pre-Apprentice Program
	Q2	Expansion of Internal Employee Training Programs
	Q3	Complete Annual Safety Training for schools and first responders
	Q4	All Project Phases Complete

Go/No-Go Decision Points

An annual project evaluation will be conducted to assess the level of technical achievement as compared to the schedule outlined in the project management document. Based on the five-year project timeline, the project will be broken into five performance periods. At the end of each performance period, the project will be assessed based on performance relative to project success criteria and milestones for the specified period documented in the PMP. The assessment will address not only the technical achievements, but also the goals and objectives of the CBP.

The Go/No-Go decision points will be based on the pace of completion as it relates the technical achievement and community benefits for the associated performance period as well as the overall level of achievement toward fulfillment of the end of project goal within the overall timeframe for the project.

End of Project Goal

Upon completion of the project, the Cooperative will have a state-of-the-art overcurrent protection network stretching from each substation to the end of every feeder in its service area. The networked assets will be capable of quickly switching from normal operation to wildfire mitigation mode driven by data-rich situational awareness software and fueled by real-time weather data. The final system will be nimble and reactive, capable of quickly adapting to changing weather fire risk conditions across the electric distribution network.

By using their input and feedback as a roadmap for success during this project, MEC will have developed a larger and stronger network of community stakeholders including our members, local, state, and federal government entities, our tribal college, non-profit organizations representing DACs, labor unions, and first responders. We will have created sustainable and ongoing training and employment opportunities for current staff, and the development of at least three new positions focused on internships, pre-apprentice and apprenticeship programs, ensuring access to underrepresented groups and disadvantaged communities we serve. We will have improved the quality of life for all communities by reducing the risk of powerline sparked fire and the harmful smoke that wildfires create. Finally, we will have created a model for others to follow, and we will share what we have learned with our state, regional and national partners.

Project Schedule

The project will be divided into five performance periods lasting approximately one year each. Each performance period will include various tasks, subtasks, and milestones. The complete project schedule is detailed in the Gantt chart located in Appendix A at the end of this document.

Project Management

The project will involve coordination of the Project Manager, Project Management Team, and the Engineering, Operations, Information Technology and Accounting Departments. These groups have a long history of working collectively to complete large-scale initiatives. The Project Manager and Project Management Team will layout the overall goals, objectives, tasks, and milestones that will require completion. The Project Management Team, many of whom are department heads, will operationalize the plan with the assistance of their teams. Progress toward milestones will be continually monitored and the team will ensure adequate personnel are allocated to complete them in a timely fashion. Finally, in the event outside labor is required, the Cooperative has a well-established relationship with area line contractors who employ a unionized workforce.

Project Manager

Mark Hayden, MBA, CPA – General Manager, Missoula Electric Cooperative

Mr. Hayden will act as the overall Project Manager. Mr. Hayden's role will be to oversee the progress of the project, ensuring all elements of the award agreement are adhered to. While major changes to the proposed project are not anticipated, Mr. Hayden will act as the final arbiter of the change process.

Project Management Team

Keelie Montalban, CPA – Chief Financial Officer, Missoula Electric Cooperative

Mrs. Montalban will be responsible for managing project budgets and accounting and reporting for all material, labor, and other expenses related to the project.

Erik Langaunet, PE – Systems Engineer, Missoula Electric Cooperative

Mr. Langaunet's role will be to provide all the engineering inputs required to complete the project. Mr. Langaunet will be responsible for configuring all new recloser equipment, coordinating reclosers to work together to provide overcurrent protection, and managing the implementation and configuration of the SCADA network.

Dan Rogers – Energy Services Manager, Missoula Electric Cooperative

Mr. Rogers' role will be supervising the creation of work orders by the Engineering Department, which will direct the crews in the field. Mr. Rogers will also liaise with the Director of Operations who will oversee the crews tasked with the construction of the project.

Keven Kuhn – Chief Technology Officer, Missoula Electric Cooperative

Mr. Kuhn will oversee all areas of the project related to computer hardware, software, networks, and cybersecurity. As author of the Cybersecurity Plan, Mr. Kuhn will ensure that all work outlined in the plan is completed and that hardware and software installed is configured in a manner that preserves the integrity of the Cooperative's business network and the SCADA network.

Kelsey Lodge – Manager of Communications and Public Relations, Missoula Electric Cooperative

Mrs. Lodge will be responsible for all marketing, communications and community outreach related to the project. Mrs. Lodge will also oversee the Community Benefit Plan and work with key stakeholders to achieve the objectives outlined in the plan.

Several critical handoffs and interdependencies will be required for the successful completion of the project. The project plan will be developed by the Project Management Team (PMT). The tasks in the plan will be delegated to the various departments which will oversee the work necessary to achieve designated objectives and milestones. Because most of the PMT members also serve as department heads, the handoff to respective team members will be seamless. It will be critical that the members of the PMT work with their teams to focus their efforts on following the SOPO and WBS to achieve the desired outcomes within specified timelines. MEC

is a relatively small organization with 42 full-time employees. The organization is large enough to take on a project of this scale while also remaining a tight-knit collection of teams that interface well with one another. For example, we have employed a similar approach on several large-scale projects including the conversion of 14,000 meters and 18 substations from an outdated automated meter reading system to a new automated metering infrastructure system.

The approach to this project will be very similar to how the Cooperative manages construction workplans. Project management will begin with a work scope and budget. Work will be divided into five blocks corresponding to the number of performance periods. Financial and personnel allocation will reflect how the project is segmented. The bulk of the project falls well within the technical capabilities of the Cooperative's current workforce. For technical aspects beyond our limitations, specifically implementing a SCADA network, the Cooperative will contract with recommended vendors and technical service providers to achieve an optimal outcome.

Given the scope of the project, division of duties, and the need for information sharing across multiple departments, the Cooperative will utilize project management software to plan, organize and track progress throughout the course of the project.

The anticipated risks for this project are relatively low. The primary risk identified is a disruption in the supply chain due to unforeseen circumstances. Discussions have taken place with suppliers, and they do not anticipate a project of this size and sophistication will create a burden for them. A secondary risk is related to the technological aspects of the project. While the technologies considered for the project do not pose risks that cannot be accounted for, the combination of different technologies such as integrating private weather station data with the DSAT software are new enterprises for both entities. A solid working relationship exists between both vendors, who have expressed their commitment to the success of this project, which they can showcase to other utilities.

Workforce and labor-related risks are not anticipated. The Cooperative employs a highly skilled labor force capable of completing the project internally. The Cooperative's management and IBEW Local #44 recently negotiated a new three-year contract with no unresolved items. MEC management and the Union have a strong history devoid of disputes.

As you can see in the numerous letters of support for the project, community backing for the project is strong. The project's execution is anticipated to have no more impact on the public or MEC members than the Co-op's annual maintenance efforts. In addition, the completed project will provide greater protection from utility-caused wildfire risk and less frequent nuisance outages.

As with all projects comes the potential for minor adjustments to achieve success. These adjustments, such as how a crew will address a given installation in the field, will be left to the crew and its Foreman so long as it does not alter the outcome of the project. Greater changes

that seek to change elements of the workplan or impact the overall outcome, timeline, and milestones of the project, will be discussed by the PMT, with the final discretion of the PM.

Quality assurance and control will be critical to the success of the project. The physical conversion of hydraulic reclosers to electronic versions will be straightforward. Beyond installation, the units will require configuration to ensure proper coordination with upstream and downstream devices. Once site-specific communication equipment is in place, confirming the stable and secure backhaul of data to the substation, and ultimately the SCADA server, will be essential.

Because the recloser configuration and communications integration work requires highly technical capabilities, quality control and assurance will be led by the Cooperative's System Engineer and Chief Technology Officer with oversight of the PM. In addition to internal resources, we will work closely with vendors and our third-party cybersecurity contractor during the project.

The Project Management Team is comprised of various members of MEC's management team, and the General Manager (GM) of the Cooperative. The GM and management team meet on a bi-weekly basis to discuss operations. Upon an award, discussion of the project will remain a standing agenda item until the project is successfully completed.

After the bi-weekly staff meeting, department heads will meet with team members to discuss project updates, goals, and timelines. These department meetings will serve to align duties and expectations of employees with the objectives and milestones of the project as it progresses through the various phases.

The bulk of the work will be completed in the field by MEC's Operations Department. The weekly Engineering and Operations meeting, held each Thursday, will serve as a prime opportunity to unite the Engineering employees responsible for the design and the Operations crews responsible for the physical work. Supervising department heads, managers and the PMT will also participate in these weekly discussions.

Finally, the Cooperative is governed by a seven-member Board of Trustees who meet monthly. Since the Board is responsible for approving the Cooperative's operations budget and guiding the direction of the Cooperative, they will be integral in supporting and holding the project management team accountable to the goals, objectives, timelines, and deliverables identified in the proposal.

TECHNICAL QUALIFICATIONS AND RESOURCES

MEC employs a highly skilled workforce capable of planning, designing, and managing all aspects of the Cooperative's daily operations, its medium and long-range work plans, and all aspects of the Smart Grid Grant proposal. The PMT has a combined 88 years of utility experience with varied backgrounds and expertise. Several projects are described below that

illustrate the Cooperative's prior experience and capabilities with similar projects for which we are requesting funding. The examples provided demonstrate how MEC has been able to deploy smart grid technologies and utilize data to find solutions that increase the flexibility, efficiency, reliability, and resilience of our system.

The first project we would like to highlight is the deployment of our advanced metering infrastructure (AMI). The integrated system of equipment, communications, and information management systems remotely collects customer electric usage in real-time. We started the project in 2015 and completed the installation of over 14,000 AMI meters by 2017. Not only did this require creative solutions for communication issues, but also increased enhancements to our cybersecurity program. The project required collaboration among several vendors including software and hardware vendors. Our current AMI system is fully functional and not only provides hourly meter reading data to MEC, but also to our members. MEC uses the data for system engineering analysis to ensure our system is operating in a healthy state. We can identify potential overloading issues and shift load accordingly. The data can also help with load growth projects and identify system upgrade needs. We have used the data to determine our peak hours and how they correlate with our power supplier and transmission provider's peak hours. From there, we have restructured our rates to encourage members to reduce consumption during peak times. We also use this data to help members understand their usage patterns and find ways to conserve electricity.

A second example of a similarly complex project involves our vegetation management program. We deployed and trained employees on a mobile inspections tool for use in the field. The tool allows crew members to document right-of-way conditions in relation to our overhead powerlines and identify potential hazards. Crews assess the potential hazards and categorize them into priority levels. Once the data is collected, we can assign work according to priority level. The tool contains large amounts of data updated in real-time. It also contains historical data that allows us to analyze trends and identify problem power line sections. As a result, our vegetation management efforts have become more strategic and efficient. The tool has allowed us to inspect and maintain our entire system on a two-year system rotation, and we continue to see momentum. Crews can also use the tool to identify maintenance issues making the data dual purpose. We now have a proactive approach to vegetation management and service reliability as opposed to a reactive approach. The positive impact of the project has not only increased service reliability for our members, but also enhanced wildfire mitigation efforts.

The PMT has also demonstrated its ability to manage large projects that include a variety of diverse stakeholders. One example is the undergrounding of approximately 11 miles of three-phase overhead power line located on private and United States Forest Service (USFS) land along the US Highway 12 corridor between the town of Lolo, Montana, and the Montana-Idaho border. While a portion of the work was completed on nongovernment land, the sections of overhead line crossing federal land in the Lolo National Forrest required coordination between MEC and the US Department of Transportation, U.S. Forest Service, and the MT Department of Transportation. Due to the adjacency of the location to areas of historical and cultural

sensitivity, additional consultation, and coordination between USDOT and area Native American tribes was necessary.

In addition to experience with projects of comparable size or complexity, MEC constructs all facilities in accordance with USDA specifications as enumerated in the Rural Utility Service (RUS) Bulletin 1728F-806. The electrical standard requirements established by RUS are in addition to and not in substitution for or a modification of the most current and accepted criteria of the National Electrical Safety Code (NESC) and any applicable electrical or safety requirement of state or local governments. Building to RUS specifications is considered the best practice for electric cooperative electric distribution system construction.

MEC maintains an aggressive cybersecurity program that includes frequent training of employees, routine penetration testing of our firewalls, switches, and devices, and a required annual third-party assessment of our overall cyber and physical security posture. Our efforts to continually improve our cyber security program has led us to work with entities such as National Renewable Energy Laboratory (NREL) and their Cyber-governance Assessment Program, the Northwest Public Power Association (NWPPA), Energy Northwest, and the National Rural Electric Cooperative Association (NRECA). In fact, MEC was one of the original Co-ops selected to participate in the NRECA Rural Cooperative Cybersecurity Capabilities (RC3) program as part of their work to design the current RC3 online portal.

Our network and cybersecurity capabilities are enhanced by several local and regional companies including Blackfoot Technologies, First Call Computers, Info@Priority, Univision Computers and National Information Solutions Cooperative. We work closely with these partners and others to continually design, build, and support a cyber-secure environment for MEC employees to work within. The proposed project will require a similar approach when vetting and working with vendors and consultants.

The key members of the PMT are department heads and managers who oversee the day-to-day operations of the cooperative. The amount of time required to manage the successful completion of the project will not exceed the team members' capabilities. In addition to the PMT, the Cooperative has a very capable staff who will be able to absorb or assist with many tasks.

In addition to utilizing existing workforce resources, successful completion of the project will not require the purchase of new equipment or facilities. While the project does include the installation of equipment not previously utilized by the Cooperative, all work required will be possible with existing crews, equipment, and facilities.

Appendix A

Strategic Distribution System Modernization for Resilience and Wildfire Safety

Missoula Electric Cooperative, Inc.

FOA Number: DE-FOA-0002740

Topic Area 2: Smart Grid Grants (BIL section 40107)

Est. Project Start Date: 1/1/2024

Legend

Go/No Go



Objectives	Task #	Objective and Task Description	Start Date	End Date	Quarter I			Quarter II			Quarter III			Quarter IV		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Performance Period I	1.0	Project Management & Planning														
	1.1	Project Management Plan (PMP)	1/1/2024	1/31/2024												
	1.2	NEPA Compliance	1/1/2024	12/31/2028												
	1.3	Cybersecurity Plan (CSP)	1/1/2024	12/31/2028												
	1.4	Continuation Briefings	1/1/2024	12/31/2028												
	2.2	CBP Year One Milestone														
	2.2.1	Stakeholder Launch Event	1/1/2024	9/30/2024												
	3.0	Risk Assessment Development Tool														
	3.1	Develop, test, and collect data for risk assessment tools	1/1/2024	12/31/2028												
	4.0	Grid Upgrades														
	4.1	Determine Necessary SCADA Equipment														
	4.1.1	Propagation Study	1/1/2024	3/31/2024												
	4.1.2	Order SCADA Equipment	4/1/2024	4/30/2024												
	4.1.3	Install and Commission SCADA Headend Equipment	6/1/2024	8/31/2024												
	4.2	Electronic Reclosers	8/1/2024	12/31/2028												
	4.2.1.1	Convert Reclosers and Feeder Controls for Risk Level 1 Areas	8/1/2024	12/31/2024												
	4.2.3	Install Site-Specific Communications Equipment	10/1/2024	12/31/2028												
Performance Period II	4.2.4	Install Communications Equipment for Risk Level Areas 1 through 3	10/1/2024	12/31/2026												
	4.3	Weather Monitoring Station Equipment	4/1/2024	12/31/2024												
	4.3.1	Identify Communication Options of Chosen Locations	1/1/2024	3/31/2024												
	4.3.2	Deploy Network of Weather Monitoring Stations	4/1/2024	12/31/2024												
	4.2.3	Integrate Weather Monitoring Data with DSAT	1/1/2025	6/1/2025												
	5.0	Advance Technology Education														
	5.1	Promote Fire Wise Strategies in Schools	9/1/2024	12/31/2024												
	1.0	Project Management & Planning														
	1.1	Project Management Plan (PMP)	1/1/2024	1/31/2024												
	1.2	NEPA Compliance	1/1/2024	12/31/2028												
	1.3	Cybersecurity Plan (CSP)	1/1/2024	12/31/2028												
	1.4	Continuation Briefings	1/1/2024	12/31/2028												
	2.3	CBP Year Two Milestones														
	2.3.1	Identify MBE's, DBE's, WBE, & VBE's in immediate DAC	1/1/2025	3/31/2025												
	2.3.2	Hire Outside Consultant to Audit DEIA Performance	4/1/2025	6/30/2025												
	2.3.3	Establish Internship Program	6/1/2025	9/30/2025												
	2.3.4	Annual Stakeholder Meeting	10/1/2025	12/31/2025												
	3.0	Risk Assessment Development Tool														
	3.1	Develop, test, and collect data for risk assessment tools	1/1/2024	12/31/2028												
	4.0	Grid Upgrades														
	4.2	Electronic Reclosers	8/1/2024	12/31/2028												
	4.2.1.2	Convert Reclosers and Feeder Controls for Risk Level 2 Areas	1/1/2025	12/31/2025												
	4.2.3	Install Site-Specific Communications Equipment	10/1/2024	12/31/2028												
	4.2.4	Install Communications Equipment for Risk Level Areas 1 through 3	10/1/2024	12/31/2026												
	4.2.3	Integrate Weather Monitoring Data with DSAT	1/1/2025	6/1/2025												
	5.0	Advance Technology Education														
	5.1	Promote Fire Wise Strategies in Schools	9/1/2025	12/31/2025												

Objectives				Quarter I			Quarter II			Quarter III			Quarter IV		
Performance Period III	1.0	Project Management & Planning													
	1.1	Project Management Plan (PMP)	1/1/2024	1/31/2024											
	1.2	NEPA Compliance	1/1/2024	12/31/2028											
	1.3	Cybersecurity Plan (CSP)	1/1/2024	12/31/2028											
	1.4	Continuation Briefings	1/1/2024	12/31/2028											
	2.4	CBP Year Three Milestones													
	2.4.1	Conduct annual anti-bias and DEIA training for employees	1/1/2026	3/31/2026											
	2.4.2	Share Weather and Fire Risk Data with at least 5 stakeholders	4/1/2026	6/30/2026											
	2.4.3	Complete Annual Safety Training for schools and first responders	8/1/2026	9/30/2026											
	2.4.4	Annual Stakeholder Meeting	10/1/2026	12/31/2026											
	3.0	Risk Assessment Development Tool													
	3.1	Develop, test, and collect data for risk assessment tools	1/1/2024	12/31/2028											
	4.0	Grid Upgrades													
	4.2	Electronic Reclosers	8/1/2024	12/31/2028											
Performance Period IV	4.2.1.3	Convert Reclosers and Feeder Controls for Risk Level 3 Areas	1/1/2026	12/31/2026											
	4.2.3	Install Site-Specific Communications Equipment	10/1/2024	12/31/2028											
	4.2.4	Install Communications Equipment for Risk Level Areas 1 through 3	10/1/2024	12/31/2026											
	5.0	Advance Technology Education													
	5.1	Promote Fire Wise Strategies in Schools	9/1/2026	12/31/2026											
	1.0	Project Management & Planning													
	1.1	Project Management Plan (PMP)	1/1/2024	1/31/2024											
	1.2	NEPA Compliance	1/1/2024	12/31/2028											
	1.3	Cybersecurity Plan (CSP)	1/1/2024	12/31/2028											
	1.4	Continuation Briefings	1/1/2024	12/31/2028											
	2.5	CBP Year Four Milestones													
	2.5.1	Conduct annual anti-bias and DEIA training for employees	1/1/2027	3/31/2027											
	2.5.2	Evaluate Internship Program Successes	4/1/2027	6/1/2027											
	2.5.3	Complete Annual Safety Training for schools and first responders	8/1/2027	9/30/2027											
	2.5.4	Annual Stakeholder Meeting	10/1/2027	12/31/2027											
	3.0	Risk Assessment Development Tool													
	3.1	Develop, test, and collect data for risk assessment tools	1/1/2024	12/31/2028											
	4.0	Grid Upgrades													
	4.2	Electronic Reclosers	8/1/2024	12/31/2028											
	4.2.2.1	Convert Reclosers and Feeder Controls for Risk Level 4 Areas	1/1/2027	12/31/2027											
	4.2.3	Install Site-Specific Communications Equipment	10/1/2024	12/31/2028											
	4.2.5	Install Communications Equipment for Risk Level Areas 4 and 5	1/1/2027	12/31/2028											
	5.0	Advance Technology Education													
	5.1	Promote Fire Wise Strategies in Schools	9/1/2027	12/31/2027											
	5.2	First Responder Training	4/1/2027	9/30/2027											
Performance Period V	1.0	Project Management & Planning													
	1.1	Project Management Plan (PMP)	1/1/2024	1/31/2024											
	1.2	NEPA Compliance	1/1/2024	12/31/2028											
	1.3	Cybersecurity Plan (CSP)	1/1/2024	12/31/2028											
	1.4	Continuation Briefings	1/1/2024	12/31/2028											
	2.6	CBP Year Five Milestones													
	2.6.1	Expansion of Line Worker Pre-Apprentice Program													
	2.6.2	Expansion of Internal Employee Training Programs													
	2.6.3	Complete Annual Safety Training for schools and first responders													
	2.6.4	Annual Stakeholder Meeting													
	3.0	Risk Assessment Development Tool													
	3.1	Develop, test, and collect data for risk assessment tools	1/1/2024	12/31/2028											
	4.0	Grid Upgrades													
	4.2	Electronic Reclosers	8/1/2024	12/31/2028											
	4.2.2.2	Convert Reclosers and Feeder Controls for Risk Level 5 Areas	1/1/2028	12/31/2028											
	4.2.3	Install Site-Specific Communications Equipment	10/1/2024	12/31/2028											
	4.2.5	Install Communications Equipment for Risk Level Areas 4 and 5	1/1/2027	12/31/2028											
	5.0	Advance Technology Education													
	5.1	Promote Fire Wise Strategies in Schools	9/1/2028	12/31/2028											
	5.2	First Responder Training	4/1/2028	9/30/2028											

Mark Hayden, CPA, MBA
General Manager
Missoula Electric Cooperative
1700 W. Broadway, Missoula, MT 59808
(406)541-6340
markh@meccoop.com

Education

University of Wisconsin – Eau Claire
Bachelor of Business Administration- Comprehensive Accounting Major, 1989
Master of Business Administration, 2000

Training

University of Wisconsin, Farm and Industry Short Course Graduate
University of Wisconsin, Cooperative Leadership and Management Training Series

Professional Experience

General Manager, 03/2009 - Present

Missoula Electric Cooperative – Missoula, MT

Direct the overall operations of the Cooperative in accordance with its Bylaws, Policies set by the Board of Trustees, and applicable federal, state, and local laws. Advise and assist the Board in the strategic planning process and formulation of Board policies. Direct the development of RUS required work plans, power requirement studies, risk mitigation plans, and financial forecasts. Develop work plans, and budgets, and manage operations to achieve Cooperative goals within established budgets. Advocate for the rural utility program locally, state-wide, and nationally. Serve as the Board appointed key spokesperson and communicator regarding cooperative issues presented to Members, governmental officials, lenders, legislators, news media and other stakeholders.

Assistant General Manager, 2/1995 – 03/2009

Dunn Energy Cooperative – Menomonie, WI

Management team member responsible for all aspects of cooperative finance including accounting and internal accounting controls, annual budget preparation and subsequent monitoring, debt and investment portfolio management, and long-range financial planning used to guide corporate strategic decision making. Supervision of human resources, member services, customer billing and collection, plant accounting, IT, GIS

Developed a propane fuel diversification plan for expansion into the LP gas business. Responsibilities included management of staff working in the areas of propane delivery, LP gas appliance service and repair, and customer service. Additional duties included propane hedging and risk management, regulatory compliance oversight, and key account maintenance.

Supervised sales, technical, and customer service staff of Direct Broadcast Satellite operations from date of hire to partnership with a nationwide management firm in late 1997. Realized growth to 2,200 households in Dunn County during that period. Improved functionality of the accounting system to incorporate into existing electric utility financial reporting system.

Senior Auditor, 12/1989 – 02/1995**Tracey and Thole CPA's – Hudson, WI**

Auditor in charge on audits of municipal general fund and municipal electric utilities Northwest Wisconsin. Relevant duties included assistance in annual budget preparation, year-end closing of utility financial records, preparation and audit of year-end financial statements, and communication of audit findings to the municipal governing body. Related services included the compilation of electric utility rate increases for filing with the Public Service Commission of Wisconsin as well as completion of the Public Service Commission of Wisconsin Municipal Utility Annual Report.

Appointments

Missoula Economic Partnership – Board of Directors

Energy Partners Propane, LLC – Board of Directors

Montana Electric Cooperatives' Association - Legislative Committee Chairman

National Rural Electric Cooperative Association - Regional Resolutions Committee Member

Electricity Subsector Coordinating Council (ESCC) Wildfire Working Group Tiger Team Member

Keelie Montalban, CPA, MBA
Chief Financial Officer
Missoula Electric Cooperative, Inc.
1700 W Broadway St, Missoula, MT 59808
(406) 541-6359
keeliem@meccoop.com

Education

University of Montana, Missoula, MT
Master of Business Administration, November 2020

Montana State University, Billings, MT
Completed 30 credits to become eligible to sit for CPA exam, September 2013-December 2014

University of Montana, Missoula, MT
Bachelor of Science in Business Administration, July 2007

Training

Montana Board of Public Accountants, Certified Public Accountant, August 2016-Current
State of Montana, Notary Public, June 2010-June 2022

Professional Experience

Chief Financial Officer, January 2019-Current

Missoula Electric Cooperative – Missoula, MT

Assists in evaluating, formulating, and implementing programs, policies, contracts, and methods to promote and facilitate the effective and efficient operation of the Cooperative. Participates in the development, evaluation, and implementation of the Cooperative's strategic plan. Coordinates the annual audit by the independent auditing firm. Develops the Cooperative's budget and work plan for approval by the General Manager and Board, monitors expenditures and recommends changes for corrective action. Initiates the internal auditing program to provide effective control and safeguarding of Cooperative assets. Prepares financial, statistical, and other management reports in a timely manner to present to the General Manager and Board. Ensures compliance with all federal, state and county tax laws and preparation of tax statements required of the Cooperative. Reviews and approves journal entries, accounts payable invoices, payroll processing, cash disbursements, purchase orders, and bank reconciliations. Supervises Accounting and Member Service personnel including assisting in the recruitment, scheduling, training and performance assessment. Oversees the accuracy of member records, billing information, cash posting and rate schedules. Ensures the preparation and mailing of billing statements and other member information is in a timely manner. Responsible for the member delinquent processes and ensures that the appropriate collection procedures are being followed and in the appropriate timeframe.

Manager of Finance & Administration, August 2016-January 2019**Glacier Electric Cooperative, Inc. – Cut Bank, MT**

Prepared annual financial statements in accordance with RUS Uniform System of Accounts and Generally Accepted Accounting Principles. Prepared and presented monthly financial statements to the Board of Directors. Prepared annual budget, annual audit, and rate schedules. Maintained internal controls. Participated in the development, evaluation, and implementation of the cooperative's strategic plan.

Assistant Manager of Finance, May 2015-August 2016**Glacier Electric Cooperative, Inc. – Cut Bank, MT**

Hired, supervised, and trained employees. Administered employee group benefits program. Assisted Manager of Finance in preparation of financial reports, utility rate schedules, cost-of-service studies, financial forecasts, and annual budget. Maintained general ledger including journal entries, depreciation, amortization, and bank reconciliation. Prepared tax returns and payroll reports.

Manager of Member Services, January 2015-May 2015**Glacier Electric Cooperative, Inc. – Cut Bank, MT**

Developed, reviewed, and implemented company policies. Created marketing materials including magazine articles, radio spots, brochures, and newspaper advertisements. Communicated with members and community about energy conservation programs, scholarship programs, and job opportunities. Planned and coordinated events including annual meetings of members and public outreach programs.

Staff Accountant, September 2009-December 2014**Clyde Brandt CPA – Havre, MT**

Worked in cooperation with CPA to prepare income tax returns, financial statements, and audits with accuracy. Prepared quarterly payroll reports, bookkeeping, billing, accounts receivable, and accounts payable for local businesses and organizations. Researched and interpreted federal, state, and county tax laws, regulations, policies, and procedures.

Erik Langaunet
Sr. Engineer
Missoula Electric Cooperative
1700 W. Broadway, Missoula, MT 59808
(406)541-6342
erikl@meccoop.com

Education

Montana State University
Bachelor of Science - Electrical Engineering, 2003

Training

NRECA Management Internship Program – University of Wisconsin
Licensed Professional Engineer – Montana

Professional Experience

Senior Electrical Engineer, November 2022 - Present

Missoula Electric Cooperative – Missoula, MT

Researches, develops, designs, and tests electrical components, equipment, and systems to ensure compliance with RUS/MEC construction specifications, National Electric Safety Codes, EPA and OSHA Utility Standards as they apply to utilities. Develops and implements studies to protect and improve the overall integrity and operation of the electric plant system. Keeps system model current for voltage drop studies, load flow analysis, and fault current studies to verify system capacity requirements. Analyzes complex system networks and models the transmission and distribution system using engineering analysis software. Oversight of the design of transmission line and substations in coordination with consultants to implement construction, metering, and load monitoring. Directs activities to ensure that manufacturing, construction, installation, and operational testing conform to functional specifications and customer requirements.

Manager of Engineer, June 2012 – November 2022

Missoula Electric Cooperative – Missoula, MT

Supervised Engineering personnel in construction, conversion, maintenance, and relocation of power lines. Responsible for matters of budgeting and long-range planning. Oversight of design work to maintain system integrity. Participated in system planning and design extensions to comply with overall plan and construction standards and guidelines. Additional duties include oversight of electronic mapping system. Assisted in development and maintenance of construction standards. Provided coordination of technical information to assist in operation, maintenance, and repair of equipment and systems in field installations.

System Engineer, June 2008 – June 2012

Missoula Electric Cooperative – Missoula, MT

Responsible for the maintenance and operation of the cooperative's infrastructure, including the development of protection coordination schemes, long range planning, engineering large capital projects, and investigating power quality issues. Ensure applicable safety rules, regulations, policies, and procedures are adhered to. Assisted with coordination of RUS bids, contracts, and close out documents associated with special projects. Provided technical guidance and final inspection to ensure that line construction is performed in a manner consistent with the construction workplan and appropriate specifications.

Staking Technician, April 2004 – June 2008

Missoula Electric Cooperative – Missoula, MT

Responded to requests for new service, including the development of construction documents, cost estimates, and obtaining right-of-way. Designed utility line extensions to serve new consumers following construction standards and guidelines and to ensure compliance with related codes. Prepared staking sheets for work orders. Prepared and submitted permits and easements for appropriate recording.

Project Specialist, May 2000 – April 2004

MCS Environmental – Spokane, WA

Provided on-site project management and coordination for construction sites involved in the abatement of hazardous materials.

Appointments

Membership in IEEE

Daniel F. Rogers
Manager of Energy Services
Missoula Electric Cooperative, Inc.
1700 W. Broadway, Missoula, MT 59808
406-541-4433
danr@meccoop.com

Education

University of Montana

Bachelor of Arts in Sociology with an emphasis in Criminology, 1999

Training

The University of Wisconsin – Madison School of Business and The National Rural Electric Cooperatives' Association

Management Internship Program, 2015

Professional Experience

Manager of Energy Services, 2022-Current

Missoula Electric Cooperative – Missoula, MT

Responsibilities include those of Energy Services Specialist as well as supervision of Engineering Department. Additional duties include streamlining and modernization of processes, implementation of mobile workforce tools, as well as working as liaison with Operations Department to optimize outcomes of shared processes.

Energy Services Specialist, 2018-2022

Missoula Electric Cooperative – Missoula, MT

Responsible for administration of the Cooperative's energy efficiency rebate program, residential and commercial energy auditing, development of an electric vehicle lending program, development of residential managed electric vehicle charging program, project manager for the construction of a commercial high-speed electric vehicle charging station owned by the Cooperative, investigation of new and emerging technologies including battery energy storage systems, as well as assistance with load forecasting, cost of service, and rate design.

Member Service Manager/Billing and Credit Department Supervisor, 2013-2018

Missoula Electric Cooperative – Missoula, MT

In addition to responsibilities of the Member Service Manager position, supervised Billing and Credit Department employees. As department head, oversaw numerous initiatives to streamline and modernize key processes. Undertook a leadership role in process mapping and improvement for key processes in the department and cooperative.

Member Service Manager, 2010-2013

Missoula Electric Cooperative – Missoula, MT

Responsible for marketing and communications, administration of the Cooperative's energy efficiency rebate program, home, and commercial energy auditing.

Member Service Field Representative, 2007-2010

Missoula Electric Cooperative – Missoula, MT

Working under the supervision of the Billing and Credit Department, completed field collection services for delinquent accounts. Duties included: Physical delivery of communications generated by the Billing and Credit Department to member's residence, disconnecting and connecting electric meter services, testing and/or exchanging meters for repair and replacement.

Keven Kuhn
Chief Technology Officer
Missoula Electric Cooperative
1700 W. Broadway Missoula, MT 59808
(406) 541-6339
kevenk@meccoop.com

Education

University of Montana - Business Administration
Bachelor of Science, May 1989

University of Montana, - Business Administration
Minor Computer Science, May 1996

University of Wisconsin – Madison School of Business
Robert I. Kabat Management Internship Program, March 2017

Training

Microsoft Certified Professional (MCP) Windows, February 1999
Microsoft Certified Professional (MCP) Windows XP Operating System, May 2007

Interconnecting Cisco Network Design, (ICND)
Connecting, cabling and design of Cisco routers and switches
Implementing Netscreen Security Gateways, (INSG)
Administration and configuration of Netscreen Firewalls/VPN devices

Professional Experience

Chief Technology Officer, July 2007-Present

Missoula Electric Cooperative – Missoula, MT

Responsible for designing and maintaining all PC, servers, and network infrastructure as well as the design and operation of security systems, cyber and physical. Additional duty of data backup, protection, testing and disaster recovery. Assist to develop and track yearly IT and security budget. Train personnel in computer fundamentals, cyber security, and data protection. Develop and maintain IT procedures. Responsible for design, deployment, and support of 50 + mobile field devices. Direct and monitor the implementation of MEC Policy 105 Information Asset Security.

Manager of Information Systems, May 1997-July 2007

Laidlaw Education Services – Southeast Area

IT manager for North America's largest transportation services company SE Area. Network design, trainer, and support technician for 23 physical locations over eleven states. Manage the development of four IT direct reports including training, travel, incentives, and reviews.

Developed a five-year information systems growth plan, encompassing all aspects present and future. Design contract specific systems with managers and business development staff to satisfy contractual obligations. Responsible for data loss prevention and restoration during times of user or hardware failure, developed action plan for prevention of data loss during times of natural disasters such as hurricanes in the Southeast United States. Utilize computerized routing software to create alternate routing scenarios to give business development staff a knowledgeable edge in new contract negotiations and contract renewals. Responsible for initial design, changes, and ongoing support of company WAN of 23 locations across 11 states including deployment of Netscreen VPN/Firewall hardware at branch location.

Appointments

Seeley Lake Area Chamber of Commerce Board, May 2012 - April 2013

Seeley Lake Area Chamber of Commerce Board President, May 2012 - April 2016

Kelsey Lodge
Manager of Communications and Public Relations
Missoula Electric Cooperative
1700 W. Broadway, Missoula, MT 59808
(406) 541-6352
Kelseyl@meccoop.com

Education

University of Montana

Bachelor of Science, Business Administration – Marketing, 2010

Entertainment and Event Management Certification, 2009

Training

Public Relations Society of America (PRSA), Certified Crisis Communicator, 2019

Professional Experience

Manager Of Communications & Public Relations, October 2018–present

Missoula Electric Cooperative – Missoula, MT

Multi-year national and statewide communications award winner; recognized as a top cooperative communicator in 2020 and 2021. Maintain website; create content, schedule, and manage social channels. Collaborate with GM and Board of Trustees to budget, conceptualize and execute annual marketing plan for internal and external marketing including print, radio, television, social and digital. Design and author articles for monthly Rural Montana Magazine. Act as primary media contact; position MEC for PR opportunities and features including radio and television interviews, community event spotlights and print features. Budget for, plan and execute events: annual and district meetings, holiday parties, conferences, volunteer events, educational and charitable giving programs.

Marketing Director, 2017-2018

Catclar Investments – Scottsdale, AZ

Created and managed content for print media, websites, and social channels for multiple property developments to drive engagement and reach potential buyers. Communicated with public, media, external parties and leadership to create e-blasts, print ads, digital campaigns, fliers, signage, brochures, press releases and presentations. Collaborated with ownership to plan and host events– grand openings, community soirees and open houses. Drove and monitored media coverage. Oversaw departmental budget; created annual marketing plan; coordinated media interviews and confirmed talking points for leadership.

Marketing & Events Director, October 2015 – December 2016

Goldsmith Gallery Jewelers – Billings, MT

Represented the region’s largest fine jewelry store on air, at community and national industry events, on local boards and at high-profile charity events. Partnered with owner to create, review, approve and deliver consistent communication strategies. Maintained community, B2B,

vendor, client and media relations. Created content for print/digital formats, marketing campaigns; tracked data analytics; wrote social content/posts to interact with and engage followers.

Marketing Coordinator, 2014-2015

HDR – Billings, MT

Handled Request for Proposals from initial acquisition to final stages. Responsible for selecting project teams, scheduling, and hosting project calls and preparing the design, content, and final client-facing marketing proposals. Routinely updated staff resumes, cover letters and regional marketing materials.

Marketing & Events Director, 2013 – 2014

Brewer Dental Center – Billings, MT

Grew referral and patient base by designing unique marketing and event strategies; provided leadership and marketing for 4 locations, 150 staff, 20+ doctors and 4 doctor-owners. Planned, promoted, executed, and led day-of events. Teamed with media partners to script, cast, direct and edit commercials, photo shoots and radio advertising. Originated copy for newsletters, social media, e-blasts, blogs, website, ads, and publications. Managed direct mailings and email distribution databases. Led cross-departmental meetings regarding marketing initiatives. Measured and reported impact.

Guest Service Manager, February 2012 – December 2013

Holiday Inn Missoula Downtown – Missoula, MT

Supported GM and corporate leadership by creating a workplace culture of excellence and teamwork where drive, initiative and service were rewarded. Oversaw operations strengthening brand image with internal/external audiences by resolving guest-related issues via call responses, online satisfaction surveys and digital reviews. Drafted emails, announcements, and internal/external communications. Restructured business policies and processes for more consistent team, department, and guest interactions. Recruited, hired, trained, scheduled, and managed performance of 20+ employees.

Appointments (voluntary)

Public Relations Society of America, Montana Chapter, President Elect, 2023 - present

Public Relations Society of America, Montana Chapter, Secretary, 2022 - 2023

Strategic Distribution System Modernization for Resilience and Wildfire Safety**FOA Number: DE-FOA-0002740****Topic Area 2: Smart Grid Grants (BIL section 40107)****Missoula Electric Cooperative****STATEMENT OF PROJECT OBJECTIVES (SOPO)****A. OBJECTIVES**

The purpose of the project is to build an intelligent network of high-voltage overcurrent devices that can be operated remotely based on data gathered by an array of weather monitoring devices strategically located throughout the Cooperative's service territory. Once complete, reclosers can be reconfigured from normal operation to non-reclose during periods of elevated fire risk with the goal of preventing utility-cause fire starts from vegetation contact with high voltage lines. Currently, all reclosers are switched to non-reclose when fire danger is first elevated, and they remain in this condition until fire season ends. The ability to change recloser settings guided by data from the daily situational awareness tool will reduce unintended outages as different areas of the Cooperative's distribution system go on and off periods of high fire danger periods.

The objectives of the project are as follows:

- Replace 85 single-phase and 42 three-phase oil-filled hydraulic reclosers with modern microprocessor-controlled electronic reclosers.
- Install a secure control and data acquisition (SCADA) network to communicate and control the 127 new reclosers and replace 46 existing recloser controls to integrate with the new SCADA system.
- Install an array of weather monitoring station equipment at predetermined locations within our service territory that currently lack localized weather data.
- Integrate weather monitoring station data with the daily situational awareness tool (DSAT) to guide operation of reclosers.

B. SCOPE OF WORK

The project is divided into five tasks including Project Management and Planning, Community Engagement, Risk Assessment Tool Development, Grid Upgrades, and Advanced Technology Education. Each task includes several subtasks with the majority of subtasks falling under Grid Upgrades. Grid Upgrades involves a propagation study to determine the various communication devices needed to link each site with the SCADA system. It also involves the replacement of all oil-filled hydraulic reclosers with new electronic versions. It includes installation of weather monitoring station equipment at 31 designated locations throughout the Cooperative's service area with the goal of integrating data gathered from the new weather stations with the DSAT and SCADA operation scheme to achieve the optimal desired system operation characteristics during periods of fluctuating fire danger.

C. TASKS TO BE PERFORMED**Task 1.0: Project Management and Planning**

Subtask 1.1 – Project Management Plan (PMP): Within 30 days of award, the Recipient

shall submit a Project Management Plan (PMP) to the designated Federal Project Officer (FPO). The Recipient shall not proceed beyond Task 1.0 until the PMP has been accepted by the FPO. The PMP shall be revised and resubmitted as often as necessary, during the project, to capture any major/significant changes to the planned approach, budget, key personnel, major resources, etc. The Recipient shall manage and direct the project in accordance with the accepted PMP to meet all technical, schedule and budget objectives and requirements. The Recipient will coordinate activities to effectively accomplish the work. The Recipient will ensure that project plans, results, and decisions are appropriately documented, and that project reporting and briefing requirements are satisfied.

Subtask 1.2: National Environmental Policy Act (NEPA) Compliance: As required, the Recipient shall provide the documentation necessary for NEPA compliance.

Subtask 1.3: Cybersecurity Plan (CSP): The CSP shall be revised and resubmitted as often as necessary, during the project, to capture any major/significant changes.

Subtask 1.4: Continuation Briefing(s): The Recipient will brief DOE on roughly an annual basis to explain the plans, progress and results of the technical effort. The briefing shall also describe performance relative to project success criteria, milestones, and the Go/No-Go Decision point that are documented in the Project Management Plan (PMP).

Task 2.0: Community Engagement

Subtask 2.1 – Community Benefits Plan (CBP) Year One Milestones: MEC will host a stakeholder launch event inviting a minimum of 20 predetermined stakeholders to collaborate on project planning efforts before launch.

Subtask 2.2 – CBP Year Two Milestones: Year two milestones will include identifying MBE's, DBE's, WBE, & VBE's in immediate DAC; hiring an outside consultant to audit DEIA performance; establishing an internship program; and holding an annual stakeholder meeting.

Subtask 2.3 – CBP Year Three Milestones: Year three milestones will include conducting annual anti-bias and DEIA training for MEC employees; creation of weather and fire risk data sharing program; completion of annual safety training for schools and first responders; and holding an annual stakeholder meeting.

Subtask 2.4 – CBP Year Four Milestones: Year four milestones will include conducting annual anti-bias and DEIA training for MEC employees; and completion of annual safety training for schools and first responders; and holding an annual stakeholder meeting.

Subtask 2.5 – CBP Year Five Milestones: Year five milestones will include expansion of MEC's line worker pre-apprentice program; expansion of internal employee training programs; completion of annual safety training for schools and first responders; and holding annual stakeholder meeting.

Task 3.0 Risk Assessment Tool Development

Subtask 3.1 – Develop, test, and collect data for risk assessment tools: The Daily Situational Awareness Tool is a risk assessment tool which uses weather data and prediction algorithms within the software to alert the user of conditions that may affect local fire danger. The DSAT guides utility operations by indicating risk levels which can be used to make operations decisions like changing the configuration of portions or the entire network of reclosers from normal to wildfire mitigation mode.

Task 4.0: Grid Upgrades – Design, Build, Operate, and Data Collection

Subtask 4.1 – Determine Necessary SCADA Equipment: Existing recloser locations vary greatly by topography, terrain, and distance from exiting communications networks. A propagation study is necessary to identify communications capabilities of existing sites, necessary communication infrastructure upgrades where feasible, and equipment options where extending existing communication infrastructure is not feasible (i.e., installation of standalone radio network).

Subtask 4.1.1 – Propagation Study: Contract with SCADA vendor to visit each recloser site to identify the most appropriate, secure communication option based on existing communications infrastructure.

Subtask 4.1.2 – Order SCADA Equipment: Based on results of results of the propagation study, place order for all site-specific communications equipment as well as all required SCADA equipment required in substations and headquarters building.

Subtask 4.1.3 – Install and Commission SCADA Headend Equipment: Install SCADA equipment in substations and headquarters building which will communicate with each recloser site.

Subtask 4.2 –Electronic Reclosers: The Cooperative has 85 single-phase reclosers, 42 three-phase reclosers and 46 recloser controls installed in substations and on power lines throughout its service territory. Reclosers are located on the lines to provide sub-feeder overcurrent protection as well as in each substation to provide protection at the feeder level.

Subtask 4.2.1 – Convert Reclosers and Feeder Controls for Priority Level Areas 1-3: Guided by the Cooperative's Wildfire Mitigation Plan (WMP), reclosers located in areas designated with the highest fire risk based on historic fire data would be targeted first. Priority locations included are the Clinton Substation – Rock Creek Feeder, Bonner Substation – Potomac Feeder, Huson Substation – 2 Feeders north of Interstate 90. Conversion of all priority locations in the WMP will be completed in the first 2 ½ years. This work will comprise installing equipment in 4 substations including 15 3-phase feeder controls and 8 SDN switches, 48 single-phase line reclosers, 23 three-phase line reclosers, and 2 triple-single controls for existing electronic recloser sites.

Subtask 4.2.1.1 – Convert Reclosers and Feeder Controls for Priority Level 1 Areas: Priority level 1 areas include installing SDN switches and 3 three-phase feeder controls in the Seeley, Elmar and Butler Creek substations as well as installing 13 single-phase and 4 three-phase line reclosers also fed by these substations and 2 triple single controls on devices fed by the Seeley substation.

Subtask 4.2.1.2 – Convert Reclosers and Feeder Controls for Priority Level 2 Areas: Priority level 2 area include installing SDN switches and 3 three-phase feeder controls in the Morrell/Pyramid and Bonner substations as well as installing 7 single-phase and 6 three-phase line reclosers also fed by these substations.

Subtask 4.2.1.3 – Convert Reclosers and Feeder Controls for Priority Level 3 Areas: Priority level 3 areas include installing SDN switches and 5 three-phase feeder controls in the Clinton and Huson substations and Petty Creek metering point as well as installing 17 single-phase and 1 three-phase line reclosers also fed by these substations.

Subtask 4.2.2 – Convert Reclosers and Feeder Controls for Priority Level Areas 4 and 5: The remaining 56 reclosers are fed by 8 substations and two metering points and will be

completed in the final 2 ½ years. Of the 56 reclosers, 37 are single-phase installations and 19 are three-phase Installations. In addition, 24 feeder controls and 8 SDN switches will be installed in these substations along with 5 triple-single controls for existing electronic recloser sites.

Subtask 4.2.2.1 – Convert Reclosers and Feeder Controls for Priority Level 4 Areas:

Priority level 4 areas include installing SDN switches and three-phase feeder controls in the Lolo, Florence, Tarkio substations as well as installing 15 single-phase and 10 three-phase line reclosers also fed by these substations and 1 triple single control on the Miller Creek metering point.

Subtask 4.2.2.2 – Convert Reclosers and Feeder Controls for Priority Level 5 Areas:

Priority level 5 areas include installing SDN switches and three-phase feeder controls in the Helmville, Ovando, Woodworth and Frenchtown substations as well as installing 19 single-phase and 7 three-phase line reclosers also fed by these substations and 4 triple single controls on devices fed by the Frenchtown substation.

Subtask 4.2.3 – Install Site-Specific Communications Equipment: Communication with the electronic reclosers will take place via a SCADA system, however each site will require a communication device that connects with the electronic recloser and integrates with the SCADA network. Due to variations in topography and distance to existing communications infrastructure, each site will differ in the communication equipment installed.

Subtask 4.2.4 – Install Communications Equipment for Priority Level Areas 1 through 3:

Communications equipment will be installed following installation of electronic reclosers. As with Subtask 3.1, deployment of communications equipment will be guided by our WMP with priority substation and line reclosers being addressed first, followed by remaining locations.

Subtask 4.2.5 – Install Communications Equipment for Priority Level Areas 4 and 5: Full deployment of communications equipment beyond the initial high priority locations will take place over a period not to exceed 5 years from the date of award.

Subtask 4.3 –Weather Monitoring Station Equipment: The Cooperative's WMP designates 31 locations where additional, more granular weather data is necessary to bolster the output of the DSAT. Currently, only 6 existing weather stations are located inside our service territory, mostly in the area closely surrounding the city of Missoula. Many of our higher risk areas do not have local weather data needed to make the best operational decisions.

Subtask 4.3.1 – Identify Communication Options of Chosen Locations: Weather monitoring stations will need to have the capability of sending weather data back to the Cooperative to be fed into the DSAT. Weather station sites will require evaluation to determine what communications infrastructure is currently available or will need to be added to support reliable and cyber secure data transmission.

Subtask 4.3.2 – Deploy Network of Weather Monitoring Stations: Deployment of weather monitoring stations is not predicated on replacement of existing recloser equipment and is anticipated to take place prior to completion of system-wide recloser conversion. It is anticipated that weather station equipment will be installed in the first two years of the project.

Subtask 4.3.3 – Integrate Weather Monitoring Data with DSAT: Per the Wildfire Mitigation Plan, the DSAT is the Cooperative’s tool for guiding operational decisions including placing portions of the electrical distribution system on non-reclose. To strengthen the value of information we obtain from the DSAT, integrating additional, more granular weather data from the network of weather monitoring stations will be essential.

Task 5.0: Advance Technology Education

Subtask 5.1 – Promote Fire Wise Strategies in Schools: As an extension of the Cooperative’s electrical safety in schools programs, an additional component would educate students on the importance of fire wise strategies in the Wildland Urban Interface, particularly as it relates to overhead power lines.

Subtask 5.2 – First Responder Training: MEC conducts regular high-voltage safety training with area first responders with a focus on the dangers of fighting fires near energized lines. With the modernization of the recloser network, a unit would be added to highlight the advantages provided by the new technology as well and any new safety considerations the new technology would require.

D. DELIVERABLES

Subtask 1.1 - Project Management Plan

Subtask 1.3 – Cybersecurity Plan

Subtask 1.4 – Pre-Continuation Briefing Documents

Subtask 2.1 – Community Benefit Plan

In addition to the deliverables listed above, the Recipient shall submit all periodic, topical, final, and other reports in accordance with the Federal Assistance Reporting Checklist and accompanying instructions.

E. BRIEFINGS/TECHNICAL PRESENTATIONS

The Recipient shall prepare, and present periodic briefings, technical presentations and demonstrations as requested by the Federal Project Officer, which may be held at a DOE or the Recipient’s facility, other mutually agreeable location, or via webinar. Such meetings may include all or a combination of the following:

Kickoff Briefing - Not more than 30 days after submission of the Project Management Plan, the Recipient shall prepare and present a project summary briefing as part of a Project Kickoff Meeting.

Pre-Continuation Briefing - Not less than 90 days prior to the planned start of a budget period, the Recipient shall brief the DOE on the results to date, and their plans for the subsequent periods of work. The DOE will consider the information from this briefing, as well as the content of deliverables submitted to date, prior to authorizing continuing the project.

Final Project Briefing - Not less than 30 days prior to the end of the project, the Recipient shall prepare and present a Final Project Briefing on the results and accomplishments of the entire project.

Other Briefings – The Recipient shall prepare and present technical, financial, and/or administrative briefings as requested by the DOE. Additionally, the DOE may require Recipients to make technical presentations at national and/or industry conferences.

SUMMARY/ABSTRACT FOR PUBLIC RELEASE

Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety

Applicant: Missoula Electric Cooperative, Inc. (MEC)

Project Manager: Mark Hayden, General Manager

Missoula Electric Cooperative's (MEC's) seven district service territory serves over 13,000 members in western Montana and northern Idaho. Located along the western slope of the Rocky Mountain Range, its territory is considered high-risk for catastrophic wildfire. On average, populated areas in Missoula County are at greater risk than 84% of all counties in Montana. Approximately 80% of the land is forested, and most of the non-forested hills are grasslands. MEC has a combined 1,060 miles of 24.9kV and 12.47kV overhead distribution line, with approximately 654 miles in high or very high wildfire hazard potential areas.

The Strategic Distribution System Modernization for Resilience and Wildfire Safety project, proposed by MEC General Manager and Project Manager, Mark Hayden, will take place over five years. During which, the Co-op will build an intelligent network of high voltage recloser equipment to operate remotely using data gathered by weather monitoring devices strategically placed throughout the Co-op's service territory. Once complete, timely operational decisions will be made using real-time and forecasted data. Additionally, equipment can be remotely reconfigured from normal operation to *non-reclose* during high fire danger conditions to mitigate the risk of utility-caused fires.

Project objectives and results will be delivered over five performance periods in which work locations will be prioritized by the wildfire risk potential identified in MEC's Wildfire Mitigation Plan. The first performance period will include the launch of community-focused initiatives and a study to determine devices needed to communicate with end-of-line equipment. Additionally, MEC will install a weather monitoring system that integrates with a practical weather mapping tool and install software and hardware in areas with the most significant wildfire risk, identified as *Priority Level One Sites*. By targeting high risk areas first, the Cooperative can begin leveraging the data and functionality of the new system in those areas of greatest wildfire potential while successive performance periods are completed. The four subsequent performance periods will build on community initiatives, with a focus on disadvantaged communities, while completing the installation work identified in *Priority Levels Two through Five*. Once the project is complete, the data collected will be used to make proactive operational decisions during periods of escalating fire danger across the entire MEC system.

The impact of this project is significant. It allows MEC to remotely monitor, report on, adjust or reset recloser equipment to quickly respond to weather-driven fire danger, mitigating wildfire risk and avoiding unnecessary truck rolls. Additionally, the Cooperative will see improvements in power reliability and a reduction in expenses, maintenance, and outage times. Community benefits are abundant, but a primary benefit would be eliminating the need to preemptively de-energize power lines during high fire danger conditions, which reduces outages as the system shifts in response to the conditions.

Strategic Distribution System Modernization for Resilience and Wildfire Safety

Topic Area 2: Smart Grid Grants (BIL Section 40107)

FOA Number: DE-FOA-0002740

Prime Recipient: Missoula Electric Cooperative, Inc.

Proposed Project Duration: 60 months

Proposed Budget: \$5,498,141

Proposed Non-Federal Cost Share: \$2,749,071 (50%)

Proposed Federal Cost Share:\$2,749,070

Missoula Electric Cooperative Key Personnel:

Project Manager: Mark Hayden, General Manager

Email: MarkH@meccoop.com

Office: 406.541.6340

Business Point of Contact: Keelie Montalban, Chief Financial Officer

Email: KeelieM@meccoop.com

Office: 406.541.6359

Technical Point of Contact: Erik Langaunet, PE., Sr. Electrical Engineer

Email: ErikL@meccoop.com

Office: 406.541.6342



Project Goals & Impacts

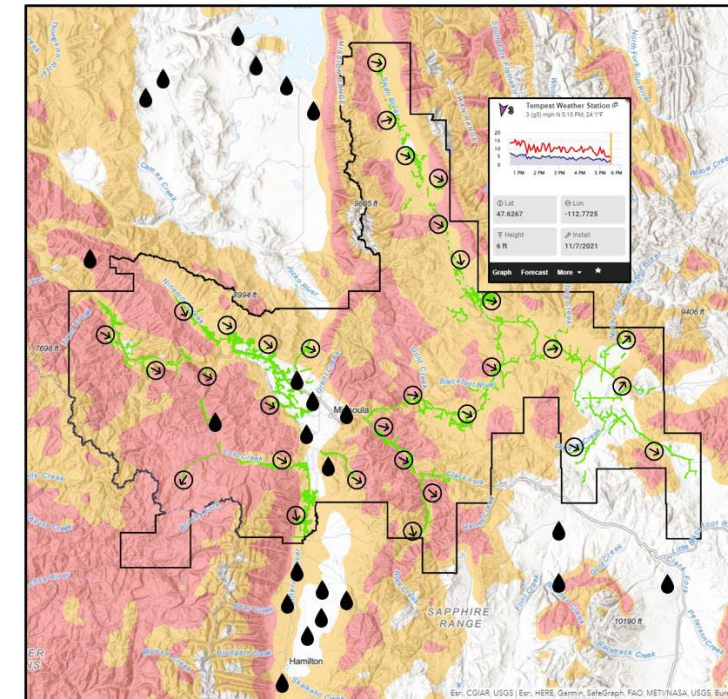
- Modernize MEC's power grid with an intelligent network of high-voltage overcurrent devices that can be operated remotely based on data gathered by an array of weather monitoring devices strategically located throughout MEC's service territory.
- Leverage this technology to reduce the risk of utility caused wildfires by proactively adjusting recloser configuration settings driven by real-time wildfire risk data.
- Minimize unintended outages associated with the operating characteristics of the existing recloser network thereby increasing service reliability during periods of increased wildfire risk.
- Provide community stakeholders with location-specific data gathered by the Cooperative to make timely, informed decisions in relation to wildfire hazards.
- Reduce or eliminate the air pollutants associated with wildfire smoke.



Project Overview

- Replace 127 oil-filled hydraulic reclosers with modern microprocessor-controlled electronic reclosers.
- Install a secure control and data acquisition (SCADA) network to communicate and control the new reclosers.
- Install weather monitoring equipment in high fire risk areas of MEC's service area.
- Integrate new weather data with the Daily Situational Awareness Tool (DSAT) to guide operation of reclosers.

Proposed Weather Station Installations



- | | |
|--------------------------|---------------------------|
| MEC Service Area | Very High Wildfire Hazard |
| OH Distribution | High Wildfire Hazard |
| Proposed Weather Station | Existing Weather Station |

Strategic Distribution System Modernization for Resilience and Wildfire Safety

FOA Number: DE-FOA-0002740

Topic Area 2: Smart Grid Grants (BIL section 40107)

Buy America Waiver Request

Missoula Electric Cooperative
1700 W Broadway
Missoula, MT 59808
UEI: Q428K1JFAUA5

Project Manager

Mark Hayden, General Manager, Missoula Electric Cooperative, Missoula, MT
Email: markh@meccoop.com
Office: 406-541-6340

Technical Point of Contact

Erik Langaunet, Senior Electrical Engineer, Missoula Electric Cooperative, Missoula, MT
Email: erikl@meccoop.com
Office: 406-541-6342

Proposed Project Budget: \$5,498,141

Proposed Non-Federal Cost Share: \$2,749,071 (50%)

Proposed Federal Cost Share: \$2,749,070

Proposed Award Duration: 60 months

Project Description

MEC's project goal is to progressively replace all oil-filled hydraulic reclosers with modern microprocessor-enabled, remotely monitored, and controlled devices over five years. This system will be further enhanced by deploying a real-time weather monitoring system through a network of weather stations strategically located throughout the Cooperative's service territory. This project proposal is an innovative and transformative way to address the adverse impacts of our rapidly changing weather and climate in western Montana. By coupling remotely monitored and controlled electronic reclosers with actionable, real-time weather data, our ability to respond to threats posed by severe weather or drought is greatly improved. The weather data gathered by the Cooperative will be made available to local fire laboratories and climate researchers to further their studies of our ever-changing ecosystem. Additional benefits of the weather stations will include timely locations of lightning strikes and identification of solar production opportunities which can be shared with first responders and members

interested developing carbon-free renewable generation in the communities we serve. The location of this project includes various counties within Missoula Electric Cooperative's service territory in western Montana including Missoula, Mineral, Lake, Granite, Ravalli, and Powell Counties.

As defined in Appendix C of the FOA, the proposed project involves the construction, alteration, maintenance and/or repair of public infrastructure located in the United States. In addition, MEC is a non-profit entity and subject to the Buy American requirements of the BIL.

Items Subject to Waiver

Manufactured Product	Cost	Country of Origin	Relevant PSC Code	Relevant NAICS Code
TempestOne Weather Station	\$389.00	Unknown	6685	541620

WeatherFlow-Tempest Inc.

www.weatherflow.com

Keith Koenig

Head of Business Development

Phone: 831-471-7169

Waiver Justification

The TempestOne weather station is a manufactured product developed and marketed by WeatherFlow-Tempest Inc. WeatherFlow-Tempest Inc. is a technology company leading the way in the private sector weather industry. Their patented technology and proprietary observing data provides multiple innovative value-added products and services to many sectors including energy, insurance, emergency management and many more. The project proposes to install 31 TempestOne weather monitoring stations with a total anticipated cost of \$12,059, or 0.4% of the total project cost.

MEC reached out to the manufacturer of the weather monitoring stations and received the following response: *"All design and engineering of hardware, software, and critical meteorological technology (the beating heart of our solution) is done 100% in the USA. We manufacture parts for the Tempest weather station hardware overseas. Our solution is approximately 80% software and meteorological technology, and 20% plastic bits."*

MEC began subscribing to a fire danger forecasting system known as the Daily Situational Awareness Tool (DSAT) in 2022. The DSAT uses publicly accessible weather data and fire danger indicators to describe fire danger in terms of normal, elevated, and extreme operating conditions. These operating conditions are used to govern daily field activities. DSAT provides day-ahead adjective fire danger rating forecasts for each of MEC's seven geographically unique service areas. This data allows the Co-op to modify operations in accordance with forecasted

weather conditions. The DSAT is particularly helpful in predicting red flag events in advance. For 2023, this information has been integrated into the WeatherFlow-Tempest reporting tool and will become a part of our daily decision making going forward.

MEC is requesting a non-availability waiver for the TempestOne weather monitoring equipment for this project. Our justification for this request is that given the proprietary nature of the TempestOne weather monitoring stations, and its integration with the DSAT forecasting tool that is unique to our industry, alternative products are not currently an option. In addition, the limited research we have performed indicates that domestically produced weather monitoring stations are difficult if not impossible to procure which such capabilities.

What makes this project transformational and unique is the integration of real-time and forecasted weather data coupled with an intelligent network of protective devices on our electric grid. Upon completion of the project, the Cooperative will have a state-of-the-art overcurrent protection network stretching from each substation to the end of every feeder in its service area. The networked assets will be capable of quickly switching from normal operation to wildfire mitigation mode driven by data-rich situational awareness software and fueled by real-time weather data. The final system will be nimble and reactive, capable of quickly adapting to changing weather fire risk conditions across the electric distribution network. Failure to receive this waiver will severely limit our ability to proactively address issues related to operating conditions in the field and diminish the overall effectiveness of the system and the project as a whole.

PROJECT DESCRIPTION AND ASSURANCES DOCUMENT (PDAD)

Project title: Strategic Distribution System Modernization for Resilience and Wildfire Safety

Applicant Name: Missoula Electric Cooperative, Inc.

Applicant Address: 1700 W Broadway St, Missoula, MT 59808

Names of all team member organizations (if applicable): N/A

Principal Investigator: Mark Hayden, (406) 541-6340, markh@meccoop.com

Business Point of Contact: Keelie Montalban, (406) 541-6359, keelie@meccoop.com

Include any statements regarding confidentiality: None

Federal Share: \$2,749,070

Cost Share: \$2,749,071

Total Estimated Project Cost: \$5,498,141

Item 1: Specify (mark with "X") the FOA Topic Area and as applicable the Area of Interest (AOI):

_____ Topic Area 1: Grid Resilience Grants (BIL section 40101(c))

☒ Topic Area 2: Smart Grid Grants (BIL section 40107)

_____ Topic Area 3: Grid Innovation Program (BIL section 40103(b)) -Area of Interest 1 (Transmission System Applications)

_____ Topic Area 3: Grid Innovation Program (BIL section 40103(b)) -Area of Interest 2 (Distribution System Applications)

_____ Topic Area 3: Grid Innovation Program (BIL section 40103(b)) -Area of Interest 3 (Combination System Applications)

TOPIC AREA 1 Specific Items:

Item 2: Specify (mark with "X") the entity type of the applicant organization:

_____ electric grid operator

_____ electricity storage operator

_____ electricity generator

_____ transmission owner or operator

_____ distribution provider

_____ fuel supplier

If further description is needed for the specified entity type, please provide below:

--

Item 3: Please provide the total amount (USD) of qualifying resilience investments (as outlined in DE-FOA-00002740) that has been spent for the previous 3 years. Please also provide the time period utilized for calculation of this amount.

Total Amount:

Time Period for Resilience Investments:

Note: Topic Area 1 applicants must submit as part of their application, a report detailing past, current, and future efforts by the eligible entity to reduce the likelihood and consequences of disruptive events. This report should include efforts over at least the previous 3 years and at least the next 3 years and any broader resilience strategy used by the applicant.

Item 4: Is the eligible entity a Small Utility as defined in DE-FOA-0002740 (sells no more than 4,000,000 MWh of electricity per year)? If NO is selected, skip to Item 7.

____ Yes

____ No

Note: If YES, applicant must provide their Form 861 for the last reporting year submitted to the Energy Information Administration (EIA).

Item 5: Per BIL section 40101(e)(2)(C) APPLICATION LIMITATIONS. -An eligible entity may not submit an application for a grant provided by the Secretary under subsection (c) and a grant provided by a State or Indian Tribe pursuant to subsection (d) during the same application cycle.

Therefore, is the eligible entity a Subaward/Subcontract recipient for an application submitted under IIJA Section 40101(d), ALRD 2736? If "YES", please describe the differences between the GRIP FOA 2740 application [40101(c)] and the ALRD 2736 [40101(d)] applications in the box below:

____ Yes

____ No

--

TOPIC AREA 2 Specific Items:

No items

TOPIC AREA 3 Specific Items:

Item 6: Specify (mark with "X") the entity type of the applicant organization:

_____a State

_____a combination of 2 or more States

_____an Indian Tribe

_____a unit of local government

_____a public utility commission

If further description is needed for the specified entity type, please provide below:

--

Item 7:

Authorized Organizational Representative (AOR): please provide name, address, phone number and e- mail address for the authorized agent to bind the entity.

Authorized Organizational Representative (AOR):


Name: Keelie Montalban, CFO

Address: 1700 W Broadway St, Missoula, MT 59808

Phone: (406) 541-6359

E-mail: keelie@meccoop.com

Item 8: Signature of Authorized Organizational Representative (AOR)

 3/14/23

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Missoula Electric Cooperative, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Mark Hayden Telephone Number: 406-541-4433
4. Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety
5. Expected Project Duration: 1/1/24-12/31/28
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Missoula County, Montana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Deployment of electronic controlled overcurrent equipment and associated communication equipment including the installation of weather monitoring stations.
8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
	Ravalli County
	Granite County
	Powell County
	Lake County
	Mineral County

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
N/A

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
Project locations are located at various sites within Missoula County.
2. Attach a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input checked="" type="checkbox"/> Other: <u>Established ROW</u>	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.
This project involves replacing analog overcurrent equipment with electronic controlled devices on existing power poles.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

Installation of electronic equipment would take place in established utility right-of-ways located mainly along county and state roads.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☒ No land areas would be affected.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☒ No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The project would be in proximity to the Lolo National Forests.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☒ None

- b. Would the proposed project require the construction of waste pits or settling ponds?

☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☒ No ☐ Yes (describe)

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?

☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.

☒ None

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)

- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

☒ No ☐ Yes (describe)

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☒ No historic sites ☐ Yes (describe) ☐ No Impact (discuss)
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
N/A

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
None
- b. What sources would supply potable and process water for the proposed project?
No water needed.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

- e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

- f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

- h. Would project require issuance of new or modified water permits to perform project work or site development activities?

☒ No ☐ Yes (describe)

- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

- j. Would the proposed project be permitted to discharge effluents into an existing body of water?

☒ No ☐ Yes (describe water use and effluent impact)

- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☒ No ☐ Yes (describe)

- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

☒ No ☐ Yes (describe)

- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

- c. How and where would solid waste disposal be accomplished?

☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)

- d. How would wastes for disposal be transported?

N/A

- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None

- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?

☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.

☒ None ☐ Hazardous or toxic materials that would be used (identify):

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.

☒ None

- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)

- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
Yes, MEC internal safety program would be in effect.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?

☒ No ☐ Yes (describe)

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

An increase of ambient noise would increase when exchanging equipment, however no additional noise anticipated for operational activities.

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

- h. Would hearing protection be required for workers? ☒ No ☐ Yes (describe)

Hearing protection would be required during plowing and boring activities. Hearing protection may be required as identified in MEC's safety Handbook.

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

- c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

- d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

- a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:

- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:

- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe:
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting is anticipated for this project.
- F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None
- G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?
☒ No ☐ Yes (describe)
- H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.
☒ None (provide supporting detail) ☐ Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. **PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.**

The proposed system would be placed into service for continual use.

III. **CERTIFICATION BY PROPOSER**

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: 

Date (mm/dd/yyyy): 03/09/2023

Typed Name: Erik Langaunet, PE

Title: Sr. Engineer

Organization: Missoula Electric Cooperative

IV. **REVIEW AND APPROVAL BY DOE**

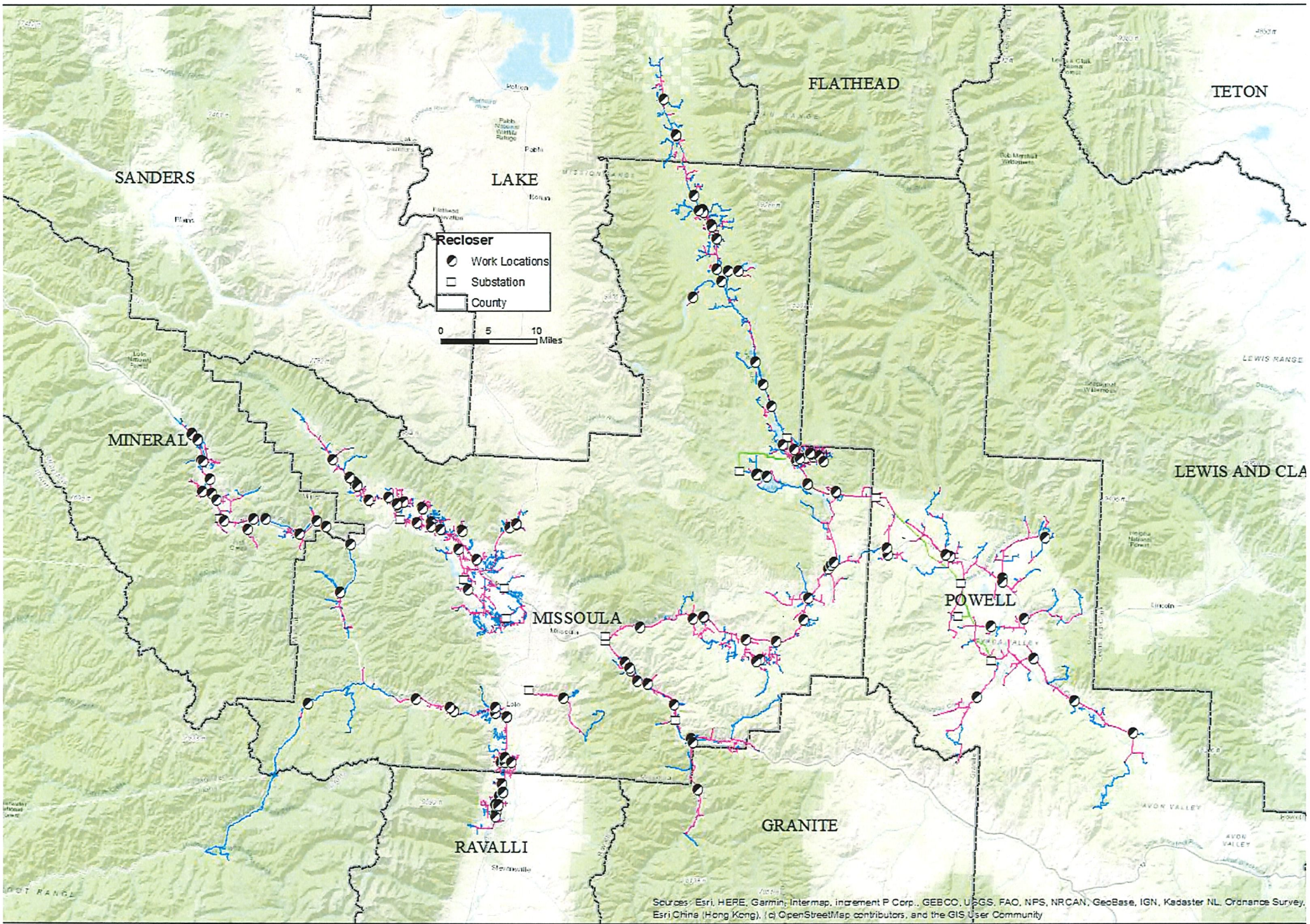
I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: 

Date (mm/dd/yyyy): 

Typed Name: 



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Missoula Electric Cooperative, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Mark Hayden Telephone Number: 406-541-4433
4. Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety
5. Expected Project Duration: 1/1/24-12/31/28
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Lake County, Montana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Deployment of electronic controlled overcurrent equipment and associated communication equipment including the installation of weather monitoring stations.
8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
	Ravalli County
	Missoula County
	Granite County
	Powell County
	Mineral County

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
N/A

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
Project locations are located at various sites within Lake County.
2. Attach a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input checked="" type="checkbox"/> Other: <u>Established ROW</u>	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

This project involves replacing analog overcurrent equipment with electronic controlled devices on existing power poles.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

Installation of electronic equipment would take place in established utility right-of-ways located mainly along county and state roads.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☒ No land areas would be affected.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☒ No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The project would be in proximity to the Lolo National Forests.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☒ None

- b. Would the proposed project require the construction of waste pits or settling ponds?

☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☒ No ☐ Yes (describe)

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?

☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.

☒ None

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)

- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas? ☒ No ☐ Yes (describe)

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs. ☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☒ No historic sites ☐ Yes (describe) ☐ No Impact (discuss)
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
N/A

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
None

- b. What sources would supply potable and process water for the proposed project?
No water needed.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

- e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

- f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

- h. Would project require issuance of new or modified water permits to perform project work or site development activities?

☒ No ☐ Yes (describe)

- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

- j. Would the proposed project be permitted to discharge effluents into an existing body of water?

☒ No ☐ Yes (describe water use and effluent impact)

- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☒ No ☐ Yes (describe)

- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?
☒ No ☐ Yes (describe)

- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)

- d. How would wastes for disposal be transported?
N/A

- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None

- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
- ☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
- ☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
- ☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
- Yes, MEC internal safety program would be in effect.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
- ☒ No ☐ Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
- ☐ None ☒ Increase in ambient noise level (describe)
- An increase of ambient noise would increase when exchanging equipment, however no additional noise anticipated for operational activities.
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
- ☐ No construction planned ☒ No ☐ Yes (describe)
- h. Would hearing protection be required for workers? ☒ No ☐ Yes (describe)
- Hearing protection would be required during plowing and boring activities. Hearing protection may be required as identified in MEC's safety Handbook.

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?
- ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

- c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

- d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

- a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:

- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:

- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe:

j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:

l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting in anticipated for this project.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The proposed system would be placed into service for continual use.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: 

Date (mm/dd/yyyy): 03/09/2023

Typed Name: Erik Langaunet, PE

Title: Sr. Engineer

Organization: Missoula Electric Cooperative

IV. REVIEW AND APPROVAL BY DOE

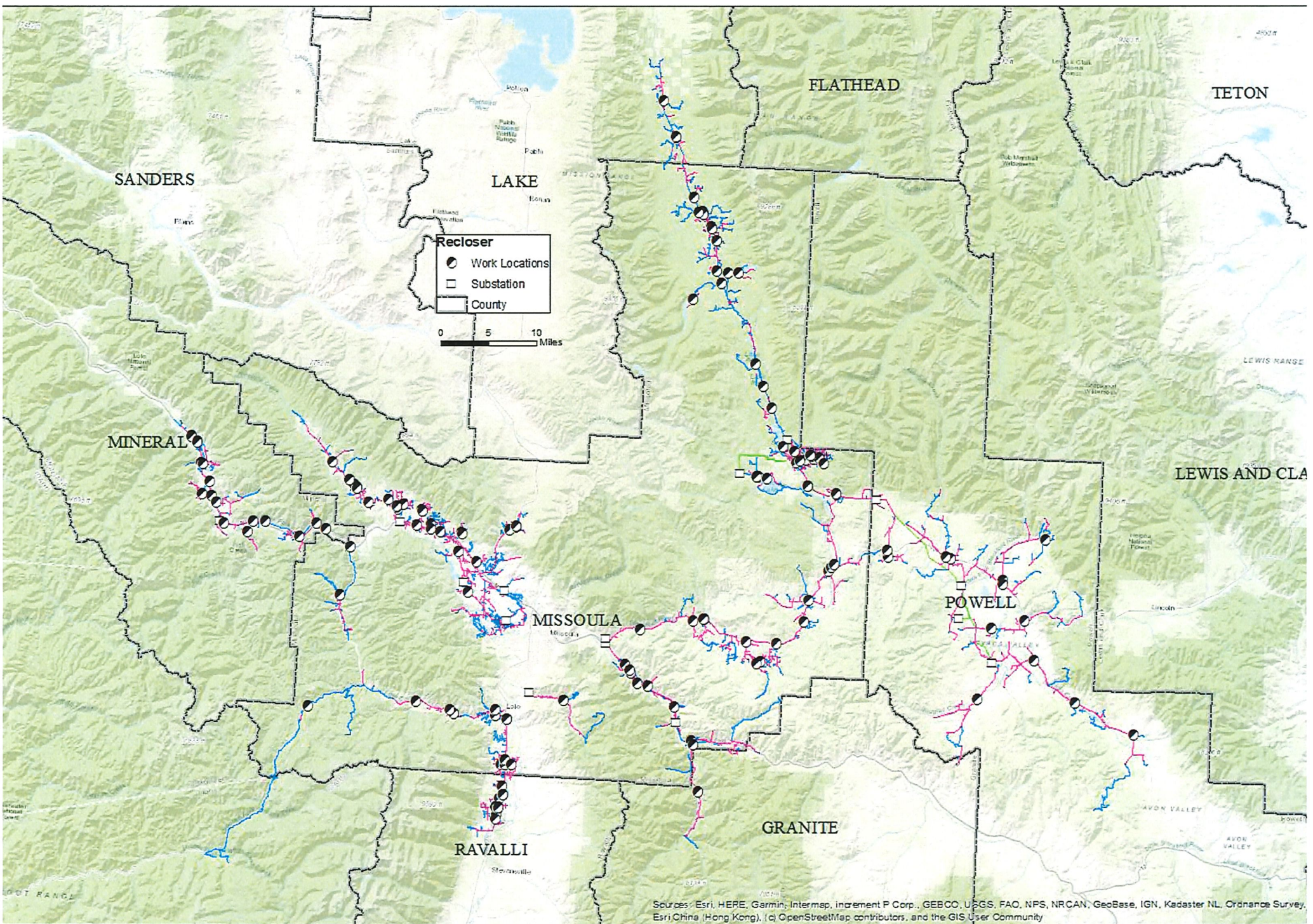
I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: 

Date (mm/dd/yyyy): 

Typed Name: 



U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOP) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Missoula Electric Cooperative, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Mark Hayden Telephone Number: 406-541-4433
4. Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety
5. Expected Project Duration: 1/1/24-12/31/28
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Ravalli County, Montana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Deployment of electronic controlled overcurrent equipment and associated communication equipment including the installation of weather monitoring stations.
8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
	Missoula County
	Granite County
	Powell County
	Lake County
	Mineral County

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

N/A

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Project locations are located at various sites within Ravalli County.

2. Attach a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input checked="" type="checkbox"/> Other: <u>Established ROW</u>	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

This project involves replacing analog overcurrent equipment with electronic controlled devices on existing power poles.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

Installation of electronic equipment would take place in established utility right-of-ways located mainly along county and state roads.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☒ No land areas would be affected.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☒ No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The project would be in proximity to the Lolo National Forests.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☒ None

- b. Would the proposed project require the construction of waste pits or settling ponds?

☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☒ No ☐ Yes (describe)

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☒ None

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)

- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas? ☒ No ☐ Yes (describe)

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs. ☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☒ No historic sites ☐ Yes (describe) ☐ No Impact (discuss)
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
N/A

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

None

- b. What sources would supply potable and process water for the proposed project?

No water needed.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

- e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

- f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
☒ No ☐ Yes (describe)

- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
☒ No ☐ Yes (describe water use and effluent impact)

- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☒ No ☐ Yes (describe)

- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

☒ No ☐ Yes (describe)

- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

- c. How and where would solid waste disposal be accomplished?

☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)

- d. How would wastes for disposal be transported?

N/A

- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None

- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?

☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.

☒ None ☐ Hazardous or toxic materials that would be used (identify):

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.

☒ None

- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)

- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
Yes, MEC internal safety program would be in effect.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?

☒ No ☐ Yes (describe)

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

An increase of ambient noise would increase when exchanging equipment, however no additional noise anticipated for operational activities.

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

- h. Would hearing protection be required for workers? ☒ No ☐ Yes (describe)

Hearing protection would be required during plowing and boring activities. Hearing protection may be required as identified in MEC's safety Handbook.

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

- c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

- d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

- a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:

- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:

- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe:

j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:

l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting is anticipated for this project.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.
☒ None (provide supporting detail) ☐ Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The proposed system would be placed into service for continual use.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: 

Date (mm/dd/yyyy): 03/09/2023

Typed Name: Erik Langaunet, PE

Title: Sr. Engineer

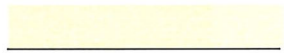
Organization: Missoula Electric Cooperative

IV. REVIEW AND APPROVAL BY DOE

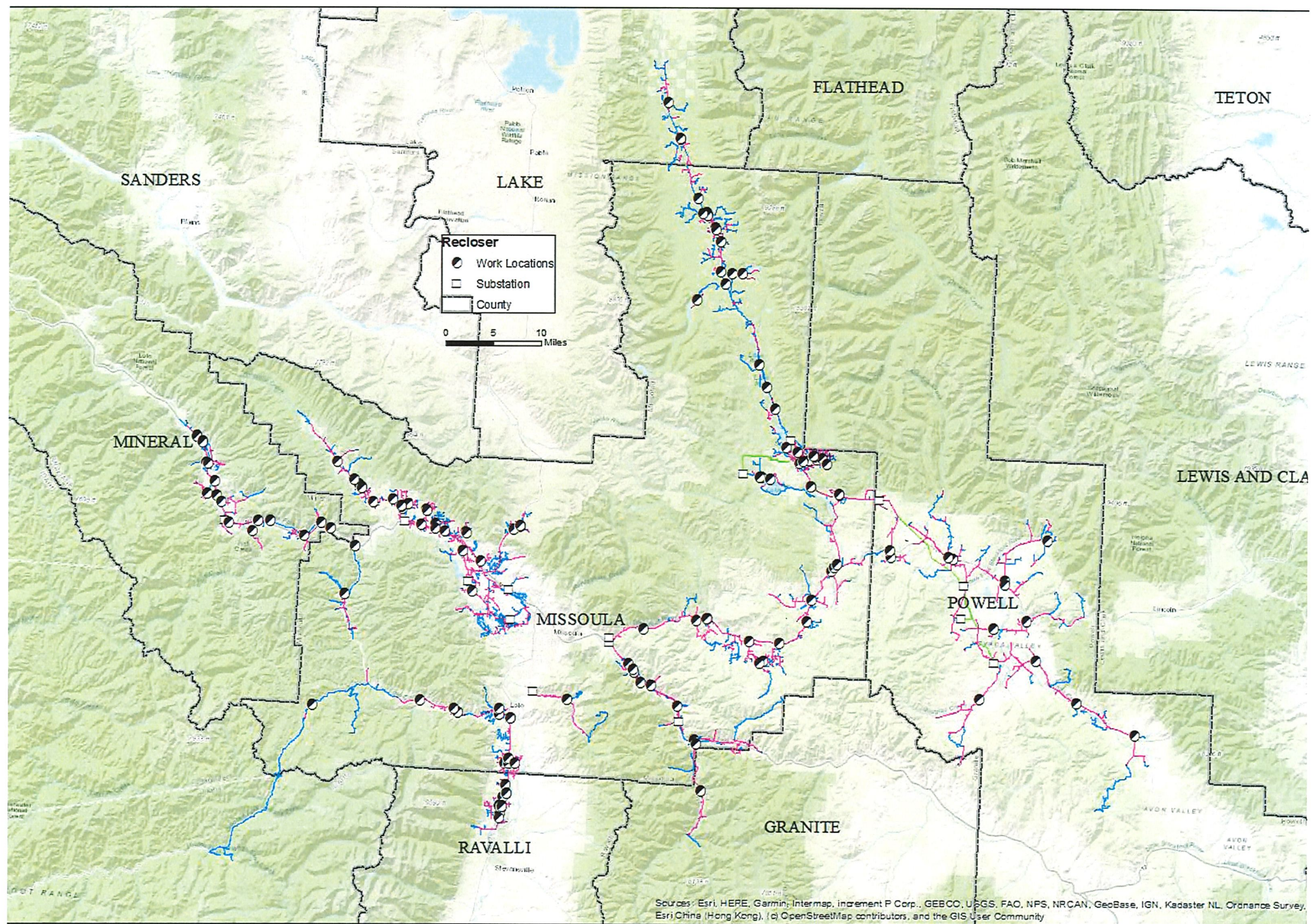
I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: 

Date (mm/dd/yyyy): 

Typed Name: 



U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Missoula Electric Cooperative, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Mark Hayden Telephone Number: 406-541-4433
4. Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety
5. Expected Project Duration: 1/1/24-12/31/28
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Powell County, Montana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Deployment of electronic controlled overcurrent equipment and associated communication equipment including the installation of weather monitoring stations.
8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
	Ravalli County
	Missoula County
	Granite County
	Lake County
	Mineral County

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
N/A

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
Project locations are located at various sites within Powell County.
2. Attach a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input checked="" type="checkbox"/> Other: <u>Established ROW</u>	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

This project involves replacing analog overcurrent equipment with electronic controlled devices on existing power poles.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

Installation of electronic equipment would take place in established utility right-of-ways located mainly along county and state roads.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☒ No land areas would be affected.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☒ No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The project would be in proximity to the Lolo National Forests.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☒ None

- b. Would the proposed project require the construction of waste pits or settling ponds?

☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☒ No ☐ Yes (describe)

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☒ None
- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)
- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas? ☒ No ☐ Yes (describe)
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs. ☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☒ No historic sites ☐ Yes (describe) ☐ No Impact (discuss)
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
N/A

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
None
- b. What sources would supply potable and process water for the proposed project?
No water needed.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
☒ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated. ☒ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
☒ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
☒ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☒ No ☐ Yes (describe)
- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

☒ No ☐ Yes (describe)

- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

- c. How and where would solid waste disposal be accomplished?

☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)

- d. How would wastes for disposal be transported?

N/A

- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None

- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
Yes, MEC internal safety program would be in effect.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☒ No ☐ Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
☐ None ☒ Increase in ambient noise level (describe)
An increase of ambient noise would increase when exchanging equipment, however no additional noise anticipated for operational activities.
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
☐ No construction planned ☒ No ☐ Yes (describe)
- h. Would hearing protection be required for workers? ☒ No ☐ Yes (describe)
Hearing protection would be required during plowing and boring activities. Hearing protection may be required as identified in MEC's safety Handbook.

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?
☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

- c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

- d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

- a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:

- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:

- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe:
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting in anticipated for this project.
- F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None
- G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?
☒ No ☐ Yes (describe)
- H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.
☒ None (provide supporting detail) ☐ Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The proposed system would be placed into service for continual use.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: 

Date (mm/dd/yyyy): 03/09/2023

Typed Name: Erik Langaunet, PE

Title: Sr. Engineer

Organization: Missoula Electric Cooperative

IV. REVIEW AND APPROVAL BY DOE

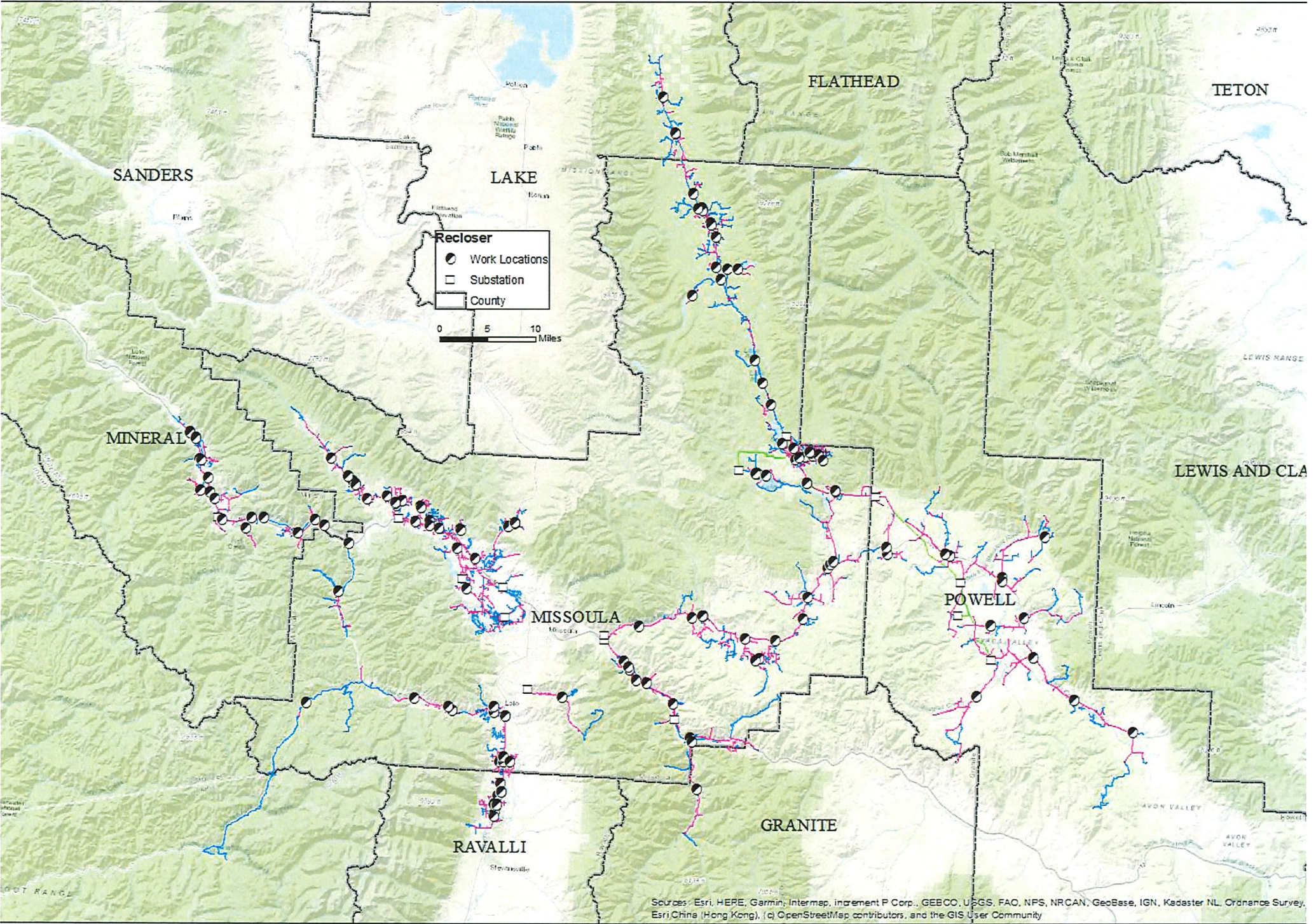
I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____



U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Missoula Electric Cooperative, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Mark Hayden Telephone Number: 406-541-4433
4. Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety
5. Expected Project Duration: 1/1/24-12/31/28
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Mineral County, Montana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Deployment of electronic controlled overcurrent equipment and associated communication equipment including the installation of weather monitoring stations.
8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
	Ravalli County
	Missoula County
	Granite County
	Powell County
	Lake County

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
N/A

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
Project locations are located at various sites within Mineral County.
2. Attach a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input checked="" type="checkbox"/> Other: <u>Established ROW</u>	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.
This project involves replacing analog overcurrent equipment with electronic controlled devices on existing power poles.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

Installation of electronic equipment would take place in established utility right-of-ways located mainly along county and state roads.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☒ No land areas would be affected.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☒ No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The project would be in proximity to the Lolo National Forests.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☒ None

- b. Would the proposed project require the construction of waste pits or settling ponds?

☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☒ No ☐ Yes (describe)

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
☒ None
- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)
- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☒ No historic sites ☐ Yes (describe) ☐ No Impact (discuss)
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
N/A

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
None
- b. What sources would supply potable and process water for the proposed project?
No water needed.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

- e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

- f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

- h. Would project require issuance of new or modified water permits to perform project work or site development activities?

☒ No ☐ Yes (describe)

- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

- j. Would the proposed project be permitted to discharge effluents into an existing body of water?

☒ No ☐ Yes (describe water use and effluent impact)

- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☒ No ☐ Yes (describe)

- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

☒ No ☐ Yes (describe)

- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

- c. How and where would solid waste disposal be accomplished?

☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)

- d. How would wastes for disposal be transported?

N/A

- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None

- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
- ☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
- ☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
- ☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
Yes, MEC internal safety program would be in effect.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
- ☒ No ☐ Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
- ☐ None ☒ Increase in ambient noise level (describe)
An increase of ambient noise would increase when exchanging equipment, however no additional noise anticipated for operational activities.
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
- ☐ No construction planned ☒ No ☐ Yes (describe)
- h. Would hearing protection be required for workers? ☒ No ☐ Yes (describe)
Hearing protection would be required during plowing and boring activities. Hearing protection may be required as identified in MEC's safety Handbook.

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?
- ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

- c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

- d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

- a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:

- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:

- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe:
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting in anticipated for this project.
- F. **DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT.** ☒ None
- G. **WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?**
☒ No ☐ Yes (describe)
- H. **SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.**
☒ None (provide supporting detail) ☐ Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

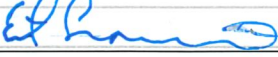
ENVIRONMENTAL QUESTIONNAIRE

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The proposed system would be placed into service for continual use.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: 

Date (mm/dd/yyyy): 03/09/2023

Typed Name: Erik Langaunet, PE

Title: Sr. Engineer

Organization: Missoula Electric Cooperative

IV. REVIEW AND APPROVAL BY DOE

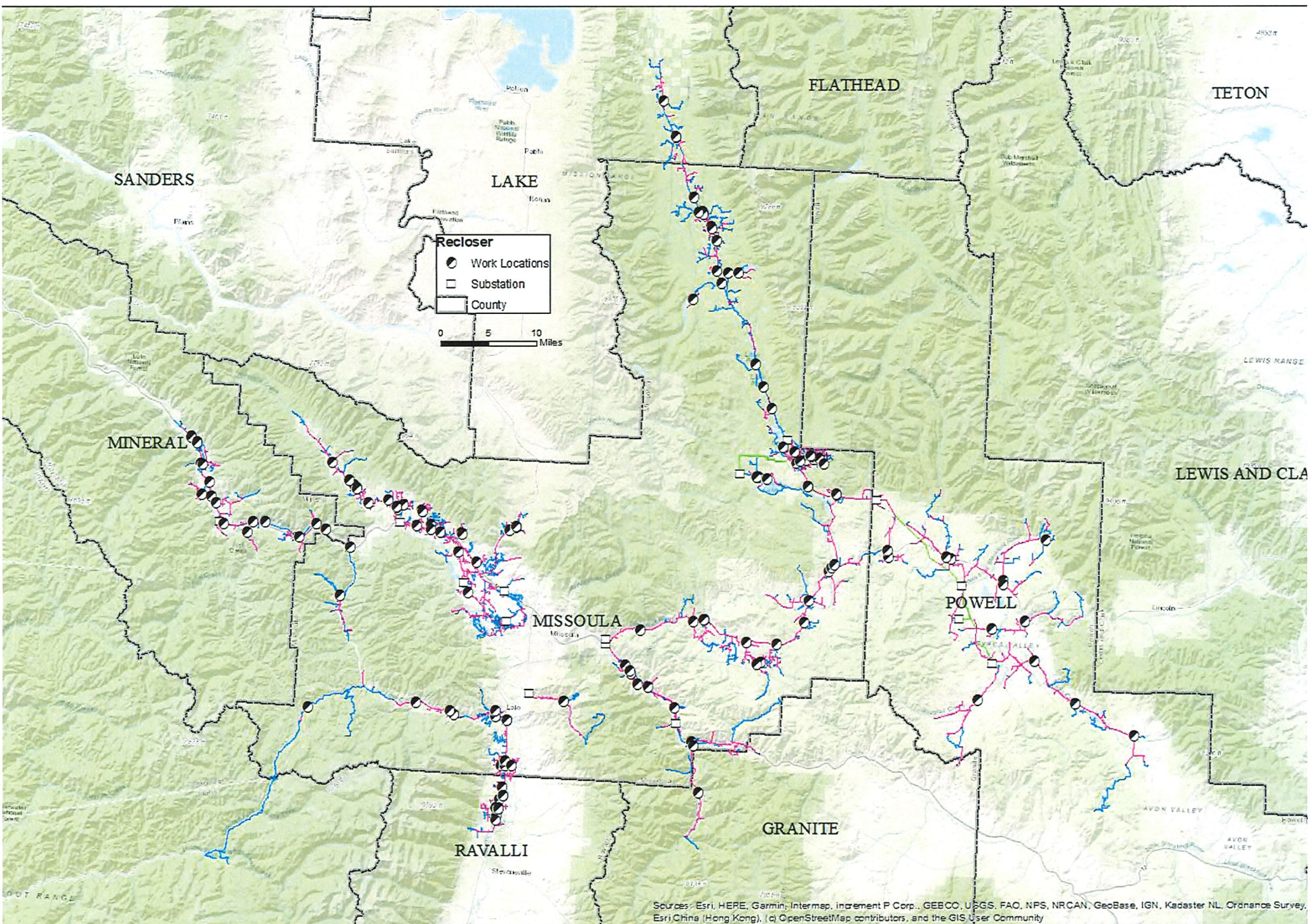
I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____



U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Missoula Electric Cooperative, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Mark Hayden Telephone Number: 406-541-4433
4. Project Title: Strategic Distribution System Modernization for Resilience and Wildfire Safety
5. Expected Project Duration: 1/1/24-12/31/28
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Granite County, Montana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Deployment of electronic controlled overcurrent equipment and associated communication equipment including the installation of weather monitoring stations.
8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
	Ravalli County
	Missoula County
	Powell County
	Lake County
	Mineral County

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
N/A

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
Project locations are located at various sites within Granite County.
2. Attach a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input checked="" type="checkbox"/> Other: <u>Established ROW</u>	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.
This project involves replacing analog overcurrent equipment with electronic controlled devices on existing power poles.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

Installation of electronic equipment would take place in established utility right-of-ways located mainly along county and state roads.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☒ No land areas would be affected.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☒ No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The project would be in proximity to the Lolo National Forests.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☒ None

- b. Would the proposed project require the construction of waste pits or settling ponds?

☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☒ No ☐ Yes (describe)

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?

☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.

☒ None

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)

- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

☒ No ☐ Yes (describe)

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☒ No historic sites ☐ Yes (describe) ☐ No Impact (discuss)
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
N/A

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
None
- b. What sources would supply potable and process water for the proposed project?
No water needed.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

- e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

- f. Describe how wastewater would be collected and treated.

☒ No wastewater produced

- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

- h. Would project require issuance of new or modified water permits to perform project work or site development activities?

☒ No ☐ Yes (describe)

- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

- j. Would the proposed project be permitted to discharge effluents into an existing body of water?

☒ No ☐ Yes (describe water use and effluent impact)

- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☒ No ☐ Yes (describe)

- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

☒ No ☐ Yes (describe)

- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

- c. How and where would solid waste disposal be accomplished?

☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)

- d. How would wastes for disposal be transported?

N/A

- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None

- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
- ☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
- ☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
- ☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
- Yes, MEC internal safety program would be in effect.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
- ☒ No ☐ Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
- ☐ None ☒ Increase in ambient noise level (describe)
- An increase of ambient noise would increase when exchanging equipment, however no additional noise anticipated for operational activities.
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
- ☐ No construction planned ☒ No ☐ Yes (describe)
- h. Would hearing protection be required for workers? ☒ No ☐ Yes (describe)
- Hearing protection would be required during plowing and boring activities. Hearing protection may be required as identified in MEC's safety Handbook.

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?
- ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

- c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

- d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

- a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required
Describe:

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:

- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:

- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe:

j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:

l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting is anticipated for this project.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The proposed system would be placed into service for continual use.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: 

Date (mm/dd/yyyy): 03/09/2023

Typed Name: Erik Langaunet, PE

Title: Sr. Engineer


Organization: Missoula Electric Cooperative

IV. REVIEW AND APPROVAL BY DOE

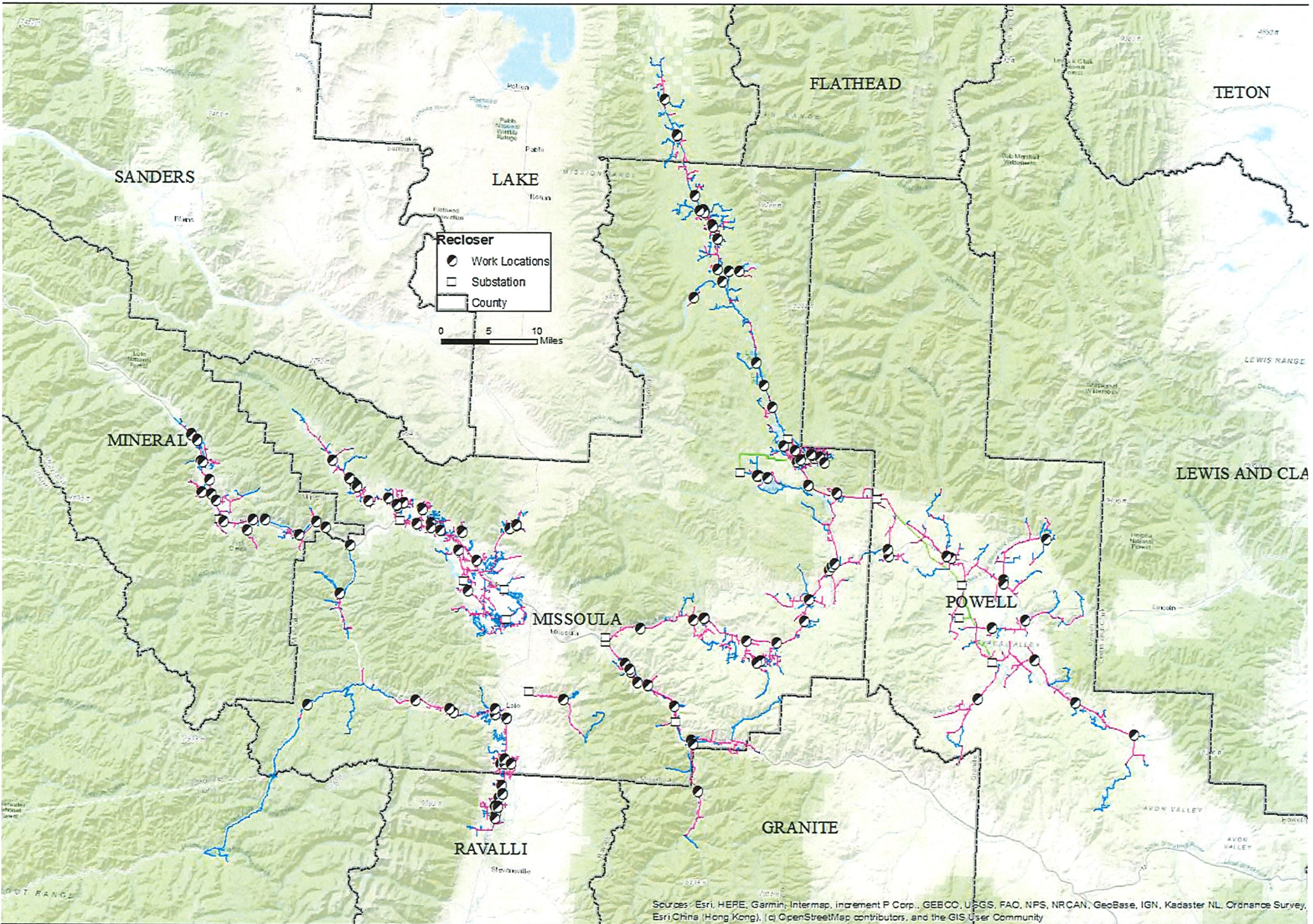
I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: 

Date (mm/dd/yyyy): 

Typed Name: 



Locations of Work (DE-FOA-0002740)

[illegible]

Strategic Distribution System Modernization for Resilience and Wildfire Safety**FOA Number: DE-FOA-0002740****Topic Area 2: Smart Grid Grants (BIL section 40107)****Missoula Electric Cooperative****COMMUNITY BENEFITS PLAN**

Missoula Electric Cooperative, Inc. (MEC) understands that a comprehensive approach is needed when designing and implementing the proposed project to maximize its benefits to the community. MEC has always had a steadfast commitment to delivering safe, affordable and reliable energy to the members in our seven-district service territory. The DOE grant funding would allow the Cooperative to impact our communities on a greater scale, beyond what our current resources allow for.

Community and Labor Engagement

As a member-owned electric cooperative, MEC is guided by the *Seven Cooperative Principles*. One of these principles is *Concern for Community*. For nearly nine decades, we have been dedicated to building strong community relationships encouraging regular input and participation from local stakeholders. However, we recognize that DOE funding would allow us to broaden our reach to include stakeholders that we don't currently have a working relationship with.

As demonstrated in the chart below, the Cooperative has cemented several relationships with local government agencies, including the State of Montana, Missoula County, and the City of Missoula. We can attribute a number of significant accomplishments to our joint efforts and resources. As community partners, we have coordinated several largescale construction projects, including the Mullan Build project and Evaro Hill and Frenchtown Frontage Road relocating and reconductoring. Multiple agencies, including the City of Missoula, Missoula County, Missoula County Public Works and Montana Fish Wildlife and Parks have been advocates and participants in the Cooperative's community solar projects, which provide renewable energy solutions to members throughout our expansive service territory. These relationships are mutually beneficial, as the Co-op continues to support local government efforts to reach carbon neutrality and achieve substantial renewable energy goals.

Over the course of the proposed project, the Cooperative plans to build upon existing relationships with local government agencies, and work to strengthen or forge relationships with others. We will consult with the Missoula County Office of Emergency Management to ensure our Wildfire Mitigation Planning efforts align with the Community Wildfire Protection Plans for Missoula County, the Seeley-Swan Fire Plan, and the Pre-Disaster Mitigation Plan. MEC serves power to a modest portion of members who reside on the Flathead Indian Reservation. MEC has introduced and received support of the proposed project with the Confederated Salish & Kootenai Tribe (CSKT) and Mission Valley Power, which is operated by

CSKT and is the primary utility on the Flathead Indian Reservation. MEC will ensure representation from CSKT is included throughout the design and implementation of the proposed project.

The Cooperative has a collective bargaining agreement with the Local Union 44 International Brotherhood of Electrical Workers (IBEW Local 44). MEC has introduced the proposed project to IBEW Local 44, who has expressed support of the project. MEC will work to ensure representation from the IBEW Local 44 is included throughout the design and implementation of the proposed project.

MEC has working relationships with a wealth of community organizations, non-profits, and schools. Through donations, sponsorships, scholarships, partnerships, and volunteerism, the Co-op is a cornerstone in the community. Additionally, MEC is an active member of Missoula Economic Partnership (MEP), which promotes local business development. MEC supports MEP's current initiatives, which address our community's affordable housing and childcare issues.

Impacting our community in a transformative way will require us to establish new community relationships. To begin the process of facilitating community input, we have identified several potential stakeholders who we would need to proactively engage. These stakeholders will be valuable allies when soliciting input and growing our understanding of underserved and disadvantaged communities, demographics, social justice issues, ecological issues, economic, and environmental and climate issues. We recognize that historically we have not bridged a gap with disadvantaged communities and organizations that support them. We understand that for this project to be successful, this must be a key focus. Below is a preliminary table of key stakeholders and their current relationship status with MEC.

KEY STAKEHOLDERS		
Organization Type	Organization Name	Relationship Status
Labor	IBEW Local 44	Active
Tribal	Confederation Salish & Kootenai Tribe	Active
	Mission Valley Power	Active
Federal	US Forest Service	Active
	US National Parks Service	Potential
	US Bureau of Reclamation	Active
	Bureau of Land Management	Active
State	Montana Department of Transportation	Active
	Montana State Lands Department	Active
	Department of Natural Resources & Conservation	Active
Local	City of Missoula	Active
	Missoula County	Active
	Rural Fire Departments	Active

	Missoula County Office of Emergency Management	Potential
Community Organizations Supporting Work with DACs and Underserved Populations	Montana Racial Equity Project	Potential
	EmpowerMT	Potential
	Montana Women's Foundation	Potential
	YWCA	Potential
Community Organizations Supporting Climate, Environmental, Ecological, and Natural Resource Management Causes	Clearwater Resource Council	Potential
	Swan Ecosystem Center	Potential
	Climate Ready Missoula	Active
	Ecosystem Management Research Institute	Potential
	Climate Smart Missoula	Active
Community Organizations Supporting Economic Development	Missoula Economic Partnership	Active
	Missoula Chamber of Commerce	Active

We will identify and engage all relevant stakeholders, share project risks, and develop a risk assessment. After hazards are identified, we will collectively work with stakeholders to find ways to reduce or eliminate risks. Our next step will be to develop a cohesive strategy and action plan, including the negotiation of a Community Investment Plan, Community Benefits Agreement, or Community Workforce Agreement depending on what we determine the needs of our community to be.

Establishing effective methods of communication with stakeholders and the community will be an essential part of the proposed project. MEC currently hosts annual and district meetings to discuss current events and projects at the Co-op. We also regularly reach out to community members using Rural Montana Magazine, social media, radio advertisements, bill inserts, and newsletters. We are committed to providing updates on the proposed project through established and new communication channels. The communication channels must work both ways so we can receive feedback from stakeholders and the community.

To ensure the timely completion of our Community Benefits Plan project goals, we will continuously monitor the SMART (Specific, Measurable, Assignable, Realistic and Time-Related) milestones outlined in the *Community and Labor Engagement* table below. In addition to the preliminary milestones we've outlined, MEC will consult with stakeholders to establish additional SMART objectives related to the project.

COMMUNITY AND LABOR ENGAGEMENT – SMART MILESTONES				
Specific	Measurable	Assignable	Realistic	Time-Related
Annual Stakeholder Meeting	Invite minimum of 20 pre-determined stakeholders to provide project status update and encourage feedback	Manager of Communications & PR	Document attendance with sign-in sheet. Host Teams meeting, so stakeholders can join remotely	Annually , by year-end, beginning in 2024 - 2028
Continue to Identify and Reach Out to Potential Stakeholders	Identify an additional 26 stakeholders	Project Manager	24 stakeholders pre-determined, with several referrals in the pipeline	By January 31, 2024.
Establish Effective Communication Methods with Key Stakeholders	Build an internal stakeholder contact sheet	Manager of Communications & PR	24 stakeholders pre-determined, with several referrals in the pipeline	By January 31, 2024.
Create Project Webpage	Build a project webpage as a resource to the community and stakeholders	Manager of Communications & PR	Current Cooperative web administrator	By March 31, 2024 (end Q1)
Stakeholder Launch Event	Invite minimum of 20 pre-determined stakeholders to collaborate on project planning efforts before launch	Manager of Communications & PR	Document attendance with sign-in sheet. Host Teams meeting, so stakeholders can join remotely	By March 31, 2024 (end Q1)
Community Stakeholder Survey	Identify 50 stakeholders to participate in a project survey	Manager of Communications & PR	Target a 25% stakeholder response rate	By March 31, 2024 (end Q1)
Develop a Risk Assessment	In collaboration with stakeholders, identify 8-	Manager of Energy Services	MEC has identified 5 risks. Solicit input from stakeholders	By June 30, 2024 (end Q2)

	10 project risks and mitigation strategies			
Develop a Community Benefit Agreement with Stakeholders	A signed agreement with one organization from each category listed above (8)	Project Manager and Legal Counsel	Successful Labor Agreement negotiated. Positive relationship w/ community organizations	By December 31, 2024 (end Q4)
Establish Wildfire Safety Training Program for Community	Set a goal of 10 total group trainings across multiple audiences	Operations Specialist and Safety Manager	Electrical safety program already established with local schools, rural fire departments and first responders. Including an additional topic on wildfire safety would be a welcome addition	Beginning May 2025, send an annual safety training invitation letter to schools, fire departments and first responders. Beginning September 2025, host annual safety trainings in September of each year.
Setup Program to Share Weather and Fire Risk Data with Stakeholders	Establish data sharing program with at least 5 stakeholders	Manager of Energy Services	Data is readily available. MEC has relationships and communication channels	By September 30, 2026 (end Q3)

Investing in the American Workforce

MEC prides itself on providing good-paying jobs that exceed the local prevailing wage, with medical insurance, disability benefits, retirement benefits, tuition reimbursement, and paid leave. The collective bargaining agreement between MEC and the IBEW Local 44 is mutually beneficial and establishes wage scales, conditions, hours of employment, and grievance and arbitration procedures. The agreement governs all employees with job classifications that perform electrical maintenance and construction operations, warehousing, sales, mechanics, engineering, meter reading, and all clerical and office duties, excluding supervisors, confidential employees, and guards. All employees hired in these job classifications have a free and fair chance to join a union. The proposed project would allow MEC to preserve and create additional good-paying jobs within our community.

MEC provides in-house and external training opportunities, including leadership development and tuition reimbursement, to attract, hire, and retain skilled employees. MEC also maintains a robust employee Safety Program incorporating safety training, inspections, and a personal protective equipment reimbursement. MEC currently supports a Lineworker Apprenticeship Program and a Pre-Lineworker Apprenticeship Program. DOE funding would allow MEC to expand training programs and hire additional apprentices to maximize the journeyman-to-apprentice ratio.

Each employee's mental health and well-being are critical to the Co-op's operation. Therefore, the Cooperative ensures that all employees are provided with tools to succeed in and out of the workplace. Three relevant components of worker supports provided by MEC are opportunity for growth, protection from harm, and belonging at work. To ensure growth, the Co-op offers quality training, education, and mentorship. We also work hard to foster clear, equitable pathways for career advancement and provide long-term career planning. Feedback is timely, relevant, and reciprocal. The second component, protection from harm, ensures the Co-op prioritizes and normalizes physical and psychological safety. We require participation in a comprehensive safety program, incorporate a MoveSafe stretching program into morning routines to reduce injuries, and offer a monthly health club stipend to support a healthy mind and body. The Co-op has policies and procedures in place to prevent workplace bullying, sexual and other harassment, retaliation, and discrimination, and to operationalize DEIA norms. The final worker support is belonging at work, which engages employees in workplace decisions and strategic planning, promotes a culture of gratitude and recognition, and connects individual work with the Cooperative's mission and principles.

To ensure the timely completion of our Community Benefits Plan project goals, we will continuously monitor the SMART milestones outlined in the *Investing in the American Workforce* table below. In addition to the preliminary milestones we've outlined, MEC will consult with stakeholders to establish additional SMART objectives related to the project.

INVESTING IN THE AMERICAN WORKFORCE – SMART MILESTONES				
Specific	Measurable	Assignable	Realistic	Time-Related
Job Quality Commitments	Continue to participate in IBEW collective bargaining agreement every 3 yrs.	Human Resources and General Manager	Currently part of IBEW Local 44 and routinely audit personnel policies	By December 31, 2025
Establish Internship Program	Determine project needs, contracting up to 3 interns	Human Resources	Work with partner co-ops to understand and mirror existing programs	By December 31, 2025
Expansion of Lineworker Apprentice and Pre-Apprentice Program	Hire 1-2 apprentices and/or pre-apprentices	Human Resources and Operations Director	Formal apprenticeship and pre-apprenticeship program established	By December 31, 2028
Expansion of Internal Employee Training Programs	Establish a DEIA training and a mentorship program	Human Resources	Current employee training program	By December 31, 2028

Diversity, Equity, Inclusion, and Accessibility

MEC's Board of Trustees is committed to a Cooperative that supports an active Diversity, Equity and Inclusion Policy. MEC's DEI Policy, *Policy 109*, establishes the Co-op's commitment to fostering, cultivating and preserving a culture of diversity, equity and inclusion. MEC provides equal employment opportunities to all employees and applicants for employment and prohibits discrimination and harassment of any type without regard to race, color, religion, age, sex, national origin, disability status, genetics, protected veteran status, sexual orientation, gender identity or expression, or any other characteristic protected by federal, state or local laws. Equal employment opportunity is granted to all individuals that are under consideration for employment. All individuals receive fair, unbiased treatment in the workplace.

The Cooperative provides a safe, secure and inclusive environment. We provide mandatory new hire training on policies and procedures that prevent workplace bullying, sexual and other harassment, retaliation, and discrimination. Additionally, mid and senior level managers are required to take trainings on leading a diverse and inclusive workforce. Due to a traditionally male-dominated industry and MEC's 75% male workforce, the Co-op launched a women's networking group. This group was formed to encourage growth, development and camaraderie amongst the females in our organization.

The proposed project will require the use of vendors and subcontractors. During procurement, MEC will aim to contract with Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), and Veteran-Owned Businesses (VOBs). MEC will conduct outreach, including public notice, and we will utilize resources such as directories and agencies that support MBEs, WBEs, and VOBs. A few preliminary resources we've identified include the Small Business Administration, Office of Small and Disadvantaged Business Utilization, and the Montana Department of Transportation MBE & WBE directories.

To improve access to employment for underrepresented workers, MEC will conduct outreach efforts to generate job applicants from disadvantaged groups and communities. We will work with our local job service and rely on workforce training partnerships to improve access to Cooperative jobs and foster the joint development of pre-hire and rapid training programs.

To ensure the timely completion of our Community Benefits Plan project goals, we will continuously monitor the SMART milestones outlined in the *Diversity, Equity, Inclusion, and Accessibility* table below. In addition to the preliminary milestones we've outlined, MEC will consult with stakeholders to establish additional SMART objectives related to the project.

DIVERSITY, EQUITY, INCLUSION, AND ACCESSIBILITY – SMART MILESTONES				
Specific	Measurable	Assignable	Realistic	Time-Related
Participate In Anti-Bias Training and Education and DEIA Training	1 training per year	Department Heads and Managers	Easily added to existing leadership trainings	Annually, beginning January 2024
DEI Certificate Program	HR and Communications Departments to take PRSA online certification program in DEI	HR Manager and Communications & PR Manager	6-hour on-demand certificate program	By December 31, 2024
Perform internal DEIA Audit Using Benchmarking Tools	A completed self-report	HR Manager	NRECA tools and resources are available	By December 31, 2024
Find Resources to Help Us Identify Businesses Owned by Under-Represented Groups	Identify 5-10 resources	Operations Specialist	Have already identified 3 sources	By December 31, 2024
Hire Outside Consultant to Audit MEC's DEIA Program	A completed audit to review	HR Manager	Have performed similar audits	By December 31, 2025

			for Cyber and physical security	
Set Meeting with Director of Career Services (Eva Orust) at Salish Kootenai College	Build a pipeline to possible interns	HR Manager and General Manager	Established relationships with other colleges	By December 31, 2025
Set Meeting with Accelerate Montana and Other Job Training Programs	Set 2 preliminary meetings to understand if a mutually beneficial program can be formed	HR Manager	Several job training programs exist in our area	By December 31, 2025

Justice40

MEC is a member-owned rural electric cooperative that is divided into seven districts. Each district is represented by a democratically elected official. These representatives serve on the Board of Trustees, which is the governing body and regulatory authority of the Cooperative. As a community-owned non-profit, all members, including those in DACs, share in the positive outputs of projects such as this. Additionally, receiving federal grant funding provides access to low-cost capital for all of our members, including those living, working or volunteering in DACs.

MEC is committed to the Justice40 Initiative, which ensures that 40% of the overall benefits of certain federal investments will flow to disadvantaged communities (DACs). MEC's headquarters is located in census tract number 30063000201, which is considered disadvantaged. Three other disadvantaged census tracts are in the immediate vicinity of our headquarters, census tracts number 30063000300, 30063000800, and 30063001000. Additionally, our service territory includes census tract 30061964500, and a portion of federally recognized tribal land in census tract 30063001800, both of which are considered disadvantaged.

Ninety percent of our employees work at MEC's headquarters, which houses the Engineering, Operations, Energy Services, Member Service, Accounting, IT, Communications, and Human Resource Departments. Additionally, our primary material warehouse and fleet storage are located at this facility. MEC utilizes vendors in the immediate vicinity for supplies and fleet maintenance. The proposed project and DOE funding would allow MEC to create new jobs at our headquarter location and support small local businesses surrounding our facility to help investments flow to DACs. In accordance with the project, MEC has identified 25 of the 127

proposed reclosers (nearly 20%) requiring replacement in Mineral County, which is considered a DAC.

MEC has experienced an increased frequency of extreme weather events that lead to power supply disruption. Energy supply disruptions can threaten the local economy, put public health and safety at risk, and cause major financial burdens on communities. The cost associated with outage restoration is spread evenly amongst our entire membership. The proposed project will immediately increase energy resiliency by reducing the duration, frequency, and impact of power disruptions. Consumers living in DACs within our service territory will benefit from a reduction in outage-related costs, thus reducing members' energy burden and preserving affordable rates. Completing the proposed project will also allow resources to be shifted from problem areas to the overall inspection and maintenance of our entire system.

MEC's system is located where the Wildland Urban Interface and Wildfire Hazard Potential areas intersect. The goal of our project is to reduce wildfire risk, thus decreasing environmental exposure to Missoula valley, our community, city, state and region. Wildfires can have detrimental effects, including job loss, property damage or loss, and dependent on the scale, can even lead organizations to bankruptcy. The objective of this project is to mitigate wildfire risk as much as possible. In respect to our project, we do not anticipate any cumulative environmental impacts on DACs.

At this point, our project does not increase parity to clean energy technology access and adoption, clean energy enterprise creation or clean energy jobs. However, the data from the proposed weather stations would help us to determine prime areas for a solar investment, whether it be individual or community solar.

To ensure the timely completion of our Community Benefits Plan project goals, we will continuously monitor the SMART milestones outlined in the *Justice40* table below. In addition to the preliminary milestones we've outlined, MEC will consult with stakeholders to establish additional SMART objectives related to the project.

JUSTICE40 – SMART MILESTONES				
Specific	Measurable	Assignable	Realistic	Time-Related
Use Weather Station Solar Data to Drive Decision-Making	Analyze weather data at the end of each year	Energy Services Manager	Solar data available from each weather station	Annually, beginning January 2024
Host Public Forum Prior to Project Launch	Host 1 meeting at headquarters (in DAC)	Manager of Communications & PR	We have hosted small and largescale district and statewide events	By March 31, 2024 (end Q1)

Evaluate Low-Cost Weather Station Program for DACs	Reach out to 2 co-ops to understand program benefits and challenges	Energy Services Manager	Other Co-ops have launched similar programs	By March 31, 2025 (end Q1)
Identify MBE's, DBE's, WBE and VBE's in Immediate DAC	Identify 3-5 potential business partners	Chief Financial Officer	Local resources are available	By December 31, 2025



International Brotherhood of Electrical Workers A.F.L.-C.I.O.

LOCAL UNION 44 • 1901 S. Montana • P.O. Box 3467
Butte, Montana 59702-3467
Phone: 406/723-3203 • Fax: 406/723-3270
email: ibew@ibew44.org



February 13, 2023

Mr. Mark Hayden
General Manager
Missoula Electric Cooperative
1700 W. Broadway
Missoula, MT 59808

Dear Mr. Hayden,

I am writing in support of the Missoula Electric Cooperative (MEC) application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

As the Business Manager/Financial Secretary of IBEW Local 44, we recognize the impact that wildfires and other natural disasters are having on MEC's infrastructure, and the related reliability impacts to the members served by the cooperative. We understand that MEC has made significant improvements and investments to harden its system. MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for its members. With support from the DOE, MEC will be able to greatly leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of future events, saving lives and protecting property in our community.

In addition, we believe securing such a grant would create valuable good paying jobs for many of our IBEW members as well.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid and We'd welcome the opportunity to participate in any opportunity to advocate for your DOE grant application.

Please feel free to contact me should you have any questions at (406) 565-6839.

Sincerely,

A handwritten signature in blue ink, appearing to read "Scott Klungland".

Scott Klungland
Business Manager/F.S.
IBEW Local 44
1901 S. Montana St.
Butte, MT. 59701

February 24, 2023

Mr. Mark Hayden
General Manager
Missoula Electric Cooperative
1700 W. Broadway
Missoula, MT 59808



Dear Mr. Hayden,

On behalf of Climate Smart Missoula, I write in strong support of the Missoula Electric Cooperative's (MEC) application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

Climate Smart Missoula is a local not-for-profit organization that works to reduce our greenhouse gas emissions, curtail pollution, and build community health and resiliency. Over the last five years we have co-led the Missoula County *Climate Ready Missoula* plan and have worked to implement a number of strategies that help us be more prepared as our energy systems and climate changes.

Through this work we recognize the impact that wildfires and other natural disasters are having on MEC's infrastructure and the related reliability impacts to the members served by the cooperative. We understand that MEC has made significant improvements and investments to harden its system. MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for its members. With support from the DOE, MEC will be able to greatly leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of future events, saving lives and protecting property in our community.

MEC's efforts to accelerate grid resiliency will greatly benefit your customers and will also be an excellent example to share with others in Missoula County and beyond. At Climate Smart, we look forward to sharing the need for and benefits of this work broadly so others can understand the challenges and opportunities with grid reliability and the energy transition.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid, and we would welcome the opportunity to participate in any opportunity to advocate for your DOE grant application.

Please feel free to contact me should you have any questions.

Sincerely,

A handwritten signature in purple ink that reads "Amy Cilimborg".

Amy Cilimborg
Executive Director, Climate Smart Missoula
C: 406-465-1141; amy@climatesmartmissoula.org



March 9, 2003

Mr. Mark Hayden
General Manager
Missoula Electric Cooperative 1700
W. Broadway
Missoula, MT 59808 Dear

Mr. Hayden,

I am writing in support of the Missoula Electric Cooperative (MEC) application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

As the University of Montana's Bureau of Business and Economic Research, we recognize the impact that wildfires and other natural disasters are having on MEC's infrastructure and the related reliability impacts to the members served by the cooperative. We understand that MEC has made significant improvements and investments to harden its system. MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for its members. With support from the DOE, MEC will be able to greatly leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of future events, saving lives and protecting property in our community.

As an active, applied research center with more than 70 years of experience in analyzing the Montana economy, we have a unique perspective on wildfire risk and its consequent economic costs, including:

- the threat to the state's large and growing recreation economy from the smoke and disruptions caused by fires;
- the public health harm caused by airborne pollutants – especially particulate matter – contained in wildfire smoke, which translates into excess morbidity and economic loss;
- the loss to the economy from extended outages of electricity. Our research estimates that the cost of outages to the economy is large and growing, amounting to \$450 million in 2020.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid and we would welcome the opportunity to participate in any opportunity to advocate for your DOE grant application.

Please feel free to contact me should you have any questions at (406) 243-5113.

Sincerely,

Patrick M. Barkey
Director



Office of Emergency Management
200 W. BROADWAY
MISSOULA, MONTANA 59802
PHONE: (406) 258-3632
FAX: (406) 258-3989

February 15, 2023

Mr. Mark Hayden
General Manager
Missoula Electric Cooperative
1700 W. Broadway
Missoula, MT 59808

Dear Mr. Hayden,

I am writing in support of the Missoula Electric Cooperative (MEC) application to the U.S. Department of Energy (DOE) Grid Infrastructure Investment and Jobs Act program.

The Office of Emergency Management (OEM) has a unique and vested interest in promoting projects that enhance Missoula County's overall resiliency; projects that focus on infrastructure hardening, while simultaneously mitigating secondary disasters, are particularly impactful. Recognizing the impact that wildfires and other natural disasters are having on MEC's infrastructure, and the related reliability impacts to the members served by the cooperative, Missoula OEM is excited to support this application for funding. We understand that MEC has made significant improvements and investments to harden its system. Hardening of critical infrastructure at risk is a key mitigation strategy outlined in the 2017 Missoula Pre-Disaster Mitigation Plan. Additionally, wildfires ignited by overhead transmission lines, most commonly found in the Wildland Urban Interface (WUI) is a key concern identified in the Missoula County 2018 Community Wildfire Protection Plan. Wildfires occurring within the WUI pose the greatest risk to firefighters, the public, private property, and critical infrastructure. Hardening critical infrastructure within the WUI, while also mitigating the potential to ignite a wildfire not only aligns with local mitigation plans and is endorsed by OEM; but will improve resiliency in future events that aid in our efforts of saving lives and protecting property in our community.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid and we would welcome the opportunity to participate in any opportunity to advocate for your DOE grant application.

Please feel free to contact me should you have any questions at (406) 258-3632.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Adriane Beck', with a long horizontal flourish extending to the right.

Adriane Beck

Missoula County Commissioners

Mailing Address: 200 West Broadway
Physical Address: 199 West Pine
Missoula, MT 59802-4292

P: 406.258.4877 | F: 406.258.3943
E: bcc@missoulacounty.us



BCC 2022-110
March 31, 2022

Mr. Mark Hayden
General Manager
Missoula Electric Cooperative
1700 W. Broadway
Missoula, MT 59808

Dear Mr. Hayden,

We are writing in support of the Missoula Electric Cooperative application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

As the Missoula County commissioners, we recognize the impact wildfires and other natural disasters have on MEC infrastructure and the related reliability impacts on our community. We understand that MEC has made significant improvements and investments to harden its system.

MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for our region. With support from the Department of Energy, MEC will be able to leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of future events, saving lives and protecting property in our community.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid. We welcome the opportunity to advocate for this grant application however we can.

Feel free to contact us at 406-258-4877 or bcc@missoulacounty.us if you have any questions.

Sincerely,

BOARD OF COUNTY COMMISSIONERS

Juanita Vero

6F45D36DCC41E9C2B2D512DC93A576B2

readysign

Juanita Vero, Chair

Not Available

Josh Slotnick, Commissioner

David Strohmaier

A6AC5081F2506A2A0806757E8888C312

readysign

David Strohmaier, Commissioner

BCC/ac



File Code: 2710

Date:

Missoula Electric Cooperative
Mark Hayden
1700 W. Broadway
Missoula, MT 59808

Dear Mr. Hayden

I am writing in support of the Missoula Electric Cooperative (MEC) application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

The Lolo National Forest recognizes the impact that wildfires and other natural disasters are having on MEC's infrastructure, and the related reliability impacts to the members served by the cooperative. We understand that MEC has made significant improvements and investments to harden its system. MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for its members. With support from the DOE, MEC will be able to greatly leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of potential future events.

Grid hardening efforts conducted by MEC are in direct alignment with our own National Cohesive Wildland Fire Management Strategy in protecting critical infrastructure and the communities we both serve.

We have confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid and we would welcome the opportunity to participate in any opportunity to advocate for your DOE grant application.

Please feel free to contact Realty Specialist Adam Hoge should you have any questions at (406) 677-3938.

Sincerely,

CAROLYN P UPTON
Forest Supervisor





OFFICE OF THE MAYOR

435 RYMAN MISSOULA, MONTANA 59802-4297 (406) 552-6001

October 12, 2022

Mr. Mark Hayden, General Manager
Missoula Electric Cooperative
1700 W. Broadway
Missoula, MT 59808

Dear Mr. Hayden:

The City of Missoula supports the Missoula Electric Cooperative's (MEC) application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

We recognize the impact that wildfires and other natural disasters are having on MEC infrastructure, and the related reliability impacts on our community. We understand that MEC has made significant improvements and investments to strengthen its system. MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for our region. With support from the DOE, MEC will be able to greatly leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of future events, saving lives and protecting property in our community.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid and we'd welcome the opportunity to participate in any opportunity to advocate for your DOE grant application.

Thank you for your time and attention to this matter. Please feel free to contact me should you have any questions at (406) 552-6001.

Sincerely,

Jordan Hess
Mayor



March 2, 2023

Mr. Mark Hayden
General Manager
Missoula Electric Cooperative
1700 W. Broadway
Missoula, MT 59808

Dear Mr. Hayden,

I am writing in support of the Missoula Electric Cooperative (MEC) application to the U.S. Department of Energy Grid Infrastructure Investment and Jobs Act program.

As the President/Owner of Poteet Construction, Inc., we recognize the impact that wildfires and other natural disasters are having on MEC's infrastructure and the related reliability impacts to the members served by the cooperative. We understand that MEC has made significant improvements and investments to harden its system. MEC's efforts to maintain reliability come at a cost and are directly linked to increased electricity rates for its members. With support from the DOE, MEC will be able to greatly leverage the additional funding to further improve grid resilience and reliability, which will help mitigate the impact of future events, saving lives and protecting property in our community.

Due to the increased fire danger in our area, it is important that Missoula Electric Cooperative's application is approved. This work would allow Poteet Construction to provide good paying jobs with benefits for members of our community.

We have great confidence in MEC to work with federal partners in securing additional funding to prevent further disruptions to our power grid and we would welcome the opportunity to participate in any opportunity to advocate for your DOE grant application. Please feel free to contact me should you have any questions at (406) 728-9370.

Sincerely,

A handwritten signature in black ink, reading 'Debra S. Poteet'. The signature is written in a cursive, flowing style.

Instructions and Summary

Award Number: DE-FOA-0002740
Award Recipient: Missoula Electric Cooperative, Inc.

Date of Submission: 3/15/2023
Form submitted by: Missoula Electric Cooperative, Inc.
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!
Do not modify this template or any cells for formulas!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, contractors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows and columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1		\$419,654	\$419,655			\$839,309	50.00%	01/01/2024-12/31/2024
Budget Period 2		\$523,533	\$523,533			\$1,047,066	50.00%	01/01/2025-12/31/2025
Budget Period 3		\$562,113	\$562,113			\$1,124,225	50.00%	01/01/2026-12/31/2026
Budget Period 4		\$617,434	\$617,434			\$1,234,869	50.00%	01/01/2027-12/31/2027
Budget Period 5		\$626,336	\$626,336			\$1,252,672	50.00%	01/01/2028-12/31/2028
Total		\$2,749,070	\$2,749,071			\$5,498,141	50.00%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$158,351	\$187,519	\$192,825	\$205,135	\$225,200	\$969,031	17.62%	
b. Fringe Benefits	\$74,026	\$83,264	\$85,495	\$91,235	\$102,744	\$436,764	7.94%	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$369,178	\$481,246	\$560,254	\$612,320	\$573,693	\$2,596,691	47.23%	
e. Supplies	\$76,592	\$102,667	\$90,933	\$117,333	\$132,000	\$519,525	9.45%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Contractor	\$67,182	\$72,182	\$67,182	\$67,182	\$67,182	\$340,912	6.20%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$67,182	\$72,182	\$67,182	\$67,182	\$67,182	\$340,912	6.20%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$22,877	\$30,199	\$30,532	\$34,600	\$43,172	\$161,380	2.94%	
Total Direct Costs	\$768,206	\$957,076	\$1,027,221	\$1,127,806	\$1,143,991	\$5,024,302	91.38%	
i. Indirect Charges	\$71,102	\$89,989	\$97,004	\$107,062	\$108,681	\$473,839	8.62%	
Total Costs	\$839,309	\$1,047,066	\$1,124,225	\$1,234,869	\$1,252,672	\$5,498,141	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!!

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and contractors must be included under f. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base hourly rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., rate negotiated for each hour worked on the project, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 5			
1	Sr. Engineer (EXAMPLE!!!)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	
1	Project Manager	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
1	Sr. Engineer	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
1	Chief Financial Officer	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
1	Plant Accountant	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
1	Chief Technology Officer	100	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	300	(b) (4)	Rate Negotiated
1	Energy Services Manager	100	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	300	(b) (4)	Rate Negotiated
1	Grant Specialist Summer Intern	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	3200	(b) (4)	Comparable Rate
2	Manager of Communications	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
2	HR Specialist	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
3	Safety Specialist	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
3	Energy Services Manager	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
3	Data Analyst Summer Intern	0	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	2560	(b) (4)	Comparable Rate
4	Sr. Engineer	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
4	Chief Technology Officer	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	100	(b) (4)	(b) (4)	500	(b) (4)	Rate Negotiated
4	IT Summer Intern	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	3200	(b) (4)	Comparable Rate
4	Staking Technician I	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	250	(b) (4)	Union Scale
4	Staking Technician II	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	250	(b) (4)	Union Scale
4	Engineering Summer Intern	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	640	(b) (4)	(b) (4)	3200	(b) (4)	Comparable Rate
4	Foreman	72	(b) (4)	(b) (4)	126	(b) (4)	(b) (4)	109	(b) (4)	(b) (4)	142	(b) (4)	(b) (4)	101	(b) (4)	(b) (4)	550	(b) (4)	Union Scale
4	Journeyman Lineman (2)	144	(b) (4)	(b) (4)	252	(b) (4)	(b) (4)	218	(b) (4)	(b) (4)	184	(b) (4)	(b) (4)	202	(b) (4)	(b) (4)	1000	(b) (4)	Union Scale
4	Apprentice Lineman	72	(b) (4)	(b) (4)	126	(b) (4)	(b) (4)	109	(b) (4)	(b) (4)	142	(b) (4)	(b) (4)	101	(b) (4)	(b) (4)	550	(b) (4)	Union Scale
4	Pre-Apprentice (Groundsman)	72	(b) (4)	(b) (4)	126	(b) (4)	(b) (4)	109	(b) (4)	(b) (4)	142	(b) (4)	(b) (4)	101	(b) (4)	(b) (4)	550	(b) (4)	Rate Negotiated
4	Apparatus Lineman	78	(b) (4)	(b) (4)	120	(b) (4)	(b) (4)	132	(b) (4)	(b) (4)	142	(b) (4)	(b) (4)	278	(b) (4)	(b) (4)	750	(b) (4)	Union Scale
4	Serviceman	78	(b) (4)	(b) (4)	120	(b) (4)	(b) (4)	132	(b) (4)	(b) (4)	142	(b) (4)	(b) (4)	278	(b) (4)	(b) (4)	750	(b) (4)	Union Scale
4	Warehouseman	100	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	300	(b) (4)	Union Scale
5	Safety Specialist	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	250	(b) (4)	Rate Negotiated
5	Manager of Communications	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	50	(b) (4)	(b) (4)	250	(b) (4)	Rate Negotiated
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
			\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0	0	\$0	
	Total Personnel Costs	3936		\$158,351	4780		\$187,519	4719		\$192,825	4804		\$205,135	4971		\$225,200	23210	\$969,031	

Additional Explanation (as needed): Union Contract negotiated through end of 2025. Escalation of 4% used in other instances.

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.

2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.

3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.

4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
Total Permanent Personnel	114,951	61.00%	\$70,120	127,667	61.00%	\$77,877	131,040	61.00%	\$79,934	139,948	61.00%	\$85,368	158,608	61.00%	\$96,751	\$410,051
Total Temporary Personnel	43,400	9.00%	\$3,906	59,852	9.00%	\$5,387	61,785	9.00%	\$5,561	65,187	9.00%	\$5,867	66,592	9.00%	\$5,993	\$26,713
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$158,351		\$74,026	\$187,519		\$83,264	\$192,825		\$85,495	\$205,135		\$91,235	\$225,200		\$102,744	\$436,764

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

X There is not a current federally approved rate agreement negotiated and available.**

Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <https://www.energy.gov/eere/funding/downloads/sample-indirect-rate-proposal-and-profit-compliance-audit>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate. Please see fringe benefit proposal below.

Missoula Electric Cooperative		
Indirect Rate Proposal		
Based on 2022 Historical Overhead Distribution Report		
Permanent Employees		
Account Name	Annual Total	Fringe
Life, STD, LTD Insurance	63,977	63,977
401(k) Contribution	133,217	133,217
Pension Contribution	814,133	814,133
Employee Assistance Program	1,785	1,785
Health Insurance (including Dental/Vision)	672,307	672,307
Work Comp	65,710	65,710
Federal Unemployment	1,917	1,917
Health Savings Contribution	53,000	53,000
457(f) Contribution	10,000	10,000
Medicare Tax	59,143	59,143
Paid Time Off	379,421	379,421
Social Security Tax	243,882	243,882
State Unemployment	6,391	6,391
TOTAL FRINGE POOL		2,504,883
Salaries & Wages	4,116,315	
Fringe Cost Pool	2,504,883	
Base (Direct & Indirect Labor)	4,116,315	
Fringe Rate		61%

Missoula Electric Cooperative		
Indirect Rate Proposal		
Based on 2022 Historical Overhead Distribution Report		
Temporary Employees		
Account Name	Annual Total	Fringe
Work Comp	65,710	65,710
Federal Unemployment	1,917	1,917
457(f) Contribution	10,000	10,000
Medicare Tax	59,143	59,143
Social Security Tax	243,882	243,882
State Unemployment	6,391	6,391
TOTAL FRINGE POOL		387,042
Salaries & Wages	4,116,315	
Fringe Cost Pool	387,042	
Base (Direct & Indirect Labor)	4,116,315	
Fringe Rate		9%

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Only travel that is directly associated with this award should be included as a direct travel cost to the award.
4. Federal travel regulations are contained within the applicable cost principles for all entity types.
5. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
6. Columns E, F, G, H, I, J, and K are per trip.
7. The number of days is inclusive of the day of departure and the day of return.
8. Recipients should enter City and State (or City and Country for International travel) in the Depart from and Destination fields.
9. Each budget period is rounded to the nearest dollar.

SOP Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel										
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel										
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel										
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel										
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel										
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a contractor quote for all equipment items over \$50,000 in price. If the contractor quote is not an exact price match, provide an explanation in the additional explanation section below. If a contractor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
4	SEL-3355 Automation Controller Virtual Servers for OT AD, MFA, Engineering Workstations	3	(b) (4)		Vendor Quote	Workstation for SCADA
4	SEL-2741 SDN Switch	3	(b) (4)		Vendor Quote	Communication Equipment at Substation (Priority Level 1 Sites)
4	Hardware & Software Required for MFA Solution	1	(b) (4)		Vendor Quote	Cyber Security
4	SEL-3555 RTAC	1	(b) (4)		Vendor Quote	Communication Equipment at Main Office
4	3 Phase Control	2	(b) (4)		Vendor Quote	Substation Controls (Priority Level 1 Sites)
4	Triple Single Control	2	(b) (4)		Vendor Quote	Controls for NOVAs on line (Priority Level 1 Sites)
4	Triple Single Control	1	(b) (4)		Vendor Quote	Substation Controls (Priority Level 1 Sites)
4	Single Phase Reclosers w/ Control	13	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 1 Sites)
4	3 Phase Reclosers w/ Control	4	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 1 Sites)
	Budget Period 1 Total			\$369,178		
Budget Period 2						
4	Single Phase Reclosers w/ Control	24	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 2 Sites)
4	3 Phase Reclosers w/ Control	6	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 2 Sites)
4	SEL-2741 SDN Switch	2	(b) (4)		Vendor Quote	Communication Equipment at Substation (Priority Level 2 Sites)
4	3 Phase Control	4	(b) (4)		Vendor Quote	Substation Controls (Priority Level 2 Sites)
4	Triple Single Control	1	(b) (4)		Vendor Quote	Substation Controls (Priority Level 2 Sites)
	Budget Period 2 Total			\$481,246		
Budget Period 3						
4	Single Phase Reclosers w/ Control	11	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 3 Sites)
4	3 Phase Reclosers w/ Control	13	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 3 Sites)
4	SEL-2741 SDN Switch	3	(b) (4)		Vendor Quote	Communication Equipment at Substation (Priority Level 3 Sites)
4	3 Phase Control	6	(b) (4)		Vendor Quote	Substation Controls (Priority Level 3 Sites)
4	Triple Single Control	1	(b) (4)		Vendor Quote	Substation Controls (Priority Level 3 Sites)
	Budget Period 3 Total			\$560,254		
Budget Period 4						
4	Single Phase Reclosers w/ Control	23	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 4 Sites)
4	3 Phase Reclosers w/ Control	10	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 4 Sites)
4	SEL-2741 SDN Switch	4	(b) (4)		Vendor Quote	Communication Equipment at Substation (Priority Level 4 Sites)
4	3 Phase Control	5	(b) (4)		Vendor Quote	Substation Controls (Priority Level 4 Sites)
4	Triple Single Control	1	(b) (4)		Vendor Quote	Controls for NOVAs on line (Priority Level 4 Sites)
4	Triple Single Control	1	(b) (4)		Vendor Quote	Substation Controls (Priority Level 4 Sites)
	Budget Period 4 Total			\$612,320		
Budget Period 5						
4	Single Phase Reclosers w/ Control	14	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 5 Sites)
4	3 Phase Reclosers w/ Control	9	(b) (4)		Vendor Quote	New Line Equipment (Priority Level 5 Sites)
4	SEL-2741 SDN Switch	4	(b) (4)		Vendor Quote	Communication Equipment at Substation (Priority Level 5 Sites)
4	3 Phase Control	17	(b) (4)		Vendor Quote	Substation Controls (Priority Level 5 Sites)
4	Triple Single Control	4	(b) (4)		Vendor Quote	Controls for NOVAs on line (Priority Level 5 Sites)
4	Triple Single Control	1	(b) (4)		Vendor Quote	Substation Controls (Priority Level 5 Sites)
	Budget Period 5 Total			\$573,693		
	TOTAL EQUIPMENT			\$2,596,691		

Additional Explanation (as needed): Escalation of 4% of quote

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE!!! Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
4	SEL-3622 Security Gateway	22	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 1 Sites)
4	SEL-3061 Cellular Router	22	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 1 Sites)
4	Weather Station Units	31	(b) (4)		Vendor Quote	Weather Monitoring Equipment
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$76,592		
Budget Period 2						
4	SEL-3622 Security Gateway	35	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 2 Sites)
4	SEL-3061 Cellular Router	35	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 2 Sites)
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$102,667		
Budget Period 3						
4	SEL-3622 Security Gateway	31	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 3 Sites)
4	SEL-3061 Cellular Router	31	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 3 Sites)
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$90,933		
Budget Period 4						
4	SEL-3622 Security Gateway	40	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 4 Sites)
4	SEL-3061 Cellular Router	40	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 4 Sites)
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$117,333		
Budget Period 5						
4	SEL-3622 Security Gateway	45	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 5 Sites)
4	SEL-3061 Cellular Router	45	(b) (4)		Vendor Quote	Communication Equipment (Priority Level 5 Sites)
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$132,000		
	TOTAL SUPPLIES			\$519,525		

Additional Explanation (as needed): Escalation of 4% of quote

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to sub-recipients, contractors, and FFRDC partners in the applicable boxes below.
2. Sub-recipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 25% of total award costs. These sub-recipient forms may be completed by either the sub-recipients themselves or by the preparer of this form. The budget totals on the sub-recipient's forms must match the sub-recipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. contractor status.
3. Contractors: List all contractors supplying commercial supplies or services used to support the project. For each Contractor cost with total project costs of \$100,000 or more, a Contractor quote must be provided. A contractor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. contractor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Sub-Recipient Unique Entity Identifier (UEI)	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.		Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
									\$0
									\$0
									\$0
									\$0
									\$0
			Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Contractor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Contractor for developing robotics to perform lens inspection. Estimate provided by contractor.	\$32,900	\$86,500				\$119,400
1	DeCoria, Blair, & Teague	Audit & Compliance	(b) (4)					
1	Schweitzer Engineering Laboratories	Cyber Services (Quote Attached)						
2	Associated Employers	DEIA Assessment						
		Sub-total						

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual	(b) (4)
-------------------	---------

Additional Explanation (as needed): Quote attached for SEL Cyber Services

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a contractor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
TOTAL CONSTRUCTION		\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
3	Daily Situational Awareness Tool	(b) (4)	Vendor Quote	Tool Needed to Determine Wildfire Risk
3	Weather Station Software Subscription	(b) (4)	Vendor Quote	Tool Needed to Gather & Analyze Weather Data
4	Bucket Truck Usage Fee	\$10,377	FEMA Hourly Rate	Specialized Equipment Needed at Job Site
	Budget Period 1 Total	\$22,877		
Budget Period 2				
3	Daily Situational Awareness Tool	(b) (4)	Vendor Quote	Tool Needed to Determine Wildfire Risk
3	Weather Station Software Subscription	(b) (4)	Vendor Quote	Tool Needed to Gather & Analyze Weather Data
4	Bucket Truck Usage Fee	\$17,699	FEMA Hourly Rate	Specialized Equipment Needed at Job Site
	Budget Period 2 Total	\$30,199		
Budget Period 3				
3	Daily Situational Awareness Tool	(b) (4)	Vendor Quote	Tool Needed to Determine Wildfire Risk
3	Weather Station Software Subscription	(b) (4)	Vendor Quote	Tool Needed to Gather & Analyze Weather Data
4	Bucket Truck Usage Fee	\$18,032	FEMA Hourly Rate	Specialized Equipment Needed at Job Site
	Budget Period 3 Total	\$30,532		
Budget Period 4				
3	Daily Situational Awareness Tool	(b) (4)	Vendor Quote	Tool Needed to Determine Wildfire Risk
3	Weather Station Software Subscription	(b) (4)	Vendor Quote	Tool Needed to Gather & Analyze Weather Data
4	Bucket Truck Usage Fee	\$22,100	FEMA Hourly Rate	Specialized Equipment Needed at Job Site
	Budget Period 4 Total	\$34,600		
Budget Period 5				
3	Daily Situational Awareness Tool	(b) (4)	Vendor Quote	Tool Needed to Determine Wildfire Risk
3	Weather Station Software Subscription	(b) (4)	Vendor Quote	Tool Needed to Gather & Analyze Weather Data
4	Bucket Truck Usage Fee	\$30,672	FEMA Hourly Rate	Specialized Equipment Needed at Job Site
	Budget Period 5 Total	\$43,172		
	TOTAL OTHER DIRECT COSTS	\$161,380		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim resulting cost as a Cost Share contribution, nor can the Recipient claim "unrecovered indirect costs" as a Cost Share contribution.** Neither of these costs can be reflected as actual indirect cost rates realized by the organization, and therefore are not verifiable in the Recipient records as required by Federal Regulation (200.306(b)(1))
- 5.. **Each budget period is rounded to the nearest dollar.**

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	10.00%	10.00%	10.00%	10.00%	10.00%		10% de minimis rate
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs	\$71,102	\$89,989	\$97,004	\$107,062	\$108,681	\$473,839	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$71,102	\$89,989	\$97,004	\$107,062	\$108,681	\$473,839	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- ☐ An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application and will be provided electronically to the Contracting Officer for this project.
- ☐ The organization does not have a current, federally approved indirect cost rate agreement and has provided an indirect rate proposal in support of the proposed costs.
- ☒ This organization has elected to apply a 10% de minimis rate in accordance with 2 CFR 200.414(f).

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. **Contractors may not provide cost share.** Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. **Contractors may not provide cost share.** Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

50.00%

Additional Explanation (as needed):

Applicant Name: Missoula Electric Cooperative, Inc. Award Number: DE-FOA-0002740

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1				\$419,654	\$419,655		\$839,309
2. Budget Period 2				\$523,533	\$523,533		\$1,047,066
3. Budget Period 3				\$562,113	\$562,113		\$1,124,225
4. Budget Period 4				\$617,434	\$617,434		\$1,234,869
5. Budget Period 5				\$626,336	\$626,336		\$1,252,672
6. Totals				\$2,749,070	\$2,749,071		\$5,498,141
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	\$158,351	\$187,519	\$192,825	\$205,135	\$225,200	\$969,031	
b. Fringe Benefits	\$74,026	\$83,264	\$85,495	\$91,235	\$102,744	\$436,764	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$369,178	\$481,246	\$560,254	\$612,320	\$573,693	\$2,596,691	
e. Supplies	\$76,592	\$102,667	\$90,933	\$117,333	\$132,000	\$519,525	
f. Contractual	\$67,182	\$72,182	\$67,182	\$67,182	\$67,182	\$340,912	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	
h. Other	\$22,877	\$30,199	\$30,532	\$34,600	\$43,172	\$161,380	
i. Total Direct Charges (sum of 6a-6h)	\$768,206	\$957,076	\$1,027,221	\$1,127,806	\$1,143,991	\$5,024,302	
j. Indirect Charges	\$71,102	\$89,989	\$97,004	\$107,062	\$108,681	\$473,839	
k. Totals (sum of 6i-6j)	\$839,309	\$1,047,066	\$1,124,225	\$1,234,869	\$1,252,672	\$5,498,141	
7. Program Income						\$0	

February 28, 2023

Missoula Electric Cooperative (MEC)
 1700 West Broadway
 Missoula, MT 59808

Subject: Budgetary Estimate # 031429.000.00

Dear Mr. Erik Langaunet,

Thank you for making SEL Engineering Services, Inc. (SEL ES) Cyber Services aware of your plans to add and enable recloser controls through secure communications. Based upon the information available, SEL Cyber Services envisions a solution that provides secure communications and engineering access for SEL recloser control equipment being installed as part of this project. Additionally, SEL Cyber Services recommends implementing segmentation between information technology (IT) and operational technology (OT) networks and systems. This budgetary includes pricing to implement an OT Active Directory for centralized account management, multi-factor authentication (MFA), and OT LAN security using OT software defined networking (SDN) technology.

Item	Description	Unit Price (USD)	QTY*	Total Price (USD)
651R#XCTV (0651R26CXAAAE1122DEXX)	SEL-651R-2 Advanced Recloser Control		114	
0351RS024XB1E11X2A0X	SEL-351RS Kestrel Single Phase Recloser Control	(b) (4)	115	(b) (4)
3622#0101 (3622XDE00XX0)	SEL-3622 Security Gateway		229	
3061#NC6L	SEL-3061 Cellular Router		230	
3555#X062	SEL-3555 Real-Time Automation Controller (RTAC)		1	
3355#0HN9	SEL-3355 Automation Controller Virtual Servers for OT AD, MFA, Engineering Workstation(s)		3	
2741#7P56	SEL-2741 SDN Switch		16	
MFA Hardware / Software	Hardware and software required for MFA solution.		1	
SEL Cyber Services	SEL Professional Services (detailed below) This also includes project management/administration costs. Travel expenses are included.	-	-	
TOTAL (USD)				\$2,484,890.82

*Some pricing includes quantity discounts.

A high-level list is provided below of the anticipated services required to implement the solution:

- Front End Engineering and Design (FEED) study with a security assessment to determine the status and collect the information for design.
 - Feed study report
 - Security assessment baseline report
- Network and security design
- Functional Design Specification (FDS)
- Set up and configuration of equipment with testing in SEL facility.

- Set up equipment for internal factory acceptance testing (FAT)
 - Load configuration files
- Internal FAT
 - FAT plan
 - Report of FAT testing results
- Site Acceptance Test (SAT)
 - SAT plan
 - Configuration
 - SAT report

Estimated travel expenses are included for the following:

- One (1) on-site trip for two (2) engineers for up to five (5) days for FEED study.
- One (1) on-site trip for two (2) engineers for commissioning support for up to ten (10) days.

Additional site visits are likely and will be determined and quoted after completion of the FEED study.

The physical installation, cabling, and powering of equipment is assumed to be completed by MEC prior to SEL Cyber Services performing SAT. Estimates for configuration include the following:

- SEL-3061 communications settings
- SEL-3622 communications settings and password management solution
- SEL-3355 virtual machines
 - OT Active Directory servers
 - MFA servers
 - Engineering workstations
- SEL-2741 SDN switch configuration
- SEL-3555 RTAC communications settings
- SEL-351/SEL-651 communications settings (automation and protection settings are not included in this budgetary estimate)

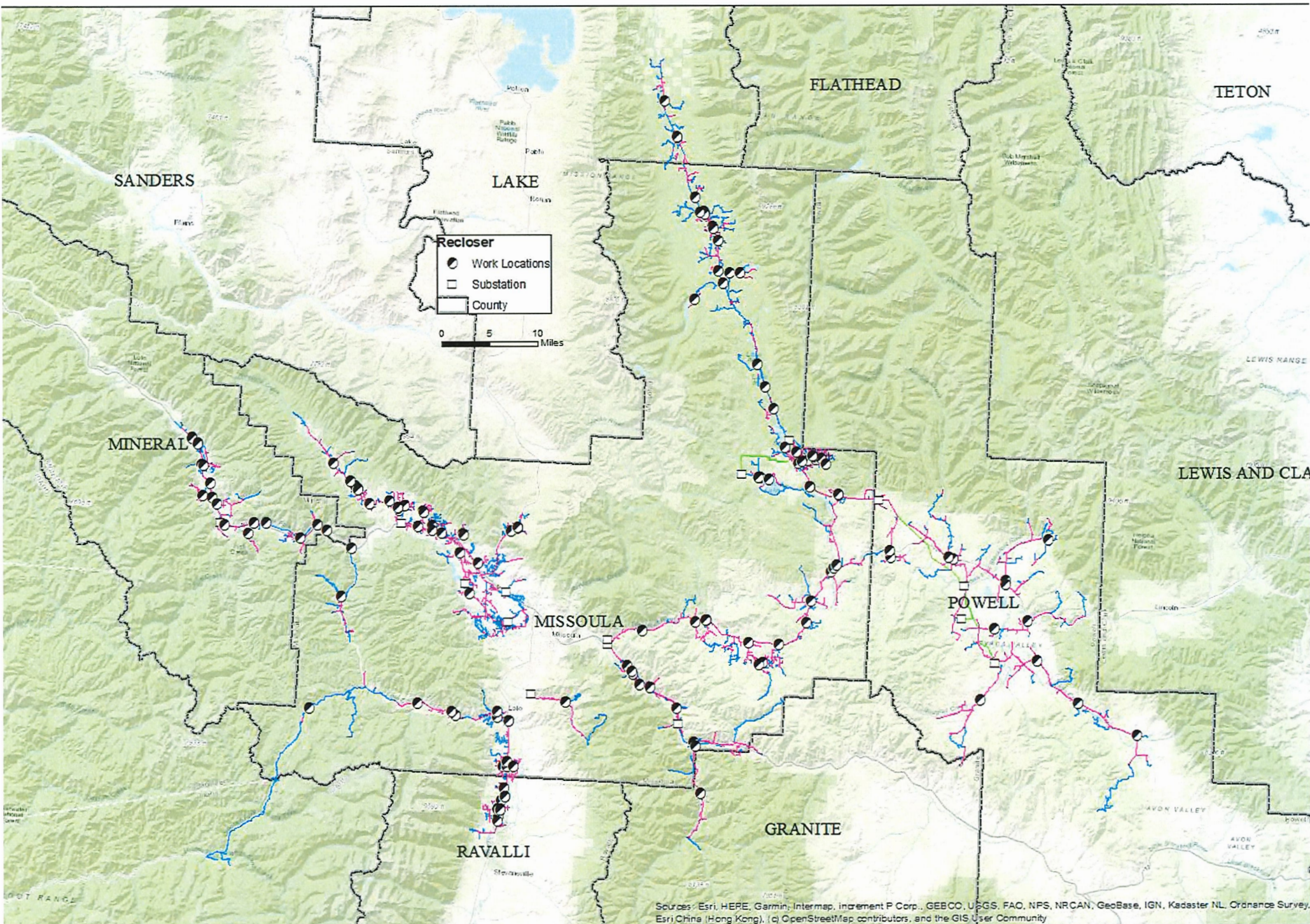
Because your plans are preliminary and do not yet specify system performance requirements, project scope, or schedule, we are unable to establish exact product numbers, a bill of material, a service labor estimate, or project schedule. However, with the information available, and listed above, it is reasonable to estimate a solution price of \$2,484,890.82 +/- 15% if further planning validates our preliminary understanding and assumptions.

This budgetary estimate is not a proposal or quotation for goods or services. SEL Cyber Services, working with our local sales representative, Chris Turner, requires a better understanding of your plans before we can issue a proposal. Our continued dialogue can be informal or involve professional services, if necessary, to construct detailed project plans.

Please contact us to schedule some time for additional project planning discussions. As always, we appreciate your confidence in our abilities.

Respectfully,

Chris Ewing, CISSP
Infrastructure Defense | Cyber Services
SEL Engineering Services, Inc.
2350 NE Hopkins Court, Pullman, WA 99163
Mobile: +1.509.592.6148
Email: chris_ewing@selinc.com



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community