

January 31, 2024

***VIA ELECTRONIC FILING***

Utah Public Service Commission  
Heber M. Wells Building, 4<sup>th</sup> Floor  
160 East 300 South  
Salt Lake City, UT 84114

Attention: Gary Widerburg  
Commission Administrator

RE: **Docket No. 23-035-23**  
In the Matter of the Formal Complaint of Glenn Mickelson against Rocky Mountain  
Power  
*Rocky Mountain Power's Report*

In accordance with the Order Canceling Limited Hearing and Directing Rocky Mountain Power to file a Report issued by the Public Service Commission of Utah ("Commission") on November 27, 2023, in this docket, Rocky Mountain Power ("the Company") respectfully submits its Report in this matter.

**Background**

The Rose Canyon Line ("Line") is located in Yellow Fork Canyon, just south of the Kennecott Pit. The Line begins at the Rose Canyon gate, at the Yellow Fork Trailhead, and ends just below the summit of the Butterfield Peaks. The Company initially buried the Line sometime around 1990 to provide electrical service up Yellow Fork Canyon for several residential properties and multiple communication towers.

Glenn Mickelson ("Complainant") filed a formal complaint with the Commission on May 29, 2023, alleging the existence of an exposed high voltage line in or near an unpaved road in Yellow Fork Trailhead area of Salt Lake County, referring to the Line. After initially dismissing the Complaint, the Commission granted the Complainant's request for rehearing, scheduling a limited hearing and issued an action request to the Division of Public Utilities ("Division") to investigate the safety concerns alleged by the Complainant. In comments, the Division reported that it visited the site and could not find any exposed electric equipment that posed any risk to the public safety, but noted concerns with the depth of the buried line and recommended the Company ensure the line is buried to National Electric Safety Code ("NESC") standards and report to the Commission its long-term solution for the Line.

Based on the Division's comments and recommendation, the Commission canceled the limited hearing and requested the Company file a report, detailing: (1) the depth of the buried Line and whether the depth complies with local and industry standards and codes, (2) the variety of cable

comprising the Line and suitability for use in the area with respect to local and industry safety standards and codes, (3) whether the Line is encased in conduit and whether such encasement is required under local and industry standards and code, and (4) the Company's long-term plan for resolving the recurring problems with the Line and the status of such plan's implementation. The remainder of this report provides the information requested by the Commission.

**PSC Request 1: Detail the depth of the buried Line and whether the depth complies with local and industry standards and codes.**

Company Response to PSC Request 1:

When the Company installed this Line, it was buried to industry standards and codes. The NESC standard for buried cables is 30 inches below ground. Generally, when the Company installs underground lines, it conducts an inspection at the time of installation to ensure the line complies with industry standard. However, the Company does not typically return to previously buried lines for inspection until the lines reach end of life.

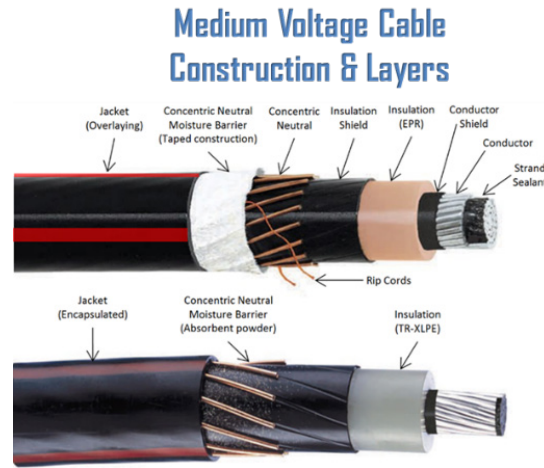
It is possible, as the Division discussed in its report, that there are areas where the cable on sections of the Line is no longer buried to NESC standard due to erosion and road maintenance. However, the Division also noted that a category of "direct burial cable" with a "UL" rating does exist and has passed rigorous testing, with the ability to survive in hard underground environments.

**PSC Request 2: Detail the variety of cable comprising the Line and its suitability for use in the area with respect to local and industry safety standards and codes.**

Company Response to PSC Request 2:

The Line in question is a direct buried insulated cable, as discussed by the Division. The Company used a 7,200-volt distribution line, which is a shielded, medium-voltage cable. This distribution line is encased in typical insulated protective layers to allow the Line to operate while in direct contact with ground. Generally, this includes jackets, concentric neutral moisture barriers, insulation or insulation shields, and conductor or conductor shields. The insulation is made up either of Ethylene Propylene Rubber (EPR), or Tree Retardant Cross-Linked Polyethylene (TR-XLPE).

Figure 1 – Type of Line Used



This cable is rated for 15kV (LL) class and rated for operation at 8,660V. The concentric neutral, which is shielding wire, effectively grounds the Line. This means if there is an internal fault, then the electrical fault is contained in the cable, and the return fault flows back through the concentric neutral. The cable is suitable and rated for installations in conduit, duct, and for direct burial in wet, dry, or submerged conditions. It is also suitable for applications in the open air, exposed to the environment and direct sunlight.

Therefore, the cable is insulated and rated to be in direct contact with the ground. If the insulation of this cable becomes damaged or non-functional, the cable generates an arc of electricity to ground and devices on the system will operate to remove the line from service. The Company believes this is likely, or similar to, what actually happened on or around May 4, 2024. If this insulation is not damaged, the cable is designed to not release electricity into the surrounding environment.

This Complaint provided insight for the Company that this specific Line is not ideal and needs to be fixed. However, it is not a per se electrocution hazard to an individual coming in contact with the Line. The Line is not bare conductor exposed to the public, despite Complainant's concerns.

**PSC Update 3: Detail whether the Line is encased in conduit and whether such encasement is required under local and industry standards and codes.**

Company Response to PSC Request 3:

In the Company's response to Mr. Mickelson's complaint, it described the Line as being "encased in conduit" which should have been described as "insulated." This Line is not currently encased in conduit. However, the Company notes that conduit does not provide any insulating value and is used for pulling wire out of the ground when it fails and allows for new wire to be pulled in once the failed wire is removed. Conduit does not provide additional insulation value for public safety, compared to the protections in the current Line. The electrical insulation is all in the wire. Therefore, while the Company regrets its error of using the incorrect term of "encased in conduit" instead of "insulated" to describe the Line, the intent was to represent to the Commission that the Line was protected and did not pose a direct threat to the public.

**PSC Update Request 4: Detail the Company's long-term plan for resolving the recurring problems with the Line and the status of the plan's implementation.**

Company Response to PSC Request 4:

The Company's long-term plan for resolving the recurring problems with the Line includes two initiatives. First, the Company will continue to work with Salt Lake County to remedy the erosion and required road maintenance, which the Line runs along. Second, the Company plans to excavate, encase, and rebury the Line in two specific areas, towards the last section of the Line, as well as replace conductors in those locations. The Company's plan to improve the Line is a targeted approach that is both cost-effective and will address the problems with the Line, as indicated below.

**Erosion and Road Maintenance**

The Company attempted to confirm road maintenance responsibility with Salt Lake County, which the Company believes is responsible for maintaining and improving a section of the road where the Line runs. Additionally, a section of the road is owned and maintained by local landowners in the area. It is proving difficult to fully understand the maintenance responsibility for all sections of the dirt road. The Company will continue to work with local landowners and Salt Lake County to ensure the road is maintained for drainage and erosion issues. Typically, the Company does not perform road maintenance or restoration projects. It is normal utility practice to rely on the owner or maintainer of the road to make these repairs.

An on-site meeting was held on August 4, 2023, with Company field employees and Salt Lake County representatives. The County stated it would have a crew on-site within a week to cover exposed Line and re-grade the road. On August 9<sup>th</sup>, the County informed the Company that Salt Lake County had returned to the site and noted that someone recently graded the road and covered all exposed Line. Salt Lake County verbally stated it would be willing to spread road base and help with any issues in the future as they had responsibility to maintain the road.

### **Excavating, Encasing, and Reburying Part of the Line**

Through this proceeding, the Company is aware of two specific locations where the Line is no longer buried in accordance with NESC depth requirements due to erosion. The Company has started a project for the two sections of the Line to replace the cable with new conductor and new direct buried insulated cable, which will be buried to NESC requirements.

The Company visited the site with a civil contractor to determine how this project should be completed. Installing a new direct buried insulated cable in a rocky environment such as the one in question will require backhoes, trenchers, and potentially rock saws to achieve the desired depths. The civil contractor told the Company that the window has passed to complete the work this year due to weather threats. Therefore, the Company placed dirt over the two locations and has plans to return next year to replace the two sections of wire. It is important to note that these areas are isolated in the very last segments of the Line and serve approximately four customers.

Excavating, encasing, and reburying is not a reasonable or necessary solution for the entire line. This electric cable serves several transmitter towers including customers who provide critical services, such as a hospital, which require reliable power. The down time required to excavate, encase, and rebury the entire Line would cause property owners and the transmitter towers, to lose power for a significant amount of time.

Since it is not cost-effective to excavate and rebury the entire 5-8 miles of the Line, the Company intends to replace two runs of conductor near the communication towers that meet the Company's utility construction standards for direct buried insulated cable, with 30 inches of ground cover. The Company will design this project this winter, and intends construction to start when weather permits construction, in Summer or Fall of 2024.

### **Summary**

The Company appreciates the opportunity to provide this Report to the Commission and is committed to providing any additional information the Commission finds helpful in this matter. Rocky Mountain Power is committed to continue working with Salt Lake County and residential customers along this road to resolve issues relating to this Line.

Sincerely,

A handwritten signature in black ink that reads "Joelle Steward". The signature is written in a cursive, flowing style.

Joelle Steward

cc: Glenn Mickelson

**CERTIFICATE OF SERVICE**

Docket No. 23-035-23

I hereby certify that on January 31, 2024, a true and correct copy of the foregoing was served by electronic mail to the following:

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**Complainant**

Glenn Mickelson                [glenn@peakmobile.com](mailto:glenn@peakmobile.com)

**Division of Public Utilities**

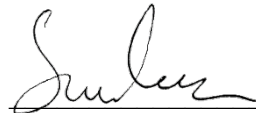
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**Rocky Mountain Power**

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