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UTAH DEPARTMENT OF COMMERCE

Division of Public Utilities

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Action Request Response

To: Public Service Commission of Utah

From: Utah Division of Public Utilities

Chris Parker, Director

Brenda Salter, Assistant Director

Abdinasir Abdulle, Utility Technical Consultant Supervisor

Marialie Wright, Manager

Jonathan Lee, Utility Analyst

Date: November 8, 2023

Re: **Docket No. 23-035-23**, Formal Complaint of Glenn Mickelson against Rocky Mountain Power

Recommendation (No Action)

The Division of Public Utilities (Division) provides its review of the Formal Complaint (Complaint) of Glenn Mickelson (Complainant) against Rocky Mountain Power (Company or RMP) and the Complainant's Request for Review and/or Rehearing. Through its site visit and investigation of the identified portion of the unpaved road near Yellow Fork Trailhead in Salt Lake County (County), the Division did not find any exposed high voltage electric cables or see any threat to public safety at this time. However, it is concerning that the 7200-volt electric cable could possibly be shallowly buried beneath sections of the road and not to NEC (National Electric Code) standard depth. The Division recommends that RMP report to the Public Service Commission (Commission) regarding the status of RMP's long-term solution to the exposed line issue, already implemented or planned to be completed prior to the end of year 2023, as previously stated in RMP's May 23 response to the Complaint. In addition, the Division recommends that RMP coordinate with the County to better maintain Water Fork / S. Rose Canyon Road. The Division recognizes the difficult

Division of Public Utilities

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conditions and circumstances surrounding the line. Access is limited, the ground is challenging, and an extended outage for maintenance would significantly affect customers dependent on the line.

Issue

Glenn Mickelson filed a Complaint with the Commission on May 19, 2023, complaining that RMP has not properly buried its 7200-volt line to a code-required depth of 30 inches in the lower 1-1/2 miles of Water Fork / S. Rose Canyon Road. As part of his Complaint, the Complainant submitted a photograph of the exposed high voltage cable section, located 194 feet above the first gate of the parking area adjacent to the Yellow Fork Canyon trailhead, showing the cable section either on the surface of the road or minimally covered with only a few inches of dirt. The Complaint asserted this hazard presents significant risk of life and safety to anyone in the area.¹ The Complaint stated that this has been a persistent danger to the public.

Background

The Complainant filed a Complaint with the Commission on May 19, 2023, which the Commission dismissed on August 17, 2023. The primary basis of the dismissal was based on RMP's statement in its June 20, 2023, response that the Company represented it conducted an on-site investigation with the County and that the County assured RMP it has prioritized filling and regrading the pertinent portion of the road as soon as possible. Furthermore, the Commission noted that RMP stated that it is taking steps to study and select the best alternative to address the issue and anticipates implementing a long-term solution by the end of 2023. The Complainant did not timely file reply comments in support of his Complaint by the July 5, 2023, deadline. However, on August 31, 2023, the Complainant filed a Request for Review and/or Rehearing stating several points in opposition to RMP's Answer, Status Update, and Motion to Dismiss. On September 29, 2023, the Commission suspended its Order of Dismissal, and the Division received an Action Request from the Commission to investigate the exposed line in question and provide input as to whether it constitutes a threat to public safety. The Commission

¹ Complainant's Formal Complaint.

requested the Division to report back by November 13, 2023. This memorandum represents the Division's response to the Commission's Action Request.

Discussion

The Division concurs that it is concerning that the Complainant's photo shows that there exists an exposed or minimally buried 7200-volt power line segment in the area near the Yellow Fork Canyon trailhead. This condition could pose a public safety risk if the line is displaced or damaged while the road is regraded or snowplowed, which could cause disruption of service, electrocution, or fire.

The NEC requires that UF Cable (Underground Feeder) be placed in a trench at least of 24 inches deep, 18 inches if encased in plastic (PVC) conduit for voltages greater than 120 volts, and 6 inches deep if encased in metal conduit.² While the NEC is not itself a U.S. law, the NEC is commonly mandated by state or local law.³ Actual burial depth in communities is dictated by local building code.

The Division reviewed recorded Salt Lake County Assessor plat map plots surrounding the area in question and the review showed that the County owns most of the land surrounding the trailhead parking lot area except for the roads. It appears that the Yellow Fork Canyon and S. Rose Canyon roads are not part of any plat, which would be consistent with it being a public right of way. There is another trail that is fully within the County's plat adjacent to the trailhead (#2 on Exhibit 1).

On October 13, 2023, Jonathan Lee and Marialie Wright, Division staff, performed a site visit to the Yellow Fork Canyon trailhead area. The site visit occurred after two consecutive days of rain. There are a few unpaved gravel roads leading out of the Yellow Fork Canyon trailhead parking lot. It was unclear to Division staff exactly which road was the site of the allegedly exposed electrical line shown in the Complaint. The upper road, noted on aerial map as the Yellow Fork Canyon Road (#1 on exhibit 1), leads to a locked gate, which appears to be hidden behind a small sign bolted on to the gate. This road appeared to be a wider, main road out of the parking lot and more frequently used. Division staff walked a

² www.protocolreviews.com/how-to-install-underground-electrical-wiring/ & NEC 300-5

³ The National Electrical Code (NEC) – Electrical Safety Foundation, <https://www.esfi.org/>

significant distance up the road to the playground and rest area and noted what appeared to be vehicle tracks and semi-recently laid road base on various sections of the road. There were signs of runoff carved into various sections on the side and in middle of the road. No exposed cable sections were noted nor any extraordinary concerns other than what appears to be continual erosion.

Division staff walked around the trailhead and noticed that there was another gate below the parking lot. The lower road, Rose Canyon Road (#3 on exhibit 1), was also behind a locked gate. A padlock can be seen on the gate and Division staff felt that this road may be more consistent with the road mentioned in the Complaint since the visible padlock on the gate was mentioned in the Complaint and RMP's responses. The road is hard-packed dirt and appears to have been recently graded, as there was more dirt and almost no road base or gravel. There were tire tracks leading up to and past the locked gate. This road appeared to be more rugged, less maintained, and less travelled than the upper road.

Division staff hiked up a significant length of this road and noted runoff channels present in the middle and on the side of the road in various sections but no exposed electrical cables. Based on the Complainant's photo, Division staff believed, but could not positively determine, that they found the location of the exposed electrical cables shown in the photo. This was determined from approximately matching the stated distance from the gate and comparing the landscape against the complainant's photo. The Division staff also noted fresh dirt on the side of the road that appeared to cover a runoff trench. However, since the landscape is similar in nature, the Division could not positively ascertain that the location was correct. And due to the lack of cellular data service in the area, the Division could not positively determine if this was the exact coordinates mentioned in the Complaint but felt confident that there was no exposed electrical cable nor risk to the public on the road. Division staff left the site convinced that no cables were exposed nor was there any imminent threat to the public under ordinary conditions.

Division staff also called Herriman City and confirmed that the County maintains the Yellow Fork and S. Rose Canyon Roads and the County Parks and Recreation department

manages the roads.⁴

In an email to the County Parks and Recreation department, the Division confirmed that the County maintains Water Fork Road and Yellow Fork Road. The Division also confirmed that the County owns the lock and gives the key to property owners and others that need access to the canyon. The County also claims to not have done any maintenance on Water Fork Road during May 2023. The County stated that it got a call in July about some erosion and went out to inspect the site. The County found a very large service cable about 16 inches below the surface in a trench caused by erosion and called RMP about it. About the middle of August, the County visited the area to see what work was needed to get the road back in drivable condition and found that the road had already been graded from the gate all the way to the fork that drops down to City Canyon in Utah County.⁵

Because the County response mentioned Water Fork Road, the Division reexamined the aerial map and determined that S. Rose Canyon Road (#3 on exhibit 1) also had the Water Fork label next to the road on the aerial map. The Division reconsidered whether this trail may potentially be the actual road shown photographed in the Complaint even though it was not specifically mentioned by name as the problem road.

On October 16, 2023, the Division emailed the Complainant, Mr. Mickelson, to offer him the opportunity to show the Division the exact locations of the exposed cable sections in his complaint. The Division was contacted by the Complainant and plans were made to meet at the trailhead parking lot to revisit the Water Fork Road to ensure that the correct road or trail had been examined.

On October 24, 2023, the Division and the Complainant walked the Water Fork Road. The Division confirmed it was the same road that the Division walked earlier on October 13, 2023—the lower road by the second gate, i.e., the S. Rose Canyon Road.

Again, the Division could not visually see exposed electrical cable during the site visit. Thus, the Division cannot positively confirm the location, the depth, or whether the cable is buried

⁵ Email correspondence with Tad Campbell of Salt Lake County. tcampbell@slco.org

in conduit. Furthermore, the Division cannot determine if the cable used is rated for direct burial. Direct burial cable has a specific UL rating noting that it has passed rigorous testing and can survive in harsh underground environments.⁶

As a result, this wire type excels in utility applications, and it's more cost-effective to install than cables that need conduit or metal cladding and doesn't need any additional materials to support it. The Division suspects, but only RMP can confirm, the type of cable used and its location and placement depth.

From the Complainant's May 23, 2023, photo, it appears to the Division that the cable is not in conduit but is a heavily insulated, thick electrical cable. This is because there seems to be some slight curving towards one end of the exposed cable as it heads into the dirt road. Furthermore, the Division would expect the conduit to be white PVC, much thicker in diameter, and not black. The May photo of the exposed cable also suggests that the cable, at least in some sections, may not be buried to NEC standard of 24 inches deep. Or if it were once buried to that depth, erosion and road maintenance may have diminished the coverage.

The Division noted that the road appears to be compacted and rugged and it will take significant resources and time to dig up, splice and encase, and then re-bury the cable in conduit. According to the Complaint and RMP's response, the electrical cable in question is the only live source of electricity to 68 customers in the canyon. The Division questions whether the down time to excavate, encase, and rebury the 1.5 miles of cable in a conduit would be to the benefit or in the best interest of the affected property owners if they cannot have access to power for a significant amount of time. However, this may be an opportune time for RMP to run a second cable, appropriately buried and protected, for redundancy, with limited interruption of service to the property owners.

The Complainant stated to the Division staff on their walk up the road that, in addition to the private landowners in the area, the electric cable also serves several transmitter towers—mainly a couple for Peak Wireless Services (of which the Complainant is part), one for

⁶ <https://www.kristechwire.com/what-is-direct-burial-wire>

Intermountain HealthCare (IHC), and one for the Utah Transit Authority (UTA) – and that reliable power is needed.

Division staff are not road design engineers but note that the erosion on the road can be seen on both sides and in the middle of various sections of the road. As such, the recommendation by the Complainant to bury the cable in the middle of the road, or 6 feet or more to the side of the road, in conduit, to a depth of 30 to 48 inches may not be feasible due to a lack of available space and ground conditions. On one side of the Road is the creek, and on the other side of the road are trees and shrubs. As far as implementing a long-term solution to the exposed line issue, RMP is better positioned to provide input on the best long-term solution and what it has done, or plans to do, to remediate or resolve the recurring cable exposure problem of the past two to three decades.

The Division determined through further contact with the County's Parks and Recreation department associate director that the County tries to grade the road once a year. The Division provided the County Parks and Recreation representative some photos of the October 24th site visit, as well as the photo showing the exposed cable, and the representative said the issue would be brought to County Parks and Recreation staff to see what they can do to help eliminate future cable exposure and minimize erosion.

Conclusion

The Division cannot, at the present time, find any exposed high voltage electrical cable that poses any imminent risk to the public as stated in the Complainant's Request for Review and/or Rehearing. The Division is concerned about the possible shallow depth of the buried cable and recommends that RMP better protect and ensure burial of the cable is to NEC standard, if it has not done so already. The Division also recommends that RMP report to the Commission regarding its long-term solution so that this issue does not recur. The Division suggests that RMP and the County coordinate and maintain the road to a higher standard.

cc: Glenn Mickelson, Peak Wireless Services
Patricia Schmid, Assistant Attorney General, State of Utah
Patrick Grecu, Assistant Attorney General, State of Utah
Michelle Beck, Office of Consumer Services

Exhibit #1: Plat map of trailhead area per SL County Assessor's Office:



- 1 – Yellow Fork Canyon Road
- 2 – Trail within SL County owned plat
- 3 – S. Rose Canyon Road / Water Fork Road

Additional photos of the S. Rose Canyon Road / Water Fork Road (3):



