Utah Wildfire Mitigation Plan

2023-2025

ROCKY MOUNTAIN POWER.

POWERING YOUR GREATNESS

Contents

Tables

Figures

Introduction

Due to the growing threat of wildfire in the western United States, Rocky Mountain Power has developed a comprehensive plan for wildfire mitigation efforts in all its service territories. Similar to Rocky Mountain Power's 2020 Utah Wildfire Protection Plan (WPP), this 2023 Utah Wildfire Protection Plan, referenced as the Utah Wildfire Mitigation Plan (WMP) throughout the document, guides the mitigation strategies that will be or are currently being deployed in Utah. These efforts are designed to reduce the probability of utility related wildfires, as well as to mitigate the damage to Rocky Mountain Power facilities because of wildfire.

Wildfire has long been an issue of notable public concern. Electric utilities have always been concerned with the potential of a fire starting because of sparks that could be emitted from an electrical facility, generally during a fault condition. The growth of wildfire size and intensity have magnified these concerns. Regardless of the causes, or political debates surrounding the issue, the reality is stark. Despite effective fire suppression agencies and increased suppression budgets, wildfires have grown in number, size, and intensity. Increased human development in the wildland-urban interface, the area where people (and their structures) are intermixed with, or located near, substantial wildland vegetation has increased the probability and exacerbated the costs of wildfire damage in terms of both harm to people and property damage. A wildfire in an undeveloped area can have ecological consequences – some positive, some negative – but a wildfire in an undeveloped area will not, generally, directly affect large numbers of people. A wildfire engulfing a developed area, on the other hand, can have significant consequences on people and property. For all of these reasons, Rocky Mountain Power is committed to making long-term investments to reduce the risk of wildfire.

The measures in this WMP describe those investments to construct, maintain and operate electrical lines and equipment in a manner that will minimize the risk of wildfire. In evaluating which engineering, construction, and operational strategies to deploy, Rocky Mountain Power was guided by the following core principles:

- Frequency of ignition events related to electric facilities can be reduced by engineering more resilient systems that experience fewer fault events.
- When a fault event does occur, the impact of the event can be minimized using equipment and personnel to shorten the duration to isolate the fault event.
- Systems that facilitate situational awareness and operational readiness are central to mitigating fire risk and its impacts.

A successful plan must also consider it's impact to Utah customers and Utah communities all while balancing factors such as costs, benefits, operational impacts, and risk mitigation. The overall plan should prioritize providing an electric service that is not only safe but also reliable and affordable.

Rocky Mountain Power's 2023 WMP incorporates the company's previous experience as well as feedback and recommendations from stakeholders and communities. As a result, the 2023 WMP includes an investment of approximately $446 million, or $372[1] million capital and $74 million expense, over the next three years, with an expectation of continued, additional investment beyond 2025. Section 14 includes a summary of all plan elements, forecasted costs, and anticipated benefits.

The strategies embodied in this plan are evolving and are subject to change. As new analyses, technologies, practices, network changes, environmental influences, or risks are identified changes to address them may be incorporated into future iterations of the plan.

[1] The 3-year total was submitted as $363.6 and was a result of a calculation error for the total value and has been updated. The correct total was discussed in Rock Mountain Power's Reply Comments as submitted on May 24, 2024 in Docket 23-035-44. Docket No: 23-035-44 | Public Service Commission (utah.gov)

1 Baseline Risk Analysis

Rocky Mountain Power's baseline risk analysis framework consists of four main components as depicted in Figure 1 below. The framework is a cycle consisting of data collection and analysis, risk evaluation, risk treatment, and risk monitoring and evaluation.

Figure 1: Rocky Mountain Power's Baseline Risk Assessment Framework

Data Collection and Analysis provides enhanced data collection and analytics for incident tracking, trend analysis and measurement of mitigation effectiveness. This capability is discussed in the Advanced Data Analytics Tool improvements below.

Risk Evaluation includes the development of tools and models to supports location-specific risk identification to inform mitigation programs. These risk evaluation tools and models include the delineation of geographic areas of heightened risk of wildfire designated as the Fire High Consequence Area (FHCA),[2] as described and shown in Section 1.2, as well as the asset-specific risk modeling tool, FireSight, explained in Section 1.2.

[2] Rocky Mountain Power has identified areas of heighted risk of wildfire, which delineated geographic areas referred to as the Fire High Consequence Area or "FHCA."

Risk Treatment involves the development and implementation of mitigation programs informed by the data analysis and risk evaluation.

Finally, **Risk Monitoring and Review** supports quantitative evaluation of the effectiveness of mitigation strategies using a consistent framework and process. This work is discussed in Section 1.3, under Risk Spend Efficiency, and Sections 1.4 Annual Mitigation Selection Process, and Risk Spend Efficiency (RSE) Model Refresh. Continuous monitoring of programs is also summarized in Section 13. The framework in Figure 1 is represented as a cycle to depict a process geared to make continuous improvement. For example, data collection and analysis supports inputs to risk evaluation in a repeatable, transparent way to identify areas of risk. This in turn supports development and updates to risk evaluation tools, such as mapping of the FHCA and project prioritization tools, to inform risk mitigation programs such as vegetation management and asset inspections. Finally, risk is monitored, and programs are evaluated to enable continuous improvement.

Data Collection and Analysis

The following types of data are continuously collected, organized, and analyzed to support development of risk assessment tools and evaluation and inform Rocky Mountain Power's understanding of the wildfire risk. Additional details regarding the specific types of data collected can be found in Appendix A.

Risk Driver Analysis

Rocky Mountain Power analyzes the components of risk associated with utility facilities. In particular, an understanding of risk drivers informs specific mitigation tactics or strategies that can be used to reduce the total amount of risk associated with utility operations. For example, if a risk of utility-related-wildfire exists due to the potential for equipment failure, an increase in inspections or maintenance activities might help to mitigate the risk. If a risk exists due to potential contact between power lines and third-party objects, installing conductor more resilient to contact with objects might help to mitigate that particular type of risk.

In determining the potential risk drivers, Rocky Mountain Power employs a data driven approach that references certain categories of historical outage records as a proxy for risk events. Outage data is the best available data to correlate an identifiable event on the electrical network to the risk of a utility-related-wildfire. There is a logical physical relationship: if a fault creates a spark, there is a risk of fire. An unplanned outage – which is when a line is unintentionally de-energized – is most often rooted in a fault. Accordingly, outage records were organized into categories to understand the cause of each outage with the potential for an ignition as shown in Table 1 below. The outage categories in the table align with potential correlation to an ignition.[3]

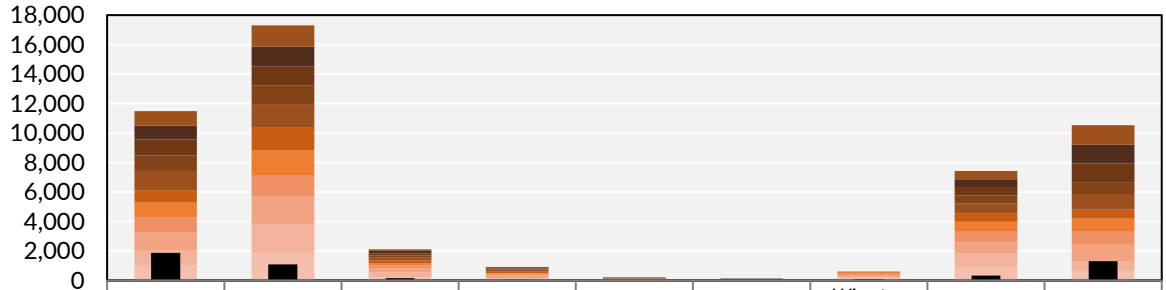
[3] These outage categories are not exactly the same as the outage classifications traditionally used for reliability reporting. For example, certain outage categories, such as loss of upstream transmission supply, planned outage, or not an outage (misclassification), do not correlate to the potential for an ignition and were excluded from the data set used for risk driver analysis.

Table 1: Outage Causes with Possible Correlation to Ignition Potential

Outage Category	Risk Driver Description
Animals	Animals make unwanted direct contact with energized assets. In Figures 2 and 3 below, these are in the "Object Contact" category.
Environment	Exposure to environmental factors, such as contamination.
Equipment Damaged	Broken equipment from car hit-poles, vandalism, or other non-lightening weather- related factors.
Equipment Failure	Failure of energized equipment due to normal deterioration and wear, such as a cross arm that has become cracked or the incorrect operation of a recloser, circuit breaker, relay, or switch.
Lightning	Outage event directly caused by lightning striking either (i) energized utility assets or (ii) nearby vegetation or equipment that, as a result, contacts energized utility assets.
Other External Interference	External factors not relating to damaged equipment such as mylar balloons, hay or other interference resulting in a potential ignition source. In Figures 2 and 3 below, these are in the "Object Contact" category.
Not Classifiable	Outage event with unknown cause or multiple potential probable causes identified.
Operational	Unplanned outage resulting from operations.
Tree-Within Right of Way (ROW)	Outage attributed to vegetation contact with vegetation located within the power line right-of-way. In Figures 2 and 3 below, these are in the "Object Contact" category.
Tree-Outside ROW	Outage attributed to vegetation contact with vegetation from outside the right-of-way. In Figures 2 and 3 below, these are in the "Object Contact" category.

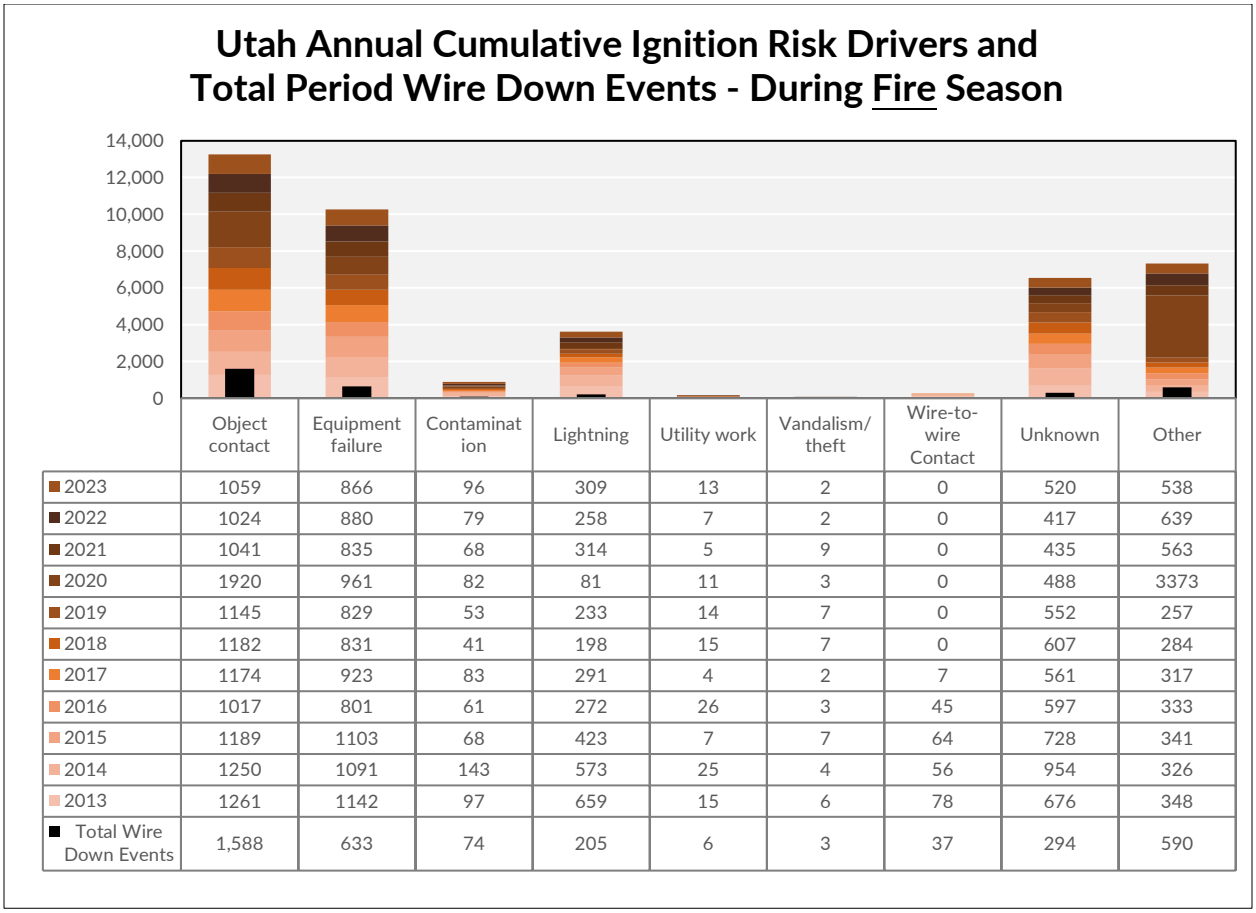
Rocky Mountain Power compiled an outage history from the past 10 years both inside of fire season (June 1 through October 1) and outside of fire season. Because "wire down" events represent situations with heightened ground fuel ignition correlation, wire down event data is also assessed. This data is overlaid in Figure 2 and Figure 3 below.

Utah Annual Cumulative Ignition Risk Drivers and Total Period Wire Down Events - During Non-Fire Season



	Object contact	Equipment failure	Contamination	Lightning	Utility work	Vandalism/ theft	Wire-to-wire Contact	Unknown	Other
2023	975	1453	125	83	24	3	0	562	1315
2022	956	1344	161	44	20	4	0	532	1265
2021	1063	1257	139	33	13	4	0	568	1333
2020	1065	1297	151	29	28	13	0	530	743
2019	1289	1587	168	95	15	8	0	683	1069
2018	858	1524	224	125	23	7	8	580	602
2017	977	1731	116	40	20	6	83	675	892
2016	1041	1376	196	128	19	7	128	720	907
2015	1191	1953	297	196	19	20	132	736	1099
2014	1069	1924	350	69	20	13	109	936	654
2013	999	1860	189	71	13	18	132	911	651
Total Wire Down Events	1,869	1,086	157	46	6	10	85	320	1,310

Figure 2: Historic Ignition Risk Drivers During Non-Fire Season



	Object contact	Equipment failure	Contamination	Lightning	Utility work	Vandalism/ theft	Wire-to-wire Contact	Unknown	Other
2023	1059	866	96	309	13	2	0	520	538
2022	1024	880	79	258	7	2	0	417	639
2021	1041	835	68	314	5	9	0	435	563
2020	1920	961	82	81	11	3	0	488	3373
2019	1145	829	53	233	14	7	0	552	257
2018	1182	831	41	198	15	7	0	607	284
2017	1174	923	83	291	4	2	7	561	317
2016	1017	801	61	272	26	3	45	597	333
2015	1189	1103	68	423	7	7	64	728	341
2014	1250	1091	143	573	25	4	56	954	326
2013	1261	1142	97	659	15	6	78	676	348
Total Wire Down Events	1,588	633	74	205	6	3	37	294	590

Figure 3: Historic Ignition Risk Drivers During Fire Season

The analysis of risk drivers incorporates outage data collected through the company's normal outage response systems. As Rocky Mountain Power's risk modeling efforts evolve, there may be opportunities to gather more detailed data regarding outages, which may further refine the analysis of such data, to support the modeling and correlations between outages, risk events and ignition probabilities.

Fire Incident History

Rocky Mountain Power tracks fires potentially originating from Rocky Mountain Power equipment, as well as other fires that impact Rocky Mountain Power's facilities. An initial report of a fire can be obtained through a variety of sources. It is common for an initial report to come via a call to Rocky Mountain Power's system operations center from an

emergency response agency or local government. Other times, Rocky Mountain Power field personnel may observe a fire or fire damage while performing work in the field.

After receiving an initial report of a fire incident, Rocky Mountain Power records the incident in a fire incident tracking database. Rocky Mountain Power gathers other information, as available, to record in the database. Fields maintained in this database include fire start date and time; location, with a latitude and longitude reference; land use in the area; fire size; suppression agency; facility identification; voltage; associated equipment; outage information; and the suspected initiating event. Data fields are organized to align with regulatory reporting requirements. Information is often estimated, based on known available information. For example, a recorded fire start time may be the time when the fire is first observed or when a report of fire is first received; but the precise time that the fire ignited may not be known. Fields are sometimes populated as "unknown" when there is insufficient available information. Fire incidents have been tracked since 2020, and the data is an input to the risk model.

Asset Information

Information on transmission and distribution equipment, including type of equipment, location, installation date, and material is captured and used during analysis, where available.

1.1 Risk Evaluation and Tools

Rocky Mountain Power's baseline risk evaluation process employs the general concept that risk is the product of the likelihood of a specific risk event multiplied by the impact of the event, also referred to as risk consequence. The likelihood, or probability, of an event is an estimate of a particular event occurring within a given time frame. The impact of an event is an estimate of the effect to people and property when an event occurs. Impact can be evaluated using a variety of factors, including considerations centered on health and safety, the environment, customer satisfaction, system reliability, the company's image and reputation, and financial implications. Rocky Mountain Power uses modelling tools to evaluate both likelihood and impact.

FireSight

To perform risk evaluation, Rocky Mountain Power strives to combine utility and public data to analyze the components of risk associated with utility facilities in a consistent, repeatable way. Rocky Mountain Power procured and is currently implementing FireSight, previously known as the Wildfire Risk Reduction Model (WRRM), a commercially available module in a broader software suite from Technosylva referred to as Wildfire Analyst (WFA-E). As described in the initial 2023 WMP, Technosylva has provided advanced wildfire products and services to utilities throughout the United States since 1997 and other modules in WFA-E are used by the California Department of Forestry and Fire Protection (Cal Fire). With in-house fire and data scientists, Technosylva partners with key providers in fire planning, advanced data modeling, and wildland fire research and development to enhance the models used in their software. Technosylva has also published studies in scientific journals and wildfire industry publications such as Current Opinion in Environmental Health and Science[4] and International Journal of Wildland Fire.[5]

FireSight specifically builds upon the quantitative risk model developed by Technosylva that associates wildfire hazards with the location of existing electric overhead assets. FireSight is used to forecast the consequence or impact of a wildfire from a given ignition point in Rocky Mountain Power's service territory based on the potential spread of a wildfire, should it occur. Rocky Mountain Power chose to implement FireSight based on Technosylva's experience with other Western utilities and their partnerships with experts in wildfire risk modeling and fire data science.

---

[4] Cardil, Adrián, Santiago Monedero, Gavin Schag, Sergio de Miguel, Mario Tapia, Cathelijne R. Stoof, Carlos A. Silva, Midhun Mohan, Alba Cardil, and Joaquin Ramirez, "Fire behavior modeling for operational decision-making." Current Opinion in Environmental Health and Science, Volume 23. October 202

[5] Cardil, Adrián, Santiago Monedero, Phillip SeLegue , Miguel Ángel Navarrete, Sergio de-Miguel, Scott Purdy, Geoff Marshall , Tim Chavez, Kristen Allison, Raúl Quilez, Macarena Ortega, Carlos A. Silva, and Joaquin Ramirez, "Performance of operational fire spread models in California," International Journal of Wildland Fire, July 7, 2023, Sourced November 2, 2023.

The FireSight model, which is depicted in Figure 4 below, combines the utility asset information and data described in Section 1.1 with public data regarding community characteristics, terrain, vegetation, and weather information, to provide ignition risk scores at points along a circuit. Specific to this model, Technosylva sources information on climate, historic weather conditions, terrain, fuels, population, and the built environment (buildings and roads) from public sources. A complete list of inputs, with source and frequency of update, is provided in Appendix A.

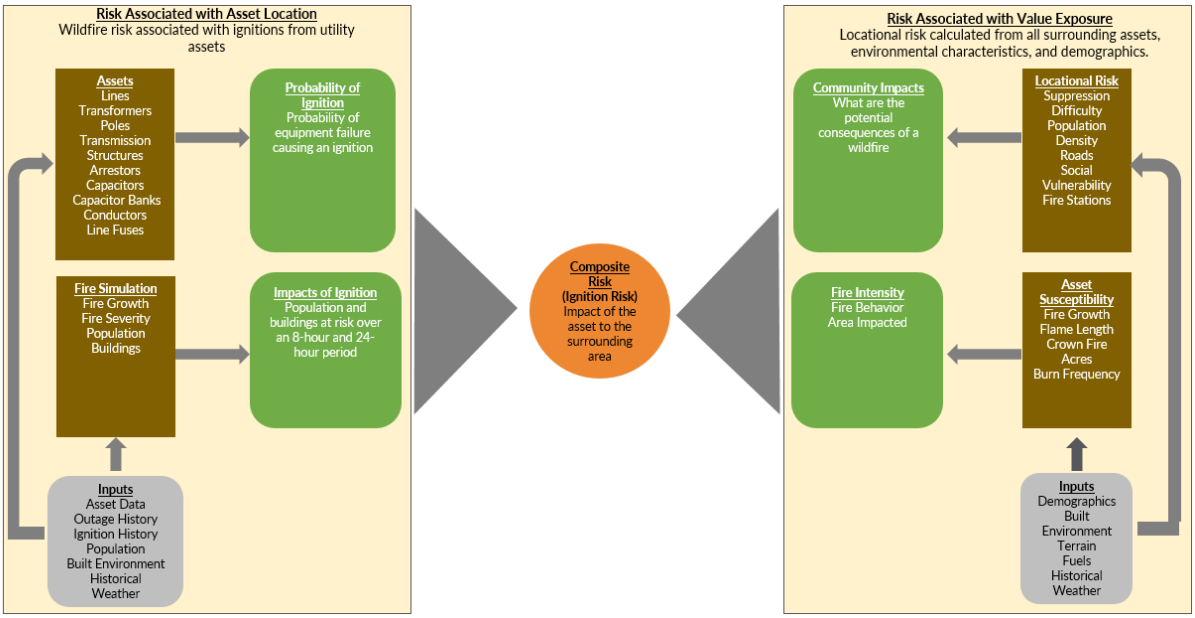


Figure 4: Overall FireSight Model for Risk Estimates

The FireSight model has two primary parts, Risk Associated with the Asset Location (RAIL) and Risk Associated with Value Exposure (RAVE). RAIL, depicted on the left side of the figure above, represents the risk presented by the asset, based on its characteristics, including age and materials. RAIL assesses the risk by associating the ignition impact over an eight-hour and 24-hour period to a specific asset. The eight-hour period is the typical period used by utilities to model risk, but there is growing interest in 24-hour modeling risk to understand how that changes the risk profile.[6] Therefore, Rocky Mountain Power

[6] California Office of Energy Infrastructure Safety. "Standardized Wildfire Risk Type Classifications and in Situ Wildfire Risk Assessment." Risk Modeling Working Group. October 11, 2023.

is modeling both to better understand if there are significant differences in the results that may impact mitigation efforts.

Factors considered in RAIL calculations include:

- Surface and canopy fuels outlook in 2030, including consideration of climate change impacts in the modeling.
- Topography.
- Wind speed and direction.
- Historical fire occurrence identifying time of data, typical weather conditions, and duration.

Outputs from RAIL include:

- Ignition risk from overhead transmission and distribution assets. This is calculated along overhead transmission and distribution lines every 100 meters.
- Potential fire characteristics: Fire size, rate of spread, potential for crown fire, flame length.
- Population at risk.
- Number of buildings at risk.

Risk Associated with Value Exposure (RAVE), depicted on the right side of the figure above, assesses the characteristics of the area that is under risk of ignition. Community demographics, geography, and the built environment influence how risky or resilient a community is to wildfire. RAVE is independent of the asset risk calculated in RAIL and considers the risk associated with additional factors:

- Population density.
- Socially vulnerable populations such as the elderly, people with a disability, or people at or below the poverty level.
- Infrastructure: Major and minor road density and building density.
- Suppression difficulty: Terrain, fuels, and fire station locations all impact how quickly firefighters can respond to a fire in the initial attack.

- Crown fire crowning acres: the amount the fire can spread through crowning in continuous spread through the tree crowns.

RAVE Outputs:

- Community impacts: How vulnerable a community is to wildfire and the potential consequences.
- Fire intensity: How a fire is expected to behave and what area may be impacted from the point of ignition.

Composite Risk Score

The composite risk score is a combination of the RAIL and RAVE and reflects three components:

- **Location of predicted impact.** This is the measure of the population and buildings if there is an ignition.
- **How destructive could the fire be.** This is the expected fire behavior over the forecast fire area.
- **Community resiliency.** This is affected by the difficulty of suppression and population characteristics.

Rocky Mountain Power models and calculates separate composite risk scores for wind-driven and fuel/terrain-driven wildfires to account for the unique characteristics of its service territory that spans both steep forested areas as well as high desert areas. Table 2 below shows the unique characteristics of each wildfire type modeled.

Table 2: Comparison of General Characteristics of Wind-Driven and Fuel/Terrain-Driven Wildfires

Category	Wind-Driven Wildfires	Fuel/Terrain-Driven Wildfires
Locational Risk	More likely in areas subject to PSPS (Public Safety Power Shutoff)	Confined to areas of complex fuels and terrain with difficult access
Frequency	Some years have none; others several	Annually during peak fire season
Event Duration	1-3 days per event	Can persist several weeks or months
Outage Risk	Wind-driven and somewhat predictable	Difficult to predict
Consequence	Immediately catastrophic	May be catastrophic over time

Calculating the risk separately and then combining them into a single composite risk, as shown in Figure 5 below, provides a robust risk calculation and identification of the risk driver at a location to apply the appropriate mitigation.

Figure 5: Composite Risk Consideration Wind-Driven and Fuel/Terrain-Driven Events

Figure 6 below shows the inputs and weightings for the composite risk for wind-driven and fuel/terrain-driven wildfires. On the left side of the table are the RAIL inputs with the selected input for the type of wildfire, the percentile selected and the weighting for each variable. On the right side of the table are the RAVE inputs with the weightings for each variable, there are no percentiles for these inputs as they are relatively static values, i.e., the number of fire stations the number of disabled people in geographic area.

Fuel/Terrain

Risk Associated with Asset Location (RAIL) Component: 60%		
RAIL Inputs	**Percentile**	**Weight (%)**
Fire Behavior Index	95	20%
Fire Size Potential	95	20%
Flame Length	95	20%

+

Risk Associated with Value Exposure (RAVE) Component: 40%		
RAVE Inputs	**Percentile**	**Weight (%)**
Terrain Difficulty Index	N/A	25%
Fire Station Density	N/A	10%
Fuel Model Majority	N/A	5%

Wind

Risk Associated with Asset Location (RAIL) Component: 80%		
RAIL Inputs	**Percentile**	**Weight (%)**
Rate of Spread	95	30%
Population Impacted	95	25%
Buildings Destroyed	95	25%

+

Risk Associated with Value Exposure (RAVE) Component: 20%		
RAVE Inputs	**Percentile**	**Weight (%)**
Terrain Difficulty Index	N/A	10%
Disability Population	N/A	5%
Poverty Population	N/A	5%

Figure 6: Inputs and Weightings for Composite Risk Calculation

The inputs and percentages above were selected based on inputs from internal subject matter experts and reviews of other utilities risk models. A sensitivity analysis was performed on the selected inputs and weightings to validate that the selected percentiles and weightings identified circuits expected to be higher risk for fuels or terrain driven wildfires based on subject matter expertise.

Figure 7 below is an example of the difference in the Fuel/Terrain-Driven and Wind-Driven Composite Risk Score on a Rocky Mountain Power circuit near Mill Creek. The terrain here is steeper and has more fuels, which is reflected in an average Fuel/Terrain Driven Composite Risk score of 0.90 compared to an average Wind-Driven Composite Risk score of 0.30.

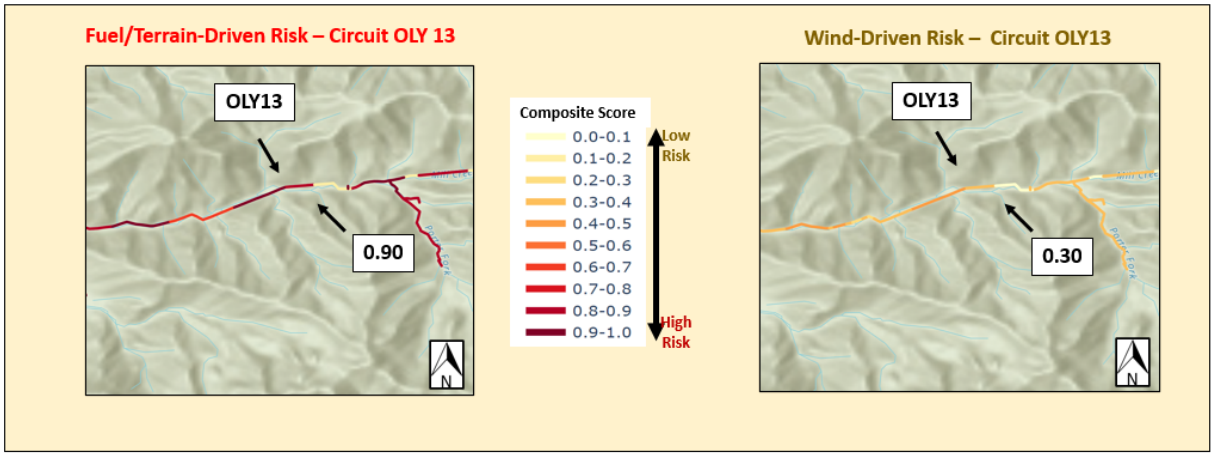


Figure 7: Illustrative Example of Fuel/Terrain-Driven Composite Risk Compared to the Wind-Driven Composite Risk Near Mill Creek Circuit OLY13

Figure 8 below is an example of the difference in the Wind-Driven and Fuel/Terrain-Driven Composite Risk Scores on a Rocky Mountain Power circuit in Cedar City, UT. Here the terrain is flatter, and the Wind-Driven Composite Risk is significantly higher than the Fuel/Terrain-Driven Composite Risk score.

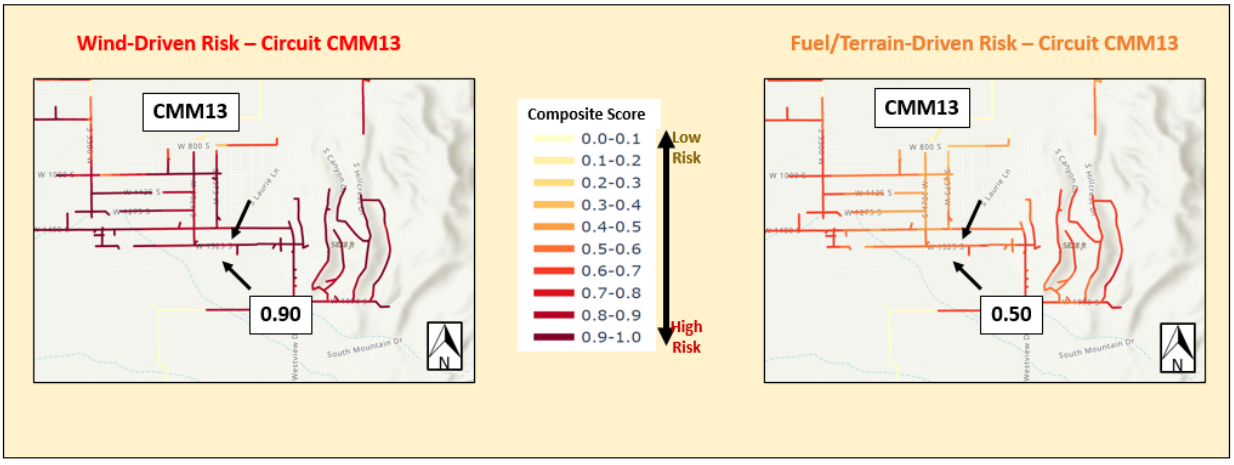


Figure 8: Illustrative Example of the Wind-Driven Composite Risk Compared to the Fuel/Terrain-Driven Composite Risk in Cedar City, UT Circuit CMM13

As seen in Figure 8 above, the composite risk scores can vary along a circuit due to changes in fuels, terrain, build environment, assets and community demographics that affect the risk score inputs. This variation is seen visually above in Figure 7 and Figure 8 by the

change in the change in color along the circuits. The composite score is calculated for each circuit segment using an equation that calculates a wind-driven and terrain-driven risk as shown in Figure 9: Calculation of Wind-Driven and Fuel/Terrain-Driven Composite Risk below.

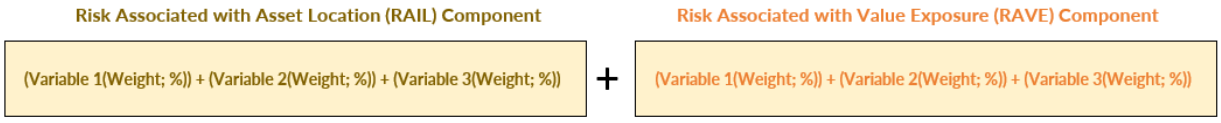


Figure 9: Calculation of Wind-Driven and Fuel/Terrain-Driven Composite Risk

The calculation for the combined risk score for each circuit segment is shown in Figure 10: Combined Composite Risk Score Calculation below. Each composite score is on a scale of 0-1.

Figure 10: Combined Composite Risk Score Calculation

The FireSight tool, together with composite and combined composite risk score methodology described above, were leveraged to create two, parallel evaluations. First, assuming a fixed, equal probability, the wind-driven and fuel/terrain-driven composite risk scores were calculated and compiled to inform an evaluation of baseline wildfire risk, including whether to modify the geographic boundaries of the FHCA. As part of a parallel effort, the combined, composite risk scores were calculated using the historic risk driver analysis as an indicator of probability to inform a risk ranking of circuits and potential prioritization for grid hardening. These applications are described in more detail below.

Fire High Consequence Area (FHCA)

Rocky Mountain Power has identified areas of heighted risk of wildfire, with delineated geographic areas referred to as the Fire High Consequence Area or “FHCA.” The FHCA

sets geographic boundaries for wildfire mitigation programs including asset management and vegetation management discussed in Section 2.2 and Section 3.2 respectively.

Historical FHCA Boundaries

As described in Rocky Mountain Power's 2020 Wildland Fire Protection Plan (WPP), the FHCA was developed in collaboration with Reax Engineering, a consultant specializing in wildland fire computer modelling, and patterned after the methodology developed through a multi-year, iterative process in California. Reax conducted the wildfire risk analysis using Monte-Carlo simulations incorporating the multiple datasets and data sources generally outlined in the prior WMP. Through this process, individual blocks of geographic area, each a 2-kilometer square cell, received a grid score corresponding to its relative wildfire risk. As a result, Rocky Mountain Power generated a map of the FHCA, which was included as Figure 4 in the 2020 WPP and depicted in Figure 11 below.

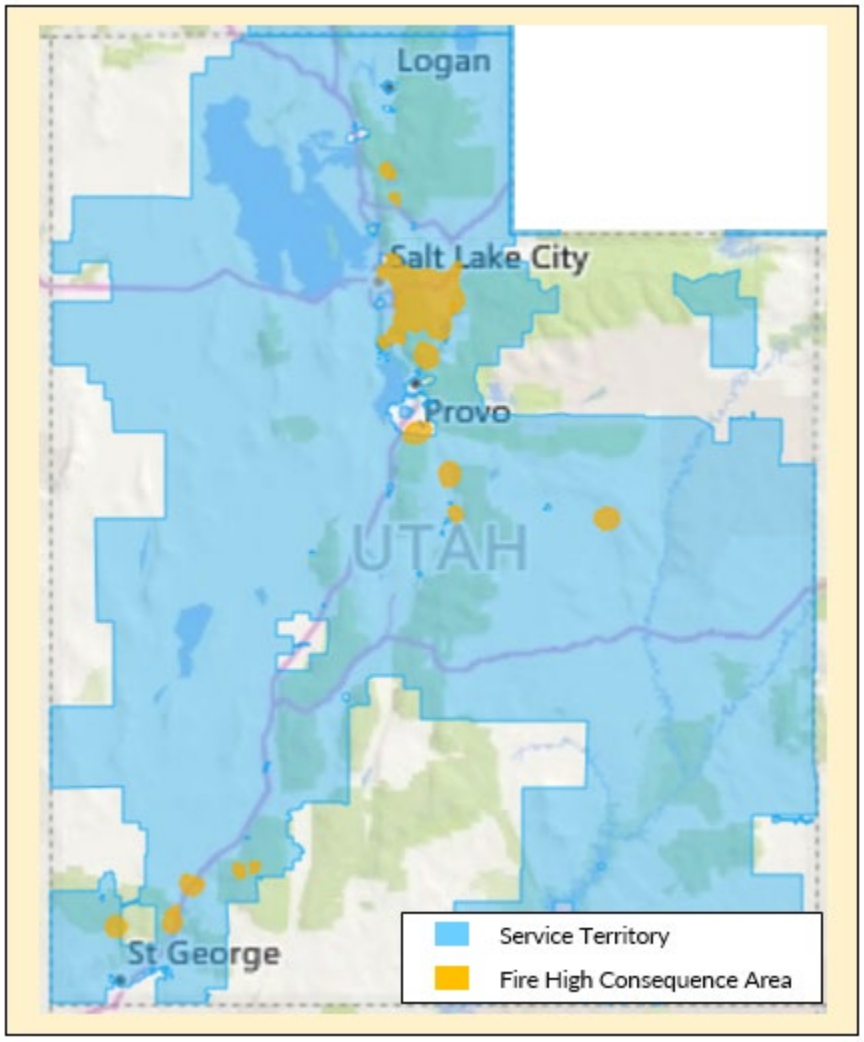


Figure 11: 2020 WPP Fire High Consequence Area (FHCA) Map

2024 Modifications to FHCA

Over the past year, Rocky Mountain Power incorporated new data, tools, and processes to evaluate additional areas for inclusion in the FHCA. More specifically, Rocky Mountain Power leveraged FireSight to model risk scores for wind-driven and fuel/terrain-driven risk on each circuit assuming a probability factor of 1 as described in the Composite Risk Score section above to focus on the consequence of potential ignitions. Expressed as percentiles, the FHCA reflects areas with FireSight model risk scores in the 85-100 percentile. Based on this approach and, specifically, the FireSight model risk scores, Rocky Mountain Power identified additional geographic areas for inclusion within the FHCA, depicted in red in Figure 12 below. Due to differences in methodologies and models from

the FHCA work performed by Reax Engineering and the FireSight model, there is not a like for like comparison between models for risk thresholds used to create the FHCA presented in 2020 and the new FHCA presented Figure 12 below. Rocky Mountain Power validated that the new FHCA generally includes the prior FHCA area as well as the expanded area.

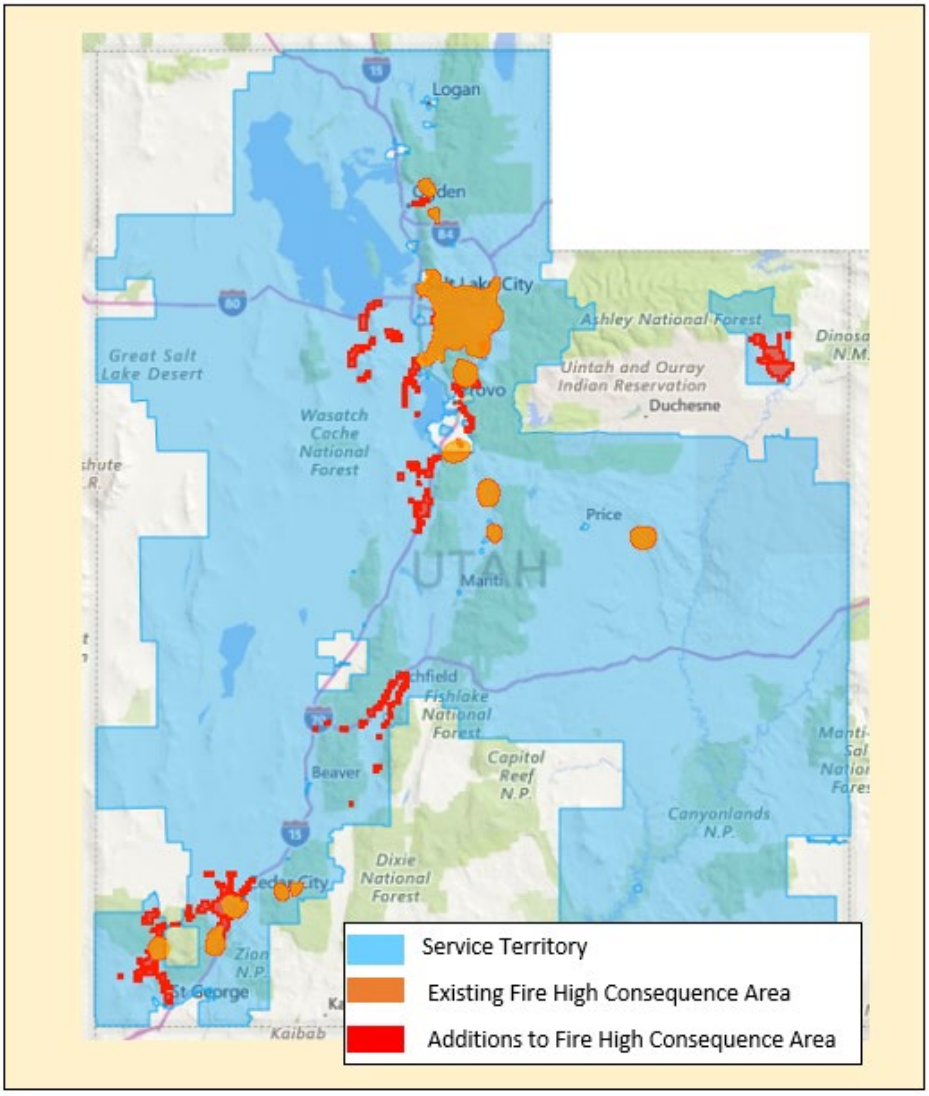


Figure 12: 2024 Additions to the FHCA within Rocky Mountain Power Service Territory

Adding these areas to the FHCA results in an addition of approximately 1,406 miles of distribution and transmission lines within the FHCA. The breakdown of current FHCA and incremental line miles is summarized in Table 3 below.

Table 3: FHCA Line Miles

Asset	Total	Historical FHCA		2024 FHCA Additions		Total New FHCA	
	Line Miles	Line Miles	% of OH Service Territory	Line Miles	% of OH Service Territory	Line Miles	% of OH Service Territory
Overhead Transmission	**7,139**	**220**	**1.2%**	**663**	**3.7%**	**884**	**4.9%**
46kV Transmission Lines	2,044	80	0.4%	138	0.8%	218	1.2%
69kV Transmission Lines	542	17	0.1%	16	0.1%	33	0.2%
138 kV Transmission Lines	2,082	98	0.5%	243	1.3%	342	1.9%
230 kV Transmission Lines	547	11	0.1%	36	0.2%	47	0.3%
345 kV Transmission Lines	1,923	14	0.1%	230	1.3%	244	1.3%
Overhead Distribution	**11,004**	**429**	**2.4%**	**743**	**4.1%**	**1,172**	**6.5%**
Total Overhead Transmission and Distribution	**18,143**	**649**	**3.6%**	**1,406**	**7.7%**	**2,056**	**11.3%**

Areas of Interest

Rocky Mountain Power continues to study other geographic areas for wildfire risk, even if FireSight model risk scores did not warrant inclusion of such areas in the FHCA at this time. The FireSight model risk scores reflect the reality that there is a spectrum of wildfire risk. Not surprisingly, certain areas, such as wooded forests have more wildfire risk than other areas, such as irrigated agricultural areas. Along those same lines, certain areas have FireSight model risk scores which approach the scores resulting in FHCA treatment. Rocky Mountain Power will continue to evaluate those areas, including for possible future expansion of the FHCA. To that end, Rocky Mountain Power has identified additional

“Areas of Interest,” which reflect geographic areas with above average FireSight model risk scores. The Areas of Interest are grouped in two parts: Area of Interest I refers to areas with risk scores closest to the risk scores used to demarcate the FHCA, while Area of Interest II refers to areas with risk scores lower than Area of Interest I. Expressed as percentiles, Area of Interest I reflects areas in the 65-85 percentile; and Area of Interest II reflects areas in the 45-65 percentile. Rocky Mountain Power plans to provide the updated FHCA boundary to the following cities and utilities with utility assets in close proximity to the FHCA boundary. The Areas of Interest, juxtaposed against the 2024 FHCA, are shown in Figure 13 below.

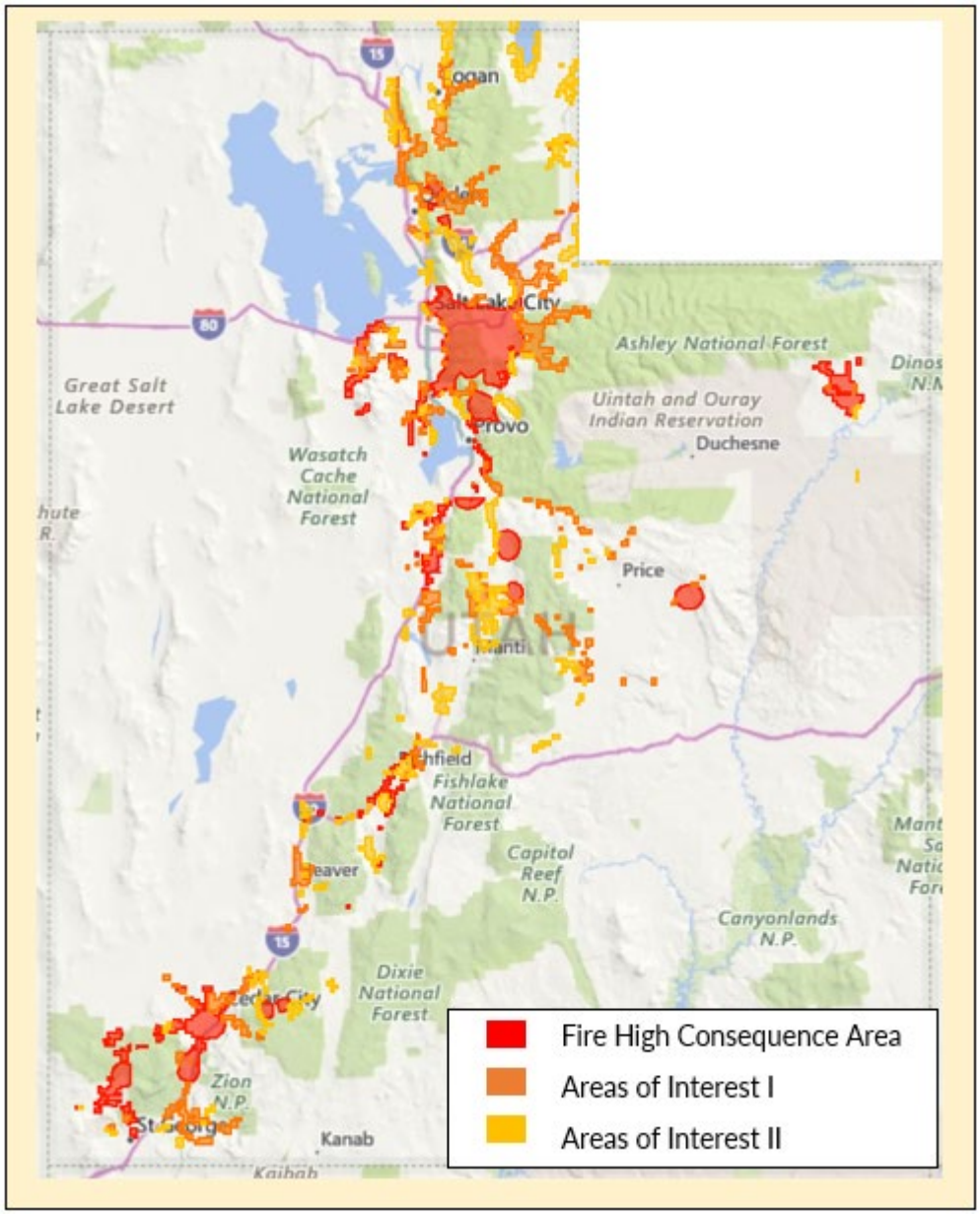


Figure 13: 2024 FHCA and Areas of Interest

Comparing the FHCA map with the Utah Wildfire Risk[9] maps of wildfire risk as depicted in Figure 14 below, there is alignment with the general wildfire risk and risks to assets, people, and property either in the FHCA and in the areas of interest. As the FHCA map evolves, Rocky Mountain Power will continue to collaborate with key stakeholders including Utah Division of Forestry, Fires, and State Land.

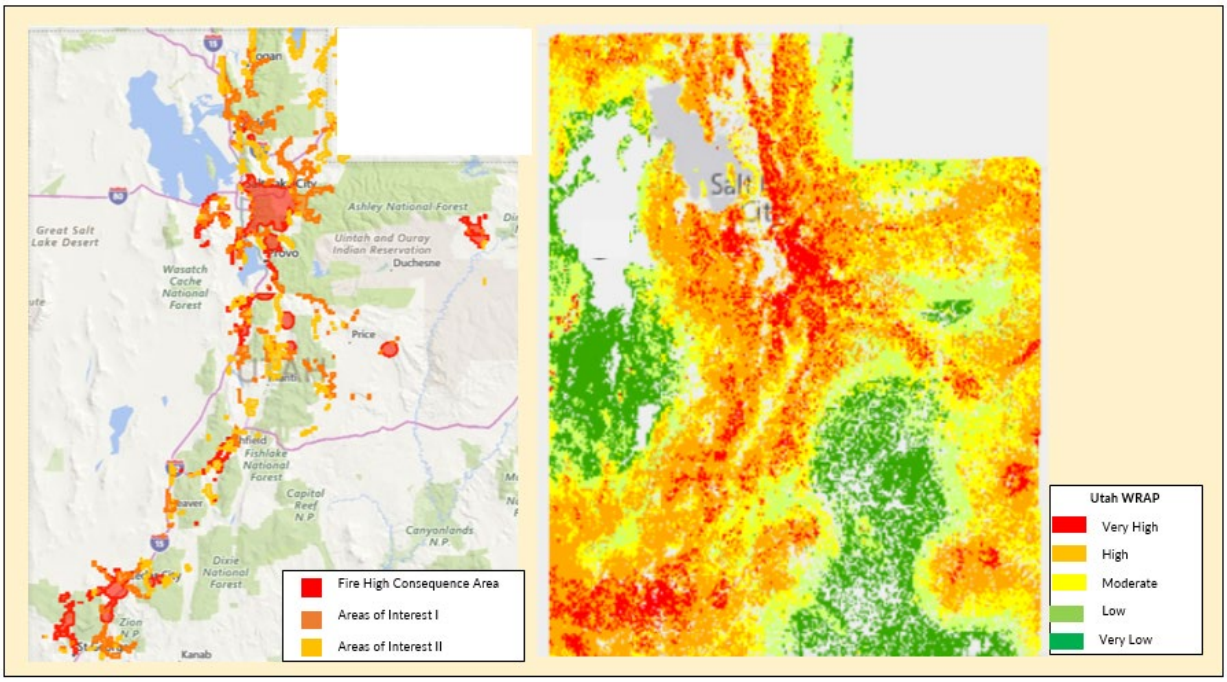


Figure 14: Comparison of Rocky Mountain Power FHCA to Utah Wildfire Risk Map

Rocky Mountain Power plans to provide the updated FHCA boundary to the following cities and utilities with utility assets in close proximity to the FHCA boundary:

- City of Bountiful
- City of Enterprise
- City of Monroe
- City of Mt Pleasant
- City of Murray
- City of Springville
- City of St George
- City of Washington
- Dixie Escalante R E A, Inc.
- Fairview City Corporation
- Garkane Energy Coop, Inc
- Heber Light & Power Company
- Lehi City Corporation
- Levan Town Corporation

- Moon Lake Electric Association, Inc.
- Morgan City
- Nephi City Corporation
- Payson City Corporation
- Provo City Corporation
- Salem City Corporation
- Spanish Fork City Corporation
- Strawberry Electric Service District

Finally, Rocky Mountain Power also intends to continue evaluating the FHCA and the Areas of Interest on an annual basis to incorporate new data, modeling techniques, and stakeholder input.

1.2 Risk Treatment - Program Selection and Prioritization

Rocky Mountain Power applies a high-level decision-making process that aligns with many other utilities to develop specific projects or programs, not including compliance driven system wide programs. The high-level process, represented by Figure 15, includes four key phases: (1) risk modeling and assessment, (2) program identification and planning, (3) project evaluation and selection, and (4) implementation and monitoring. While not specifically shown in the general framework, part of the process allows for a program or project to be moved back to a previous step if needed.

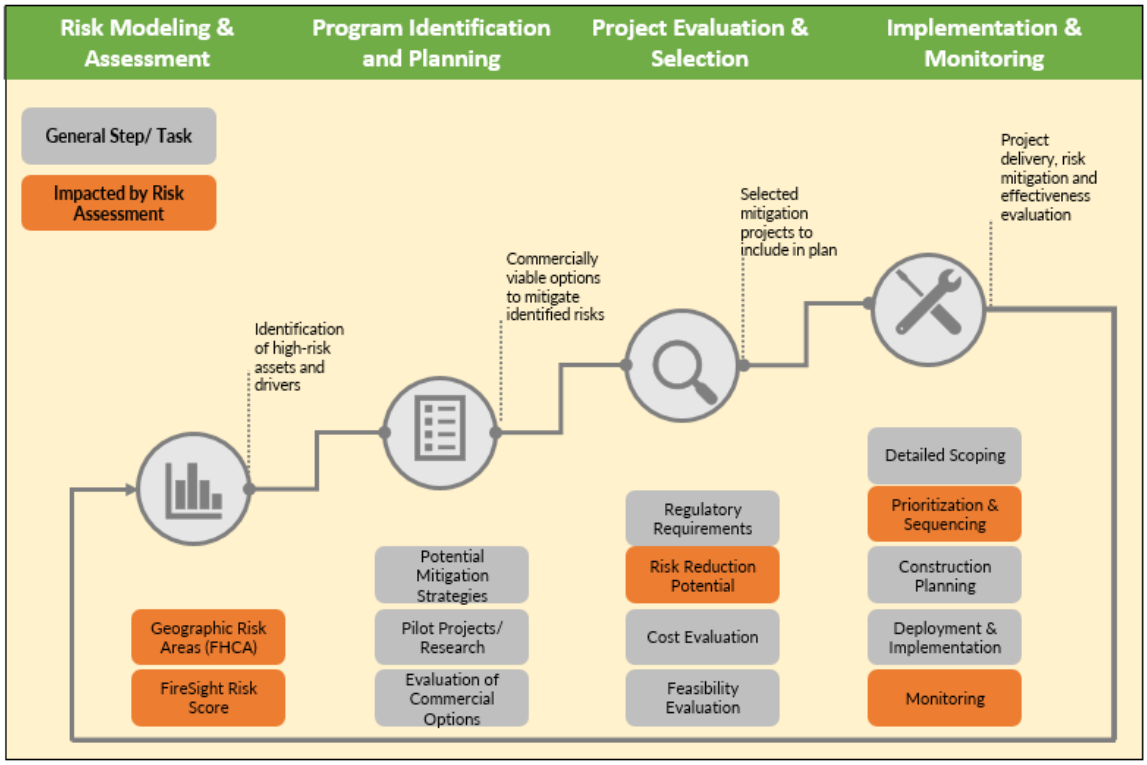


Figure 15: High Level Program and Project Selection Process

Phase 1 – Risk Modeling and Assessment

As described in Section 1.2, baseline risk mapping identifies the areas of heightened wildfire risk within Rocky Mountain Power's service territory. As described in Section 1.2, Rocky Mountain Power is transitioning to using the FireSight to further identify and prioritize specific circuits that have a heightened risk of wildfire, like those identified in Figure 13 above. The circuits are prioritized for identification of mitigation options as described in Phase 2 – Program Identification and Planning and Phase 3– Project Evaluation and Selection below.

Phase 2 – Program Identification and Planning

Identifying mitigation options requires an evaluation of current proven industry practices and technology. Rocky Mountain Power has relationships with other utilities across multiple states, and discusses industry practices with those utilities, learning from their experiences and evaluates proven industry solutions for selection as a mitigation program.

Additionally, information from ignition risk drivers helps shape Rocky Mountain Power's programs which typically focus on methods, tactics, and technologies that reduce outages or, more specifically, fault events. For example, if the risk of utility-related wildfire exists due to equipment failure, an increase in inspections or maintenance activities can help mitigate the risk. If the risk exists due to potential contact with third party objects, constructing a system more resilient to contact with objects can help to mitigate the risk.

below generally maps Rocky Mountain Power's key risk drivers to the primary programs, demonstrating what elements impact a group or groups of risk drivers. It is important to note that elements may not eliminate a risk driver but are designed to mitigate the risk associated with that driver. For many risk drivers, risk is mitigated through a combination of programs and there is not always a 1:1 relationship between a risk driver category and a mitigation program. All elements and programs in the plan work together to collectively mitigate wildfire risk.

Table 4: Risk Driver Mapping to Potential Mitigation Program(s)

Key Risk Driver	Significant Contributor to Wire Down Events	Potential Mitigation Program Categories				
		Asset Inspections	Vegetation Management	System Hardening	Field Operations	System Operations
Object Contact	✓	✓	✓	✓	✓	✓
Other	✓	✓	✓	✓	✓	✓
Equipment Failure	✓	✓	✓	✓	✓	✓
Unknown	✓	✓	✓	✓	✓	✓
Wire-to-wire contact	✓	✓		✓	✓	✓
Contamination		✓		✓	✓	✓
Utility Work		✓		✓	✓	✓
Vandalism/ Theft		✓		✓	✓	
Lightning				✓		

As program scoping identifies potential mitigations, it is designed to make sure the ignition risk driver is addressed and considers other programs to avoid duplicate efforts.

Phase 3– Project Evaluation and Selection

Rocky Mountain Power is implementing tools and processes to ensure that projects in programs are cost-effective and technically feasible. Figure 16 below shows the current high-level process that is described in detail below.

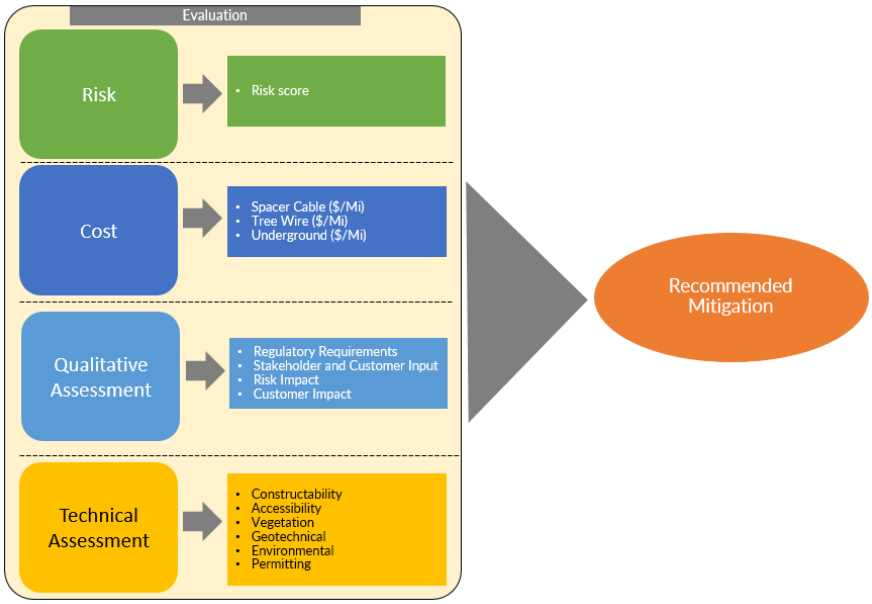


Figure 16: Current Project Evaluation and Selection Process

Risk Identification

With the implementation of the Composite Risk Score to identify the specific circuits and segments of elevated risk, identification is shifting to identifying the highest risk circuits by composite risk score to allow planning to prioritize evaluation based on a quantified risk score.

Cost

Rocky Mountain Powers considers project costs when planning, evaluating, and selecting initiatives. For example, Rocky Mountain Power evaluates the potential to convert

overhead lines to underground lines for rebuild projects on a project-by-project basis. Through the design process, each individual project is assessed to determine whether sections of the rebuild should be completed with underground construction. Rocky Mountain Power has experience that in a more remote, heavily forested location with few customer connections, underground can be a cost-effective solution when compared to covered conductor.

Qualitative Evaluation

Rocky Mountain Power uses qualitative evaluation of proposed projects. Qualitative considerations include:

- Regulation and Requirements – Rocky Mountain Power review regulations and requirements for project alignment and compliance. For example, Rocky Mountain Power projects are built to the approved NESC standards.
- Internal stakeholder and customer input – Initiative identification and evaluation is coordinated with various stakeholder groups within the company and departments that participate in the development and selection of initiatives that align with risk reduction goals. In addition to internal stakeholder input, Rocky Mountain Power works with customer input through hosting webinars that engage local communities and Public Safety Partners on wildfire safety.
- Wildfire risk impact – Mitigation initiatives are evaluated to align with industry practices and programs in place at other utilities that have shown to reduce wildfire risk. Mitigation initiatives are prioritized along with known historical causes of risk.
- Customer impact – The evaluation and identification of initiatives considers customer impact in elevated risk areas and its location or overlapping of local communities to determine prioritization and urgency of initiative selection. Customer impact may include an example such as re-routing an existing line

that may interfere with the customers' ability in the future to construct a facility (barn, shed, etc.).

Technical Feasibility

Feasibility analysis is performed as a qualitative input to mitigation selection. Technical analysis may indicate that the most effective mitigation is not feasible due to other considerations. Technical feasibility is also used to evaluate mitigations that currently do not have effectiveness measures. Technical feasibility considers the following:

- Constructability— Ease of implementation and constructability are factors in selecting the final mitigation technique. For example, commercially available solutions such as covered conductor may be widely implemented as a mitigation technique while new and emerging technologies, such as DFA (Distribution Fault Anticipation) may be implemented as pilot projects with limited application.
- Accessibility— Access to the location to perform the work. For example, undergrounding in a steep terrain may be inadvisable due to the equipment needed and the ability to safely operate equipment in the terrain.
- Vegetation— Impacts to vegetation because of the proposed project are considered, including mitigation efforts during the project and any potential remediation needed after the project due to removal of vegetation.
- Geotechnical— Identification of the type of earth below ground may affect the mitigation selected. For example, solid rock or rocky soil may not be conducive to undergrounding due to technical feasibility or cost and covered conductor may be a more cost-effective solution.
- Environmental— Impacts to air, soil, or water of a proposed mitigation.
- Permitting— The ability to successfully acquire permits as well as the number of permits required is a consideration. For example, a covered conductor project may be selected over undergrounding in certain circumstances because permitting can be completed more quickly with fewer barriers.

Conversely, undergrounding may be moved forward where alignment with other utilities, such as telecom, presents an opportunity for cost sharing and joint location to a new trench or underground infrastructure.

Risk Spend Efficiency

Rocky Mountain Power is planning to implement Risk Spend Efficiency (RSE) to evaluate the effectiveness of proposed mitigations relative to cost. As RSE is implemented, the project evaluation and selection process will mature to a process depicted in Figure 17 below. As RSE is implemented, refinements to the methodology and processes may be anticipated and are discussed below in the Risk Spend Efficiency (RSE) Model Refresh and Annual Mitigation Selection Planning Process initiatives.

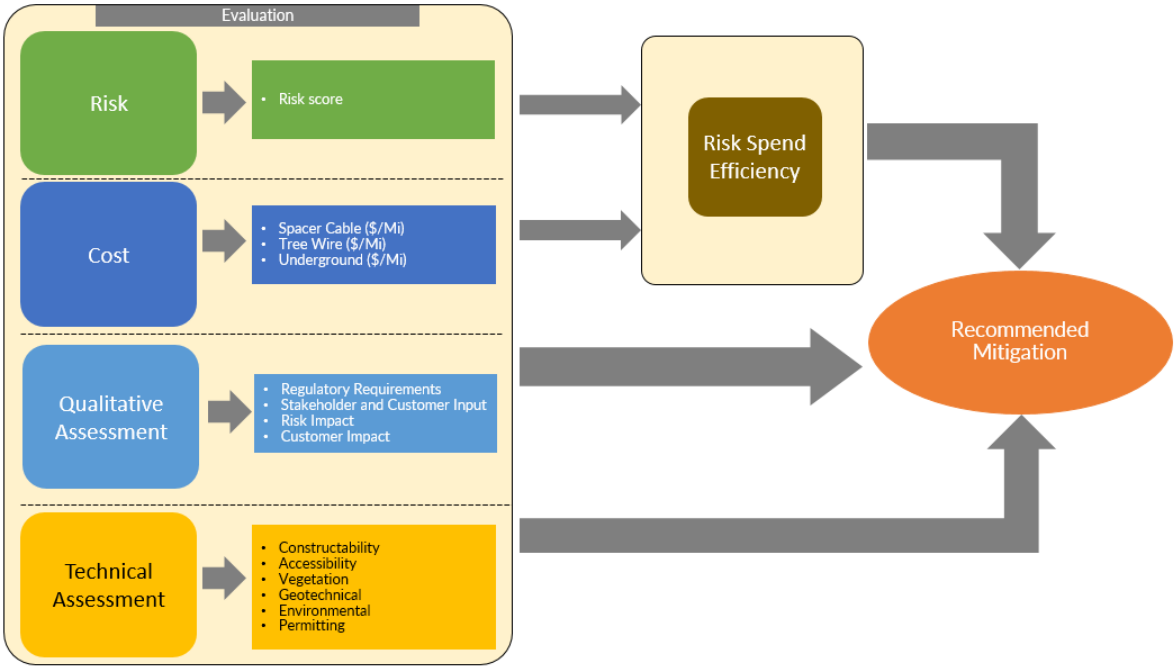


Figure 17: High Level Project Selection and Evaluation Process with RSE

1.2.1.1.1 Cost

For the initial evaluation of mitigation feasibility in the RSE calculation above, Rocky Mountain Power plans to use the average useful asset life and an average cost for select mitigations. These costs, shown in Table 5 below, are based on Rocky Mountain Power's average unloaded costs and the useful life is the time the asset is expected to be in service.

It is expected that the average costs will change over time and can vary significantly from project to project.

Table 5: Average Cost and Years of Benefit of Select Mitigations

Mitigation	Estimated Years of Benefit	Cost (in thousands)	Cost Unit
Distribution Pole Replacement (Steel Pole)	50	$ 10-15	Pole
Transmission Pole Replacement (Steel Pole)	50	$ 25-50	Pole
Distribution Line Rebuild (Steel Poles, Covered Conductor w/ Tree Wire)	50	$ 750-1,250	Mile
Distribution Line Rebuild (Underground)	50	$ 1,000-2,000	Mile
Transmission Line Rebuild, 138kV (Steel Poles, Bare Conductor)	50	$ 1,500-2,500	Mile

Effectiveness of a mitigation reflects if a mitigation is effective in preventing outages and the possibility of utility ignition resulting from an outage. Figure 18 below depicts the high-level inputs to the effectiveness calculation. As RSE is implemented and effectiveness measures identified for mitigations, Rocky Mountain Power expects to provide estimated risk reductions for projects such as those shown in Projects and validate the estimate with the actual results after the work is complete. Processes to track estimated and actual or effectiveness are in the scope of the Annual Mitigation Selection Planning Process areas for improvement discussed later in Section 1.4.

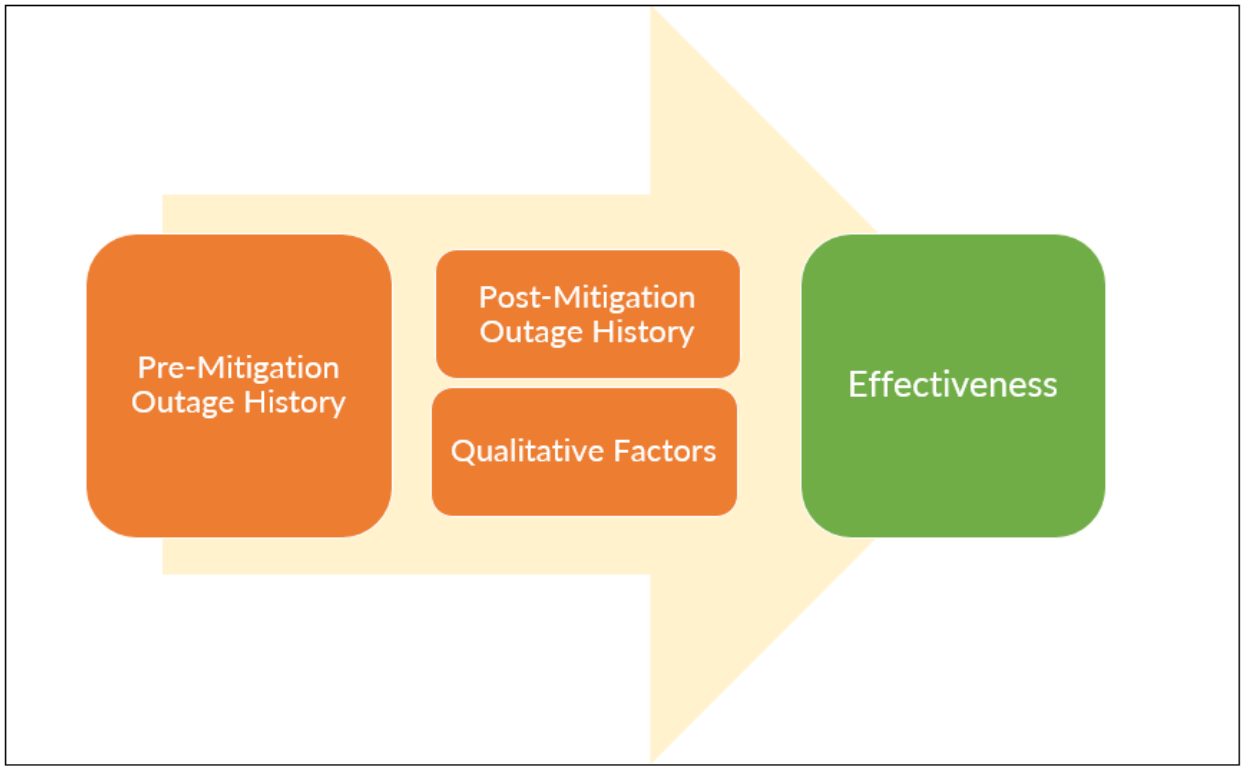


Figure 18: Mitigation Effectiveness Calculation Inputs

1.2.1.1.2 RSE Calculation Uncertainties and Limitations

While RSE is a useful approach to help assess the effectiveness of mitigations, it is important to highlight the uncertainties and limitations of the approach as discussed in Table 6 below. As Rocky Mountain Power implements RSE and builds a larger dataset of mitigations to measure baseline risk and post mitigation risk, it anticipates the uncertainties and limitations will evolve.

Table 6: Uncertainties and Limitations to RSE

Uncertainty/Limitation	Impact
Mitigation effectiveness can be difficult to ascertain absolutely; there are "noise" factors such as extreme weather years, EFR (Elevated Fire Risk) settings etc.	A program's effectiveness should be evaluated qualitatively with sufficient quantitative data such as outage and ignition information, an exact process is not established yet.

Uncertainty/Limitation	Impact
Effectiveness can differ for the same mitigation, influenced by varying such as local conditions, risk drivers, and baseline risk measures.	There may be a difference between the estimated effectiveness of a mitigation which is based on an average and the actual effectiveness at a specific location.
Initial measurement of effectiveness with a smaller dataset may not accurately reflect actual effectiveness.	Initial effectiveness calculations may be overly optimistic.
The impact of applying multiple mitigations at the same circuit could lead to an incorrect estimated risk reduction. For example, mitigation with 20% effectiveness and mitigation with 70% effectiveness does not necessarily result in a 90% risk reduction.	In the near term limits the ability to assess the impact of additional mitigations on reducing risk.
Useful lives of mitigations are average and may not reflect actual useful life.	The estimated life expectancy may be higher or lower than the average, impacting the effectiveness of mitigation.
Costs are average and do not consider the complexity of an implementation, such as terrain, permitting, etc.	The estimated RSE calculation may have a cost that is higher or lower than the actual cost of the mitigation.

Phase 4 – Implementation and Monitoring

As projects are selected, they move to the implementation and monitoring stage. Figure 19 below shows the high-level process described further below:

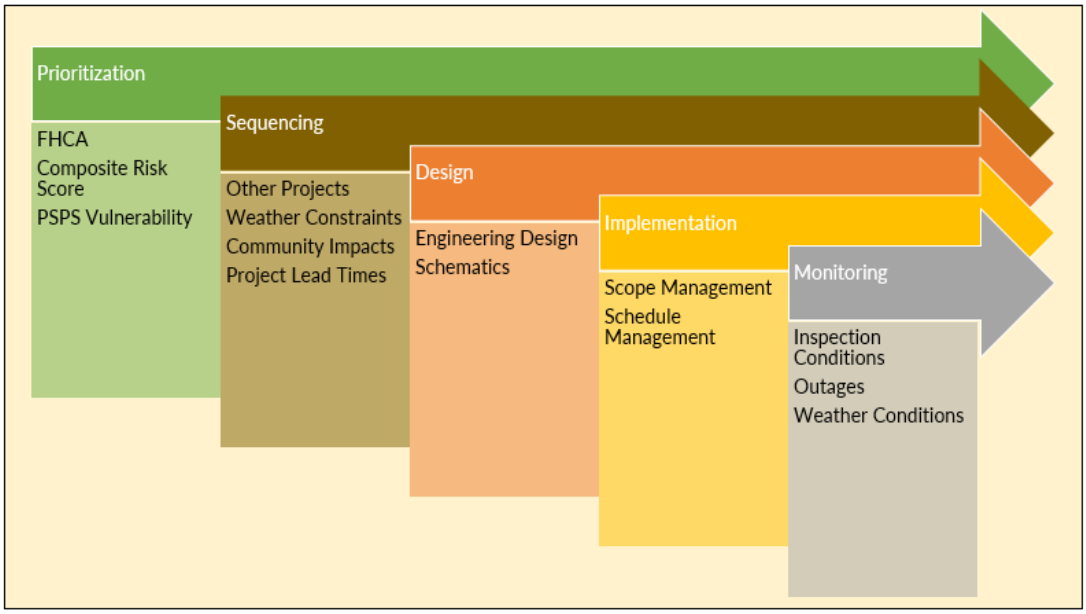


Figure 19: Project Implementation and Monitoring Process

Prioritization: Current projects will continue to be executed based on the current schedule. With the risk data provided by FireSight and the updated FHCA maps, Rocky Mountain Power will begin a transition to prioritizing new work based on the following:

1. Work inside the FHCA, in order from highest Fuel/Terrain Driven composite risk score to lowest.
2. Work outside the FHCA, in order from highest Fuel/Terrain Driven composite risk score to lowest.

Sequencing: After work is prioritized, it also must be sequenced to execute on the highest priority work first while understanding that constraints may impact when work can begin. Examples of constraints that impact sequencing include:

- Other utility work in the area. If proposed work requires electric service to be temporarily rerouted, other utility work in the area may impact when that can happen to manage service interruptions to customers.
- Weather conditions. For example, if the work is taking place in higher elevations, work may only be able to take place in summer and fall due to snow impacting roads. Summer work must be mindful of critical fire weather.

- Community impacts. This could range from municipal projects that have priority in a community to feedback from the local, state, and federal partners about timing to minimize impacts to residents.
- Project lead times such as ordering and receiving equipment and permitting.

Design: After the prioritization and sequencing has been determined, the project will move to the design stage. The design stage can take on many different forms depending on the project, ranging from schematics and process design to a complete engineering design. At this point, the project schedule and costs are finalized.

Implementation: Once the scope, prioritization, and design are completed, the project is ready to be implemented. Prior to implementation, key performance metrics will be established to enable measurement of results to inform mitigations' effectiveness for future modeling. Key metrics examples include installation dates, completion dates, conditions, and outages reported.

Monitoring: As the work is completed, the updated asset information will be updated annually in FireSight and over time the outage history for the asset will inform the composite risk score for the circuit to identify if the risk has been reduced and if the risk driver has been mitigated.

1.3 Continuous Improvement

Through Rocky Mountain Power's participation in formal regulatory proceedings, workshops, and multi-state and multi-utility collaborations, the Company has identified six areas for continued improvement from 2024-2027:

- Advanced Data Analytics Tool
- Fire Incident Root Cause Evaluations
- Refresh to Baseline Risk Mapping (FHCA Map Update)
- Annual Mitigation Selection Planning Process
- Risk Spend Efficiency (RSE) Model Refresh
- Evaluation of Climate Change Impacts on Wildfire Risk Modeling

Advanced Data Analytics Tool

Efficient data analytics tools are the cornerstone of managing data to inform decisions. In 2023, Rocky Mountain Power began investing in data analytics software to begin evaluating the overall effectiveness of mitigation programs and validate risk modeling assumptions and outputs. For incident and risk event tracking, Rocky Mountain Power plans to enhance existing data collection processes and replace its existing data repository with an advanced data analytics platform to enable long-term trend analysis, inform project prioritization, and measure the effectiveness of mitigation programs. The data analytics tool will combine the various datasets described in Section 1.1 (fire incident information, utility asset information, and, where applicable, outage data) to create a comprehensive view of each tracked event. Actual fire incident data, including time, location, any affected equipment, and burn area size, is critical to validating modeled ignition risk and fire spread, update assumptions, and refine calculations. This information will be used to conduct long-term trend analysis of wildfire incidents near utility equipment to validate risk model assumptions and assess changes to risk drivers over time for inclusion in FireSight and PSPS risk modeling and mitigation planning. As seen in Figure 20 below, the Fire Incident Tracker is expected to be implemented in Q2 2024. with new features being added and prioritized in the development backlog as identified.

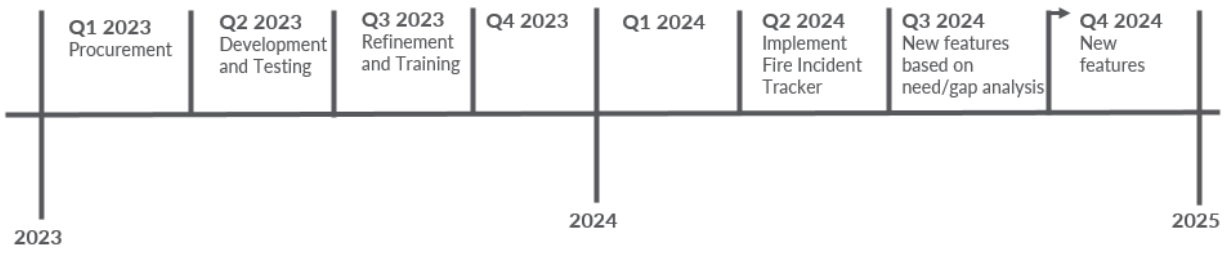


Figure 20: Advanced Data Analytics Project Timeline

Fire Incident Root Cause Evaluation

After implementation of fire incident tracking in the Advanced Data Analytics Tool, Rocky Mountain Power plans to assess the processes regarding investigation of ignition incidents. At that time Rocky Mountain Power will consider updates, if necessary, as outlined below.

Figure 21 below shows the timeline to develop and implement the processes.

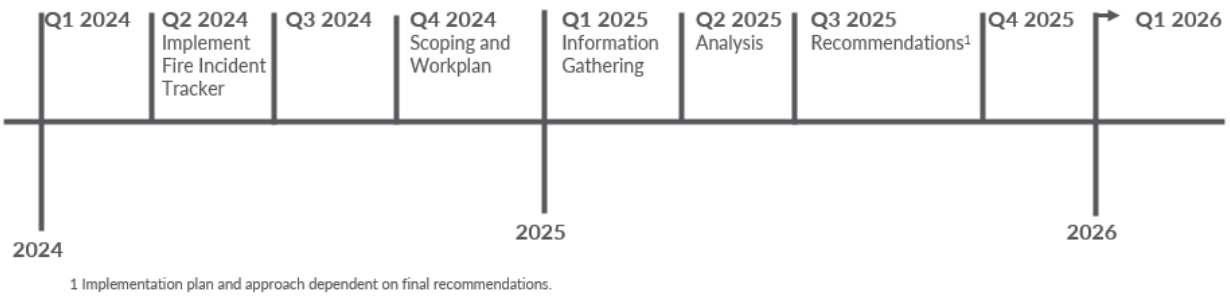


Figure 21: Fire Incident Root Cause Timeline

FHCA Map Update

As described in Section 1.2, Rocky Mountain Power evaluated the company's baseline wildfire risk and added new areas to the FHCA. In 2024, Rocky Mountain Power intends to continue its risk assessment evaluation and collect feedback from both internal and external stakeholders and experts, to include an FFSL collaborative meeting by Q3 of 2024 to review progress. If appropriate, Rocky Mountain Power may further refine the FHCA boundaries for use in the future and will submit any mapping updates through the appropriate public process with stakeholder engagement.

Annual Mitigation Selection Planning Process

With the implementation of FireSight to identify highest risk circuits for mitigation and impending implementation of RSE the process to evaluate and select programs and projects will be updated to ensure that quantitative and qualitative assessment is well-

integrated. This work will also implement processes to track results to support measurement of mitigation effectiveness and changes in risk levels at specific locations. This work will also consider if co-benefits should be integrated into mitigation assessment. Figure 22 below shows the initial timeline and deliverables for this process work.

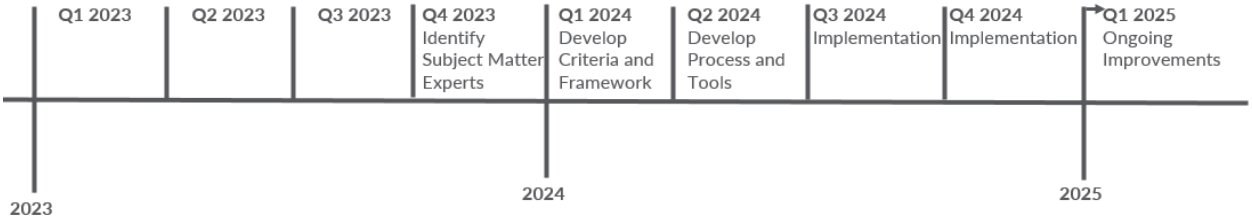


Figure 22: Annual Mitigation Selection Planning Process Timeline

Risk Spend Efficiency (RSE) Model Refresh

As discussed in Risk Spend Efficiency, Rocky Mountain Power has started to implement Risk Spend Efficiency (RSE). The company anticipates developing and implementing an annual process to review and update mitigation effectiveness measures and identify if there are new mitigations that have sufficient data to implement effectiveness measures to evaluate projects. Rocky Mountain Power is also coordinating with other utilities to identify if there are opportunities to align RSE methodology, which may influence this work. The timeline is shown in Figure 23 below.

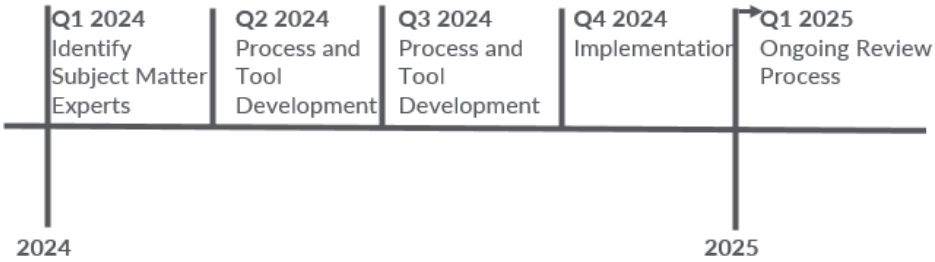


Figure 23: Risk Spend Efficiency Model Refresh Timeline

2 Inspection and Correction

Inspection and correction programs are the cornerstone of a resilient system. These programs are tailored to identify conditions that could result in failure or potential fault scenarios. These scenarios can arise when the infrastructure may no longer be able to operate per code or engineered design, or may become susceptible to external factors, such as weather conditions.

Rocky Mountain Power performs inspections on a routine basis as dictated by company policies. When an inspection is performed on an asset, inspectors use a predetermined list of condition codes and priority levels (defined below) to describe any noteworthy observations or potential noncompliance discovered during the inspection. Once recorded, the condition codes are used to establish the scope of and timeline for corrective action to maintain conformance with National Electric Safety Code (NESC) requirements and company policies. This process is designed to correct conditions while reducing impact to normal operations.

Key terms associated with the inspection and correction programs are defined as follows:

- **Visual Assurance Inspection:** A brief visual inspection performed by viewing each facility from a vantage point allowing reasonable viewing access, which is intended to identify clearance violations, damage or defects to the transmission and distribution system, or other potential hazards or right-of-way-encroachments that may endanger the public or adversely affect the integrity of the electric system, including items that could potentially cause a spark.
- **Detailed Inspection:** A careful visual inspection accomplished by visiting each structure, as well as inspecting spans between structures. This inspection is intended to identify potential nonconformance with the NESC or company standards, infringement by other utilities or individuals, defects, potential safety hazards, and deterioration of the facilities that need to be corrected to maintain reliable and safe service.

- **Sound and Bore:** An inspection performed by sounding the pole to locate external and internal decay pockets. The pole is tapped with a metal hammer to identify potential soft spots or hollow-sounding areas. If decay is suspected, inspection holes are drilled to determine the extent of the internal decay.
- **Pole Test & Treat:** An inspection of wood poles to identify decay, wear, or damage. Inspections may include pole-sounding, inspection hole drilling, and excavation to assess the pole condition at groundline to identify the need for any repair or replacement. When applicable, preservative treatment is also applied as part of this inspection.
- **Enhanced Inspection:** A supplemental inspection performed that exceeds the requirements of normal detailed or visual inspections; typically, a capture of infrared data.
- **Patrols:** Patrols are visual inspections performed in addition to scheduled inspection cycles during elevated fire risk conditions. Patrols can be performed prior or during significant weather events and are usually performed prior to re-energization of lines in FHCA during fire season. Patrolling can result in conditions being identified and corrected similar to scheduled inspections. More details on patrolling activities are described in Section 6.
- **Condition:** The state of an asset regarding appearance, quality, or working order that can sometimes be used to identify potential impact to normal system operation or clearance, which is typically identified by an inspection.
- **Energy Release Risk Condition:** A type of condition that, under certain circumstances, can correlate to increase the risk of a fault event and potential release of energy at the location of the condition.
- **Condition Codes:** Predetermined list of codes for use by inspectors to efficiently capture and communicate observations and inform the scope of and timeline for potential corrective action.
- **Correction:** Scope of work required to remove a condition within a specified timeframe.

- **Priority Level:** The level of risk assigned to the condition observed, as follows:
    - Imminent – imminent risk to safety or reliability
    - Priority A – risk of high potential impact to safety or reliability
    - Priority B – low or moderate risk to safety or reliability

2.1 Standard Inspection and Correction Programs

Rocky Mountain Power's asset inspection programs involve four primary types of inspections: (1) visual assurance inspection; (2) detailed inspection, (3) sound and bore, and (4) pole test & treat. Inspection cycles, which dictate the frequency of inspections, are set by Rocky Mountain Power asset management department. In general, visual assurance inspections are conducted more frequently, to quickly identify any obvious damage or defects that could affect safety or reliability. Detailed inspections have a more comprehensive scope of work, so they are performed less frequently than visual assurance inspections. Pole test and treat (including sound and bore inspections) are more intrusive and in aims of finding internal decay. The frequency of these intrusive inspections is based on the age of wood poles, and such inspections are typically scheduled in conjunction with detailed inspections. Regardless of the inspection type, any identified conditions are entered into Rocky Mountain Power's facility point inspection system database for tracking purposes. For any condition identified, the inspector conducting the inspection will assign a condition code and the associated priority level. Corrections are then scheduled and completed within the correction timeframes established by internal company policies, as discussed below. While the same condition codes are used throughout Rocky Mountain Power's service territory, the timeframe for corrective action varies depending on location, wildfire risk area, and if the condition has the potential to release energy. In all cases, the timeline for corrections considers the priority level of any identified condition.

2.2 FHCA Inspection and Correction Programs

The existing inspection and correction programs are effective at maintaining regulatory compliance and managing routine operational risk. They also mitigate wildfire risk by identifying and correcting conditions which, if uncorrected, could potentially ignite a fire. Recognizing the growing risk of wildfires, Rocky Mountain Power is continuing to supplement its existing programs to further mitigate the growing wildfire specific operational risks and create greater resiliency against wildfires. There are three primary elements that have been implemented: (1) creating a fire threat classification for specific condition codes which correlate to a heightened risk of fire ignition; (2) performing inspections more often in the FHCA and (3) expediting the correction of any fire threat conditions identified within the FHCA.

Fire Threat Conditions

Certain conditions are classified as energy release risk conditions. As the name suggests, this category includes conditions which, under certain circumstances, can increase the risk of a fault event and potential release of energy at the location of the condition. Certain condition codes are categorically designated as an energy release risk. If a condition is designated as an energy release risk and the condition is located within the FHCA, the condition is designated as a fire threat condition, which means that the condition is treated as a type which corresponds to a heightened risk of fire ignition; see Figure 24.

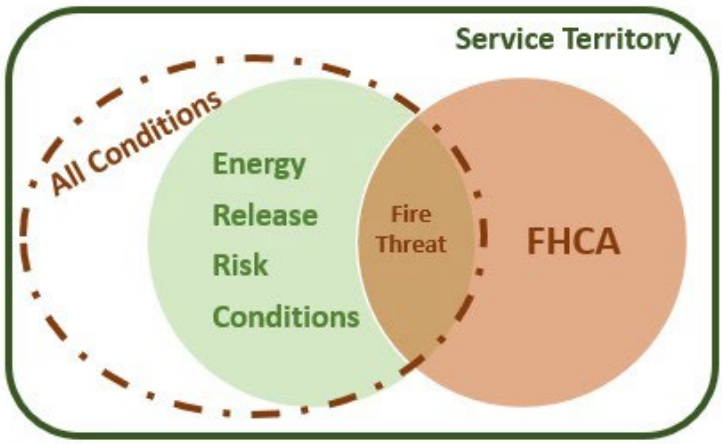


Figure 24: Fire Threat Condition Identification

Condition codes reflecting an appreciable risk of energy release are designated as energy release risk conditions. For example, a damaged or frayed primary conductor has a condition code CONDFRAY, which is designated as an energy release risk condition because the condition could eventually result in a release of energy under certain circumstances. CONDFRAY conditions identified within the FHCA are then designated as a fire threat condition because, due to escalation and environmental factors, the condition could eventually result in an ignition. In contrast, the observation of a missing or broken guy marker would result in the condition code GUYMARK, which is not designated as an energy release risk condition or a fire threat condition. Table 7 describes the general types of energy release risk conditions designated by Rocky Mountain Power that, if located within the FHCA, correlate to a heightened risk of fire ignition, and are then designated fire threats.

Table 7: Energy Release Risk Conditions

Condition Type	Description
Pole Replacement	A pole identified for replacement as a result of intrusive testing or visual inspection that does not meet strength requirements / safety factors
Frayed or Damaged Conductor	A conductor identified with damage/fraying on conductor strands because of visual or detail inspection
Loose Connections / Bolts / Hardware	A connection, bolt, or hardware component identified that is loose or missing from equipment or framing on the pole during visual or detail inspections
Loose / Broken Anchors and Guys	Loose or broken anchor and guying identified on the pole as a result visual or detail inspections
Loose / Damaged Equipment	Loose or damaged equipment (capacitors, regulators, reclosers, etc.) identified on the pole during visual or detail inspections
Primary And Secondary Conductor Clearances	Primary and secondary conductor clearances from the pole, buildings, or ground that do not meet minimum clearance requirements specified in the NESC identified during visual or detail inspections
Vegetation Clearances	Vegetation clearances from the pole, primary/secondary conductor, and climbing space that do not meet minimum clearance requirements specified in the NESC identified during visual or detail inspections
Loose / Broken Communication Lashing Wires	One or more lashing wires (Telco, CATV, Fiber) that are broken or loose identified during visual or detail inspections
Broken / Missing Grounds	Broken or missing ground on a pole or equipment identified during visual or detail inspections.
Infrared	Components or equipment that has a temperature rise that exceeds thresholds in company policy identified during enhanced inspection.
Unstable Soils	Soil or backfill on a pole that is unstable or insufficient identified during visual or detail inspections.

Inspection Frequency

Rocky Mountain Power conducts inspections on assets located within the FHCA more frequent than assets located outside of the FHCA. Consistent with industry best practices, inspections are the company's preferred mechanism to identify conditions. In FHCA, Rocky Mountain Power believes that having more frequent inspections is a good mitigation strategy because more regular inspections should identify a certain percentage of conditions at an earlier stage than otherwise. If conditions are identified at an earlier

date, they will be corrected sooner. If a particular condition exists for a shorter amount of time, that condition is then less likely to cause a fault event or release energy, which could lead to a wildfire ignition. Inspection frequencies for Utah asset types are summarized in Table 8.

Table 8: Planned Inspection Frequency

Inspection Type*	Non-FHCA Frequency (years)	FHCA Inspection Frequency (years)
	Overhead Distribution (Less than 46 kV)	
Visual	2	1
Detailed	10	5
Pole Sound and Bore	10	10
Pole Test and Treat**	-	10
	Overhead Local Transmission (Greater than 46 kV and less than 200 kV)	
Visual	2	1
Detailed	10	5
Pole Sound and Bore	10	10
Pole Test and Treat	10	10
	Overhead Main Grid (Greater than 200kV)	
Visual	1	1
Detailed	2	2
Pole Sound and Bore	10	10
Pole Test and Treat	10	10

* Inspections with same inspection frequency are performed at the same time.
** Treatment may not be applied if the pole is scheduled for replacement through the line rebuild program.

Expedited Correction Time Periods

Rocky Mountain Power further mitigates wildfire risk by reducing the time for correction of fire threat conditions. As expressed above, certain types of conditions have been identified as having characteristics associated with a heightened risk of wildfire potential. Identified violations, recorded as fire threat conditions, are on an accelerated correction schedule within the FHCA, as they are considered a heightened risk to safety or reliability.

The accelerated timeframe reduces the correction timeframe by half for A conditions from the 120 days to 60 days. Additionally, the conditions classified as an imminent energy release risk within the FHCA are corrected immediately. Correction timeframes for fire threat conditions are summarized Table 9.

Table 9: Planned Correction Timeframes for Fire Threat Conditions in the FHCA

Condition Priority	Correction Timeframes
A - Imminent Energy Release Risk in FHCA	Immediate
A – Energy Release Risk in FHCA	60 Days
B – Energy Release Risk in FHCA	12 Months

2.3 Enhanced Inspections

Rocky Mountain Power's enhanced inspection utilizes alternate technologies to identify hot spots, equipment degradation, and potentially substandard connections that are not detectable through a visual inspection. Infrared data is gathered using a helicopter flying over the designated lines within the service territory near peak loading intervals and is performed incrementally to existing inspection programs. Hot spots on power lines identified through infrared data gathering can be indicative of loose connections, deterioration and/or potential future energy release locations. Therefore, identification and removal of hot spots on overhead transmission lines can reduce the potential for equipment failure and faults and mitigate the risk of ignition.

Identified Lines. Beginning in 2020 the company performed enhanced inspections annually on some of the overhead transmission lines located within the FHCA operating at 46 kV or greater. As a result, six conditions were identified and classified with a correction priority as described in Section 2.2. In 2023 these inspections were broadened to include interconnected lines with the FHCA and now include approximately 1,600 miles of lines over 36 circuits as shown in Figure 25.

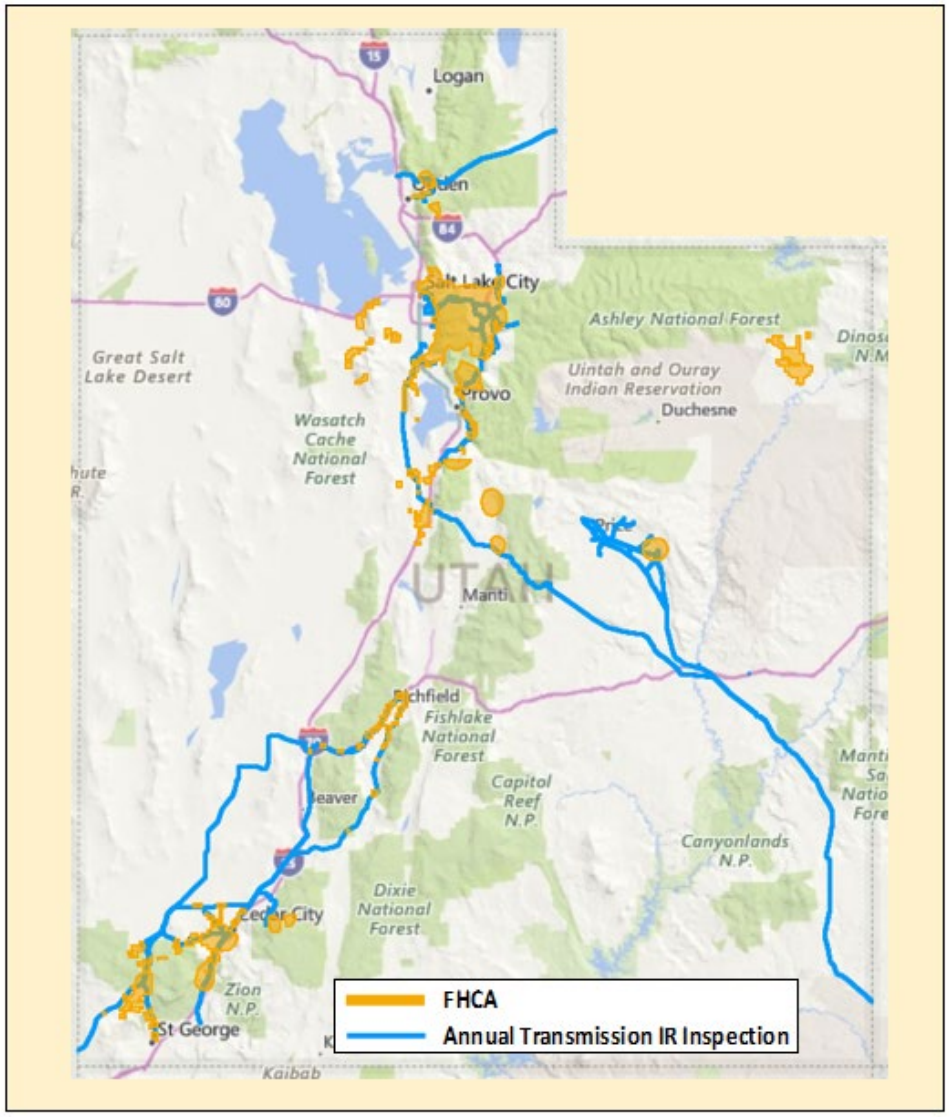


Figure 25: Map of Enhanced Transmission Line Inspections

Inspection Frequency. Rocky Mountain Power performs inspections on the FHCA interconnected transmission lines annually. As described in Section 1, assets located within the FHCA areas are considered to have a heightened risk of wildfire. The annual frequency was determined based on successes realized with multiple years of inspections in Utah and experience within other states of Rocky Mountain Powers parent company, PacifiCorp.

Table 10: Summary of Enhanced Inspection Frequency on Transmission Lines

	Frequency	Line Miles
FHCA	Annually	1,638

Inspection Intervals/Bundling. Different than patrol or detailed inspections, enhanced inspections are performed by a trained thermographer assisted by a qualified transmission line Patrolman, where lines are "bundled" depending on peak loading events. Peak loading events are generally seasonal between winter, spring, and summer. Inspections performed during peak loading ensures the highest probability of detecting abnormal thermal rises on equipment induced by system loading.

Corrective Action. Similar to other inspection and correction programs, Rocky Mountain Power assesses the condition severity and follows the general process as described in Section 2.2 to set the correction timeframe. Findings are separated into three severity ranges depending on the measured temperature rise over anticipated conditions, a general assessment, and recommendation from the trained thermographer.

3 Vegetation Management and Environmental

Vegetation management is generally recognized a significant wildfire mitigation strategy. Vegetation contact with a power line is a potential source of fire ignition. Reducing vegetation contact reduces the potential of an ignition originating from electrical facilities. While it is impossible to eliminate all vegetation contact, at least without radically altering the landscape near power lines, a primary objective of the vegetation management program is to minimize contact between vegetation and power lines by addressing grow-in and fall-in risks. This objective is in alignment with core efforts, continuing dedication to administering existing programs, and additional strategies implemented within FHCA identified areas. Vegetation management is a combined effort from utilities, customers, and other state agencies and while this plan describes utility specific work, Rocky Mountain Power coordinates with other entities for permitting and collaborative efforts.

3.1 Regular Vegetation Management Program

The focus of the company's vegetation management efforts is to minimize risks to safety and reliability, and to reduce the potential of wildfire ignition. Tall growing vegetation is pruned to maintain a safe distance between vegetation and power lines. Dead, dying, diseased, or otherwise impacted trees or vegetation, which are at an elevated risk of falling into a power line, are removed. Like other utilities, Rocky Mountain Power contracts with vegetation management service providers to perform the pruning and tree removal work for both transmission and distribution lines.

Distribution

Vegetation management activities on distribution circuits in Utah are generally performed on a planned three-year cycle where vegetation is inspected and identified for pruning or removal. Vegetation is pruned to achieve minimum post work clearance distances to help maintain conductor to vegetation clearance. The tree growth rates determine the minimum post-work clearance distance. For example, faster growing trees which are defined as growing more than three feet per year need a greater minimum post-work clearance to maintain required clearance throughout the cycle.

Rocky Mountain Power also integrates spatial concepts to distinguish between side clearances, under clearances, and overhang clearances. Recognizing that certain trees grow vertically faster than other trees, it is appropriate to use an increased clearance when moderate or fast-growing trees are under a conductor. The specific distances for the minimum post-work clearances are listed in Table 11 and Table 12 for non-FHCA and FHCA respectively.

Table 11: UT Distribution Minimum Post-Work Vegetation Clearance Distances, Non-FHCA

	Slow Growing (<1 ft/yr.)	Moderate Growing (1-3 ft/yr.)	Fast Growing (> 3 ft./yr.)
Side Clearance	8 ft.	10 ft.	12 ft.
Under Clearance	10 ft.	12 ft.	14 ft.
Overhang Clearance	12 ft.	12 ft.	12 ft.

Table 12: UT Distribution Minimum Post-Work Vegetation Clearance Distances, FHCA

	Slow Growing (<1 ft/yr.)	Moderate Growing (1-3 ft/yr.)	Fast Growing (> 3 ft./yr.)
Side Clearance	12 ft.	12 ft.	14 ft.
Under Clearance	12 ft.	14 ft.	16 ft.
Overhang Clearance	12 ft.	14 ft.	14 ft.

When a tree is pruned, national standards and practices are followed in order to maintain healthy vegetation.[7]

Rocky Mountain Power also removes high-risk trees as part of distribution cycle work, to minimize vegetation contact through fall-in risk. High-risk trees are defined in the company's transmission and distribution vegetation management program standard operating procedures. Inspections are performed on distribution lines in advance of distribution cycle maintenance work, to identify which trees will be worked in the cycle, including high-risk trees subject to removal. To identify high risk trees, Rocky Mountain Power uses best management practices,[8] including an initial Level 1 assessment, taking into consideration factors such as prevailing winds and slope. The inspector may conduct a closer inspection or Level 2 assessment of suspect trees, to further assess their condition. After the work is completed, post-work inspections are conducted as part of an audit and quality review process.

Distribution cycle work also includes work designed to reduce future work volumes. In particular, volunteer saplings, small trees that were not intentionally planted, are typically removed if they could eventually grow into a power line. From a long-term perspective,

[7] This technique is drawn from ISA Best Management Practices- Pruning, 3rd Edition (2019): Tree Pruning (Gilman and Lilly 2002) and A300 (ANSI 2017).

[8] ANSI A300 (Part 9); Smiley, Matheny, and Lilly (2011), Best Management Practices: Tree Risk Assessment, International Society of Arboriculture

reducing unplanned vegetation growth helps mitigate wildfire risk by eliminating potential vegetation contact long before it could ever occur.

Transmission

Vegetation management on transmission lines is focused on maintaining clearances, however, the clearance distances are greater. Because of the nature of transmission lines, wider rights-of-way generally allow Rocky Mountain Power to maintain clearances beyond the required minimum clearances set forth in the "Minimum Vegetation Clearance Distance"[9]. To determine whether work is needed, an "Action Threshold" is applied, meaning that work is done if vegetation has grown within the action threshold distance. When work is completed, vegetation is cleared to the minimum post-work clearance as specified in Table 13.

[9] See Table 2 of FAC-003-04, at https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-4.pdf

Table 13: Transmission Minimum Vegetation Clearance (in Feet) by Line Voltage

	500 kV	345 kV	230 kV	161 kV	138 kV	115 kV	69 kV	45 kV
Minimum Vegetation Clearance Distance	8.5	5.3	5.0	3.4	2.9	2.4	1.4	N/A
Action Thresholds	18.5	15.5	15.0	13.5	13.0	12.5	10.5	5
Minimum Clearances Following Work	50	40	30	30	30	30	25	20

In some circumstances, when local conditions and property rights allow, Rocky Mountain Power may use "Integrated Vegetation Management" practices to prevent vegetation growth from violating clearances by proactively managing the species of trees and other vegetation growing in the right-of-way. Under such an approach, Rocky Mountain Power may remove tree species that could potentially threaten clearance requirements, while encouraging low-growing cover vegetation, which would never bring about clearance issues.

Transmission lines less than 200 kV are inspected as needed and main grid transmission lines which are greater than 200 kV are inspected annually. Inspection results are sent to the vegetation management department if any vegetation conditions are identified. Vegetation work is scheduled dependent on several local factors, consistent with industry standards and best management practices. Vegetation work on local transmission overbuild is completed on the distribution cycle schedule and inspected accordingly.

3.2 FHCA Vegetation Management

In addition to routine vegetation maintenance work discussed above, Rocky Mountain Power's vegetation management specifically targets risk reduction in the FHCA with three distinct strategies. First, annual vegetation inspections are conducted by vegetation management on all lines in the FHCA, with correction work also completed based on inspection results. Second, increased minimum clearance distances are used for distribution cycle work completed in the FHCA. Third, annual pole clearing is conducted

within the FHCA on subject equipment poles which are defined as poles having switches, clamps, fuses, or other devices that could create a spark.

Annual FHCA Vegetation Inspection

Rocky Mountain Power's annual vegetation inspection program is designed to identify and complete vegetation management work outside of the normal cycle maintenance program. If a circuit in the FHCA is not scheduled for cycle maintenance in a particular year, the circuit (or the portion of the circuit in the FHCA) will be scheduled for an annual vegetation inspection. An annual inspection is typically scheduled with the goal to complete the inspection prior to the height of fire season. An inspector conducting an annual inspection will identify vegetation likely to exceed minimum clearance requirements prior to the next scheduled inspection, including any high-risk trees. After an annual inspection is completed, vegetation management work is promptly completed as reasonably practicable, including removal of any high-risk trees.

Extended Clearances

Rocky Mountain Power uses increased minimum post-work clearance specifications distances for any distribution cycle work in the FHCA. These minimum post-work clearance distances require pruning to at least 12 feet, in all directions and for all types of trees, when work is identified as needed. As discussed above, minimum post work clearance specification distances identify the distance achieved after pruning is completed. By increasing the minimum distance required at the time pruning is done, Rocky Mountain Power further minimizes the potential of vegetation contacting a power line at any time. The planned minimum post work clearance distances for the FHCA are listed in Table 14.

Table 14: Distribution Minimum Post Work Vegetation Clearance Specifications in the FHCA

	Slow Growing (<1 ft./yr.)	Medium Growing (1 to 3 ft./yr.)	Fast Growing (>3ft./yr.)
Side Clearance	12 ft.	12 ft.	14 ft.
Under Clearance	12 ft.	14 ft.	16 ft.

Overhang Clearance	12 ft.	14 ft.	14 ft.

While certain fast-growing trees can sometimes exceed expected annual growth, these minimum post-work clearance specifications are designed with the expectation that such clearances achieved at the time of work will minimize the potential for vegetation impinging required minimum clearance distances at any time before the next work cycle.

Pole Clearing

Rocky Mountain Power vegetation management performs pole clearing on subject equipment poles located in the FHCA. Pole clearing involves removing all vegetation within a 10-foot radius cylinder (up to eight feet vertically) of clear space around a subject pole and applying herbicides and/or soil sterilant to prevent any vegetation regrowth (unless prohibited by law or the property owner), see Figure 26.

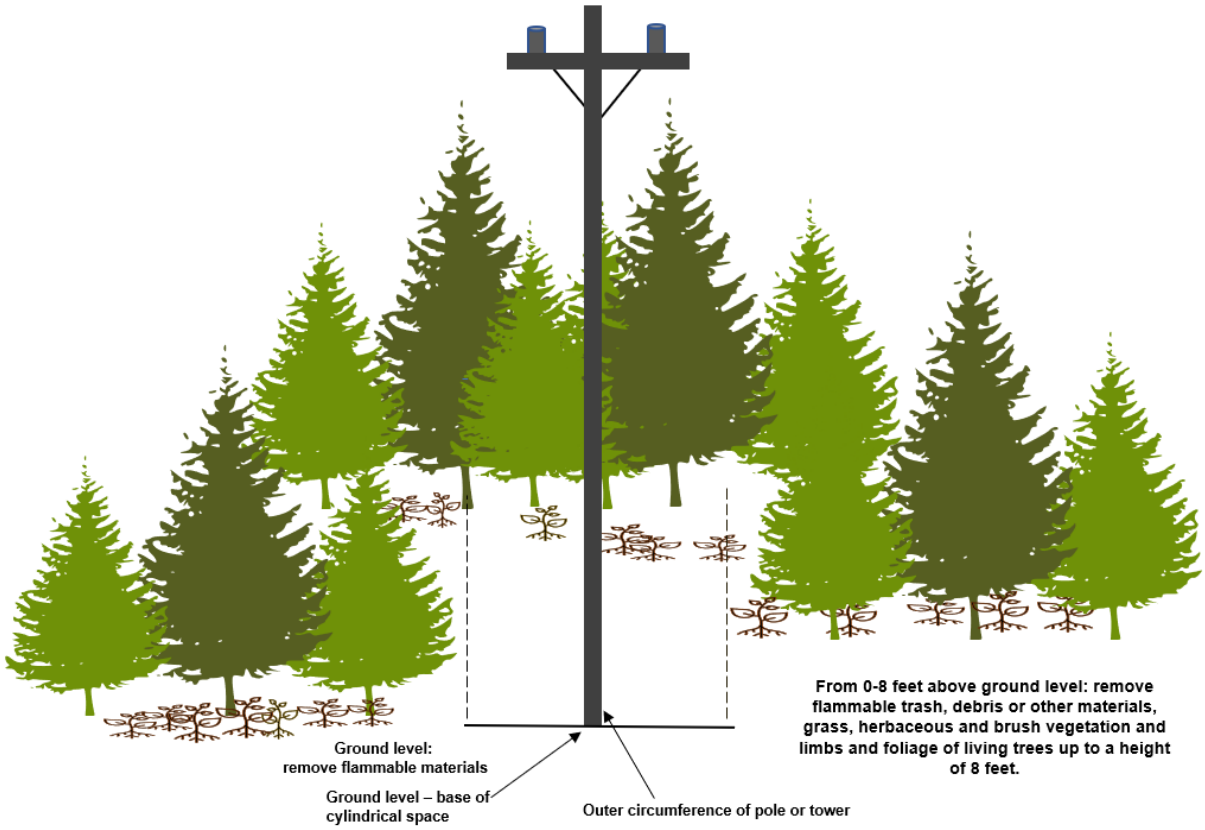


Figure 26: Pole Clearing Strategy

This strategy is distinct from the clearance and removal activities discussed above because it is not designed to prevent contact between vegetation and a power line. Instead, pole clearing is designed to reduce the risk of fire ignition if sparks are emitted from electrical equipment. Pole clearing will be performed on wildland vegetation in the FHCA around poles that have fuses, air switches, clamps or other devices that could create sparks. After a pole has been cleared, a spark falling within the 10-foot radius would be much less likely to ignite a fire.

3.3 Post Work Audits

After work is completed by the company's vegetation management contractors, Rocky Mountain Power conducts post-audits (quality control reviews) to compare completed work against specifications, such as post-work clearances. Post-audits are completed annually and include review of routine maintenance and additional work completed annually within the FHCA. Post-audits are conducted by internal or contracted ISA certified staff. Rocky Mountain Power is hiring additional staff throughout its service territory to increase internal post-audit capacity. Post-audits are generally conducted soon after the vegetation management work is completed at a location, to identify any issues before vegetation management crews leave the area for their next work assignment. Post-audits are intended to identify recurring quality-related issues early on, so that staff can review with the contractors conducting the work and implement any corrective measures.

The staff conducting post-audits record work exceptions (inconsistencies with company specifications or work missed) using its mobile data management software. The audit exceptions are then visible to the vegetation management contractor within the mobile data management software and assigned to that contractor, who remains responsible for the work, including any corrective action.

3.4 Environmental Program

Avian Protection Plan and Wildlife Protection Plan

Rocky Mountain Power's service territory supports a diverse array of migratory birds and other wildlife. As a result, the company has fully developed and implemented an Avian Protection Plan which is intended to address avian electrocution risks by reducing the likelihood of bird or animal contact. This plan, first developed in 2009 and amended over time, currently includes programs to retrofit equipment with animal guards, manage hazard nests in accordance with relevant company policy, state, and federal permits, and track and report protected bird incidents and nest management activities within the Wildlife Incident Tracking System to identify potential areas of high risk for avian incidents and inform proactive measures. These proactive measures may include nest management, substation protections, and line element protections. See Figure 27 for priority circuits below (note: circuit prioritizations are reviewed annually and updated as needed to reflect current avian distribution and associated infrastructure risks).

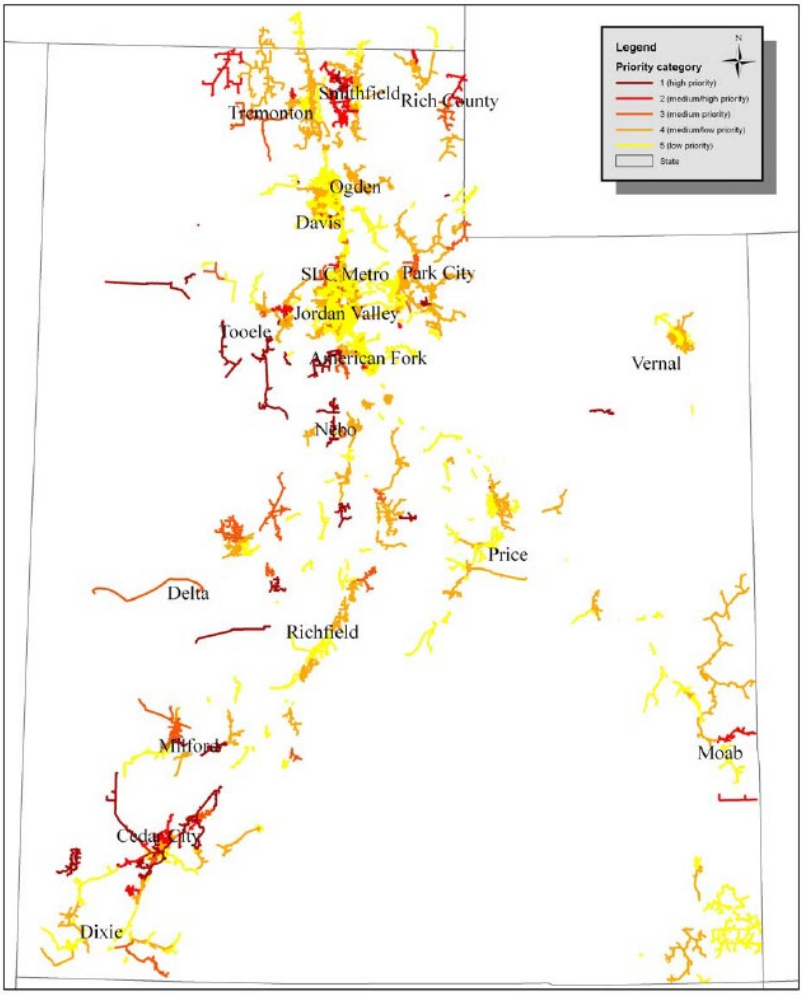


Figure 27: Avian Protection Plan Focal Zones

Proactive actions address the potential for wildlife incidents and these actions may include nest management, substation protections, and line element protections (pole retrofits). Minimizing bird and animal contact with energized lines reduces the wildfire risk associated with direct contact. Therefore, the company's Avian Protection Plan supports wildfire mitigation.

Nest Management

During inspections, field personnel will identify nests on the infrastructure that have a potential to result in fires, outages, or other operation problems. Other nest location information could be obtained by public, state, or federal resources available. In order to maintain nests on the company infrastructure, Rocky Mountain Power is required to

coordinate and obtain the necessary permits with the Utah Division of Wildlife Resources and with the U.S. Fish and Wildlife Services. Nest management may include relocating the nest, installation of avian guards, and ensuring the surrounding utility facilities are avian-safe. Within substations avian protection devices are installed during the routine planned maintenance. Avian protection devices include covers and/or barriers at equipment where there is an increased risk of electrocution. For avian protection on lines and line equipment the lines are routinely assessed through risk assessment surveys to identify structures for proactive retrofitting. In wildfire risk areas, additional measures may be taken to remove inactive nests that can pose a fire risk.

Pole Retrofits

In the circumstance that avian incidents are identified, Rocky Mountain Power will respond by taking remedial action. Actions include retrofitting the pole where the incident occurred. Additional poles are retrofitted depending upon the incident; for example, five poles in each direction are retrofitted in response to eagle mortalities and multiple spans may be marked in response to bird collisions in the areas of suitable habitat. In addition to the Avian Protection Plan, Rocky Mountain Power implemented additional efforts in its 2020 wildfire plan to address contacts by animals other than birds that could pose fire risks in locations outside of the FHCA. As part of this effort, animal-caused outage data are assessed annually and compared with wildfire risk area mapping, locations are prioritized, and field surveys are conducted to identify potential hazards and develop/implement corrective action plans. These annual surveys and corrective actions will continue as part of the 2023 wildfire plan.

Table 15: Avian Protection Plan

Avian Protection	2023 Plan	2024 Plan	2025 Plan
Nest Management Total in Utah	52	TBD – annual assessment required and dependent on where birds build their nests.	
Nest Management (Conducted through Wildfire Plan)	36		
Pole Retrofit Total in Utah	3,095	2,997	2,997
Pole Retrofit (Conducted through Wildfire Plan)	422	481	475

Habitat and Fire Resiliency

Rocky Mountain Power is working with Pheasants Forever on the Intermountain West Joint Venture's forest habitat program. The program identifies projects to implement habitat improvements by managing for healthy, fire resilient forests across large landscapes and with multiple public and private partners. These projects also mitigate wildfire risk as projects are located within the service territory and adjacent to utility infrastructure. The projects are focused on improving the habitat, removing dead, and dying trees, improving the water quality, and increasing the water volume to reduce the possibility and impact of a wildfire in the project areas. Numerous partners, including state and federal agencies, conservation organizations, and private landowners, are participants in these projects, allowing for meaningful and durable impacts at landscape scales. Rocky Mountain Power will work annually with Pheasants Forever and the Intermountain West Joint Venture to identify relevant projects that meet forest health and wildfire resiliency goals and are within the service territory and/or adjacent to company rights-of-way. Techniques used in these projects may include thinning of forest stands, fuels removal, removal of dead or dying trees, development of fuel breaks, forest restoration, planting of beneficial species, reduction of ladder fuels that can contribute to crown fires and opening stands to allow for safer engagement by firefighters. These projects will reduce the risk of catastrophic wildfires. By partnering in these efforts, Rocky Mountain Power is able to participate in forest health projects that span beyond rights-of-way and could not otherwise be accomplished by the company alone. Likewise, the partners implementing these projects on the ground are also conducting the required environmental surveys and permitting. For these reasons, Rocky Mountain Power gains significant cost efficiencies by partnering in the Pheasants Forever/Intermountain West Joint Venture forest health program.

Along with the habitat and fire resiliency program, the company has also partnered with HawkWatch International to maintain over 600 nest boxes in northern Utah. The nest boxes are used by a variety of birds including kestrels, forest owls, and other cavity nesting

birds. Data is shared between HawkWatch and Rocky Mountain Power in determining the cavity nesting species. The company's participation in this program is intended to protect wildlife, mitigate the impact caused by increased vegetation management activities, and manage nests that could pose fire risks if located on infrastructure.

4 System Hardening

Rocky Mountain Power's electrical infrastructure is engineered, designed, and operated in a manner consistent with utilities best practice, enabling the delivery of safe, reliable power to all customers. When installing new assets as a part of corrective maintenance or growth projects, Rocky Mountain Power incorporates the latest technology and engineered solutions that have been tested and proven to be effective. When conditions warrant, Rocky Mountain Power may engage in strategic system hardening, such as replacing existing assets or modifying existing assets utilizing a new design or technology to make the asset more resilient. With the growing risk of wildfires, the company plans to supplement existing asset replacement projects with system hardening programs designed to mitigate operational risks associate with wildfire.

System hardening programs are designed in reference to the equipment on the electrical network that could be involved in the ignition of a wildfire or be subject to an existing wildfire event. In general, system hardening programs attempt to reduce the occurrence of events involving the emission of sparks (or other forms of heat) from electrical facilities or reduce the impact of an existing wildfire on utility infrastructure. System hardening programs represent the greatest long-term mitigation tool available for use by electric utilities. The phasing and prioritization of such programs is therefore focused on, but not explicitly limited to, locations identified with the FHCA where the risk of wildfire is the greatest. If similar work is performed outside of the FHCA, that work would be considered as reliability and safety work versus wildfire mitigation. As discussed in Section 1 the FHCA area changed and the impact for system upgrades such as, relay, recloser, and expulsion fuses is still being assessed.

No single system hardening program mitigates all wildfire risk related to all types of equipment. Individual programs address different factors, different circumstances, and

different geographic areas. Each program described below, however, shares the common objective of reducing overall wildfire risk associated with the design and type of equipment used to construct electrical facilities. In prioritizing a particular design or equipment elements, these programs can also consider environmental factors impacting the magnitude of a wildfire. Extreme weather conditions such as dry and windy conditions, present an increased risk of wildfire ignitions and spread. Consequently, system hardening programs may specifically attempt to reduce the potential of an ignition event when it is dry and windy, by utilizing equipment that is less likely to release energy if failure or contact with foreign objects occur.

It must be emphasized, however, that system hardening cannot prevent all ignitions, no matter how much is invested in the electrical network. Equipment does not always work perfectly and, even when manufactured and maintained properly, can fail; in addition, there are external forces and factors impacting equipment, including from third parties and natural conditions. Therefore, Rocky Mountain Power cannot guarantee that a spark or heat coming from equipment owned and operated by the company will never ignite a wildfire. Instead, the system hardening efforts seek to reduce the potential of an ignition associated with any electrical equipment by making investments with targeted system hardening programs.

To address the associate risk, new design standards have been developed and are applicable to new construction in areas of elevated wildfire risk. The idea of “system hardening” applies when new construction is to be “hardened” against wildfire risk. However, system hardening referenced in this plan is geared toward specific programs aimed at making existing facilities more resistant to wildfire, even though those existing facilities are fully functional and do not require any corrective work under current utility practices.

4.1 Line Rebuild Program

Circuits within the FHCA constructed with bare overhead wire have been identified for system hardening as a part of the line rebuild program. As a part of this program, overhead

lines may either be moved, removed, rebuilt, and retrofitted with more resilient materials such as covered conductor or non-wooden poles, or converted to underground. Figure 28 depicts the circuits selected for the line rebuild projects. After completion of this system hardening, such lines will be more tolerant to incidental contact, thereby reducing the risk of wildfire.

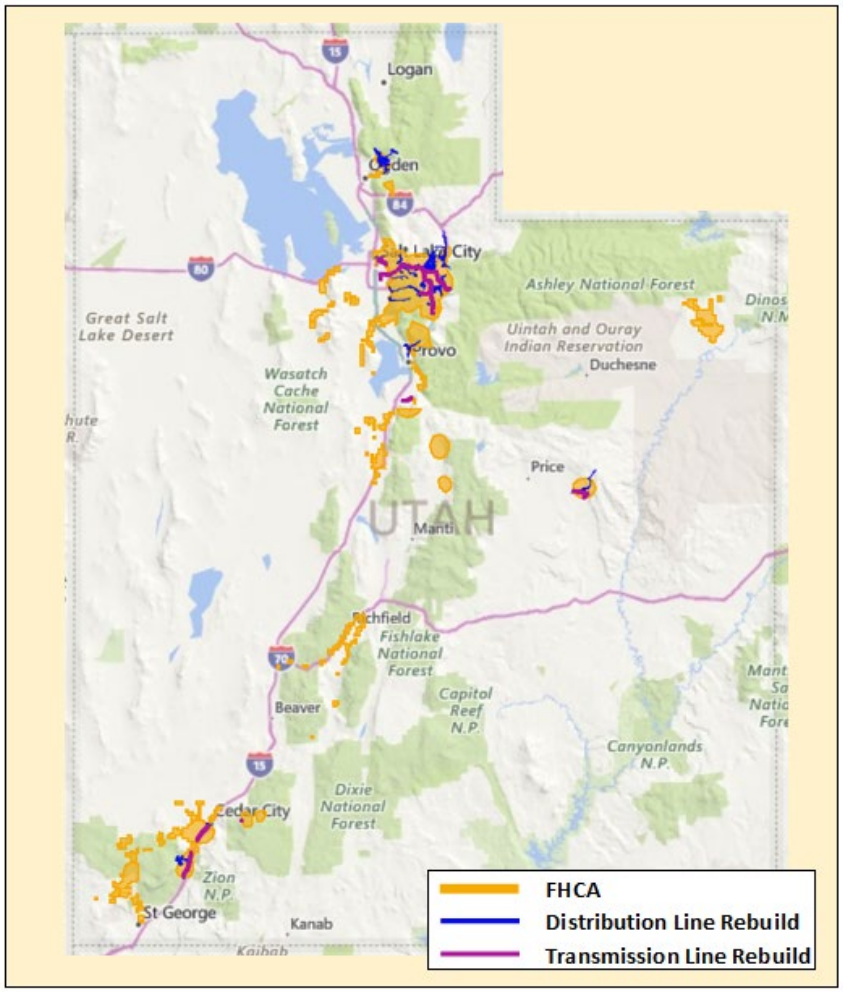


Figure 28: Line Rebuild Circuits

Covered Conductor

Historically, most high voltage power lines in the United States – and in Rocky Mountain Power's service territory – were installed with bare overhead conductor. As the name "bare" suggests, the wire surface is uninsulated and exposed to the elements. For purposes of wildfire mitigation, a new covered conductor design has emerged as an industry best

practice, with some variations in products, covered conductor is also called tree wire, spacer cable, or aerial cable. Most of the projects in the Line Rebuild Program will involve the installation of insulated covered conductor.

Figure 29: Lineworkers Preparing a Pole for New Covered Conductor

The dominant characteristic of covered conductor is manufactured with multiple high-impact resistant extruded layers forming an insulation around stranded hard drawn conductor. As a comparison, covered conductor is like an extension power cord that might be used in a garage. The inherent design provides insulation for the energized metal conductor. To be clear, covered conductor is not insulated enough for people to directly handle an energized high voltage power line (as discussed below). The insulating layers have proven to effectively reduce the risk of wildfire by minimizing the vegetation or ground contact over bare conductor.

Variations in covered conductor products have been used in the industry for decades. Due to many operating constraints, however, use of covered conductor tended to be limited to locations with extremely dense vegetation where traditional vegetation management was not feasible or efficient. Recent technological developments have improved covered conductor products, reducing the operating constraints historically associated with the design. These advances have improved the durability of the project and reduced the

impact of conductor thermal constraints. There are still logistical challenges with covered conductor. Above all, the wire is heavier, especially during heavy snow/ice loading, meaning that more and/or stronger poles may be required to support covered conductor.

The wildfire mitigation benefits of covered conductor are significant. As discussed in the risk assessment in Section 1, a disruption on the electrical network, a fault, can result in emission of a spark or heat that could be a potential source of ignition. Covered conductor greatly reduces the potential of many kinds of faults. For example, contact from an object is a major category of real-world faults which can cause a spark. Whether it is a tree branch falling into a line and pushing two phases together or a Mylar balloon carried by the wind drifting into a line, contact with energized bare conductor can cause the emission of sparks. If those same objects contact covered conductor, the wire is insulated enough that there are no sparks. Likewise, many equipment failures are a wildfire risk because the equipment failure then allows a bare conductor to contact a grounded object. Consequently, covered conductor greatly reduces the risk of ignition associated with most types of equipment failure. For example, if a cross arm breaks, the wire held up by the cross arm often falls to the ground (or low and out of position, so that the wire might be contacting vegetation on the ground or the pole itself). In those circumstances, a bare conductor can emit sparks (or heat) that can cause an ignition. The use of covered conductor, in those exact same circumstances, would almost certainly not lead to an ignition, because the insulation around the wire is sufficient to prevent any sparks and limit energy flow, even when there is contact with an object.

Covered conductor is especially well-suited to reduce the occurrence of faults linked with the worst wildfire events. Dry and windy conditions increase the wildfire risks. Wind is the primary driving force behind wildfire spread. At the same time, wind has distinct and negative impacts on a power line. The wind blows objects into lines; a strong wind can cause equipment failure; and even parallel lines slapping in the wind can cause sparks. Covered conductor specifically reduces the potential of an ignition event, because covered conductor is especially effective at limiting the kinds of faults that occur when it is windy. Taken together, these substantial benefits warrant the use of covered conductor

in areas with a high wildfire risk. This approach is consistent with emerging best practices, as utilities in geographic areas with extreme wildfire risk have trended heavily towards use of covered conductor.

Underground

Rocky Mountain Power also evaluates the potential to convert overhead lines to underground lines for the rebuild projects. The potential wildfire mitigation benefits are undeniable. While an underground design does not eliminate every ignition potential, i.e., because of above-ground junctions, it is the most effective design to dramatically reduce the risk of any utility-related ignition. Currently, the cost and operational constraints of underground construction often make it difficult to apply on a widespread basis. Nonetheless, some electric utilities are planning to employ an underground strategy more broadly.

Rocky Mountain Power is continuing to evaluate the use of underground design as part of the rebuild program on a project-by-project basis; and it uses under-grounding where practical. Through the design process, each individual rebuild project is assessed to determine whether sections of the rebuild should be completed with underground construction. Some communities and landowners may prefer, for aesthetic reasons, to pursue a higher cost underground alternative. Consistent with electric service regulations, Rocky Mountain Power will work with communities or individual landowners who are willing to pay the incremental cost and obtain the necessary legal entitlements for underground construction.

Non-Wooden Poles

Traditionally, overhead poles are replaced or reinforced within the service territory consistent with the NESC, company policies, and prudent utility practice. When a pole is identified for replacement, typically through routine inspections and testing, major weather events, or joint use accommodation projects, a new pole consistent with engineering specifications suitable for the intended use and design is installed in its place. Engineering specifications typically reflect the use of wooden poles which is consistent with prudent utility practice as they are considered safe and structurally sufficient to

support overhead electrical facilities during standard operating conditions. However, the use of alternate non-wooden construction, such as steel, can provide additional structural resilience in high-risk locations during wildfire events and, therefore, aid in restoration efforts.

In addition to the installation of non-wooden solutions as a part of standard replacement programs or mechanisms in priority locations with increased risk, certain wooden poles may also be replaced with non-wooden solutions in conjunction with other wildfire mitigation system hardening programs. For example, as a part of covered conductor installation, the strength of existing poles is evaluated. In many cases, the strength of existing poles may not be sufficient to accommodate the additional weight of covered conductor. In these instances, the existing wooden pole is upgraded to support the increased strength requirements and, when present in high priority locations, replaced with a non-wooden solution for added resilience.

Pole Wrap

Depending on the pole configuration and location, Rocky Mountain Power may also install a fire mesh wrap around both transmission and distribution wooden poles in areas of heightened wildfire risk. The wrap is applied to protect the poles from fire damage in the event of a wildfire. Pole wraps may also be applied on poles scoped for replacement with steel poles as an interim solution.

Line Rebuild (Distribution)

Pending any unforeseen engineering, permitting, or construction constraints, Rocky Mountain Power is currently forecasting to rebuild approximately 240 miles of overhead distribution lines through 2025 as part of a longer-term plan to rebuild or convert to underground all miles within the FHCA. Unlike many traditional distribution construction projects, the use of covered conductor or conversion to underground often requires a custom engineered design for each project, long-lead unique materials, specialized resources, and a larger volume of personnel to construct. In addition, permitting can incrementally increase project timelines significantly. As a result, project timelines for

covered conductor or underground projects are usually longer and require more flexibility than those of bare conductor projects. Therefore, program targets are nominal and may require revisions as projects progress.

To continue evolving the line rebuild program, investments are being made in new datasets, software, and tools, described in Section 1, to provide enhanced transparency in project selection and prioritization. The tools are expected to have a significant impact on the future project selection and scoping of line rebuild projects.

Line Rebuild (Transmission)

Rocky Mountain Power currently plans to harden approximately 74 miles of overhead transmission through 2025, as part of a larger plan to harden all lines in the FHCA, by wrapping or replacing all wooden poles with non-wooden solutions such as steel. Both activities reduce the wildfire risk for a transmission structure.

Transmission lines located within the FHCA are evaluated based on condition and age to access the risk. Lines that meet the criteria for rebuild are typically constructed using steel poles and are constructed to at least 138 kV standards, even if the operating voltage is lower. Steel poles are fire resistant and are generally more resilient than wood poles. In addition to meeting the overall long-term Company plan of phasing out the older 46/69 kV system, framing sub-transmission voltages to 138 kV standards meets avian safety requirements, provides additional clearance to reduce the risk of arching from foreign objects, limits phase to phase contact during heavy wind events, and provides greater distance to ground to reduce potential contact from motorized vehicles, cranes, and other construction equipment. The company does not consider undergrounding of transmission lines for wildfire mitigation as it is cost prohibitive.

The table below shows the line rebuild circuit miles that have been completed through 2023 and the forecasted circuit miles to be completed through 2025.

Table 16: Line Rebuild Program Forecast

Project Component	2020-2022 Actual	2023	2024	2025	Total

		Actuals	Plan	Plan	
Transmission (miles)	22	12	20	20	74
Distribution (miles)	43	37	60	100	240
Total (Miles)	65	49	80	120	314

4.2 Advanced System Protection and Control

Rocky Mountain Power continues to replace and upgrade electro-mechanical relays with microprocessor relays throughout the FHCA and on circuits interconnected with the FHCA. Microprocessor relays provide multiple wildfire mitigation benefits. They are able to exercise programmed functions much faster than an electro-mechanical relay and above all, the faster relay limits the length and magnitude of fault events. After a fault occurs energy is released, posing a risk of ignition until the fault is cleared. Reducing the duration of a fault event reduces the risk that the fault might result in a fire.

Additionally, microprocessor relays also allow for greater customization to address environmental conditions through a variety of settings and are better able to incorporate complex logic to execute specific operations. These functional features allow for the company to use more refined settings for application during periods of greater wildfire risk, which will be discussed in Section 6.

In contrast to electro-mechanical relays, microprocessor relays retain event logs that provide fault data for later analysis. In certain circumstances, this information can help the company locate and correct a condition prior to the condition leading to a more serious event. At a minimum, such information facilitates better knowledge of the network, possibly shaping future mitigation strategies. As part of replacing an electro-mechanical relay, the associated circuit breaker or other line equipment may also be replaced, as appropriate to facilitate the functionality of a microprocessor relay.

As part of the 2020-2022 WPP, 55 devices were replaced to mitigate risk within the FHCA. Over the next three years, Rocky Mountain Power plans to mitigate within the FHCA by installing or upgrading additional devices to have a total of 83 distribution relays, 23 transmission relays, and 38 reclosers. This program could expand as the company learns more about risk and advances its risk modeling capabilities described in Section 1. Table 17 shows the relay and recloser replacement plan.

Table 17: Relay and Recloser Replacement Plan

	2020-2022 Actual	2023 Actuals	2024 Plan	2025 Plan	Total
Distribution Relay Replacements	35	25	18	10	88
Transmission Relay Replacements	12	9	-	-	21
Recloser Replacements	8	20	10	10	48
Total	55	54	28	20	157

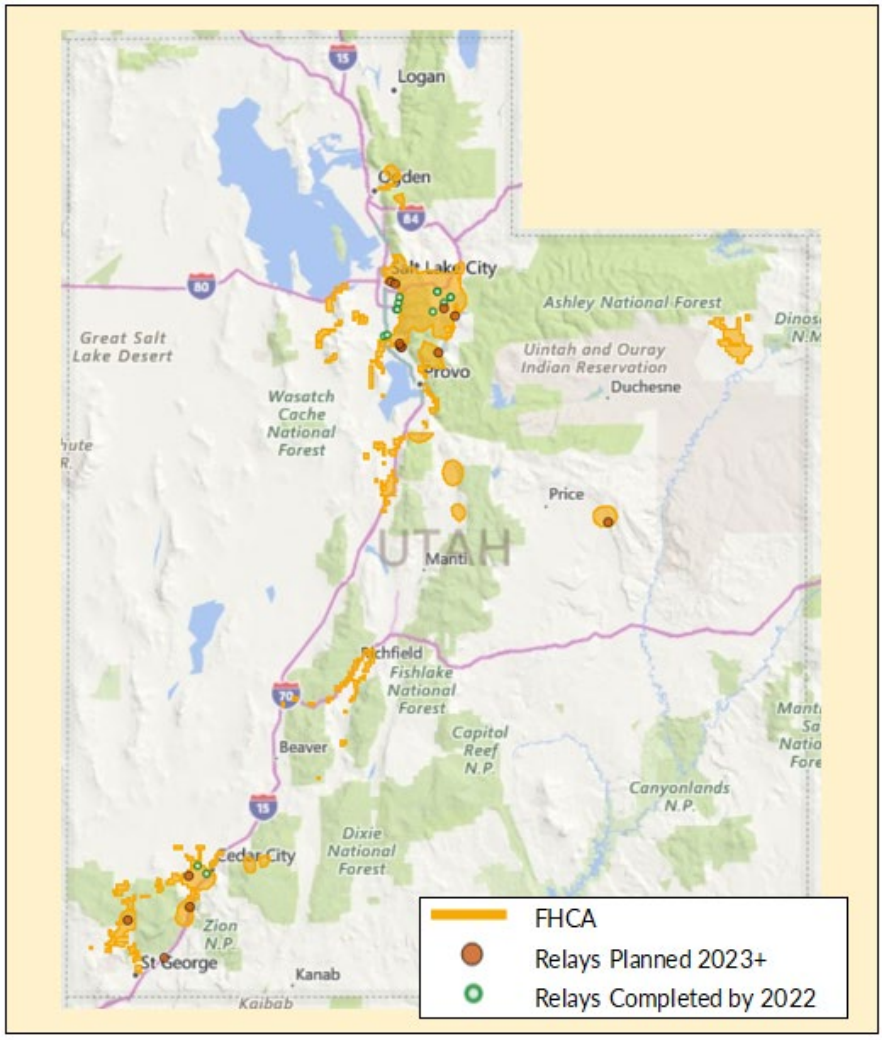


Figure 30: Utah Relays Replacement Locations

4.3 Expulsion Fuse Replacement

Overhead expulsion fuses serve as one of the primary system protection devices on the overhead system. The expulsion fuse has a small metal element within the fuse body that is designed to melt when excessive current passes through the fuse body, interrupting the flow of electricity to the downstream distribution system. Under certain conditions, the melting action and interruption technique will expel an arc out of the bottom of the fuse tab. To reduce the potential for ignition resulting from fuse operation, Rocky Mountain Power has identified alternate methodologies for installation within the FHCA. Company standards for expulsion equipment replacement are based on Cal Fire's Power Line Fire Prevention Field Guide (2021 Edition). Rocky Mountain Power plans to proactively replace

all expulsion fuses and other linked hardware within the FHCA in a systematic, prioritized manner as part of a multi-year effort. As of the end of 2023, 4,726 expulsion fuse replacements have been completed within the FHCA. Another 4,000 fuse replacements are planned to be completed by 2025.

Table 18: Expulsion Fuse Replacement Plan

	2020-2022 Actual	2023 Actuals	2024 Plan	2025 Plan	Total
Fuse Replacements	2,936	1,790	2,000	2,000	8,726

4.4 Fault Indicators

As described above in Section 4.2 the company is continuing to replace and upgrade electro-mechanical relays with microprocessor relays throughout the FHCA and enable the use of more refined settings for application during periods of greater wildfire risk, which is discussed further Section 6. To supplement these programs and generally mitigate the potential impacts to customers of these types of wildfire mitigation strategies, communicating fault indicators (CFCIs) are being installed broadly across the company's service territory where alternate settings can be used on devices to react to faults differently depending on the risks present, beginning with circuits in or electrically connected to the FHCA. The communicating devices require an annual data connection to ensure they are communicating properly. If communications have failed and the devices are unable to be restored the devices will have to be replaced. As Rocky Mountain Power continues to understand the risk and implement mitigation programs, additional fault indicators may be installed as needed to continue balancing the impact to customers and wildfire mitigation. The fault indicators are further described in Section 6.3.

Table 19: CFCI Installation Plan

	2020-2022 Actual	2023 Actuals	2024 Plan	2025 Plan	Total
CFCI	1,598	-	1,100	-	2,698
CFCI Replacements	-	200	-	-	200
Total	1,598	200	1,100	-	2,898

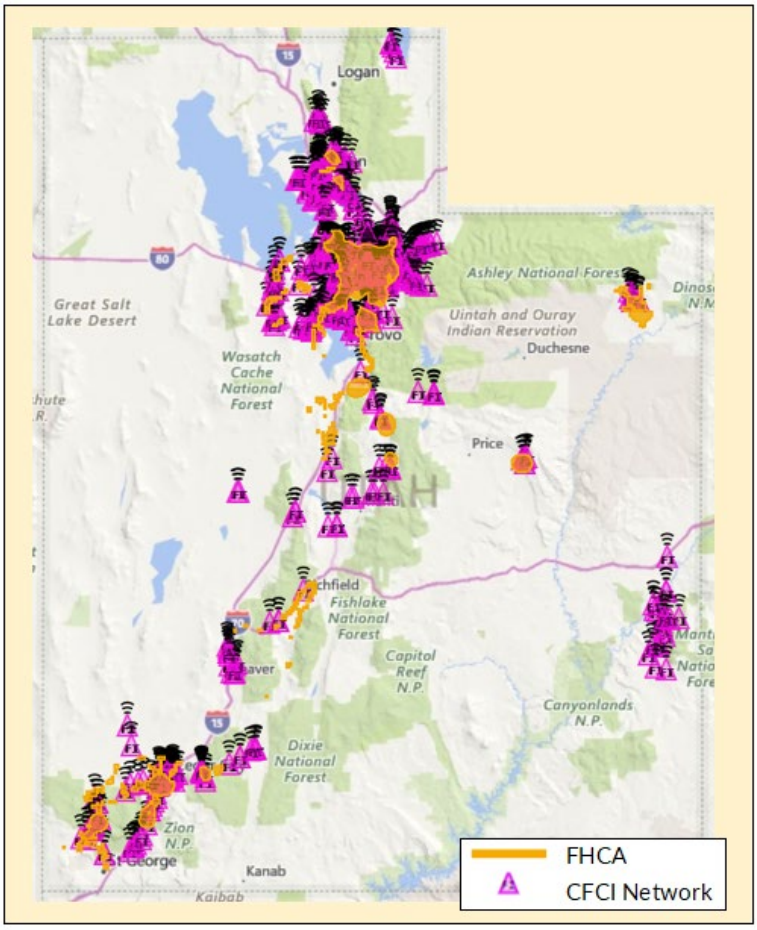


Figure 31: CFCI Network

5 Situational Awareness

As described in Section 1, Rocky Mountain Power uses the FHCA, the company's baseline risk map, layered with a risk driver analysis to inform strategic asset inspections, vegetation maintenance practices, and long-term system hardening solutions. However, as climate and weather patterns change, extreme weather events are predicted to become

more frequent, and the potential exists for seasonal, dynamic, and/or isolated risk events to occur that compound or deviate from this baseline risk. Therefore, having an additional, sophisticated, dynamic risk model grounded in situational awareness is pertinent to ensure electric utilities know when, where, how, and why to take abnormal action to mitigate the risk of wildfire.

Rocky Mountain Power's approach to situational awareness includes the acquisition of data to forecast and assess the risk of potential or active events to inform operational strategies, response to local conditions, and decision making. These key components, as outlined below, rely on a core team of utility meteorologists to guide, execute, and continuously evolve.

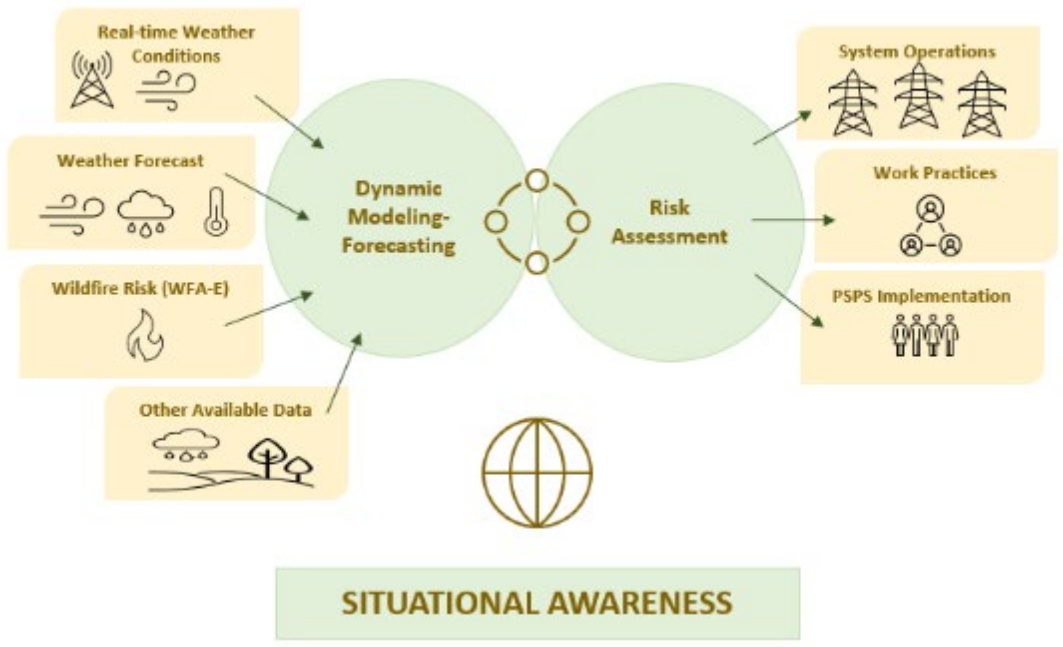


Figure 32: Overview of Situational Awareness

5.1 Meteorology

As described above, the ability to gather, interpret, and translate data into an assessment of utility specific risk and inform decision making is a key component of Rocky Mountain Power's situational awareness capability. To support this effort, Rocky Mountain Power

has developed an experienced meteorology department within the company's broader emergency management department. This team consists of four full-time meteorologists, one data scientist, one meteorology operations manager, and one manager. The team's experience includes decades of fire weather forecasting for various government agencies such as the National Weather Service (NWS) and Geographic Area Coordination Center (GACC).

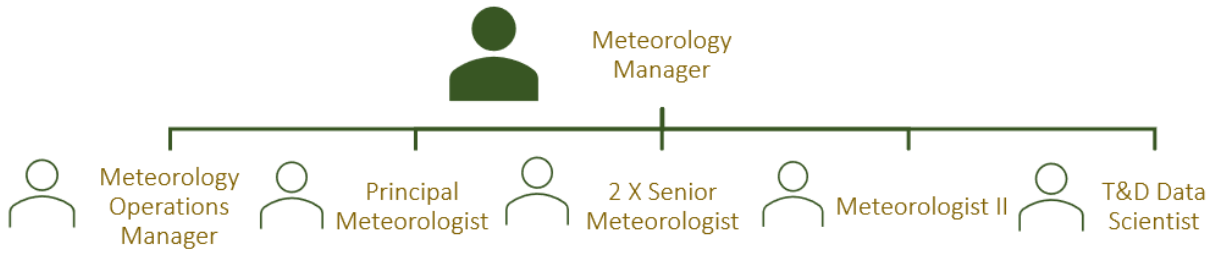


Figure 33: Meteorology Team

The objectives of this department are to supplement the company's longer term risk analysis capabilities (also referred to in this document as baseline risk modeling and described in Section 1) by:

- Implementing a real-time risk assessment and forecasting tool,
- Identifying and closing any forecasting data gaps,
- Managing day-to-day threats and risks, and
- Providing information to operations to inform and recommend changes to operational protocols during periods of elevated risk as depicted below.

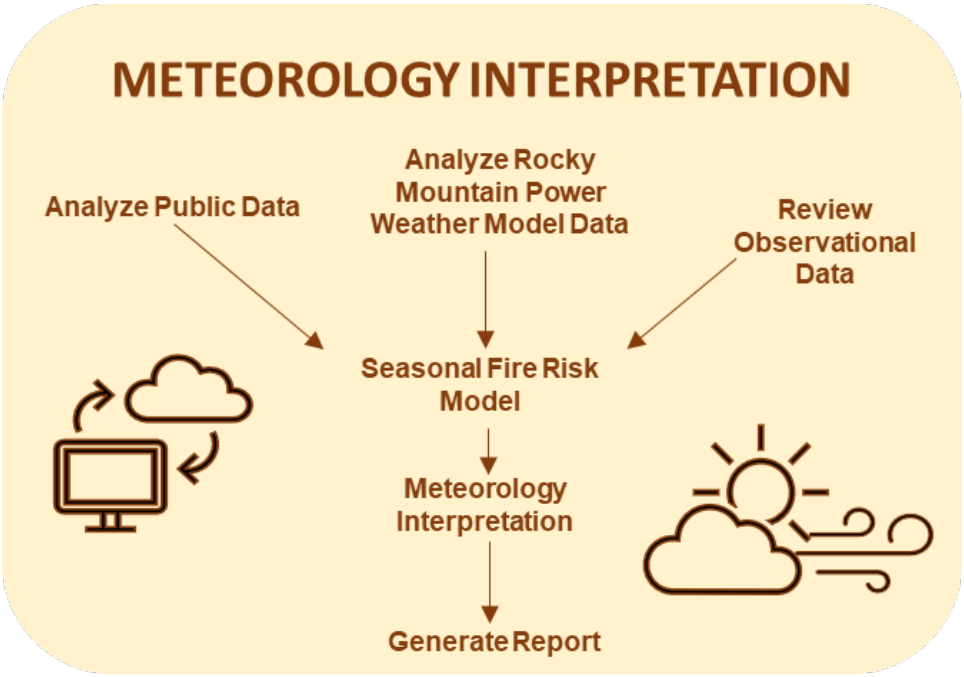


Figure 34:Meteorology Daily Process

Numerical Weather Prediction

The foundation of Rocky Mountain Power's meteorology program is the creation of an impacts-based forecasting system consisting of an operational Weather Research and Forecasting (WRF) model and a complimentary 30-year WRF reanalysis across the company's entire service territory. Using the WRF reanalysis and other training data, Rocky Mountain Power plans to build and train machine learning models to improve its operational thresholds and convert its weather forecasts into a prediction of system impacts.

Operational WRF Model

Rocky Mountain Power's meteorology department developed and is now using a twice daily, two-kilometer-resolution, hourly weather research and forecasting model. It produces a comprehensive forecast of atmospheric, fire weather, and National Fire Danger Rating System (NFDRS) parameters out to a timescale of 96 hours (four days). The model's high resolution gives a much more complete picture of finer scale atmospheric

features than what is available with most public four-day ahead timescale models. In addition, the WRF data is overlayed on overhead distribution circuits and transmission lines, along with other relevant utility asset data, for further analysis.

30-Year WRF Reanalysis

Rocky Mountain Power's meteorology department has developed a 30-year, two-kilometer resolution, hourly WRF reanalysis. The 30-year WRF reanalysis uses the same configuration and contains the same weather, fire weather, and NFDRS parameters as Rocky Mountain Power's operational WRF to minimize any potential forecast biases between the two datasets. This reanalysis data has been correlated with historic outage data and wildfire events using statistical and machine learning techniques to improve the company's weather-related outage and wildfire risk thresholds. Output from Rocky Mountain Power's operational WRF model can then be ingested by the company's machine-learning models and GIS tools to convert the daily forecast into potential system impacts and to map the intersection of fire weather and outage related risks across its service territory.

Between 2023 and 2026, Rocky Mountain Power plans to continue looking for ways to improve its numerical weather predication capabilities, which may include investment in computing power or automation processes.

Improving Compute Power

The Rocky Mountain Power WRF domain covers the entirety of PacifiCorp's six-state service territory. From 2021 to 2022, Rocky Mountain Power invested in the procurement of two High Performance Computing Clusters (HPCC) to provide the computational resources needed to run an operational WRF model that large. Currently, by leveraging these supercomputers, the operational WRF forecasts are available approximately five hours after initialization. As stated above, Rocky Mountain Power plans to continue looking for ways to improve its numerical weather predication and data processing capabilities, which may include investment in computing power or automation processes.

5.2 Data Acquisition

Data acquisition, from both internal and external sources, is another key component of Rocky Mountain Power's situational awareness model.

Weather Station Network

Public weather data has been available for many years for reference. However, relying only on publicly available data can have limitations. When using publicly available weather data the utility does not have visibility into the maintenance and calibration records or standards used to maintain the weather station collecting the data. Additionally, the frequency of data collection may not match the needed intervals for performing real time risk assessments and dynamic modeling. Finally, publicly available data may have geographic coverage gaps within the utility's service territory.

When weather stations are owned by the utility the calibration date and usability of the data is known, the data reporting intervals can be adjusted to report more frequently, and the data can be used to inform real time operations. Additionally, weather stations can be installed and adjusted to pinpoint specific locations needed to inform utility risk assessment.

For all these reasons Rocky Mountain Power is continuing to invest in a utility-owned and operated weather station network within the company's service territory. Figure 35 depicts the general weather station siting methodology.

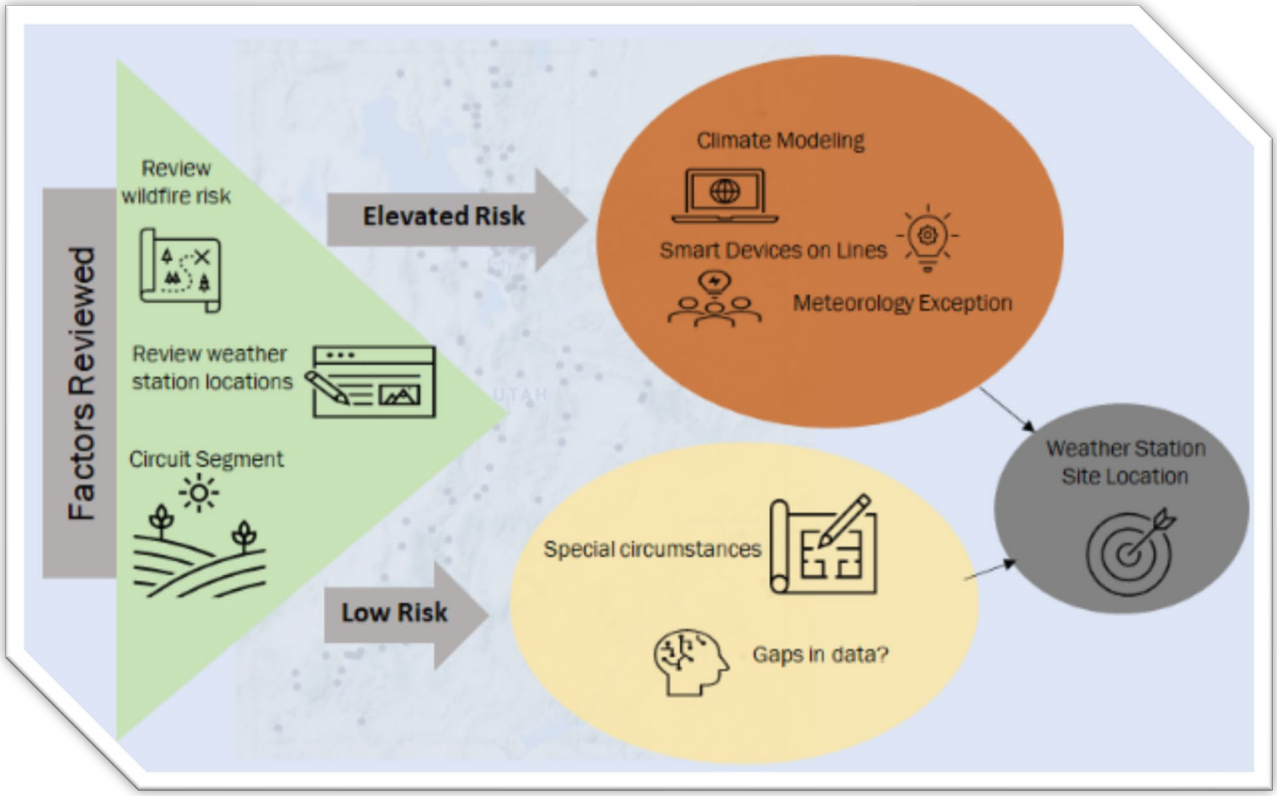


Figure 35: General Weather Station Siting Methodology

As of January 1, 2023, the weather station network in Utah consists of 96 operational weather stations that have been installed directly on utility infrastructure. Additionally, Rocky Mountain Power has obtained ten portable weather stations for rapid deployment as needed to provide supplemental data during weather events.

Weather station data is used to create a model of routine weather patterns in specific areas. This weather data is then leveraged alongside the operational WRF, its companion 30-year weather data re-analysis, and Technosylva's Wildfire Analyst-Enterprise (WFA-E) software (described in Section 5.3), to model potential impacts to infrastructure associated with forecasted weather events and inform operational protocols and decision making, such as when and where to stage resources and how to prioritize restoration times. This improved modeling allows for better anticipation of impactful weather events and is an important component of situational awareness.

The weather station network buildout continues in 2024 with Rocky Mountain Power planning to install 25 weather stations. By 2025, Rocky Mountain Power expects to install a total of about 130 weather stations. After the elevated risk circuits have weather station data the focus will shift to address gaps in data or other locations where weather station data would be beneficial for operational decision-making. To ensure the weather stations are operating appropriately, the stations will be calibrated on an annual basis. Table 20 depicts the plan and annual phasing of weather stations installation work.

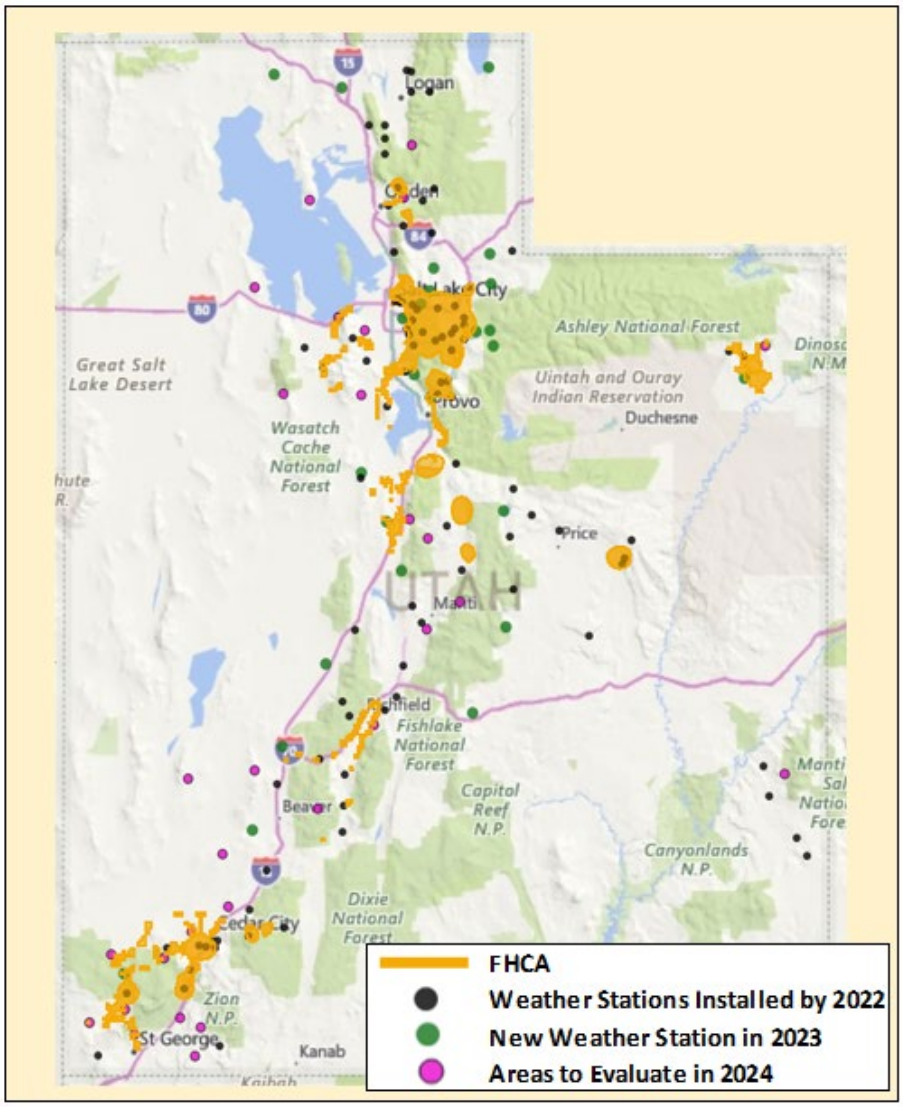


Figure 36 Utah's Weather Station Network

Table 20: Three-Year Weather Station Network Build Out Plan

	2022 ACTUALS[10]	2023 ACTUALS	2024 Areas to Evaluate	2025 Areas to Evaluate	TOTAL
New Weather Stations	65	25	25	15	130
Total UT Fleet	96	121	151	161	161

Rocky Mountain Power's meteorology department will continue to evaluate the benefits of additional weather stations.

Publicly Available Situational Awareness Data

Rocky Mountain Power's weather stations and WRF model generate a considerable amount of data each day. The company makes this data available to its employees, customers, and public safety partners through a Situational Awareness website[11] alongside weather station observations and forecast data from other trusted government sources, including the National Weather Service. Combining weather station observations with forecast data allows Rocky Mountain Power to compare real-time weather observations with forecast data. Further, the wind climatology of each weather station is considered, with real-time and forecast wind conditions color-coded based on station-specific statistics like 95th and 99th percentile values. All the above data are automatically updated on the website as new data is available and can be viewed in maps, tables, and meteograms. Figure 37 below includes sample material from the public website.

[10] 2022 actuals include work completed through EOY 2022.

[11] See https://rockymountainpowerweather.com

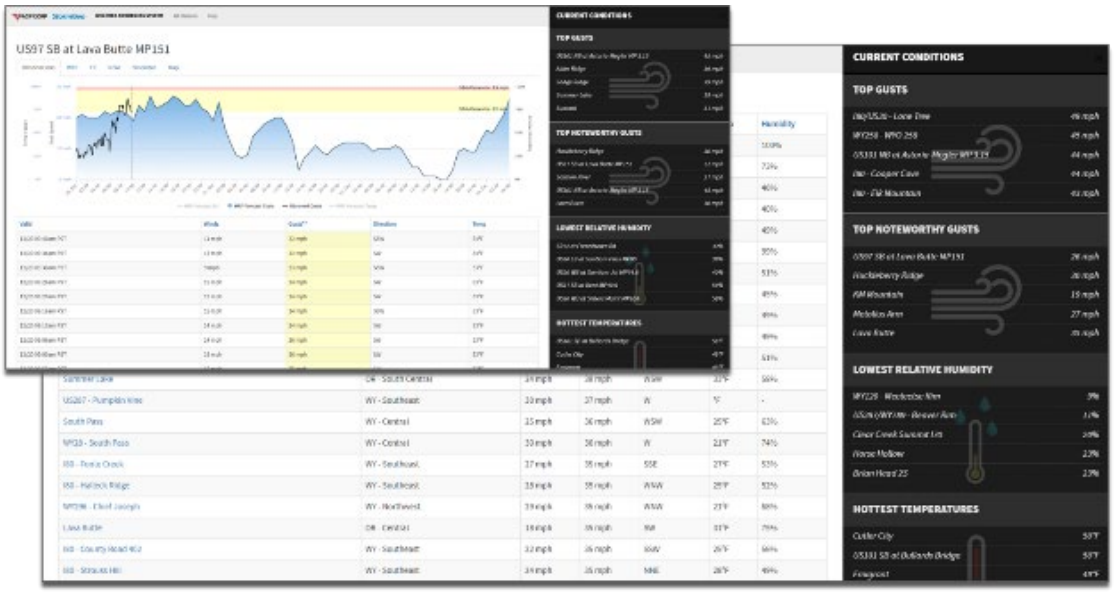


Figure 37: Sample of Publicly Available Situational Awareness Information

This data is also ingested into an internal dashboard used for situational awareness during periods of elevated risk such as during a PSPS. This dashboard is also customizable based on the scale of the event and includes station alert speeds and/or other decision points. For example, the dashboard allows for manual entry of wind gust thresholds for PSPS. When a threshold is manually entered, the system will issue an alert when it is met.

In 2023 and 2024, Rocky Mountain Power plans incorporate additional information and improved functionality to the internal dashboard to support situational awareness and improve functionality.

5.3 Seasonal Wildfire Risk

In 2022, Rocky Mountain Power procured and implemented a suite of wildfire risk modeling tools from Technosylva more commonly referred to as Wildfire Analyst-Enterprise (WFA-E). Technosylva, the company that developed and provided implementation and ongoing operational support for WFA-E, sources most of the data inputs for the seasonal wildfire model. These are described in detail in 0.

Wildfire Analyst Enterprise includes two seasonal fire models, FireCast and FireSim, that are used by Rocky Mountain Power to forecast the risk of wildfire and the potential wildfire behavior should it occur.

FireCast performs millions of wildfire simulations daily across the company's six-state service territory to assess the fire risk in any given area. This output is also joined with a subset of distribution and transmission asset data to provide asset-specific wildfire risk and consequence forecasts. FireCast provides a 96-hour look ahead to identify if there is a risk of wildfire, where the risk is and where the greatest consequence is if there is a wildfire. FireCast also allows for comparison of forecast conditions to historical conditions in the operational area.

Figure 38 is an example of an output from FireCast from near Provo Canyon, UT from July 28, 2023.

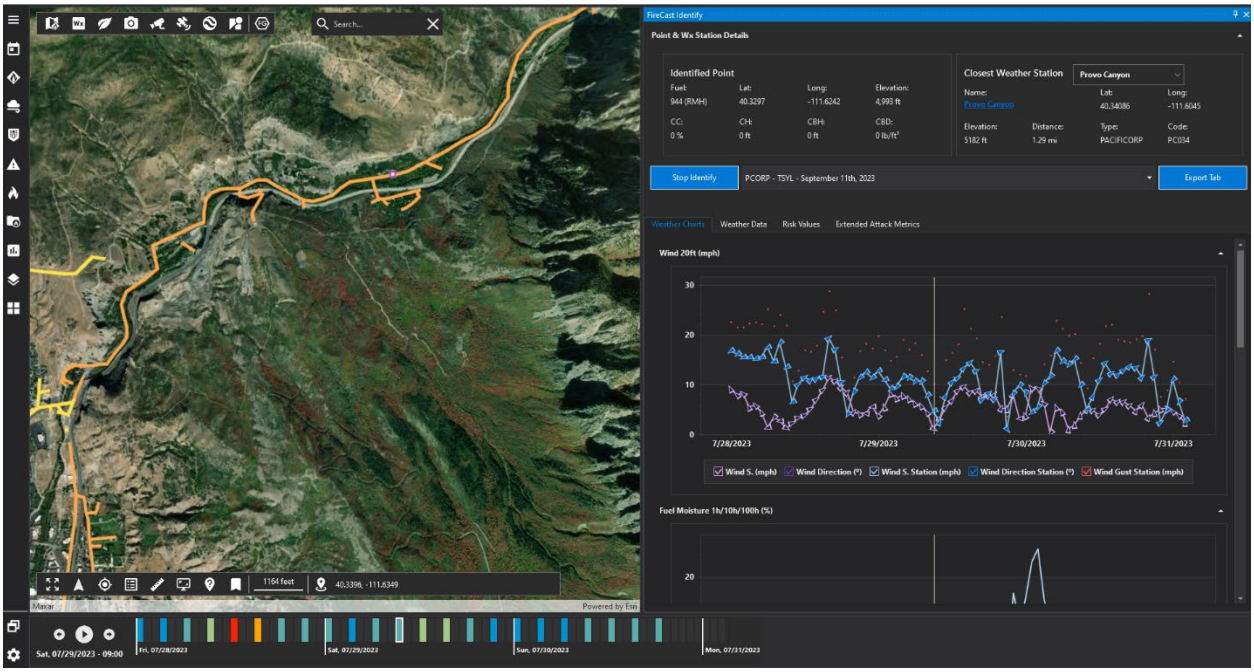


Figure 38: Sample FireCast Output Near Provo Canyon on July 28,2023

Real Time Impact Based Fire Modelling

FireSim is a simulation that can be run to forecast the potential fire behavior and spread from as little as one hour to up to a 96-hour period to assess the potential impact on populations, buildings, utility assets and other resources in the field. FireSim's model assumes no suppression efforts to slow the fire's spread and considers the following elements.

- **Initial Attack Assessment:** Assessment of how difficult initial attack will be for first responders and the probability of stopping the fire within the first operating period.
- **Population at Risk:** Number of people in the path of the fire and the timing of when the fire is likely to arrive at populations.
- **Assets at Risk:** Physical assets such as utility equipment, residential and commercial structures, barns, outbuildings etc. and the timing of when the fire is likely to arrive at assets. The assets are default locations from Google Earth Studio.
- **Places at Risk:** These are locations identified on the maps that may not be physical assets but have other significance. These could include parks, reservoirs, cultural sites, campgrounds, or other locations. These places are default locations from Google Earth Studio.
- **Weather and fuels conditions:** Wind speed, direction, fuel moisture content.

Figure 39 is an example of FireSim output from South Form Park, near Provo Canyon, UT from July 28, 2023.

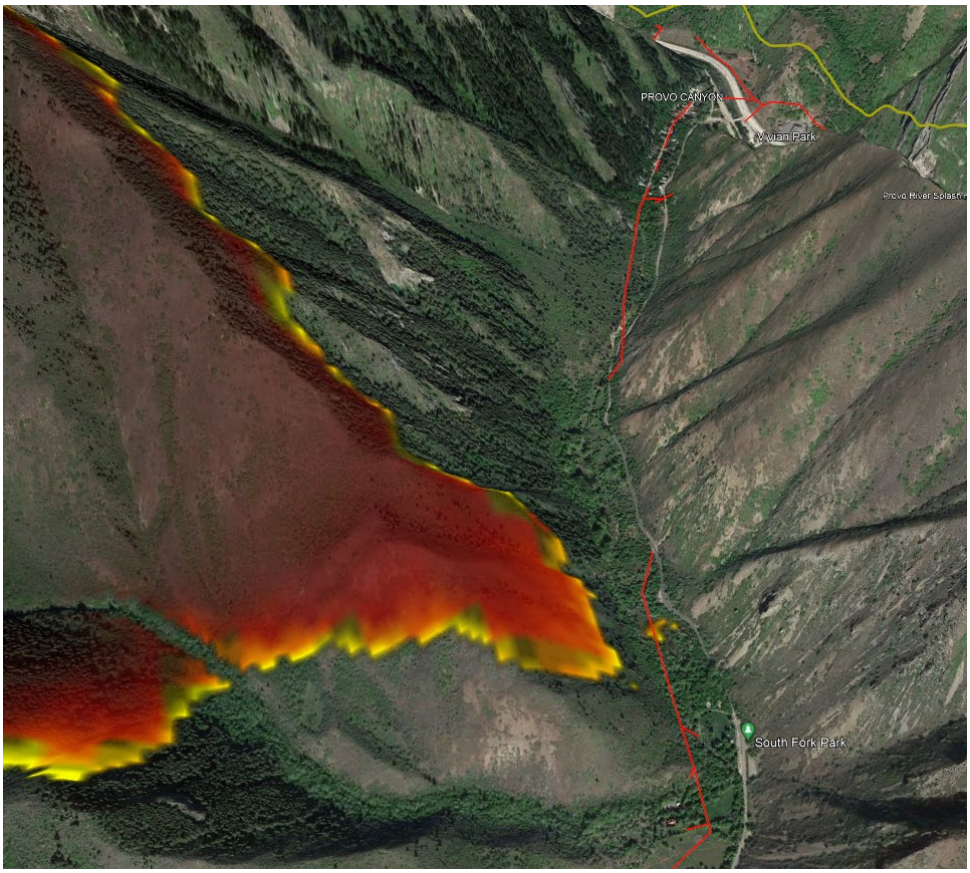


Figure 39: Sample FireSim Output Near Provo Canyon on July 28,2023

5.4 Application and Use

Pacific Power's meteorology team analyzes weather model data and risk modeling output to produce a district-based, weather-related system impacts forecast. Typically, this analysis is produced daily on business days. However, during periods of extreme risk, it is performed daily, including weekends. It is described in greater detail below.

Assessing the District Fire Risk

Prior to the onset of the 2023 fire season, Technosylva developed a Fire Potential Index (FPI) for Rocky Mountain Power. The FPI quantifies the potential for large or consequential wildfires based on weather, fuels, and terrain. To accomplish this, Technosylva performed a detailed analysis of past weather from Rocky Mountain Power's WRF reanalysis, satellite-derived hotspot (wildfire) data from the Visible Infrared Imaging Radiometer Suite (VIIRS), and other environmental data.

For each of these fire days and fire locations, historical weather variables from Rocky Mountain Power's WRF reanalysis were retrieved and analyzed along with other environmental data on vegetation (fuel) and terrain. From this data, an artificial intelligence model was built and trained to estimate three-hour potential fire activity by time and place using Rocky Mountain Power's operational WRF as the primary weather input. This approach aims to predict adverse fire spread conditions which could cause new fires to exceed fire suppression capabilities in the initial attack and become large or destructive.

The following three inputs contribute to the final FPI score:

- **A Fuel Model Complex** which weighs the type of structure, its load and the time elapsed since the last fire to quantify how the fuel model may affect fire behavior, fire type and fire suppression difficulty.
- **Weather Conditions** which consist of a combination of wind gusts, temperatures, and fuel conditions.
- **Terrain Difficulty Index** which represents the level of geographical complexity to access an area.

The scores from these inputs are correlated to a level of fire risk. Figure 40 below shows the FPI scoring scale and percentiles in WFA-E. An FPI value or FPI percentile can be used determine the FPI risk level.

FPI Category	FPI Values		FPI Percentiles
Very Low	<5		<60
Low	5-10		60-80
Moderate	10-13.5	OR	80-85
High	13.5-23		85-95
Very High	23-37.5		95-99
Extreme	> 37.5		>99

Figure 40: Fire Potential Index Scale

As Rocky Mountain Power gains more experience with the utilization of this methodology, additional enhancements or adjustments may be identified.

As noted above, Rocky Mountain Power's meteorology team analyzes weather model data and risk modeling output to produce a daily district-based, weather-related system impacts forecast. During periods of extreme risk, this assessment is performed seven days a week. This is combined with the team's district-based fire risk forecast to produce the System Impacts Forecast as shown in Figure 41 below. Rocky Mountain Power recognizes that under certain conditions, wildfires can occur anywhere there is sufficient wildland vegetation to burn, even in historically low risk areas. For this reason, the District Fire Risk is not limited to the FHCA and includes Rocky Mountain Power's entire service territory.

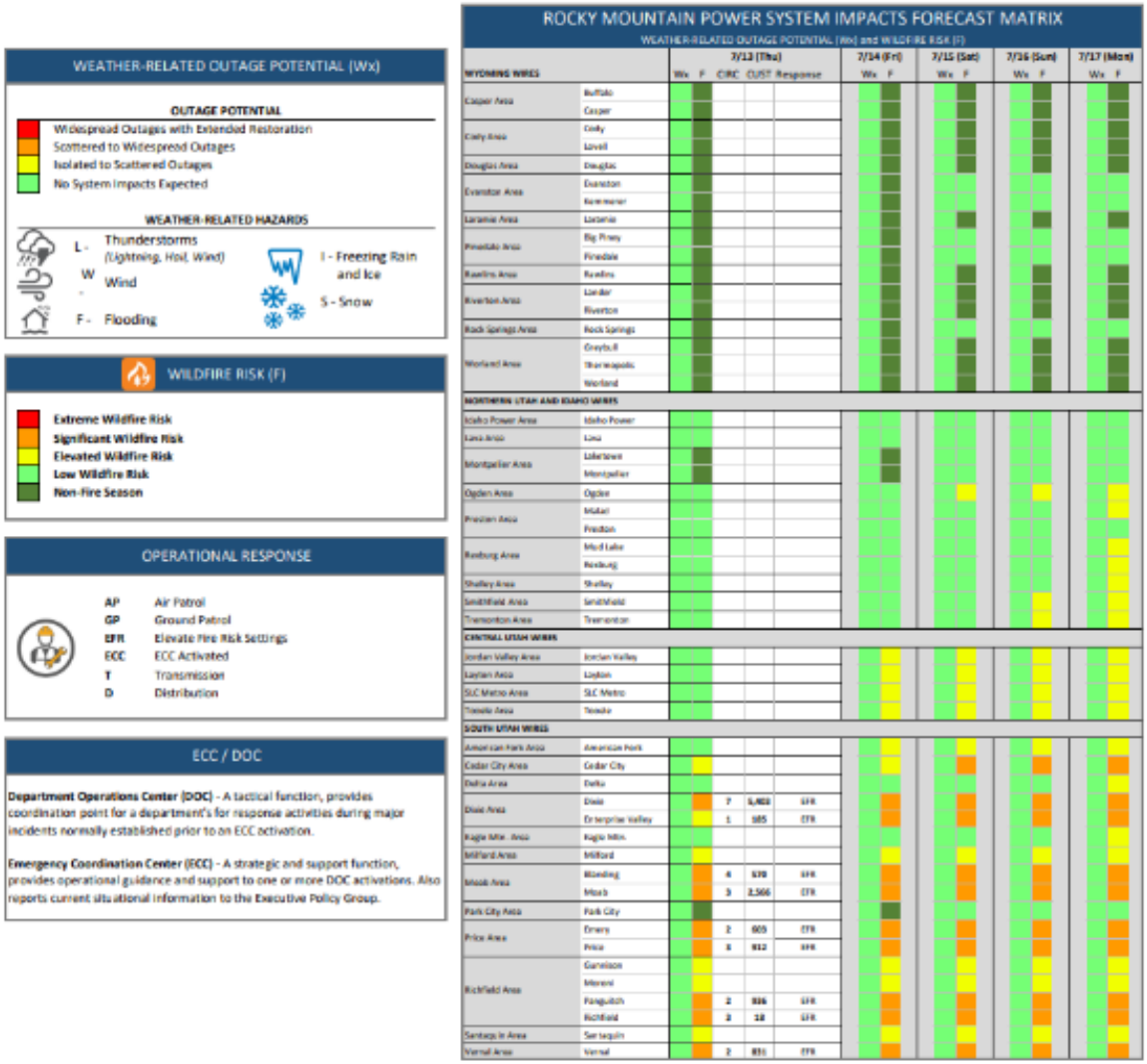


Figure 41: Example System Impacts Forecast

Meteorology assigns a district-level wildfire risk based on an assessment of fuels and fire weather conditions, forecasted wind gust percentiles, and district terrain when developing the forecast. As shown in Figure 42 below wildfire risk is expressed using a five color-code scheme with general inputs assessed and categorized as shown. The modified hot dry windy index is utilized to assess risk in areas complex fuels and terrain, and in grassland and rangeland, the state of grass curing is utilized.

Grass & Rangelands

PacifiCorp Wildfire Risk	Grasses	Max Wind Gust
Non-Fire Season	Green	
Low Wildfire Risk	Cured	< 0.85
Elevated Wildfire Risk	Cured & Dry	≥ 0.85*
Significant Wildfire Risk	Cured & Dry	≥ 0.95*
Extreme Wildfire Risk	Cured & Dry	≥ 0.99*

* Excludes thunderstorm-related wind gusts

Complex Fuel & Terrain

PacifiCorp Wildfire Risk	Modified Hot-Dry-Windy	Max Wind Gust
Non-Fire Season		
Low Wildfire Risk	< 0.80	
Elevated Wildfire Risk	≥ 0.80	
Significant Wildfire Risk	≥ 0.95	
	≥ 0.80	≥ 0.90*
Extreme Wildfire Risk	≥ 0.95	≥ 0.95*

* Excludes thunderstorm-related wind gusts

Figure 42: Approach to District Level Wildfire Risk Assessments

When moving into an elevated, significant, or extreme wildfire risk, meteorology performs an additional review of fuels and fire weather forecasts and observations by using some or all the additional metrics and methods outlined in Table 22.

Table 21: Additional Considerations when Considering District Fire Risk

Current or Recent Wildfire Activity	Current or recent wildfire activity is an indication that the weather and fuels conditions will contribute to fire occurrence and spread.
Geographic Area Coordination Center (GACC) Products	Seven-Day Significant Wildfire Potential, Fuels & Fire Behavior Advisories, and other outlooks or discussion products.
National Weather Service Watches or Warnings	Fire Weather Watches, Red Flag Warnings, High Wind Warnings, and other products issued by the National Weather Service
Evaporative Demand Drought Index (EDDI)	EDDI identifies anomalous atmospheric evaporative demand and provides an early warning of increased wildfire risk.
Fire High Consequence Areas (FHCA) (Y/N)	Fire High Consequence Areas are pre-identified areas of elevated risk based on historical fires, climatology, geography, and populations
Fire Potential Index (FPI)	FPI quantifies the potential for large or consequential wildfires based on weather, fuels, and terrain.
Fuels Conditions (Grasses, Live Fuels, & Dead Fuels)	Observations of the local fuel conditions including 1, 10, 100, and 1000-hour dead fuel moisture, herbaceous and woody live fuel moisture, tree mortality, Energy Release Component, etc.
High Resolution Fire Weather Forecasts (WRF)	Rocky Mountain Power's two-kilometer WRF model produces a twice daily territory-wide forecast of fire weather and National Fire Danger Rating System (NFDRS) outputs across a 96-hour time horizon.
Severe Fire Danger Index	Publicly available index that uses two United States National Fire Danger Rating System indices that are related to fire intensity and spread potential.
Vapor Pressure Deficit (VPD) one month running average	Vapor Pressure Deficit is a measure of the atmospheric demand (thirst) for water. Values above the 94th percentile have been associated with large wildfires.
Wildfire Consequence Modeling (WFA-E)	Millions of wildfire simulations are performed daily to map out potential wildfire risk and consequence across the service territory.

Automated Circuit Level Forecast

Rocky Mountain Power plans to develop an automatically generated circuit and transmission level forecast of pre-identified WRF and Technosylva outputs. The outputs of the forecast could be used for situational awareness to determine if targeted interventions are needed to reduce the risk of wildfire on any given day. Figure 43 shows the proposed timeline for development and deployment.

Figure 43: Timeline for Automated Circuit Level Forecast

5.5 Wildfire Detection Cameras

Rocky Mountain Power has some experience with high-definition cameras in the company's Utah service territory. Building upon this experience, Rocky Mountain Power plans to begin installing 5 wildfire detection camera systems, beginning in 2024, as part of a pilot project in its Utah service territory to supplement existing situational awareness data. The camera systems will be outfitted with 24/7 artificial intelligence software, near infrared, and nighttime detection capabilities and offer both pan-tilt-zoom and 360° continuously rotating capture.

Pacific Power plans to seek input from various state agencies in determining final camera siting locations through communications with Utah Division of Forestry, Fire and State Lands. Additionally, Rocky Mountain Power will look for existing structures (e.g., on fire lookout towers and existing communication structures) for camera station placement to improve efficiency.

Once installed, the company will work to provide access to fire agencies, dispatch centers, and other public safety partners who may benefit from access to the technology. Additionally, these users will have the ability to receive alerts via email and SMS when camera systems detect smoke to facilitate early detection and quicker response. The company anticipates collecting operational data and end user feedback over time to evaluate the program for modifications or expansion. Moving forward, Rocky Mountain Power will continue to look for opportunities to partner with state agencies and promote the availability of company facilities available for camera installation.

6 System Operations

Adjustments to power system operations can help mitigate wildfire risk. System operations adjustments generally include the modification of relay settings for protective devices on distribution lines or changes to line re-energization testing protocols described further in this section. These adjustments are not universally applied to power system operations because there are certain disadvantages in their use, especially because they may increase outage frequency and duration experienced by customers. In other words, a balance is required to provide customers with reliable power while still mitigating wildfire risk. To help balance these concerns, Rocky Mountain Power is deploying technologies, such as fault indicators, discussed in the subsections below.

6.1 Elevated Fire Risk Settings

Line protective devices, such as line reclosers, are currently deployed on various transmission and distribution lines throughout Rocky Mountain Power's service territory. When a line trips open due to fault activity, reclosers can be programmed to momentarily open, allow the fault to dissipate, then reclose in an effort to test if the fault is temporary. The reclosing function gives the ability to restore service on a line that has tripped while maintaining the option to open again if the fault persists. If the fault is permanent, the recloser will operate and stay open (known as the "lock out" state) until the line has been deemed ready for re-energization. The image below generally depicts one potential configuration of a distribution circuit with multiple line reclosers installed.

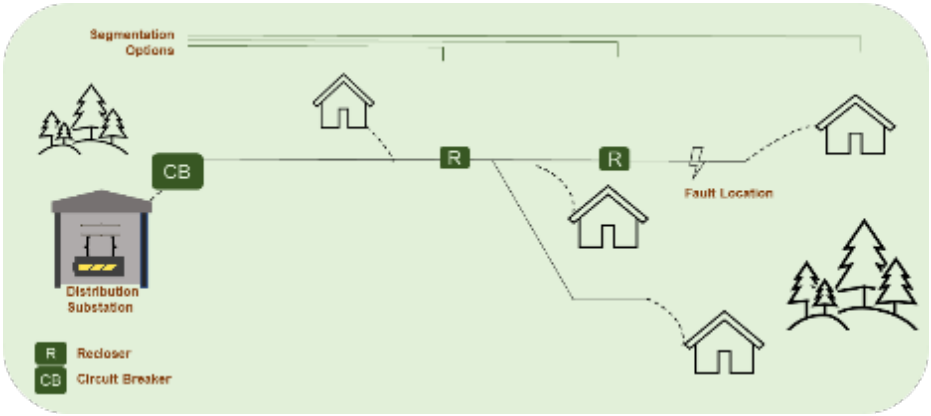


Figure 44: Example of Distribution Circuit with Multiple Reclosers

In general, recloser operation is beneficial because it reduces the number of sustained outages and improves customer reliability. The reclosing function, however, implicates some degree of ignition risk because additional energy can be released if a fault persists. When a fault is detected on the line, a recloser will trip and reclose to re-energize the line based on predetermined settings. If the fault is temporary in nature and is no longer present upon the reclose operation, the line will re-energize resulting in limited impact to customers. If the fault persists, however, reclosing can, depending on the circumstances, potentially result in arcing or an emission of sparks. Accordingly, a strategic balance between customer reliability and wildfire mitigation goals is required.

Rocky Mountain Power is implementing additional strategies on the distribution network, including the use of modified and more sensitive protection and control schemes, referred to as Elevated Fire Risk (EFR) settings.

Such applications on the distribution network, however, tend to have a greater impact on customer reliability and Rocky Mountain Power is exploring different strategic combinations to find the right balance.

To mitigate impacts to customer reliability, the company generally does not disable reclosing seasonally. Instead, the daily risk assessment process and situational awareness reports described in Section 5 are leveraged and a risk-based approach to the implementation of EFR settings is used. For example, when meteorological conditions of increased wildfire risk occur, an alternative operating mode may sometimes be used to increase protection element sensitivity, clear detected faults faster, reduce the number of reclose attempts, increase the open interval time between trip and reclose operations, or set the recloser to lock out upon a single trip event. Rocky Mountain Power plans to continue evaluating situational awareness, customer outages and other information to further optimize the settings and implement EFR settings as needed.

6.2 Re-Energization Practices

Risk-based changes to re-energization practices is remarkably similar to the implementation of EFR settings in that it also requires a balance between customer

reliability and wildfire mitigation. If a breaker or recloser has "locked-out" – meaning that it has opened and no longer conducts electricity – a system operator or field personnel will sometimes "test" the line. To test the line, the system operator or field personnel will close the device, thereby allowing the line to be re-energized. If the fault has cleared, then the system will run normally. If the fault has not cleared, the device will lock out again. If the device locks out again, the system operator then knows that additional investigation or work will be required before the line can be successfully re-energized. Because faults are often temporary, line-testing can be an efficient tool to maintain customer reliability similar to the use of reclosing described in the previous section. At the same time, line-testing can potentially result in arcing or an emission of sparks if a fault has not yet cleared when the line is tested. To mitigate this risk an enhanced patrol is which includes a patrol and step restoration of the entire circuit prior to line testing, depending on local circumstances, is required. Situational awareness reports, as described in Section 5, can inform re-energization protocols during periods of elevated risk.

6.3 Outage Response Tools

Implementation of EFR settings can result in more frequent outages to customers. Additionally, introducing alternate re-energization practices that require incremental or augmented patrols after system faults can take a substantial amount of time. While sometimes warranted to reduce the risk of wildfire, Rocky Mountain Power recognizes the disruption this can have to customers and communities.

The time it takes to patrol a line and overall impact to customers can be substantially reduced when the fault location can be determined. Therefore, as described in Section 4.4 and generally depicted in Figure 45, the utility installed fault indicators across the Utah service territory, prioritizing circuits that fed into the FHCA areas where EFR settings are most likely to be implemented. When an outage occurs, these new tools are utilized by regional operators and field personnel to narrow down potential fault locations, optimize the deployment of resources, and expedite restoration.

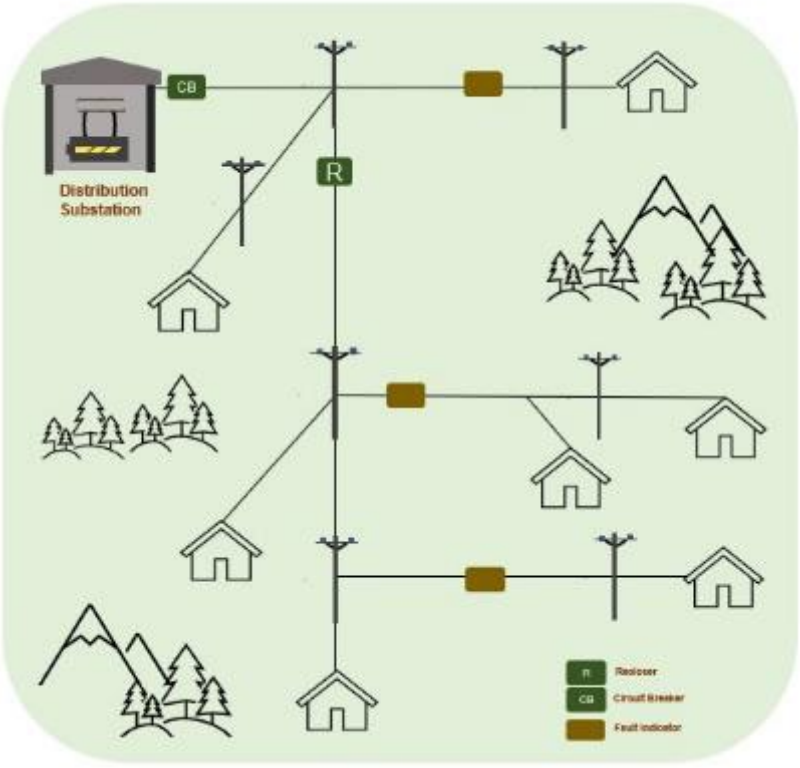


Figure 45: General Fault Indicator Configuration

6.4 Reliability Impact of Operational Adjustments

As mentioned, the operational adjustments to mitigate wildfire risk can have a negative impact to reliability. In addition to implementing new outage response tools to reduce reliability impact as outline in Section 6.3, the Company also tracks and monitors outages that occur on circuits with Elevated Fire Risk settings separately. Rocky Mountain Power report's reliability metrics in accordance with Public Service Commission's orders in Docket Nos. 08-035-55, 13-035-01, 15-035-72, and 20-035-22. In Docket 23-035-21, the Public Service Commission directed Rocky Mountain Power to separately track outages on circuits with elevated fire risk settings and report such interruptions in its WMPP and compliance reports. The System Average Interruption Duration Index (SAIDI) is a reliability indicator that measures the system average outage duration for each customer served. The chart below shows the company SAIDI performance since Rocky Mountain Power started to implement operational adjustments to mitigate wildfire risk.

The company carefully measures the reliability impact to support balance exists between wildfire mitigation efforts and reliability performance. For more details on EFR related outages, please review the company's Service Quality Review submitted to the Public Service Commission semi-annually.

7 Field Operations & Work Practices

During fire season, Rocky Mountain Power modifies field operations and work practices to further mitigate wildfire risk. Additionally, investments are made in tools and equipment to mitigate wildfire risk.

7.1 Modified Practices & Work Restrictions

Rocky Mountain Power modifies work practices based on internal situational awareness reports as well as in response to state, federal and local requirements, such as Utah State Legislature 65A—8-212. As a part of the situational awareness reports and briefings prepared by the meteorology department, the operations department considers local weather and geographic conditions that may create an elevated risk of wildfire. The intent behind implementation of this practice is to reduce the potential of direct or indirect causes of ignition during planned work activities, fault response, and outage restoration.

Figure 46: Lineworkers Performing Work

Personnel working in the field during fire season mitigate wildfire risk through a variety of tactics. Routine work like condition correction and outage response poses a degree of

ignition risk, and, in certain circumstances, crews modify their work practices and equipment used to decrease this risk. Modified work practices and modifications are more conservative in times of elevated ignition risk. In the extremely unlikely event that an ignition occurs while field crews or other Rocky Mountain Power personnel are working in the field (collectively referred to as "field personnel") they have been given basic tools to extinguish small fires.

Some wildfire risk can be mitigated by managing the way that field work is scheduled and performed. To effectively manage work during fire season, area managers regularly review local fire conditions, and the weather forecasts provided to them as part of the situational awareness program, as discussed in Section 5 of this document. Area managers may also reach out to area fire managers or foresters, as applicable.

During fire season in general, operations managers defer nonessential work in locations with dense and dry wildland vegetation, especially during periods of heightened fire weather conditions. However, field personnel may need to perform essential work in the FHCA and other areas with appreciable wildfire risk. In these cases, certain restrictions may apply, including:

- **Hot Work Restrictions:** Evaluating whether field personnel should perform work during a planned interruption, rather than while a line is energized.
- **Time of Day Restrictions:** Considering using alternate work hours to accommodate evening and night work when there may be less risk of ignition.
- **Wind Restrictions:** Deferring work, if feasible, when there are windy conditions at a particular work site.
- **Driving Restrictions:** Keeping vehicles on designated roads whenever operationally feasible.
- **Worksite Preparation:** Removing wildland vegetation that poses an ignition risk from a worksite if the work to be performed involves the potential emission of sparks from electrical equipment, and only where it is allowed in accordance with land management/agency permit requirements. In addition to clearing work, water trailer resources, discussed below, are strategically assigned to accompany field

personnel working in wildland areas during fire season, especially in the FHCA. Depending on local conditions, dry vegetation in the immediate vicinity may be sprayed with water before conducting work as a preventative measure.

As noted above, whether to implement these restrictions is evaluated based on the daily reports and briefings provided by meteorology and aligned with all applicable regulatory and permitting requirements. As Rocky Mountain Power is continuously improving and evolving its plan and programs, the process below is subject to change and is managed by internal company policies and procedures. Additionally, changes are noted in the filed RMP Annual Cost and Compliance Reports which will be distributed to the Utah Division of Forestry, Fire and State Lands in addition to the Utah Commission.

In general, whenever wildfire risk potential is minimal to none, work may be conducted using normal operating practices. However, when meteorology forecasts wildfire risk conditions that are elevated, significant, or extreme, local operations may modify operating practices. For example, the personal protective equipment and basic firefighting tools described above are required for any field work conducted during periods of elevated fire risk. Local area management will also evaluate, after considering multiple factors regarding the local circumstances of a particular circuit, whether any hot work modifications should be made. If wildfire risk is significant or extreme, local area management will also consider whether any additional work is appropriate. Section 5 of this document provides an in-depth discussion of how meteorology forecasts impact field operations and work practices.

Additional Labor Resources

To implement some of the wildfire mitigation programs generally described above and at greater length in Section 6 of this document, incremental labor resources and field personnel time is often required to: (1) support system operations in assessing localized risk and administering EFR settings and (2) respond to outages during fire season with additional patrols and coordination.

Under normal operating procedures, system operators and field personnel work together daily to manage the electrical network and there are many situations where system operators depend on field personnel to gather information and assess local conditions. As discussed in Section 6, there are system operations procedures during wildfire season for implementing EFR settings and limiting line-testing. Consequently, system operators need field personnel to gather information and assess local conditions during fire season more often than what is required under normal operating procedures. The requests from system operators may be varied, ranging from a simple phone call to confirm that it is raining in a particular area, to a much more time-intensive request, such as a full line patrol on a circuit.

Depending on current conditions at the work site and the duration of the restoration work, field personnel may also spend incremental time when responding to an outage during fire season. As discussed in Section 6.2, a heightened risk exists with traditional restoration practices. To mitigate this risk, field operations may perform line patrol on certain de-energized sections of circuits, most notably during fire season and particularly in the FHCA. Depending on the circumstances, this extra patrol might be done just before or just after re-energizing the line. Typically, this type of line patrol does not involve a close inspection of a particular facility; instead, it is a quick visual assessment specifically targeted to identify obvious foreign objects that may have fallen into the line during restoration work.

7.2 Equipment and Tool Purchases

In addition to changes in work practices, Rocky Mountain Power invests in tools and equipment to mitigate wildfire risk. These investments include: (1) mobile communication devices, (2) vehicles, (3) personal suppression equipment, and (4) water trailers.

Mobile Communication Devices

Figure 47: Rapidly Deployable Cell on Wheels

Rocky Mountain Power operates and serves customers in very rural locations, some of which have limited to no cellular connectivity back to the local district office and/or the control center. During large disasters, like wildfire events, Rocky Mountain Power field personnel need to be able to communicate quickly and effectively to maintain safe operation of its system and support emergency response and restoration activities. Therefore, in 2022 Rocky Mountain Power procured a compact rapid deployable cell tower, this device is also known as cell on wheels (COW). This equipment, shown in Figure 47, generates an area of FirstNet cellular and Wi-Fi coverage, to improve communications when cell coverage is unavailable. These devices will be strategically staged at service centers throughout Utah for use during a major event, such as a wildfire emergency, to improve communication capabilities into the control center, base camp, and/or management. This equipment will also enable communication when there is a loss of it due to infrastructure failure for SCADA access, WAN, and portable radios.

In addition to the COW device, Rocky Mountain Power is currently considering other, emergency communication alternatives, such as Starlink devices, to help mitigate wildfire risk in locations where there is no cellular coverage. The Starlink device would provide a Wi-Fi hot spot connection to allow communication with the local district office and the

control center. Overall, the communication equipment will improve emergency restoration activities and mitigate impacts to customers.

Vehicles

Vehicles can be a source of ignition. As discussed above, operations personnel are instructed to stay on designated roads during fire season, as feasible, and to avoid vegetation that could contact the undercarriage of vehicles. To further mitigate any wildfire risk associated with the use of vehicles, Rocky Mountain Power plans to convert, over time, the vehicle exhaust configuration of its work trucks. Some vehicles in districts with the most FHCA will be strategically converted. Long term, when Rocky Mountain Power purchases new vehicles, it plans to purchase trucks with exhaust configurations that minimize ignition risk.

Basic Personal Suppression Equipment

Personal safety is a priority, and Rocky Mountain Power encourages its field personnel to evacuate and call 911 if necessary. Field personnel working in the FHCA maintain the capability to extinguish small fires that ignite while they are working in the field; however, they are only encouraged to attempt suppression in situations where a fire is small enough that one person can effectively fight it and, simultaneously, maintain their personal safety. All field personnel working in the FHCA during fire season will have basic suppression equipment available onsite because field utility trucks typically carry a: (1) fire extinguisher; (2) shovel; (3) Pulaski; (4) water container; and (5) dust mask. The water container should hold at least five gallons and may be a pressurized container or a backpack with a manual pump (or other).

Water Trailer Resources

Rocky Mountain Power has water trailers that field operations use to mitigate against wildfire risk. For clarity, these resources are not dispatched to reported fires, i.e., like a fire truck. Instead, these resources are strategically assigned to accompany field personnel if conditions warrant. For example, if it is necessary to perform work in the FHCA during a

period in which there is a Red Flag Warning, field operations may schedule a water trailer to join field personnel working in the field. As discussed above, the water trailer can be used to help prep the site for work. By watering down dry vegetation in the work area, chance of an ignition can be minimized. In the extremely unlikely event of an ignition, the water trailer could be used to assist in suppression of a small fire.

7.3 Wildfire Training Facility

Wildfire mitigation programs include installation of modern technologies like covered conductor, advanced detection devices, and weather stations, all of which require training for proper execution of installation and maintenance work. To accommodate the need for additional training, Rocky Mountain Power built a comprehensive wildfire transmission and distribution training center in 2020. The training center has space to perform training, equipment testing, and analysis, and includes a pole yard. This training yard allows for personnel to get firsthand training and practice installing equipment like covered conductor before going out to the field and is a vital component to operations.

7.4 Wildfire Training Material

To prepare crews for ever changing wildfire conditions, Rocky Mountain Power is developing training materials that will include eBooks and mobile applications available for internal employees. The goal in developing the training materials it to prepare and train crews before an event happens to decrease response time and aid in the effectiveness of the response. The topics included in the training materials include wildfire protection overview, roles and responsibilities, and Public Safety Power Shutoff. There will also be interactive scenarios for crews to walk through in the application to help inform and guide actions should an incident occur.

8 Public Safety Power Shutoff Program

Rocky Mountain Power may de-energize power lines as a temporary, preventative measure during periods of the greatest wildfire risk. This practice is referred to as “proactive de-energization” or is more commonly known as a “Public Safety Power Shutoff” or “PSPS.” The decision to implement a PSPS can be based on extreme weather

and area conditions, including high wind speeds, low humidity, and critically dry fuels. PSPS implementation should also be a response to a wildfire, further described in Section 9 Emergency Management Wildfire Response. A PSPS event is implemented as a last resort and is intended to supplement – not replace – existing wildfire mitigation strategies. The general process is depicted below.

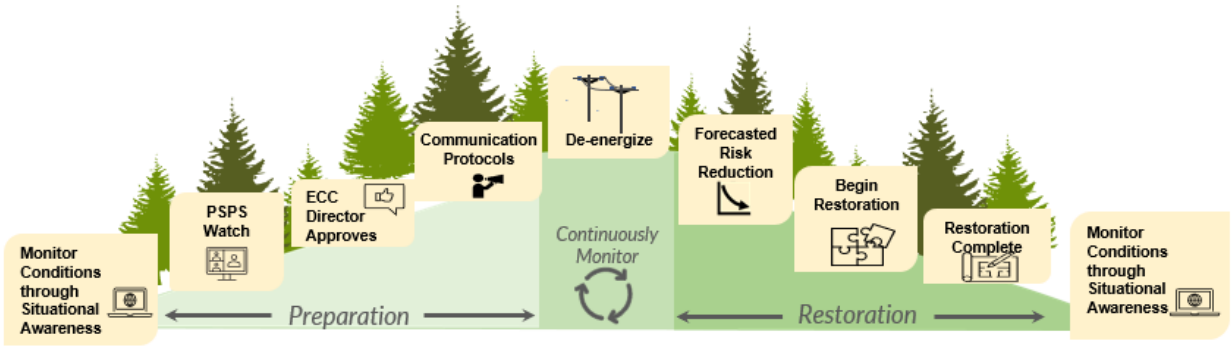


Figure 48: PSPS Overview

The following subsections describe Rocky Mountain Power's program in greater detail. Many of the program elements revolve around the successful execution of a PSPS event, while other elements bolster decision-making, mitigate the potential impact of a PSPS event, or help to avoid use of the tool altogether.

8.1 Initiation

As discussed in Section 5, situational awareness reports are generated daily during business days by the meteorology department to aid in decision making during periods of elevated risk. During periods of extreme risk such as PSPS assessment and activation, these reports are generated daily, including weekends. They identify where fuels (dead and live vegetation) are critically dry, where and when critical fire weather conditions are expected (gusty winds and low humidity), and where and when the weather is forecast to negatively impact system performance and reliability. It is the intersection of these three triggers that result in the potential for a PSPS event, as shown below.

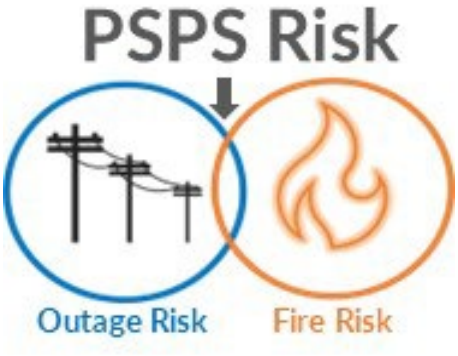


Figure 49: PSPS Assessment Methodology

Assessing the Potential for a PSPS

As discussed in Section 5 and above, meteorology generates a daily weather briefing that includes a system impact forecast matrix for Rocky Mountain Power's entire service territory. This matrix includes a district-level forecast of weather-related outage potential and fire risk as described in detail in Section 5.4 of this document. When the district fire risk is significant or extreme, meteorology will use a combination of its WRF and outage models, Technosylva's WFA-E, and subject matter expertise (as described in Section 5) to identify circuits of concern. Emergency management will also schedule a coordination meeting to discuss circuits of concern and to determine the appropriate operational response, up to and including PSPS. A PSPS is typically discussed and/or considered when the forecast matrix indicates a combination of wind-related outage potential and extreme wildfire risk in the same district.

8.2 De-Energization Watch Protocol

Rocky Mountain Power actively monitors real-time weather conditions. When real-time observations and weather forecasts indicate extreme risk, a de-energization watch protocol is initiated that includes:

- Activation of an "Emergency Coordination Center" (ECC).
- Communication with local public safety partners.
- Implementation of additional monitoring activities.

The ECC is staffed by a specialty group of company representatives who assemble during de-energization warning and implementation to provide critical support to operational resources through the collection and analysis of data. The ECC makes decisions to maintain the safety and reliability of the transmission and distribution system and helps facilitate cross-organization coordination. The ECC is led by an Incident Command and has the support of a safety officer, a joint information team, emergency management, meteorology, and operational stakeholders representing field operations, system operations, vegetation management, engineering, and other specialties.

Upon activation of the ECC, Rocky Mountain Power emergency management gathers input from public safety partners to properly characterize and consider impacts to local communities. The ECC also sends advance notifications to the operators of pre-identified critical facilities, partner utilities, and adjacent local public safety partners. The company's customer service team then coordinates through the ECC to confirm customer lists for the subject area to develop a communication plan for customers that may be impacted.

Local assessments of lines may occur during a PSPS watch by way of various methods depending on the accessibility of locations, the reliability of the line, area conditions and other factors. The ECC reviews various factors and may deploy crews to perform these assessments in the field or remotely monitor from the coordination center.

PSPS is a temporary mitigation measure. Consistent with existing regulations and the general mandate to operate the electrical system safely, the ECC has discretion to determine when (or if) a PSPS is appropriate. Given the potential impacts to customers and communities, Incident Command will consider all available information, including real-time feedback and other considerations from other ECC participants, public safety partners, and field observers, to determine whether PSPS should be executed.[12] Additionally, Incident Command may decide to further refine the PSPS areas identified.

[12] As a matter of practical reality, Incident Command cannot know whether a PSPS will prevent a utility-related ignition. If a PSPS is not implemented and an ignition occurs, the ignition itself is not proof that a PSPS should have been implemented. Likewise, if a PSPS is implemented, the event itself does not prove that an ignition that would have otherwise occurred was prevented.

8.3 De-Energization Protocol

When a PSPS event is initiated, an action plan is prepared to include affected location details, event timing and projected event duration. Once approved by the Incident Command, an internal notification is sent to initiate appropriate communications to customers, critical facilities, public safety partners, regulatory organizations, large industrial customers, and required field and system operations team members. Preparations also begin for the opening of community resource centers (CRC), if needed, and additional field resources may be deployed or staged accordingly. Conditions are continually monitored; when they no longer meet the requirement for a PSPS, the lines are patrolled and assessed for damage to begin the process of re-energization.

8.4 Communication Protocol

Rocky Mountain Power recognizes that adequate and clear communication is a key component to the successful implementation of a PSPS event, and the company will always strive to provide as much notice as practical to impacted parties. Nonetheless, PSPS decisions are made based on weather forecasts, and weather can change quickly or dramatically with little forewarning. This requires some degree of balancing in communication protocols and, accordingly, advanced notice may not always be possible.

Public Safety Partners and Critical Facilities

Public safety partners are an essential component to any communication plan during an event. They provide essential insight into the geographic and cultural demographics of affected areas to advise on protocols that address limited broadband access, languages, medical needs, and vision or hearing impairment. Rocky Mountain Power's initial communication with local public safety agencies starts as early as possible when weather forecasts indicate a PSPS event is possible. Proactive communication to entities like non-emergency dispatch centers, emergency management, fire agencies, and law enforcement agencies allow them to prepare for anticipated operational impacts internally and mitigate any community-wide impacts that may occur because of de-energization. Collaboration

with these agencies also supports impact reduction of de-energization and communication of information regarding the impacted areas and expected event duration.

Upon activation of the ECC, emergency management resources coordinate, as appropriate, with local, county, tribal, and state emergency management to provide information through the assigned representative of the agency. A full list of public safety partners has been provided in Appendix C, however it is important to note that Public Safety Partner will be contacted, as appropriate for the situation and location. ECC-assigned staff provide event details including estimated timing and event duration, potential customer impacts, and GIS shapefiles that include PSPS boundaries for areas subject to de-energization. Throughout a PSPS event, Rocky Mountain Power's emergency management group maintains regular communication with local, regional, and state emergency responders, mutual assistance groups, tribal emergency managers, and other entities as applicable. The company will also support efforts to send out emergency alerts and status updates, as appropriate, until restoration efforts begin.

Critical facilities are particularly vulnerable to the impact of PSPS events. Rocky Mountain Power emergency management maintains a list of critical facilities within its service territory. Upon activation of an ECC, they will work to establish and maintain direct contact with these facilities' emergency points of contact to provide projected PSPS timing, estimated duration, regular status updates, and restoration notifications. Additionally, Rocky Mountain Power will provide, where possible, GIS shapefiles to communications facility operators in potentially impacted areas.

During a PSPS event, Rocky Mountain Power recognizes the importance of providing additional geographic details of the affected area and plans to provide them to public safety partners through a secure web-based public safety partner portal, beginning in 2024. The public safety partner portal is expected to be a secure, map-centric application that will host information regarding critical facilities and infrastructure like GIS files for location, primary/secondary contact information, and known backup generation capabilities.

Customers

The Rocky Mountain Power PSPS webpage[13] provides timely and detailed information regarding potential and actual PSPS events for a specific location. The website has the bandwidth to manage site traffic under extreme demand because it has implemented bandwidth capacity to a level that will allow for increased customer access while maintaining site integrity. The PSPS webpage provides visitors with an interactive map where users can input an address to see if a residence or business could be affected by a PSPS. When a potential PSPS is announced, the map is updated to show the geographic boundaries of potentially impacted areas. The boundaries will be colored yellow, or "Watch" prior to de-energization, then red or "Event" once de-energization occurs. The website is easily accessible by mobile device, and a Rocky Mountain Power 'app' is available for mobile devices, which enables customer access to real-time outage updates and information.

Customers with specific language needs can also contact the company's customer care number and request to speak with an agent that speaks their preferred language. Rocky Mountain Power employs Spanish-speaking customer care professionals and contracts with a 24/7 service that provides interpretation in real-time over the phone in hundreds of languages and dialects. Customer care agents have received training on wildfire safety and preparedness, and PSPS-related information to facilitate a conversation between the customer and interpretive service to ensure the customer receives the wildfire safety and preparedness, or PSPS-related information they are looking for. Additional information on Rocky Mountain Power's customer wildfire safety and preparedness engagement strategy can be found in Section 11 of this document.

Rocky Mountain Power's communications plan also includes procedures that ensure appropriate notifications (additional if time allows) to medically vulnerable customers. The utility leverages insight from its partners and customer records to pre-identify these customers. Upon activation of the ECC, customer care agents will attempt, time and

[13] See Public Safety Power Shutoff (rockymountainpower.net).

circumstances allowing, to make personal outbound calls with known vulnerable customers.

The communication plan allows for informational updates to customers using multiple methods of communication. Direct customer notifications are made by way of outbound calls, text messaging and email notifications. Customers will receive an outbound call, when possible, within:

- 48 hours of a potential PSPS event,
- 24 hours prior to de-energization,
- 1 to 4 hours prior to de-energization,
- At the commencement of the event,
- At the beginning of the re-energization process, and
- Upon the event conclusion.

Additional methods of notification include the use of social media sites including Facebook and X (formerly Twitter). Upon activation of the ECC, and following appropriate customer notifications, the public information officer will distribute press releases to news outlets that serve the affected areas. Regular updates across all available channels are distributed as they are available, and the public information officer will manage press inquiries as appropriate.

In making the customer notifications described above, Rocky Mountain Power provides a statement with:

- The impending PSPS execution, with information about the estimated date, time, and duration of the event.
- A 24-hour means of contact for customer inquiries, and links to pertinent PSPS websites.
- Event status updates, and re-energization expectation notices.

Notification Timing

When there is a potential PSPS event forecast, customers and local government representatives will be provided with advanced notice; if feasible, notifications will begin 72 or 48 hours in advance of a potential de-energization event. If this is not possible due to rapidly changing weather conditions, or other emerging circumstances, the notification process will begin as soon as possible. Additional notice will be provided at appropriate times, as conditions are monitored and depending on the circumstances. There is some degree of balancing required. Customers generally want ample advance notice of any actual de-energization. At the same time, recognizing that weather forecasts are inherently speculative, it is possible to overburden customers with notices of potential PSPS events that never materialize, especially given that the company's fundamental business objective is to keep the grid energized except under the most extreme conditions.

Table 22 illustrates Rocky Mountain Power's planned PSPS notification timeline for customers, public safety partners, and operators of critical facilities. Timelines may be reduced if rapidly changing conditions do not allow for advance notification. In these cases, the company will make all notifications as promptly as possible.

Table 22: PSPS Notification Timeline Summary

48-72 Hours Prior	De-energization Warning to public safety partners & operators of critical facilities
24-48 Hours Prior	De-energization Warning
1-4 Hours Prior	De-energization Imminent / Begins
Re-energization Begins	Re-energization Begins
Re-energization Completed	Re-energization Completed
Cancellation of Event	De-energization Event Canceled (if needed)
Status Updates	Every 24 hours during event (if needed)

8.5 Community Resource Centers

Rocky Mountain Power is aware of the potential impacts of PSPS events to customers, businesses, and communities, and plans to provide support to impacted communities

through community resource centers as appropriate. By taking advantage of established relationships with community and public safety partners, a CRC may be activated in an impacted area to give community members and businesses access to items that may be affected by interruption of electrical service. The services, which vary across CRCs, may include:

- Potable water
- Shelter from hazardous environment
- Air conditioning
- Seating and tables
- Restroom facilities
- Refrigeration for medicine and/or baby needs
- Interior and area lighting
- On-site security
- Communications, including internet, Wi-Fi, cellular access, and/or a satellite phone
- Television and radio
- On-site medical support (where available)
- Charging stations for cellular devices, radios, and computers

CRCs adhere to all existing local, county, state or federal public health orders and will have personal protective equipment on site and available to customers if needed. Local emergency management and community-based organizations will be notified of CRCs as appropriate and with advanced notice, generally three days prior to the event, when possible.

CRC activation timing, protocols, and locations are discussed with area emergency management and community-based organizations during emergency management workshops and tabletop exercises.

Figure 50: Example Temporary CRC

Depending on the needs of its public safety partners, CRC locations may be pre-identified. However, this is not always the case. For instance, in 2023 Rocky Mountain Power, together with its partners, determined that the need for and location of a CRC should be dependent on a PSPS area and community needs. As a result, it was decided that a CRC, if needed, should be activated in close coordination with public safety partners during a PSPS event. Rocky Mountain Power intends to continue collaborating with public safety partners to evaluate its approach to CRC activation and adapt its practices accordingly.

8.6 Re-Energization

As described in Section 8.1 above, local conditions are continually monitored during a PSPS event. Based on forecasted risk reduction, Rocky Mountain Power may begin staging resources to expedite restoration. Then, when local conditions subside consistent with the forecasted reduction in risk, restoration activities officially begin. The general steps of restoration are depicted below.

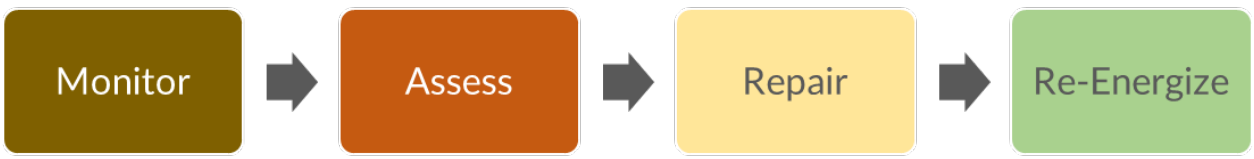


Figure 51: General Re-Energization Process

Once the local and forecasted conditions are favorable to re-energize and no new risk(s) have been identified, field personnel begin assessing the de-energized circuits generally through ground or air patrols. Power lines that have been de-energized during a PSPS event have been exposed to strong winds with the potential for damage. In addition, even after the wind has dropped to levels low enough to support a decision to re-energize, fire weather conditions typically remain elevated. Therefore, before re-energizing a line, post-event assessments are completed to determine whether any damage has occurred to the line and/or substation that needs to be corrected prior to re-energization (e.g., line down, broken crossarms, tree through line, and/or tree branches or other items blown into the line). Field personnel report any damage identified to Rocky Mountain Power's facilities and to the ECC where it is tracked. If issues are discovered, the necessary repairs are made within an appropriate corrective time-period.

While all lines and facilities (e.g., substations) de-energized as part of a PSPS event are assessed, a step restoration process is leveraged where possible so that power to customers may be restored as the assessments progress, instead of waiting for the assessment of the entire impacted area to complete. While not to scale or representative of an actual event, this concept is visually depicted in Figure 52: Visual Depiction of Step Restoration below.

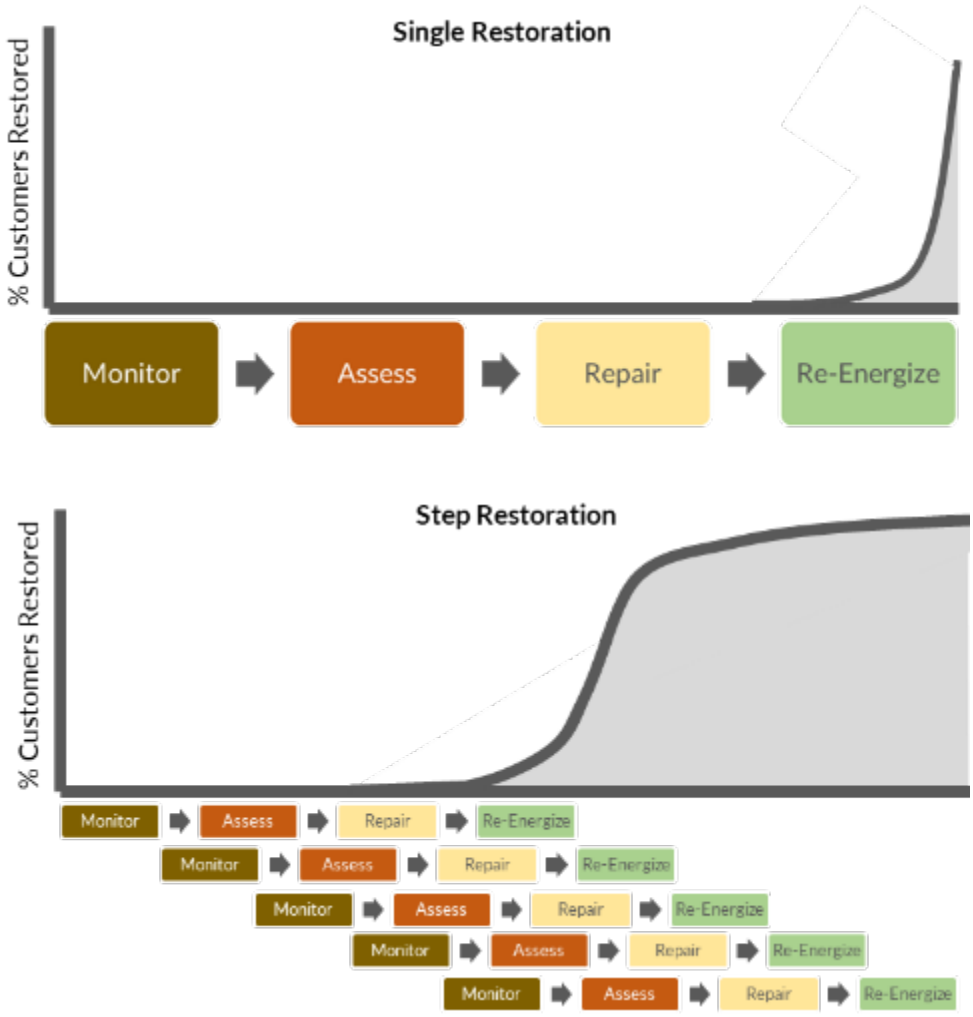


Figure 52: Visual Depiction of Step Restoration

Wherever possible, Rocky Mountain Power also works with emergency and public safety partners to identify critical customers for prioritization. After the line patrol and facility inspection is completed, the impacted circuits/portions of circuits are re-energized, and the date and time of re-energization is logged. Once service is restored to all customers impacted by the PSPS event, the event concludes.

8.7 Experience

Rocky Mountain Power plans to continuously improve all aspects of its emergency management practices. From its experience to date, it has identified four key opportunities for improvement to its Public Safety Power Shutoff Program moving forward.

- **Broaden public outreach and engagement**. Rocky Mountain Power plans to expand its communication and overall preparedness as appropriate to ensure adequate public outreach and engagement regarding PSPS and wildfire safety. As noted above, more detailed information on Rocky Mountain Power's customer wildfire safety and preparedness engagement strategy can be found in Section 11 of this document.

- **Strategize community resource center locations.** One CRC was stood up during the 2022 PSPS event in Cedar City with minimal customer interest. Rocky Mountain Power will continue to emphasize CRC planning during workshops and tabletop exercises. During events, it will work with local public safety partners to better identify the needs of communities impacted.

- **Streamline GIS and information sources.** Due to the dynamic nature of a PSPS event, there is a need to manually update multiple sources of information and GIS layers among various internal platforms. Rocky Mountain Power plans to leverage its public safety partner coordination plan to streamline and better align GIS layers and information sources to communicate information quickly. For instance, Rocky Mountain Power is currently working to develop a secure, web-based public safety partner portal where critical information can be shared with its partners during a PSPS event. More information about this public safety partner portal can be found in Section 10.8 of this document.

- **Internal communication and coordination**. Most documents, communication protocols, and processes have worked well. Nevertheless, there is still an opportunity to build out new tracking tools, documents, and training within the existing response structure. To that end, a novel tracking tool has been developed and Rocky Mountain Power has begun to look at building out additional situational awareness tools.

9 Emergency Management Wildfire Response

Rocky Mountain Power's emergency response to a wildfire is guided by the same principles and procedures that govern its response to other types of incidents. Whenever electric service is disrupted (or a disruption is threatened), the company's emergency response is guided by the National Incident Management System (NIMS). This basic approach is applicable to any type of wildfire event, ranging from a relatively small wildfire that can be controlled by a local fire suppression agency, to larger wildfire events that require a coordinated interagency response, potentially including a de-energization. It should be noted, though, that there may be some variation to responses that are driven by the specific characteristics of the event.

Small Wildfires

For small wildfires, the emergency management team will likely work directly with local firefighters. Coordination activities would ensure that the area is safe, local weather conditions have subsided consistent with the forecasted reduction in risk, and restoration activities can begin. In the event of an outage, restoration activities could include patrols, performing required repairs, and re-energization.

Large Wildfires

With larger wildfires, the company's emergency management, system operations, and field operations may coordinate with an Incident Command center that could involve representatives of both state and federal agencies, like the BLM or the National Forest Service. The NIMS guides all levels of government, nongovernmental organizations, and the private sector to work together to prevent, mitigate, respond to, and recover from incidents. Additionally, the NIMS also provides shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. Further, the NIMS defines operational processes, including the Incident Command System (ICS), Executive Policy Group, and Emergency Coordination Center (ECC) structures that guide how personnel work together during incidents. The NIMS applies to all incidents and is designed to be scalable. It can also be customized to accommodate variations to, for example, hazard, geography, climate, and organizational authorities.

In addition to NIMS, the company's Emergency Response Plan follows the ICS, which is the foundation for responses to all crisis and emergencies. The Emergency Response Plan follows the all-hazards approach, which includes coordinating with other utilities and all levels of government. The all-hazard plan is a management tool that provides a scalable response, organizational structure, procedures for information management, operational activities, a smooth transition to restoring normal services, and the implementation of post-incident actions.

Active Wildfire De-Energization

Rocky Mountain Power will sometimes de-energize power lines when there is an active wildfire threatening the lines.[14] For example, fire suppression authorities may request de-energization of lines to protect firefighters working in the area, and Rocky Mountain Power generally always accommodates those requests. Other times, Rocky Mountain Power may itself initiate de-energization after receiving information about an advancing wildfire, to reduce any risk of energized electrical equipment contributing to the fire spread or endangering fire suppression personnel. Wildfires can spread rapidly and behave unpredictably. Accordingly, consistent with an established procedure for this scenario, Rocky Mountain Power will de-energize power lines when a wildfire is within defined distances to the lines, with a sufficient buffer to guard against the potential spread. To help evaluate the fire's location and probably spread, Rocky Mountain Power uses its fire modelling software and other valuable situational awareness tools.

9.1 Emergency Response and Service Restoration

During a wildfire event, Rocky Mountain Power works in coordination with Internal Incident Command to de-energize lines as requested by the public safety partner incident commander and remove personnel from restricted access areas. Field personnel's priority is to provide line work support that may include, but is not limited to, de-energization of power lines, inspection of assets, and restoration activity. The operation of the system will be returned to normal as soon as practical, which typically occurs when the incident no

[14] Appendix F – Wildfire Encroachment Systems Operations Procedure SOP-203

longer needs the support and coordination functions provided by the ECC. If assets are damaged by the fire, the return to normal system operations may be delayed until the facilities can be replaced or repaired. If support functions can be managed by individual organizations through normal procedures, operations may return to normal by working in coordination with the ECC.

Response to Incidents

The level of response is dictated by the seriousness of the incident. Incidents may be localized, or they may require support from an ECC. Moderate outage events and localized incidents require localized plan activation. In general, however, localized incidents can be quickly resolved with existing internal resources. These incidents have little or no impact on the public or normal operations and are managed by supervisors in the impacted district or area. More complex outage events and potential threats that are beyond the scope of local management often require coordination between a much larger resource pool, extended involvement and contact with internal business units and external stakeholders, and the potential for the incident to expand rapidly. This type of incident disrupts a significant number of customers, that may include extended restoration time, or a perception that a threat to service exists beyond the level where normal operating practices and local resources are sufficient to respond and ECC activation is required. This type of incident might include, for example, a wildland fire. Additional personnel from surrounding operations districts may be required to respond in these cases.

Mutual Assistance

Electric utilities can call upon other electric companies for emergency assistance, in the form of personnel, material or equipment, to aid in maintaining or restoring electric service when it has been disrupted by the elements, sabotage, or equipment malfunctions. Rocky Mountain Power has entered into several regional, state, and national mutual assistance agreements with other electric service providers. Parties to these agreements can request or provide aid and resources to other members to support restoration of electrical service when it cannot be restored in a timely manner by the affected utility alone. Additional

information about the company's mutual assistance plan is in the Mutual Assistance Annex of its Emergency Response Plan.

10 Public Safety Partner Coordination Strategy

Rocky Mountain Power takes a multi-step approach to coordination with its public safety partners on wildfire mitigation and PSPS preparedness, as shown in Figure 53 below.

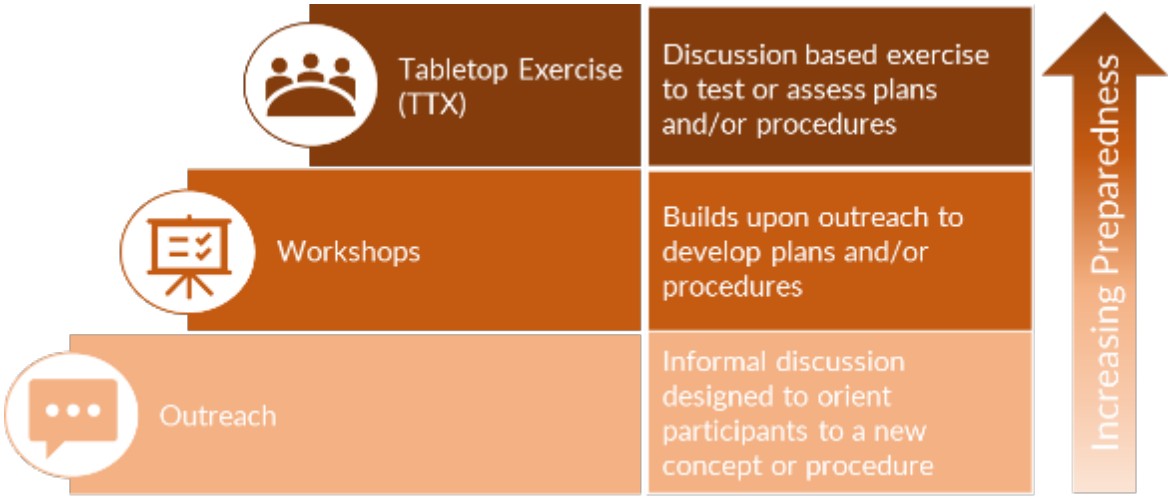


Figure 53: PSPS Preparedness Strategy

As a part of this strategy, each element builds upon the step below it to increase overall preparedness. The steps are described in detail below. They include outreach, workshops, tabletop exercises, CRC demonstrations, and functional exercises.

10.1 Outreach

Rocky Mountain Power participates in multiple public safety partner meetings and workshops throughout the calendar year across its service territory. Meetings include monthly, quarterly, and annual county and state emergency management partner meetings, in addition to pre- and post-fire season collaboration meetings with local, state, and federal fire suppression agencies. This informal discussion is designed to orient participants to a new concept or procedure and continue fostering key working relationships.

Additionally, Rocky Mountain Power provides an annual customer webinar that provides additional information on the PSPS practices (as described in Section 11) that is prominently displayed on the wildfire safety website.

10.2 Workshops

Workshops are more local, targeted discussions that build upon general outreach to further compare and refine plans, streamline processes, and confirm capabilities (like customer outreach, critical facilities, and CRC locations and operations) with local public safety partners. As Rocky Mountain Power expands its PSPS preparedness it may conduct workshops to bring new communities and public safety partners up to speed. Planned workshops are included in Section 10.7 and Appendix E. However, Rocky Mountain Power periodically assesses the level of interest from its public safety partners in workshops and may plan one if there is interest.

10.3 Tabletop Exercises

Rocky Mountain Power facilitates discussion-based and functional tabletop exercises (TTX) to develop awareness of PSPS planning and procedures. These exercises aim to facilitate public and private sector coordination, validate communication protocols, and verify capability to support communities during extreme risk events through actions like deployment of community resource centers. The exercises also include collective identification of critical infrastructure at the county level to better inform restoration planning and notifications. Rocky Mountain Power collects after-action reports from exercises and real-world events that involve wildfire safety and PSPS. The reports request feedback on areas for improvement, potential corrective actions, and suggestions for plan or procedure development. Input received is considered for inclusion in a comprehensive plan that is shared with the appropriate public safety partners.

10.4 CRC Demonstrations

Depending on the level of interest from its public safety partners, Rocky Mountain Power may provide a public demonstration of a community resource center prior to the start of

wildfire season. When held, this public event provides an opportunity for members of the public, as well as public safety partners, to learn about the type of services offered at a CRC during a PSPS event.

10.5 Functional Exercise

Functional exercises (FE) are the last step in PSPS preparedness. These exercises are used to examine or validate coordination, command, and control between multiple agencies. Unlike TTXs or workshops, which are discussion based, these exercises: are larger scale, last much longer (some can last multiple days), require significant planning and coordination, and include deployment of resources to practice protocols and processes.

A functional exercise requires that part of the plan be conducted. Examples relevant to a PSPS FE might include performing customer calls or updating websites. To be successful, functional exercises require foundation planning, like workshops and TTXs, to be completed and for formal plans to be in place. Currently, Rocky Mountain Power plans to conduct a functional exercise in Utah in 2024 and the plan can be found in Section 10.7 and Appendix E. However, it does expect to leverage its experience conducting functional exercises in other states with more mature PSPS programs and incorporate functional exercises in Utah as needed.

10.6 2022 Activities

Table 23 lists the activities completed in 2022.

Table 23: 2022 Completed Activities

Date	Host	Target Region / County	Topic
January 2022	Rocky Mountain Power	Washington, Iron, Beaver	Tabletop Exercise
February 2022	Rocky Mountain Power	Santaquin, Sanpete, Sevier, San Juan, Grand	Tabletop Exercise
March 2022	Rocky Mountain Power	Summit, Wasatch	Tabletop Exercise

10.7 Emergency Preparedness and Exercise Plan

In 2022, Rocky Mountain Power conducted three PSPS tabletop exercises in Iron, and Wasatch front and back counties. In 2023, it conducted sixteen tabletop exercises as summarized in Table 24.

Table 24: 2023 Emergency Preparedness and Exercise Plan

Date	Host	Target Region / County	Topic
January 2023	Rocky Mountain Power	Washington, Iron, Beaver	Tabletop Exercise
January 2023	Rocky Mountain Power	Santaquin, Sanpete, Sevier, San Juan, Grand	Tabletop Exercise
February 2023	Rocky Mountain Power	Utah, Juab, Milliard	Tabletop Exercise
February 2023	Rocky Mountain Power	Carbon, Emery	Tabletop Exercise
March 2023	Rocky Mountain Power	Salt Lake	Tabletop Exercise
April 2023	Rocky Mountain Power	Utah	Tabletop Exercise
April 2023	Rocky Mountain Power	Tooele	Tabletop Exercise
June 2023	Rocky Mountain Power	Summit, Wasatch	Tabletop Exercise
June 2023	Rocky Mountain Power	Davis, Morgan, Weber	Tabletop Exercise
June 2023	Rocky Mountain Power	Vernal	Tabletop Exercise
July 2023	Rocky Mountain Power	Cache, Box Elder	Tabletop Exercise

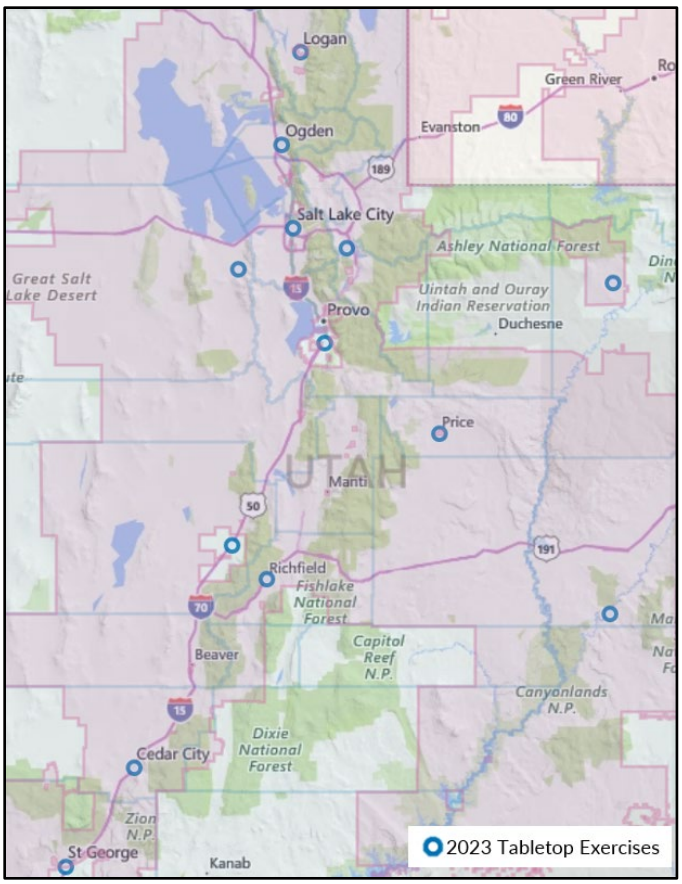


Figure 54: 2023 Emergency Training and Exercise Plan

Overall, the number of tabletop exercises the company conducts annually is guided by the company's goal to provide education about PSPS, specifically. As such, the number of exercises can vary from year-to-year.

In 2024 and beyond, the company plans to continue building upon previous years' experience to engage and coordinate with public safety partners ahead of fire season. Based on the company's 2023 experience, planning, in collaboration with public safety partners, is most effective when completed during the first half of the year. Therefore, Rocky Mountain Power intends to solicit input from public safety partners in the first quarter of 2024 prior to scheduling of each tabletop exercise. Appendix E – 2024 Emergency Preparedness and Exercises represents the company's general coordination strategy. However, it is flexible and may be subject to change depending on input from

the company's public safety partners. Overall, the company intends to complete its exercise plan, pending public safety partner preference and availability, in June 2024.

10.8 Public Safety Partner Portal

During a PSPS event, Rocky Mountain Power recognizes the importance of providing additional geographical details of the affected area. Therefore, in addition to the preparation strategy described above, Rocky Mountain Power is also working to develop a secure, web-based portal where critical information can be shared with public safety partners[15] during a PSPS event. Once completed, the public safety partner portal will be a secure, map-centric application that will host critical GIS files, as well as information regarding critical facilities and infrastructure like primary/secondary contact information and known backup generation capabilities. In addition to enhancing coordination with local public safety partners, the portal will also enhance Rocky Mountain Power's capabilities to evaluate, communicate with, and prioritize restoration of critical facilities that provide essential services for public safety. The project was initiated in 2022 and will complete in 2024 as depicted in the figure below.

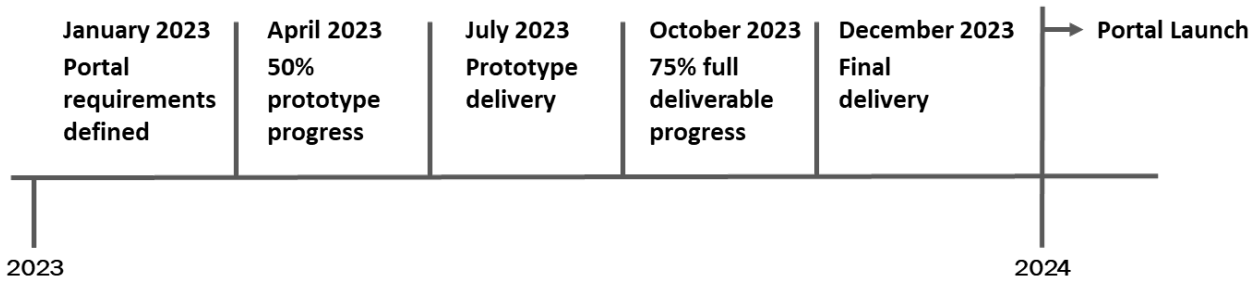


Figure 55: Public Safety Partner Portal Project Timeline

[15] Public safety partners typically include emergency responders from federal, state, local and tribal governments, telecommunication providers, water agencies, public-owned utilities, emergency hospitals, and transportation agencies.

11 Wildfire Safety & Preparedness Engagement Strategy

Rocky Mountain Power employs a multifaceted approach to support community engagement and outreach with the goal of providing clear, actionable, and timely information to customers, community stakeholders and regulators. Over the past several years, the company has engaged customers and the general public throughout its three-state service area on wildfire safety and preparedness through a variety of tactics including webinars, targeted paid advertising campaigns, informational videos featuring company subject matter experts, press engagement, distributed print materials, infographics, social media updates, and communication through: bill messages, emails and website content, among other communication channels. The wildfire safety and preparedness community engagement plan continues to evolve year-over-year as customer and stakeholder feedback and regulatory guidance is incorporated. Rocky Mountain Power maintains an awareness and engagement strategy that is flexible and allows for dynamic tactics, informed by public safety partners, , community stakeholder input and community needs. Overall, Rocky Mountain Power's plan includes information that can be heard, watched, and read in a variety of ways with the goal of accessibility and understandability.

11.1 Awareness and Engagement Campaign

For the past several years, the company has deployed some form of paid media campaign to raise awareness and action on wildfire safety and preparedness. For example, the 2023 wildfire safety and awareness paid advertising campaign, which launched March 20, 2023, and concluded October 1, 2023,, included radio spots, digital over-the-top pre-roll video ads (Hulu, Pluto TV, Roku, etc.), digital audio ads (Spotify, Pandora, etc.) display ads (search and web banners), and social media static ads (Facebook, Instagram, and YouTube).

Areas in Utah targeted through the paid campaign included all counties in Rocky Mountain Power's service territory. Generally, the campaign focused on two main topics: personal preparedness and safety, and investments the company is making to reduce wildfire risk. The call-to-action in each campaign vertical compelled the audience to visit Rocky

Mountain Power's wildfire safety and preparedness online resources. In 2023, the various ads across multiple channels and social media collectively received 4, 405,463 impressions and 6,378 clicks to company-hosted wildfire safety and preparedness informational webpages. Digital over-the-top pre-roll video ads had a completion rate of 50%. Engaging with local and regional news media outlets is another important component of the awareness and engagement campaign. Each year prior to fire season, Rocky Mountain Power distributes updated wildfire safety information and information on the company's WMP to press outlets across its service area as an additional low-cost outreach method.

In addition to paid and earned (news media engagement) awareness and engagement strategies, Rocky Mountain Power also communicates to customers about wildfire safety and preparedness through channels it owns or manages, like its YouTube channel (shown below).

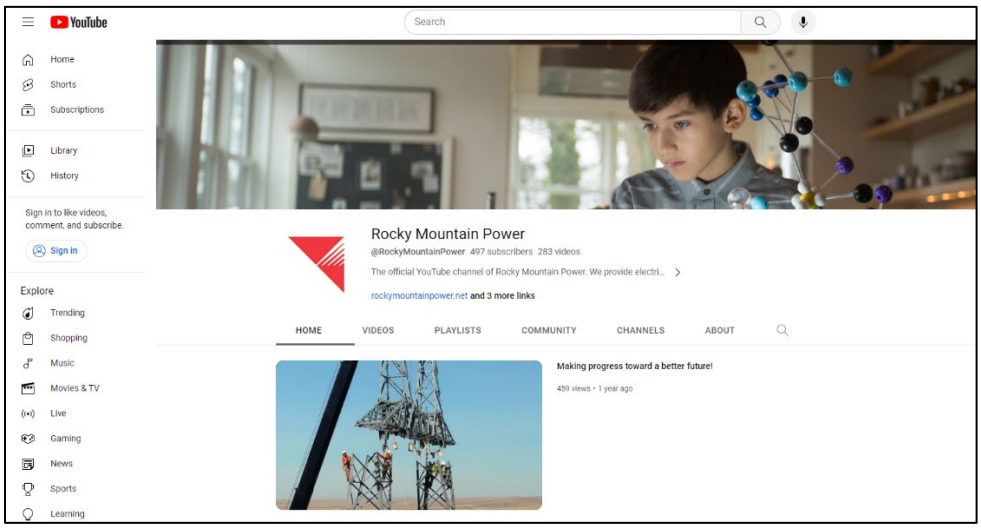


Figure 56: Sample YouTube Content

Bill messages, website and social media updates, emails, texts, and automated phone calls are all an additional low cost means to reach customers.

11.2 Support Collateral

Rocky Mountain Power has developed several print and digital wildfire safety and preparedness collateral pieces including factsheets, flyers, brochures, infographics, and

safety checklists. These items are accessible through the company wildfire safety webpages and are utilized at public meetings and community events to describe PSPS (its necessity, considerations and what to expect throughout the event, etc.) and provide general information on emergency kits/plans and preparation checklists, among other subjects. Some material from the 2023 campaign is shown in Figure 57.

Figure 57: Sample Support Collateral

Annually, the Rocky Mountain Power communications team updates these materials to ensure the information is relevant, accessible, and actionable. Spanish versions of each piece of collateral are also made available.

11.3 Customer Service Training

Customers with specific language needs can contact the company's customer care number and request to speak with an agent that speaks their preferred language. Rocky Mountain

Power employs Spanish-speaking customer care professionals and contracts with a 24/7 service that provides interpretation in real-time over the phone in multiple languages and dialects.

Customer care agents have received training on wildfire safety and preparedness and PSPS-related information to facilitate a conversation between the customer and interpretive service to ensure the customer receives the wildfire safety and preparedness or PSPS-related information they are looking for.

11.4 Wildfire Safety, Preparedness and PSPS Webpages

The Rocky Mountain Power website provides robust and comprehensive information on company wildfire mitigation programs, general wildfire safety, PSPS information and more. In 2022, the company launched updated wildfire safety webpages to improve customer experience and allow for improved accessibility to wildfire-related information, as shown below in Figure 58.

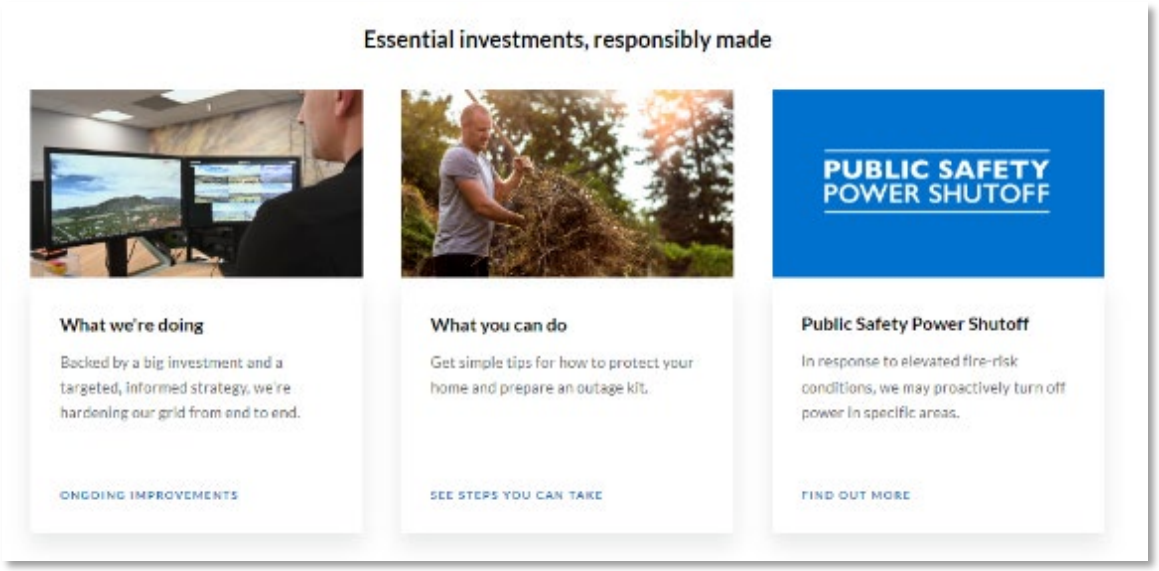


Figure 58: Sample Webpage Content

Figure 59: New Wildfire Safety Infographic

The page refreshes also include a new infographic depicted in Figure 59 that demonstrates the work in progress to improve the safety and reliability of the grid along with embedded videos highlighting the work Rocky Mountain Power will complete to improve the system, increase situational awareness, and prepare for events that may result in outage activity.

The wildfire safety webpages were also updated in early 2022 to include a 1-to-1 Spanish translation, as shown below. This includes a frequently asked questions section, links to public safety power shutoff maps and information, and resources including Public Safety Power Shutoff and wildfire preparedness brochures. Going forward, the company will continue to work with public safety partners and community-based organizations to determine if additional languages should be included.

Figure 60: Sample Webpage Content - Spanish

Various resources and tools for community preparedness can also be found on the Rocky Mountain Power wildfire mitigation webpage[16]. Prompts for customers to update contact information are displayed prominently on the page. Guides and checklists for creating an emergency plan/outage kit are easily accessible. The wildfire safety webpages include a link to the WMP, as well as links to webinars and videos describing key components of the plan for watching, providing site visitors a variety of ways to consume and engage with wildfire safety and preparedness information.

The Rocky Mountain Power PSPS webpage[17] provides educational material on PSPS. The webpage describes why a PSPS would happen, includes details of the wildfire risks monitored prior to executing a PSPS, and how customers can prepare for a PSPS. Information on how customers will be notified, what to expect during an event and the service restoration process if a PSPS is deemed necessary are detailed on the webpage. Rocky Mountain Power seeks to serve the community by providing general situational awareness information, like an interactive map of PSPS areas (shown below in Figure 61) that provides insight into whether the company is considering a PSPS, and which areas might be affected.

[16] https://www.rockymountainpower.net/outages-safety/wildfire-safety.html

[17] https://www.rockymountainpower.net/outages-safety/wildfire-safety/public-safety-power-shutoff.html

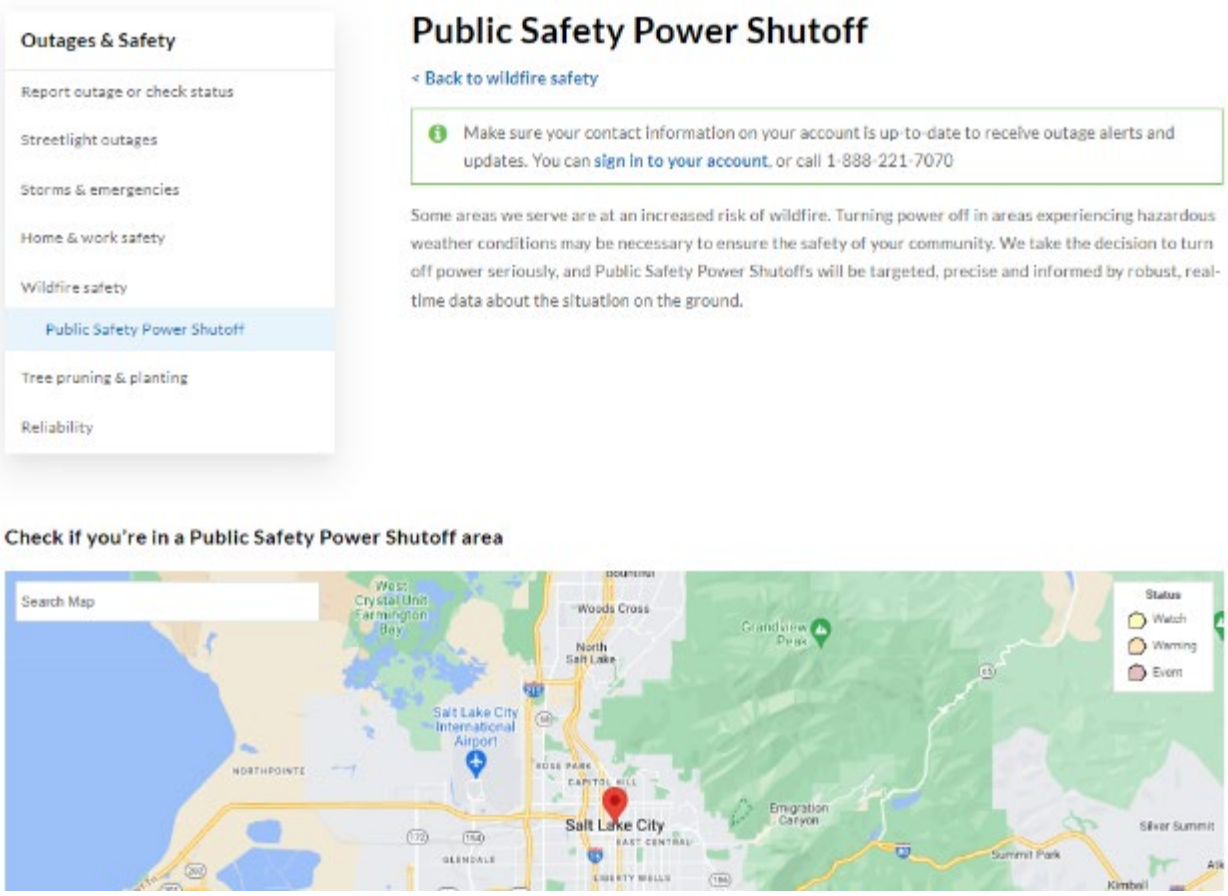


Figure 61: Public Safety Power Shutoff Webpage

11.5 Webinars

Rocky Mountain Power also hosts an annual webinar that provides an overview of the company's wildfire mitigation program and strategies. Among other items, key mitigation topics addressed in the webinar include situational awareness capabilities, system hardening investments, the PSPS process, and general emergency preparedness. The webinar brings to focus how Rocky Mountain Power engages with local communities and public safety partners on wildfire safety. It also serves as a forum for customers, community stakeholders and the public-at-large to ask questions during the live stream. The webinar was held July 11, 2023. It was posted to the Rocky Mountain Power website and YouTube channel along with a video titled "Understanding Public Safety Power Shutoffs".

11.6 Wildfire Communications and Outreach Plan

The company's overall approach to wildfire communications and its outreach plan remains the same year over year, as shown in Figure 62. For example, the company always runs a paid advertising, customer email, and proactive news media engagement campaign and it conducts a customer webinar.

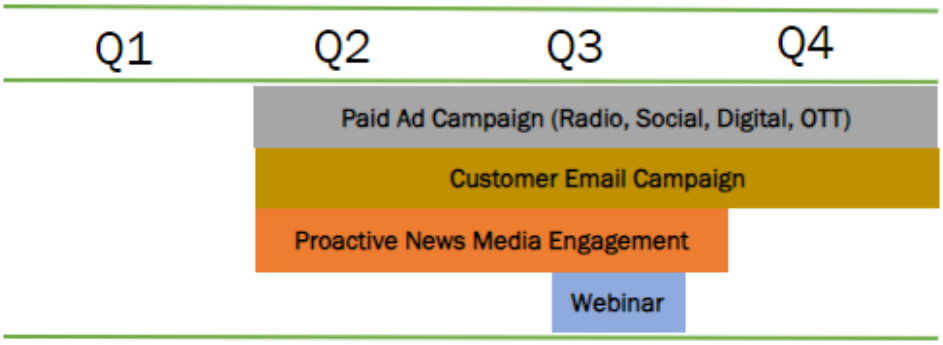


Figure 62: Wildfire Communications and Outreach Plan Timeline

However, program modifications are made annually based on metrics that evaluate customers' level of engagement in messaging for the prior year's campaign, internal analysis, and subject matter expertise. Additionally, communications staff works to continually improve content for customer ease of use and accessibility, as described in the sections above.

12 Industry Collaboration

Industry collaboration is another component of Rocky Mountain Power's WMP. Through active participation in workshops, international and national forums, consortiums, and advisory boards, Rocky Mountain Power maintains an understanding of existing best practices and collaborates with industry experts regarding new technologies and research.

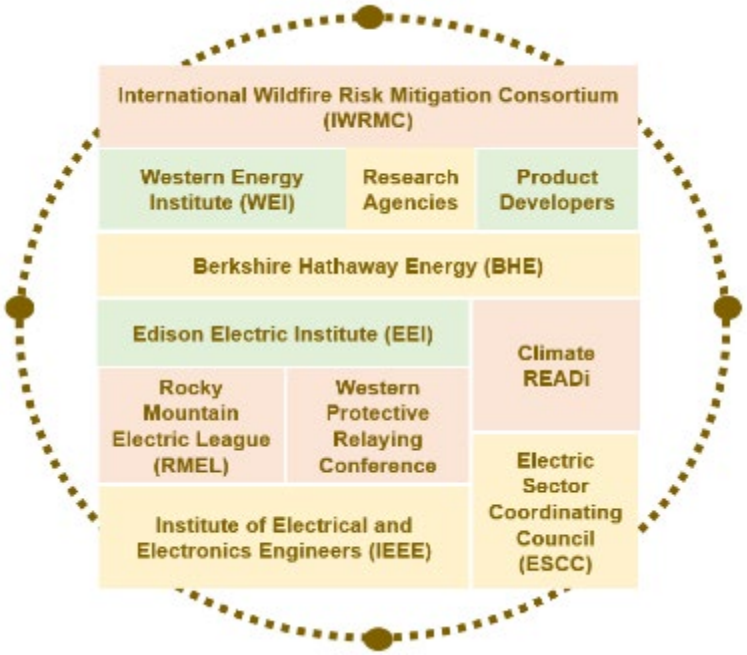


Figure 63: Key Industry Collaboration Channels

For example, Rocky Mountain Power is a member of the International Wildfire Risk Mitigation Consortium (IWRMC)[18], an industry-sponsored collaborative designed to facilitate the sharing of wildfire risk mitigation insights and discovery of innovative and unique utility wildfire practices from across the globe. This consortium, with working groups focused in the areas of asset management, operations and protocols, risk management, and vegetation management, facilitates a system of working and networking channels between members of the global utility community to support the ongoing sharing of data, information, technology, and practices.

[18] See https://www.umsgroup.com/what-we-do/learning-consortia/iwrmc/.

Rocky Mountain Power plays leadership and support roles through other organizations such as the Edison Electric Institute (EEI), the Electric Sector Coordinating Council (ESCC), and the Institute of Electrical and Electronics Engineers (IEEE). Within the western United States, Rocky Mountain Power also engages with the Western Energy Institute (WEI) and the Rocky Mountain Electric League (RMEL) as well as the Western Protective Relaying Conference. Collaboration also occurs regarding research and applications of technologies through Rocky Mountain Power's parent company, Berkshire Hathaway Energy, and its affiliated companies.

Rocky Mountain Power is participating in the three-year Electric Power Research Institute (EPRI) Climate Resilience and Adaptation Initiative (READi) to develop, in collaboration with industry stakeholders and other utilities, a common framework or guideline to assess climate risk, address resiliency and evaluate investments. This common framework includes aligning on a consistent approach to understand climate-related data, application, and climate trends, apply a common set of climate data to perform asset and system vulnerability assessments, and to evaluate investments and grid hardening technologies across power systems.

Through these various engagement channels, Rocky Mountain Power aims to maintain industry networks, understand the evolution of technologies, discover broader applications for such advancements, share data to enable the research scientists and academics, collaborate with developers to push the boundaries of existing capabilities, and expand its research network through support of advisory boards or grant funding. Participation in these industry networks is continuing to increase Rocky Mountain Power's confidence in its WMP strategies and program elements.

13 Plan Monitoring & Implementation

In 2021 Rocky Mountain Power developed a new department, commonly referred to as wildfire mitigation program delivery. The new department consists of multiple groups, including the program delivery team, responsible for overall plan development, implementation, and monitoring.

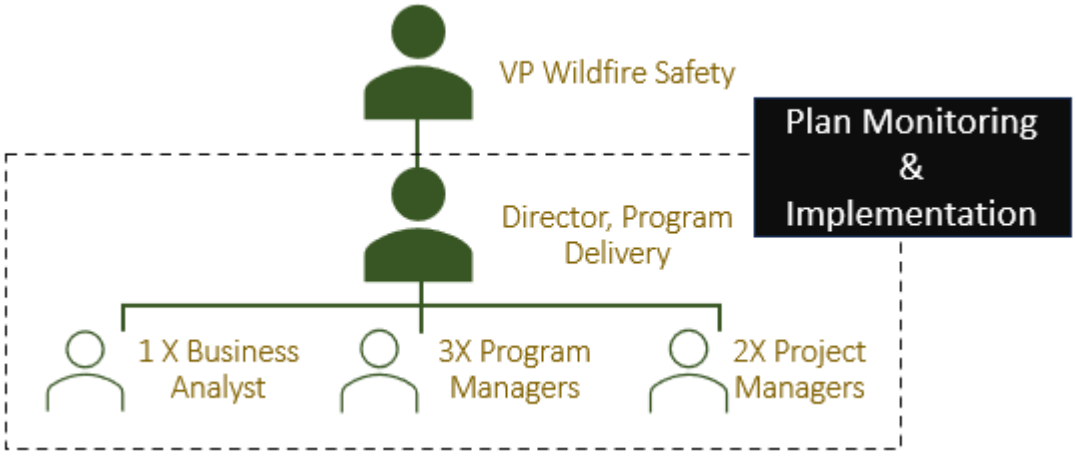


Figure 64: Program Delivery Group

While the broader wildfire safety organization is tasked with supporting all types of wildfire mitigation initiatives and strategies across the company's entire service territory, the key function of wildfire safety program delivery team is to develop, implement, monitor, and improve the company's WMP in Utah. It is the responsibility of wildfire safety program delivery to coordinate with other internal departments such as asset management, vegetation management, field operations, and emergency management to ensure all aspects of the plan are delivered. Additionally, wildfire safety program delivery regularly evaluates its plan and provides updates as needed and consistent with statutory and regulatory requirements.

The wildfire safety and asset management team, specifically the wildfire safety program delivery group, is responsible for developing the wildfire mitigation plan, incorporating enhancements to existing initiatives, and scoping new initiatives. Developing the plan requires internal collaboration across many different departments to establish the lessons learned applied with existing initiatives, such as, the streamlining of system hardening

projects mentioned in Section 4. The group is also responsible for making sure the elements of the plan meet the regulatory requirements in accordance with Utah Code 54-24 and Public Service Commission of Utah Administrative Code R746-315. To further evolve the company's wildfire mitigation capabilities, new initiatives are analyzed, scoped, and pursued; for example, the enhanced technologies used to evaluate risk as described in Section 1 and the increase in computational requirements mentioned in Section 5.

In addition to evaluating the plan elements, Rocky Mountain Power is also monitoring potential cost sharing and partnership opportunities to secure federal and state grant funding and offset the potential impacts to customers. Many of the company's wildfire mitigation programs, such as grid hardening, which includes investment in transformational technology, align with the goals and objectives of potential grant funding.

Implementation of the plan requires processes in place to ensure each initiative is progressing toward the established plan. Initiative owners are responsible for developing individual project plans to ensure the plan objectives are met. Wildfire safety program delivery ensures that the project plans are aligned with the WMP's objectives, and that key performance metrics are in place to monitor progress.

Once the plan is filed it is the wildfire safety team's responsibility to ensure the mitigations are being performed as described in the plan. Monitoring includes verification that initiative owners have plans to deliver projects on time and regular status checks to ensure work is progressing as planned. The regular status checks ensure that risks and issues are being appropriately monitored and prompt action is taken to resolve issues and remove barriers to successful project execution.

14 Plan Summary, Costs, & Benefits

14.1 Program Elements and Objectives

Rocky Mountain Power's WMP is designed to provide timely and cost-effective wildfire mitigation benefits through a range of programs. While described in more detail through the plan itself, Table 25 summarizes the program elements and objectives.

Table 25: Summary of Program Elements and Objectives

Program Category	General Program Description	2020 – 2022 Incremental Achievements	2023 - 2025 Program Objectives
Risk Modeling & Drivers 	Maintain baseline risk maps and framework to identify areas that are subject to a heightened risk of wildfire and inform longer term, multi-year investment and programs.	➢ Maintain FHCA maps and risk assessment. ➢ Initial procurement of new risk modeling tools, datasets, and software.	➢ Continue to review and update the FHCA Map as needed. ➢ Utilize Spright to model utility asset fire risk. ➢ Implement advanced data analytics tool.
Inspection & Correction 	Continue FHCA inspection programs (5-year detail, annual visual assurance), accelerated correction timeframes for fire threat conditions, and implementation of IR inspections on transmission.	➢ Completed inspections of all poles in the FHCA. ➢ Corrected 2,004 fire threats. ➢ 200 miles of IR inspection completed.	➢ Continuation of incremental FHCA inspection programs on overhead conductors within the FHCA and relevant portions of the service territory Expand the enhanced IR inspection program to include a total of 1,638 interconnected transmission lines with the FHCA. The additional transmission line miles in the refreshed FHCA as discussed in Section 1 will be planned in 2024 for inspections performed in 2025.
Vegetation Management 	Increase post trim clearances in the FHCA, implement annual pole clearing of subject poles in the FHCA, and perform annual inspections in the FHCA.	➢ Inspected over 1,427 line-miles. ➢ Trimmed over 24,388 trees. ➢ Removed over 3,300 trees (including brush equivalent). ➢ Radially cleared over 8,217 poles.	➢ Continue FHCA vegetation management programs including expanded post work clearances. ○ Annual inspections ○ Tree trimming ○ Tree removal ○ Radial clearing
System Hardening 	Long term investment to mitigate wildfire risk including line rebuilds, system protection and control equipment upgrades, and replacement of OH fuses and adjacent equipment.	➢ 65 miles of line rebuild constructed. ➢ 55 relays and reclosers upgraded. ➢ 2,936 expulsion fuses replaced. ➢ 1,598 communicating fault indicators installed.	➢ Design and rebuild lines as identified in the plan ➢ Upgrade relays and reclosers per plan. ➢ Replace expulsion fuses per plan ➢ Install communicating fault indicators per plan.

Program Category	General Program Description	2020 – 2022 Incremental Achievements	2023 - 2025 Program Objectives
Situational Awareness 	Install and operate a company owned weather station network, implement a risk forecasting and impact-based fire weather model, and inform key decision making and protocols.	➢ Installed 95 weather stations. ➢ Implemented FPI. ➢ Procured and installed 1 HPCC for operational forecasting. ➢ Installed 14 wildfire detection cameras.	➢ Install 65 additional weather stations. ➢ Implement WRF ensembles. ➢ Procure additional HPCCs for operational forecasting. ➢ Install 5 wildfire cameras. ➢ Improve the public weather awareness website.
System Operations 	Risk-based implementation of EFR settings and re-energization practices in a manner that balances risk mitigation with potential impacts to customers.	➢ Risk-based implementation of EFR settings and re-energization practices.	➢ Continue risk-based implementation of EFR settings and re-energization practices.
Field Operations & Work Practices 	Acquire and maintain key equipment (water trailers, COWs, & personal suppression equipment) and implement risk-based work practices and resource adjustments.	➢ Risk based work practices. ➢ Additional local assessments to inform situational awareness.	➢ Purchase 1 COW device. ➢ Continue implementation of risk-based work practices. ➢ Assess additional equipment needs. ➢ Develop and release interactive training apps and eBooks for internal wildfire preparedness.
PSPS Program 	Maintain the ability to actively monitor conditions, assess risk, and implement a PSPS as a temporary mitigation measure in a manner that limits the impacts to customers and communities consistent with regulatory requirements.	➢ ECC activated for 2 PSPS watch events in 2021. ➢ Conducted 1 PSPS event in 2022. ➢ Stood up 1 CRC during the 2022 PSPS event.	➢ Broaden public outreach and engagement on PSPS and wildfire safety. ➢ Strategize CRC locations with public safety partners. ➢ Streamline GIS and information sources (PSP Portal). ➢ Continue development of internal communication and coordination tools.
Public Safety Partner (PSP) Coordination 	Develop and implement a public safety partner engagement strategy to enhance coordination and ensure preparedness.	➢ Hosted 13 tabletop exercises in 2022.	➢ Full implementation of PSP Portal. ➢ Continue hosting tabletop exercises and assessing PSP interest in other preparedness strategies (functional exercises, workshops, etc.).

Program Category	General Program Description	2020 – 2022 Incremental Achievements	2023 - 2025 Program Objectives
Wildfire Safety & Preparedness Engagement Strategy 	Manage a multi-pronged approach to engage and inform the public and customers regarding wildfire safety & preparedness.	➢ Conducted a multi-pronged outreach campaign. ➢ Launched updated webpages to improve customer experience and accessibility. ➢ Introduced new infographics to show wildfire mitigation work in progress.	➢ Continue multi-pronged outreach campaign. ➢ Continue to refine information for ease of use and access. ➢ Identify community engagement opportunities with external stakeholders.
Industry Collaboration 	Participate in consortiums, forums, and advisory boards to collaborate with industry experts, maintain expertise in leading edge technologies and operational practices, and continue to improve and advance the WMP and its programs.	➢ Participated in the IWRMC	➢ Participate in the Climate READi to develop a common approach across utilities in relation to climate data and grid hardening technologies. ➢ Leverage lessons learned from the IWRMC.
Plan Monitoring & Implementation 	Leverage a centralized, dedicated team to develop, monitor, implement, and continuously improve the WMP.	➢ Developed a centralized repository of WMP related documentation.	➢ Continue research into new technologies, equipment, and strategies that aid in wildfire mitigation. ➢ Review QA/QC processes for program tracking.

14.2 Plan Costs

Delivering Rocky Mountain Power's multi-year WMP, as summarized above, requires an increase in investment across multiple years. Rocky Mountain Power has currently forecasted an additional investment of $446 million through 2025 (across three years), or $372[19] million capital and $74 million expense. Some programs, as understood today, require finite investment with a planned end date. Other programs, such as enhanced inspections or vegetation management, are expected to be on-going and annual in nature.

[19] The 3-year total was submitted as $363.6 and was a result of a calculation error for the total value and has been updated. The correct total was discussed in Rock Mountain Power's Reply Comments as submitted on May 24, 2024 in Docket 23-035-44. Docket No: 23-035-44 | Public Service Commission (utah.gov)

Additionally, the line rebuild program, which is particularly large and complex in scope, is forecasted to continue beyond 2025 consistent with the company's advancement in risk modeling. Furthermore, not all programs require spend of each type in each year.

The following tables describe Rocky Mountain Power's three-year estimate of these incremental costs broken down by expenditure type. Additionally, the capital costs included reflect spend occurring in a given year, which may differ from values included in GRC filings or cost recovery mechanism applications which include costs based on when assets are placed in service. Furthermore, the costs reflect Utah's allocated share of associated programs and projects and, finally, while the tables only include a three-year forecast, these programs and increased expenditure are expected to continue beyond 2025.

Table 26: Planned Capital Investment by Program Category ($millions)

Program Category	Distribution			Transmission			2023 Total	2024 Total	2025 Total	3 Year Total
	2023	2024	2025	2023	2024	2025				
Risk Modeling and Drivers	$2.5	$3.0	$0.6	$-	$-	$-	$2.5	$3.0	$0.6	$6.1
Asset Inspections and Corrections	$16.4	$20.0	$20.0	$-	$-	$-	$16.4	$20.0	$20.0	$56.4
System Hardening	$51.6	$50.0	$85.0	$22.3	$35.0	$50.0	$73.9	$85.0	$135.0	$293.9
Situational Awareness	$1.4	$1.7	$0.3	$-	$-	$-	$1.4	$1.7	$0.3	$3.4
Field Operations & Work Practices	$6.2	$0.4	$0.5	$-	$-	$-	$6.2	$0.4	$0.5	$7.1
Public Safety Partner Coordination	$2.0	$-	$-	$-	$-	$-	$2.0	$-	$-	$2.0
Environmental	$1.3	$0.9	$0.5	$0.1	$-	$-	$1.4	$0.9	$0.5	$2.8
Grand Total	**$81.4**	**$76.0**	**$106.9**	**$22.4**	**$35.0**	**$50.0**	**$103.8**	**$111.0**	**$156.9**	**$371.7**[20]

[20] The 3-year total was submitted as $363.6 and was a result of a calculation error for the total value and has been updated. The correct total was discussed in Rock Mountain Power's Reply Comments as submitted on May 24, 2024 in Docket 23-035-44. Docket No: 23-035-44 | Public Service Commission (utah.gov)

Table 27: Planned Operations and Maintenance Expense by Program Category ($millions)

Program Category	Distribution			Transmission			2023 Total	2024 Total	2025 Total	3 Year Total
	2023	2024	2025	2023	2024	2025				
Risk Modeling and Drivers	$1.5	$2.2	$2.2	$-	$-	$-	$1.5	$2.2	$2.2	$5.6
Inspection & Correction	$7.5	$13.5	$13.5	$0.4	$1.0	$1.0	$7.9	$14.5	$14.5	$36.9
Vegetation Management	$2.0	$3.6	$3.6	$0.2	$0.3	$0.3	$2.2	$3.9	$3.9	$10.0
Grid Hardening	$0.2	$0.2	$0.3	$0.4	$0.4	$0.4	$0.6	$0.6	$0.7	$2.0
Situational Awareness	$2.6	$3.2	$3.0	$-	$-	$-	$2.6	$3.2	$3.0	$8.8
Field Operations & Work Practices	$1.0	$1.5	$1.6	$0.1	$0.2	$0.2	$1.1	$1.7	$1.7	$4.5
PSPS Program	$1.1	$1.1	$1.1	$-	$-	$-	$1.1	$1.1	$1.1	$3.2
Public Safety Partner Coordination	$0.1	$0.1	$0.1	$-	$-	$-	$0.1	$0.1	$0.1	$0.3
WMP Engagement Strategy	$0.1	$0.3	$0.3	$-	$-	$-	$0.1	$0.3	$0.3	$0.7
Industry Collaboration	$0.1	$0.1	$0.1	$-	$-	$-	$0.1	$0.1	$0.1	$0.3
Plan Monitoring & Implementation	$0.3	$0.2	$0.2	$-	$-	$-	$0.3	$0.2	$0.2	$0.6
Environmental	$0.3	$0.5	$0.5	$-	$-	$-	$0.3	$0.5	$0.5	$1.3
Grand Total	**$16.8**	**$26.5**	**$26.5**	**$1.1**	**$1.9**	**$1.9**	**$17.9**	**$28.4**	**$28.3**	**$74.6**

As this is the second WMP submitted in Utah, there is much to be learned and Rocky Mountain Power anticipates continuously improving its WMP in a way that aligns with customer, stakeholder, and commission expectations. Key takeaways from collaborations with other utilities, public safety partners, the commission, communities, and customers will be evaluated for incorporation into future WMPs and may require corresponding changes or updates to these forecasts.

Appendix A - Dynamic Modeling Data Inputs

The following describes the general model inputs, data sources, update frequency, and update plans for data included in the company's dynamic, FireSight and WFA-E models described in Sections 1 and 5. Many of the data sources below are provided and managed by Technosylva. Rocky Mountain Power is working with Technosylva to clarify the date ranges of the data and discuss requests for additional information.

Dataset	Spatial Resolution (Meters)	Temporal Resolution	Data Vintage	Source
Landscape Characteristics				
Terrain	10	Yearly		United States Geological Survey (USGS)
Surface Fuels	30/10	Pre-Fire Season, Monthly Update in Fire Season, End of Fire Season	2020	Technosylva
Wildland Urban Interface (WUI) and Non-Forest Fuels Land Use	30/10	Twice A Year	2020	Technosylva
Canopy Fuels (CBD, CH, CC, CBH)	30/10	Pre-Fire Season, Monthly Update in Fire Season, End of Fire Season	2020	Technosylva
Roads Network	30	Yearly		USGS
Hydrography	30	Yearly		USGS
Croplands	30	Yearly	1997	USDA
Weather And Atmospheric Data				
Wind Speed	2000	Hourly / 96 Hour Forecast	1990	Atmospheric Data Solutions (ADS)
Wind Direction	2000	Hourly /96 Hour Forecast	1990	ADS
Wind Gust	2000	Hourly / 96 Hour Forecast	1990	ADS
Air Temperature	2000	Hourly / 96 Hour Forecast	1990	ADS
Surface Pressure	2000	Hourly / 96 Hour Forecast	1990	ADS
Relative Humidity	2000	Hourly / 96 Hour Forecast	1990	Technosylva
Precipitation	2000	Hourly / 96 Hour Forecast	1990	ADS
Radiation	2000	Hourly / 96 Hour Forecast	1990	ADS
Water Vapor Mixing Ratio 2 meter	2000	Hourly / 96 Hour Forecast	1990	ADS
Snow Accumulated – Observed	1000	Daily	2008	National Oceanic and Atmospheric Administration (NOAA)
Precipitation Accumulated - Observed	4000	Daily	2008	NOAA

Burn Scars	10	5 Days	2000	National Aeronautics and Space Administration (NASA)/ European Space Agency (ESA)
Weather Observations Data	Points	10 Min	1990	Synoptic
Fuel Moisture				
Herbaceous Live Fuel Moisture	250	Daily / 5-Day Forecast	2000	Technosylva
Woody Live Fuel Moisture	250	Daily / 5-Day Forecast	2000	Technosylva / ADS
1-Hour Dead Fuel Moisture	2000	Hourly / 124 Hour Forecast	1990	Technosylva / ADS
10-Hour Dead Fuel Moisture	2000	Hourly / 124 Hour Forecast	1990	Technosylva / ADS
100-Hour Dead Fuel Moisture	2000	Hourly / 124 Hour Forecast	1990	Technosylva / ADS
Values at Risk				
Buildings	Polygon Footprints	Yearly	2020-21	Microsoft/Technosylva
Damage Inspection (DINS)	Points	Yearly	2014-21	Cal Fire
Population	90	Yearly	2019	Landscan, Oak Ridge National Laboratory (ONRL)
Roads	Vector Lines	Yearly	2021	Caltrans
Social Vulnerability	Plexels	Yearly	2021	Esri Geoenrichment Service
Fire Stations	Points	Yearly	2021	Esri, USGS
Building Loss Factor	Building Footprints	Yearly	2022	Technosylva
Critical Facilities	Points	Yearly	2021	Fire Resource Assessment Program (FRAP), Cal Fire
Potential Ignition Locations				
Distribution & Transmission Lines	Linear Segments	Updated Quarterly	2022	Pacific Power
Poles & Equipment	Points	Updated Quarterly	2022	Pacific Power
Outage History	Points	Annual	1989-2022	Pacific Power
Ignition History	Points	Annual	2020-2022	Pacific Power
Fire Activity				
Hotspots MODIS	1000	Twice A Day	2000	NASA
Hotspots VIIRS	375	Twice A Day	2014	NASA
Hotspots GOES 16/17	3000	10 Minute	2019	NASA
Fireguard	Polygons	15 Minute	2020	National Guard
Fire Season Perimeters	Polygons	Daily	2021	National Incident Feature Service (NIFS)
Historic Fire Perimeters	Polygons	Yearly	1900	Cal Fire
Alert Wildfire Cameras	Live Feeds	1 Minute	Real Time	Alert Wildfire Consortium
Lighting Strikes	1000	1 Minute	Real Time	Earth Networks / Others

Appendix B - Adherence to Requirements

Utah Admin Code 746-315-2 – Wildfire Mitigation Plan Filing Requirements

Consistent with Utah Admin Code 746-315-2 effective June 1, 2023, with adherence to Subsection 54-24-201:

(1) A qualified utility shall submit a wildland fire protection plan that includes the items required by Subsection 54-24-201(2) to the Commission for approval on June 1, 2020, and each October 1 every third year thereafter. A wildland fire protection plan under Subsection (1) *shall include as supplemented below:*

Plan Requirement	Corresponding Plan Section / Reference
a) A description of areas within the service territory of the qualified utility that may be subject to a heightened risk of wildland fire.	See Section 1 – Baseline Risk Analysis for a description of how Rocky Mountain Power leveraged consulting services to identify the areas subject to a heightened risk of wildfire using a variety of factors, including considerations centered on health and safety, the environment, customer satisfaction, system reliability, and financial implications.
b) A description of the procedures, standards, and time frames that the qualified utility will use to inspect and operate its infrastructure;	See Section 2 - Inspection and Correction for a description of when an inspection is performed on a Rocky Mountain Power asset, inspectors use a predetermined list of condition codes and priority levels to describe any noteworthy observations. See Section 6 - System Operations for a description of how Rocky Mountain Power is adjusting power system operation through the implementation of Elevated Fire Risk (EFR) protection and control settings. See Section 9 – Emergency Management Wildfire Response
c) A description of the procedures and standards that the qualified utility will use to perform vegetation management;	See Section 3 - Vegetation Management for a description of Rocky Mountain Power's existing vegetation management program to minimize contact between vegetation and power lines by addressing grow-in and fall-in risks.

Plan Requirement	Corresponding Plan Section / Reference
d) A description of proposed modifications or upgrades to facilities and preventative programs that the qualified utility will implement to reduce the risk of its electric facilities initiating a wildland fire;	See Section 4 – System Hardening for a description of the proposed modifications and upgrades to facilities through system hardening. See Section 2 – Inspection and Correction, Section 3 – Vegetation Management and Environmental, Section 5 – Situational Awareness, Section 6 – System Operations, Section 7 – Field Operations & Work Practices, Section 8 – Public Safety Power Shutoff Program for preventative programs to minimize the risk of a wildfire.
e) A description of procedures for de-energizing power lines and disabling reclosers to mitigate potential wildland fires taking into consideration:	See Section 6 - System Operations for a description of how Rocky Mountain Power is adjusting power system operation through the implementation of Elevated Fire Risk (EFR) protection and control settings. See Section 7- Field Operations & Work Practices which includes how field operations managers deploy additional resources and perform additional patrols or augment work practices such as the deferral of any nonessential work at locations with dense and dry wildland vegetation, especially during periods of heightened fire weather conditions. See Section 8 - Public Safety Power Shutoff Program for a description of the company's PSPS protocols
f) A description of the procedures the qualified utility intends to use to restore its electrical system in the event of a wildland fire;	See Section 9 – Emergency Management Wildfire Response
g) A description of the costs for the implementation of the plan, including system improvements and upgrades;	See Section 14 – Plan Summary, Costs, & Benefits
h) A description of community outreach and public awareness efforts before and during a wildland fire season;	See Section 10 - Public Safety Partner Coordination Strategy which outlines the general strategy and planned exercises and workshops to facilitate public and private sector coordination, validate communications protocols, and verify capability to support communities during extreme risk events. See Section 11 - Wildfire Safety & Preparedness Engagement Strategy, for a description of how the company is engaging customers and the general public throughout its three-state service area on the topic of wildfire safety and preparedness through a variety of tactics including webinars, in-person forums, targeted paid media campaigns, press engagement.
i) A description of potential participation, if applicable, with state or local wildland fire protection plans	See Section 10 - Public Safety Partner Coordination Strategy. Section 11 - Wildfire Safety & Preparedness Engagement Strategy. Section 12 – Industry Collaboration

Appendix C – Utah Stakeholder Comments

On November 9, 2023, Docket No. 23-035-44, Rocky Mountain Power received inputs from the Utah Forestry, Fire and State Lands agency regarding the filed Utah Wildfire Mitigation Plan. In response to these inputs, Rocky Mountain Power initiated a more robust engagement plan, completed the communications below, and plans to have on-going communication with them in the future.

Table 28 : Engagement with Stakeholders

Date	Meeting / Communication	Outcome
12/04/23	Kickoff Meeting : WMP Comments Review	Reviewed FFSL input to scope out next steps needed for collaboration on vegetation management, risk map, and wildfire cameras.
12/13/23	Vegetation Management Collaboration	Developed a plan to collaborate on future vegetation management projects and established resource connections between utility foresters and FFSL Wildfire Urban Interface (WUI) specialists.
01/25/24	Risk Map Collaboration	Completed a collaborative review of the updated FHCA map, as described in Section 1 of this file.
Q2 2024	*Vegetation Management Collaboration*	*Collaborative call with Rocky Mountain Power foresters and WUI specialists.*
Q2 2024 Planned	*Wildfire Camera Placement Collaboration*	*Review previously approved areas for cameras and proposed exact locations with viewshed analysis.*
Q31 2024 Planned	*Risk Map Collaboration*	*Review updated map evolution.*

These meetings further discussed FFSL comments and the responses to the comments are below:

Table 29: Summarized Inputs and Responses

Input Summary	Response
(1) Section 1 of the plan datasets are outdated and do not accurately reflect actual wildfire risk in Utah. Ata relied on to determine the FHCA should be assessed with the most up to date source.	Please see the refreshed Section 1 of the WMP where this was addressed. Additionally, Rocky Mountain power engaged with FFSL in the Risk Map Collaboration meeting as mentioned in the table above.
(2) The nature of collaboration with local, state, federal agencies, and conservative organizations to participate in projects with expanded rights-of-way is overly vague.	To date, the Rocky Mountain Power foresters have reached out to the Utah FFSL Wildland Uban Interface specialists for their areas to review stewardship projects. Additionally, RMP foresters will have a group call with the WUI specialists to discuss further collaborations as described in Section 3.
(3) FFSL would like to utilize real time data from the weather stations and be involved in the new camera system process.	See Section 5 where a link to the weather station website was added for access to the weather station data. Rocky Mountain Power will continue to engage with FFSL on the camera system as the project progresses through the installation process.
(4) Section 7.1 contains a disclaimer that the process is subject to change. FFSL believes there should be some process for notice to the commission, FFSL, and other key stakeholders for field operation changes. The plan for baseline operation restrictions should be more conservative and protective.	Rocky Mountain Power responded to this in Section 7 where the language was updated to clarify statement intent; field operational work practices are more conservative in nature and if changes are made in the annual cost and compliance report, FFSL will be added to the distribution list.
(5) Notice of public safety power shutoff should be provided to state and federal representatives including FFSL.	FFSL is included in notices, dependent on the locations impacted, additionally Rocky Mountain Power has added an Appendix D with a list of the public safety partners.
(6) Section 10 does not include workshops planned details for 2024.	Section 10 has been expanded to include more details on the workshop plan and methodology for 2024 workshops.
(7) FFSL wants to collaborate with RMP on the public outreach goals with the Fire Sense campaign.	Rocky Mountain Power will continue to engage with FFSL regarding ongoing projects.
(8) There was a typo in the Utah Code referenced and the plan mentioned the refreshed FHCA map.	See Section 1 for information regarding the updated FHCA map and Section 13 where the typo was corrected.

Input Summary	Response
(9) The plan does not adequately address the requirement "a description of potential participation, if applicable, with state or local wildland fire protection plans"	Rocky Mountain Power has expanded on already described participation with state and local entities to include the meetings have been scheduled with FFSL and referenced in Table 29 above.
(10) Request to be included in the distribution list for the annual cost and compliance reports.	FFSL will be added to the distribution list for the annual cost and compliance reports, as described in Section 7.

Additional comments provided on February 15th,2024 by FFSL have been noted and responded to below:

WMP Location	Comment or Concern Noted	Rocky Mountain Power Response
Multiple	Throughout (but especially in section 1) – internal references are broken. We assume they will clean up and refer to proper figures/tables etc.	Broken internal references fixed to refer to proper figures/tables etc.
Page 2	Consider reworking the sentence: A successful plan must also consider the impact on Utah customers and Utah communities and balance costs, benefits, operational impacts, and risk mitigation in the overall imperative to provide safe, reliable, and affordable electric service.	Suggestion has been addressed by reworking the sentence on page 2.
Fig. 2-3	Need to swap Figure 2 and 3 captions locations with one another	Edited figure captions to match the correct figures being depicted
Page 6-Table 1	Are lines swinging into each other caused by high winds classified as an Environment Outage? Similarly is a line broken by high winds Environmental or Equipment?	Classification of outage causes is a multi-layer approach, where it is dependent on the situation, a wire down during high winds could be classified as environmental (such as if a tree fell on it), could be classified as equipment (such as equipment failure occurring) or some other classification.
Page 7 & 8 - Figures 2 & 3	Interesting stats would be curious to know the driving factors behind the significant decrease in Wire-to-Wire contacts in the 2017/18 timeframe, similarly but not as dramatic the decrease in Equipment Failures over the last ten years. This seems like something RMP would perhaps want to tout as proof of work towards	Please see Risk Driver Analysis on pages 6-8 for a description of how Rocky Mountain Power compiles outage history and wire down data presented in Figures 2 and 3. The data presented in presented in the figures themselves do not represent actual ignitions. The datasets in these figures provide insight to inform the type of mitigations to implement as shown in Table 5 below.

	reducing risk or more over their successes. Does the ignition data have a spatial component to it, for instance I am wondering where these downed events are occurring? It is good to know where these ignitions occur, and it would be good to display in a map.	One year changes in data may or may not be indicative of a trend. A one or two year fluctuation in data could be within normal expected variation. Variation in data could be due to factors such as an extreme or unique weather year, as well as due to other factors which contribute to variation in the data.
Page 11	Just a clarification; RAIL is identified on this page as Risk Associated with the Asset Location and later as Risk Associated with Ignition Location, likely a typo but lends to confusion.	Figure 6 and Figure 9 has been updated to amend language for clarification to RAIL.
Page 10-11	Like they mentioned in the first round, they are working with Technosylva which is great. I am glad to see that they are using the FireSite for and the Wildfire Analyst tool. My question is, what is the analysis area, all the power lines with a 100-200 foot buffer? And a follow up clarification, is this an analysis for existing lines or lines being built?	On page 10 clarified that FireSight specifically builds upon the quantitative risk model developed by Technosylva that associates wildfire hazards with the location of existing electric overhead assets. On page 12 clarified that this is calculated along overhead transmission and distribution lines every 100 meters. Rocky Mountain Power will be reaching out to the vendor to discuss the initiation of a joint RMP and FFSL conversation.
All	Page numbers are inconsistent	Updated page numbering and table of content page numbers to accurately depict page sequencing
Page 19-26	The FHCA data has grown which is good, however I am wondering what the drivers were behind the Additions to FHCA in Figure 12? Did the risk threshold change to include these additional areas?	On page 19 please see the following. "Expressed as percentiles, the FHCA reflects areas with FireSight model risk scores in the 85-100 percentile. Due to differences in methodologies and models from the FHCA work performed by Reax Engineering and the FireSight model, there is not a like for like comparison between models for risk thresholds used to create the FHCA presented in 2020 and the new FHCA presented Figure 12 below. Rocky Mountain Power validated that the new FHCA generally includes the prior FHCA area as well as the expanded area."
Page 22	table 4 has a spot for 500kv lines. Are these proposed lines? I am quite sure that this line is going to be built up Spanish fork canyon or already has been built.	Table 4 has a section for 500kV lines, should there be an in service 500kV line be identified for inclusion in the FHCA then it will be updated in this table.

Table 4	define Underbuild Pole	Underbuilds are structures on transmission poles and towers underneath the transmission lines that support other services, such as distribution lines.
Page 23	The "Area of Interest" section could use some improvements. I would like a little more explanation on what factors go into these AOI's and what criteria need to be met to go from an AOI to an FHCA. Main points of clarification would be, what are the risk scores that make a FHCA, what score qualifies an area as AOI 1, and AOI 2. Some values would be helpful. I like the idea of AOI I and AOI II but more background would go a long way.	On page 22 please see the following: "Expressed as percentiles, Area of Interest I reflects areas in the 65-85 percentile; and Area of Interest II reflects areas in the 45-65 percentile. Rocky Mountain Power plans to provide the updated FHCA boundary to the following cities and utilities with utility assets in close proximity to the FHCA boundary." RMP also intends to continue evaluating the FHCA and the Areas of Interest on an annual basis to incorporate new data, modeling techniques, and stakeholder input.
Page 53	May want to factor in seasonality in the planned correction timeframes, overall timeframe is important but may not be as important as the actual timing with fire season, i.e. 60 days in the height of fire season is a significantly higher risk than 60 days at the tail end of fire season or after. Similarly, 12 months might be better as "fix prior to next fire season". Also, on this page, I appreciate the information showing overhead transmission enhanced inspection was increased, which demonstrates progress to reduce fire risk.	The response was incorporated into the Section 2 - Expedited Correction Time Periods section. A description was added describing the accelerated timeframe reduced the correction time period in half for A conditions.
Section 4.1	Line Rebuild Program, Line Rebuild (Transmission), p. 45. Does “fire hazard areas” mean the same as FHCA?	The response was added to section 4.1 Line Rebuild (Transmission) The fire hazard area wording was replaced with FHCA for clarity.
Section 5.5 Page 67	“Department of Forestry…” should change to “Division of Forestry…” o I was surprised that they are only planning on 2 new cameras… I had thought it was closer to 5 (from the meeting with RMP?) – Original plan did not specify how many, so this is progress.	Rocky Mountain Power updated section 5.5 to expand on the explanation, there are five camera locations going in, with each location having two cameras to allow for a full 360° view.
Page 67	What is the data source they use for nesting avian populations? Do they work with the Division of Wildlife Resources or use their nest data?	The nest source data is obtained through field personnel inspections, Public, state, or federal resources. This sentence was added to Section 3.4 Nest Management. The avian nesting populations is determined

		with HawkWatch and data is shared between the company and HawkWatch. This was added to Section 3.4 - Habitat and Fire Resiliency To maintain nests the company needs necessary permits from the Utah Division of Wildfire Resources and with the U.S. Fish and Wildlife Services. This was added to Section 3.4 Nest Management.
Page 77-78	It is not clear how much line rebuild is occurring in the FHCA vs Non FCHA	A sentence was added to the introduction in section 4 stating that if similar system hardening work was completed outside of the FHCA that would be considered as reliability and safety work compared to wildfire mitigation work. As stated in the opening sentence of section 4.1 Line Rebuild Program the "Circuits within the FHCA constructed with bare overhead wire" are the lines identified for line rebuild.
Page 79-81	How many relays/reclosers/expulsion fuses are in the newly determined FHCA areas and the entire system and of what classification? Goes toward understanding the magnitude of potential need for replacement versus planned rate of replacement in FHCA.	In Section 4 in the introduction a sentence was added that the impact of the FHCA change mentioned in section 1 for system upgrades was still being assessed.
Page 93	In examining FireCast and FireSim I am glad they are using both as they tell different fire behavior stories. I am wondering what are the "Assets at risk" and where are these data sets sourced from?	On page 93 under "Assets at risk" clarified the assets are default locations from Google Earth Studio.
Section 7	Comment: One point not made here is that FFSL and the federal agencies place restrictions on certain activities such as “hot work” as a fire prevention measure when fire danger warrants. RMP or its contractors would need a waiver to operate during these types of closures. 65A-8-212. Coordination with fire managers would be required	Rocky Mountain Power complies with all required state, federal and local work requirements when working during elevated fire conditions and has updated Section 7 with more specific references.
Section 10.7	Emergency Preparedness and Exercise Plan, Table 25 “Milford” should be Millard County? Check throughout the doc	Updated to correct county name.

Appendix A	It would be good to note the data year ranges used for databases with spans of time, for example I would assume Croplands data started in 1997 but as it indicates it is collected yearly - is the range 1997-2023? Similarly, it points to Historic Fire Perimeters as being from Cal Fire in 1900, I would think this was an artifact of a different plan since Cal Fire probably would not have up to date perimeters for Utah. Also, for the Fuels Data and for some other data Technosylva is indicated as the source, which seems unlikely they would collect their own fuels data at such a scale when there are national extensive programs like LandFire that do this and are publicly available. Similarly, with ADS and the weather data, so it would be worth finding out and listing the underlying data sources that they use for transparency.	Rocky Mountain Power is working with Technosylva to clarify the date ranges of the data in Appendix A. As indicated in Appendix A, Technosylva also collects fire activity daily from National Incident Feature Service (NIFS).
Appendix A	I have lots of questions for Technosylva and how they are producing Surface Fuels along with canopy characteristic data sets like CBD, CH, CC, and CBH. These are the other types of data we would like to be able to see (along with the power line infrastructure I requested). Having the ability to review this data along with the WMP would greatly aid the FFSL review process.	Rocky Mountain Power will discuss the request for additional information with Technosylva.
Appendix C-Table 30	Point 2, Collaboration on vegetation projects etc., still vague, but at least they know who to talk to now.	Appendix C has been updated to incorporate elaboration on these discussions.
Appendix D	Federal agencies listed and five Interagency dispatch centers should be listed	Appendix D has been updated to incorporate this additional information.

Appendix D – Utah Public Safety Partners List

Table 30 : Public Safety Partners List

Job Title	Agency	Region
Dispatch Personnel	Great Basin Coordination Center	Federal
Dispatch Personnel	Color Country Interagency Fire Center	Regional
Dispatch Personnel	Moab Interagency Fire Center	Regional
Dispatch Personnel	Northern Utah Interagency Fire Center	Regional
Dispatch Personnel	Richfield Interagency Fire Center	Regional
Dispatch Personnel	Uintah Basin Interagency Fire Center	Regional
ECC Off Duty Officer	Division of Emergency Management	Statewide
Utah-Public Private Partnership Section Manager	Division of Emergency Management	Statewide
Community Support Liaison Manager	Division of Emergency Management	Statewide
State Community Outreach Liaison	State of Utah	Statewide
Emergency Manager	Box Elder County	North
Emergency Manager	Cache County	North
Emergency Manager	Davis County	North
Emergency Manager	Morgan County	North
Emergency Manager	Rich County	North
Emergency Manager	Weber County	North
State Community Outreach Liaison	State of Utah	Statewide
Emergency Manager	Tooele County	Central
Emergency Manager	Utah County	Central
Emergency Manager	Summit County	Central
Emergency Manager	Wasatch County	Central
UFA DC Emergency Manager	Salt Lake County	Central
State Community Outreach Liaison	State of Utah	Central
Emergency Manager	Juab County	South
Emergency Manager	Millard County	South
Emergency Manager	Piute County	South
Emergency Manager	Sanpete County	South
Emergency Manager	Sevier County	South
Emergency Manager	Wayne County	South
State Community Outreach Liaison	State of Utah	Southwest
Emergency Manager	Beaver County	South
Emergency Manager	Garfield County	South

Emergency Manager	Iron County	South
Emergency Manager	Kane County	South
Emergency Manager	Washington County	South
State Community Outreach Liaison	State of Utah	Northeast
Emergency Manager	Daggett County	Northeast
Emergency Manager	Duchesne County	Northeast
Emergency Manager	Uintah County	Northeast
State Community Outreach Liaison	State of Utah	Grand, San Juan
Emergency Manager	Carbon County	East
Emergency Manager	Emery County	East
Emergency Manager	Grand County	South
Emergency Manager	San Juan County	South
State Fire Management Officer	State of Utah - DNR FSSL	Statewide
Deputy State Fire Management Officer	State of Utah - DNR FSSL	Statewide
Area Manager	State of Utah - DNR FSSL	Bear River
Area Manager	State of Utah - DNR FSSL	Central
Area Manager	State of Utah - DNR FSSL	Northeast
Area Manager	State of Utah - DNR FSSL	Southeast
Area Manager	State of Utah - DNR FSSL	Wasatch Front

Appendix E – 2024 Emergency Preparedness and Exercise Plan

Table 31: Tentative 2024 Emergency Preparedness and Exercise Plan

Date	Host	Target Region / County	Topic
March 2024	Rocky Mountain Power	Washington, Iron, Beaver	Workshop
March 2024	Rocky Mountain Power	Santaquin, Sanpete, Sevier, San Juan, Grand	Workshop
April 2024	Rocky Mountain Power	Carbon, Emery	Workshop
April 2024	Rocky Mountain Power	Salt Lake	Workshop
April 2024	Rocky Mountain Power	Utah, Juab, Milliard	Workshop
April 2024	Rocky Mountain Power	Tooele	Workshop
June 2024	Rocky Mountain Power	Summit, Wasatch	Workshop
June 2024	Rocky Mountain Power	Davis, Morgan, Weber	Workshop
June 2024	Rocky Mountain Power	Vernal	Workshop
June 2024	Rocky Mountain Power	Cache, Box Elder	Workshop

Appendix F – Wildfire Encroachment Systems Operations Procedure SOP-203