ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

1407 W North Temple, Suite 330
Salt Lake City, Utah 84114

May 1, 2023

***VIA ELECTRONIC FILING***

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

Attention: Gary Widerburg
Commission Administrator

**RE:** **Docket No. 23-035-21** – Rocky Mountain Power's Service Quality Review Report

In compliance with the Commission's June 11, 2009 order in Docket No. 08-035-55 and December 20, 2016 order in Docket Nos. 13-035-01 and 15-035-72, and pursuant to the requirements of Rule R746-313, PacifiCorp d.b.a. Rocky Mountain Power ("RMP" or "Company") submits the Service Quality Review Report for the period January through December, 2022.

The Company respectfully requests that all formal correspondence and requests for additional information regarding this filing be addressed to the following:

By E-mail (preferred): datarequest@pacificorp.com
utahdockets@pacificorp.com
Jana.saba@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232

Informal inquiries may be directed to Jana Saba at (801) 220-2823.

Sincerely,

Joelle Steward
Senior Vice President, Regulation & Customer and Community Solutions

Enclosures

# UTAH
# SERVICE QUALITY
# REVIEW

**January 1 – December 31st, 2022**
**Report**

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# Executive Summary

Rocky Mountain Power (RMP) developed its Customer Service Standards and Service Quality Measures nearly 20 years ago. The standards were developed to demonstrate to customers that the company is serious about serving them well and willing to back its commitments with cash payments in cases where the company falls short. The standards also help remind employees about the importance of good customer service. The Company developed these standards by benchmarking its performance against relevant industry reliability and customer service standards. In some cases, Rocky Mountain Power has expanded upon these standards. In other cases, largely where the industry has no established standard, Rocky Mountain Power developed its own metrics, targets, and reporting methods.

Rocky Mountain Power delivered favorable network performance as measured by System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI). The Company extended its year-on-year improvement achieved by completion of reliability projects and efforts that have been put in place. In Docket No. 20-035-22, the Division of Public Utilities (DPU) reviewed Rocky Mountain Power's 2019 service quality and recommended the Public Service Commission of Utah (Commission) establish a work group to review RMP's reliability baseline standards related to SAIDI and SAIFI and make recommendations. The Commission accepted this recommendation and directed RMP and DPU to convene a work group, open to interested parties, to examine RMP's reliability baseline standards and to make recommendations. In accordance with the Commission directive, the parties convened a workgroup that met to discuss new baseline performance standards, which are reflected in this report.

Even with these results, Rocky Mountain Power recognizes the continued impact of any outage to its customers. There was one major event experienced during this reporting period for Utah customers. While major events often represent extreme events, Rocky Mountain Power recognizes the significant negative impacts to our customers, communities, and other important stakeholders.

Rocky Mountain Power's goal continues to be supplying safe, reliable power to Utah. The company is dedicated to learning from past service experiences and continuing to make improvements to operations and customer service to ensure it meets Utah's needs.

Below is a summary of our 2022 performance serving the customers of Utah.

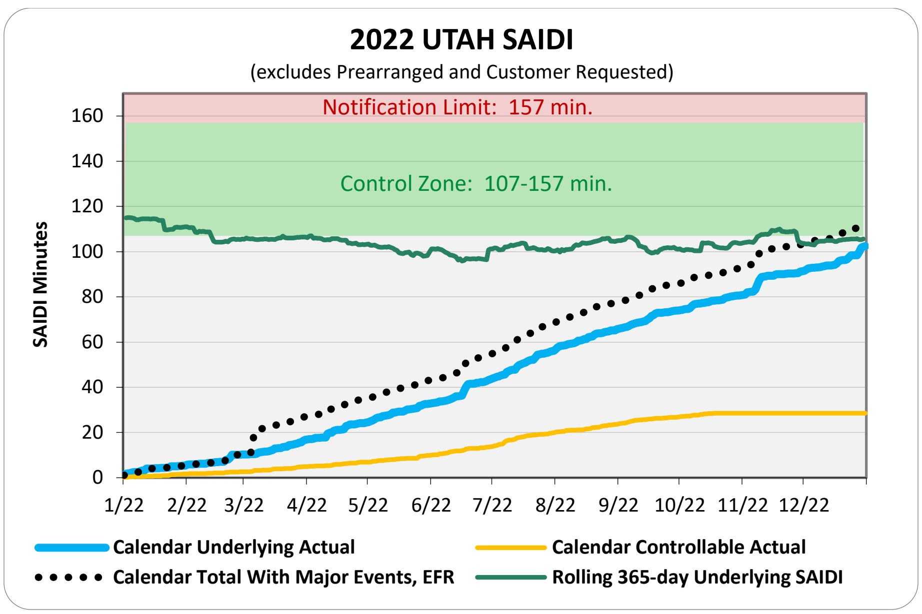
# 1 Reliability Performance

For the reporting period, the Company's performance is on target to meet the Commissions baseline performance ranges for System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI). For SAIDI the baseline range is 107-157 minutes, with a notification limit set at 157 minutes. For SAIFI the baseline range is 0.9-1.2 events, with a notification limit of 1.2 events. Graphics in sections 1.1 and 1.2 provide an overview of the biannual underlying and controllable results as they corelate to the control zones and notification limits. In addition, section 1.3 provides details regarding major events and significant events customers experienced.

## 1.1 System Average Interruption Duration Index (SAIDI)

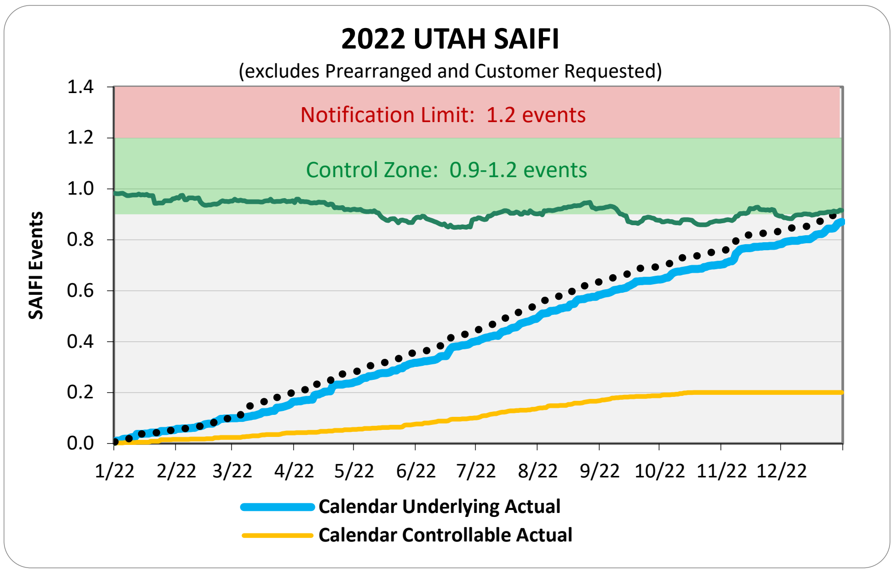
Over time the Company has made system changes to minimize how many customers are affected for any given outage. This approach has resulted in improvements to both outage duration and outage frequency, and has yielded improved performance as delivered to customers, as generally shown in the graphic below and in 1.2. The total value includes underlying and major events.

| SAIDI | Reporting Period |
|---|---|
| **Total** | 114 |
| **Underlying** | 103 |
| **Controllable Distribution** | 29 |



## 1.2 System Average Interruption Frequency Index (SAIFI)

| SAIFI | Reporting Period |
|---|---|
| **Total** | 0.921 |
| **Underlying** | 0.870 |
| **Controllable Distribution** | 0.201 |



## 1.3 Major and Significant Event Days

For the current reporting period, there was one major event[1] and six significant event days[2]. Rocky Mountain Power has included regional major events to show events that are statistical outliers that may not show up on a state level. These events are still included in the underlying metrics and are found in section 1.1.

| Major Events | | | | |
|---|---|---|---|---|
| **Date** | **Cause** | **Status** | **Docket** | **SAIDI** |
| March 5-7, 2022 | Snowstorm | Approved | 22-035-12 | 10.34 |
| | | | **Total** | **10.34** |

March 5-7, 2022

A high-density snowstorm moved across the state between March 5th and 7th, 2022. The weight of this water-heavy snow caused many vegetation-based outages. The most affected areas were Salt Lake City Metro and Jordan Valley. The damage to Rocky Mountain Power facilities resulted in 40,944 customers experiencing sustained service interruptions.

**Significant Events**

Significant event days add substantially to year-on-year cumulative performance results; fewer significant event days generally result in better reliability for the reporting period while more significant event days generally mean poorer reliability results. During the period, six significant event days were recorded, which account for 11 SAIDI minutes, or about 9.6% of the reporting period's underlying 114 SAIDI minutes. These significant events were triggered by weather and loss of supply outages.

| Significant Event Days | | | | | |
|---|---|---|---|---|---|
| **Dates** | **Cause: General Description** | **Underlying SAIDI** | **Underlying SAIFI** | **% of Total Underlying SAIDI (114)** | **% of Total Underlying SAIFI (0.921)** |
| December 28, 2022 | Snow, Sleet and Blizzard | 2.0 | 0.011 | 1.8% | 1.2% |
| November 8, 2022 | Rain | 0.6 | 0.002 | 0.5% | 0.2% |
| November 7, 2022 | Wind | 2.1 | 0.022 | 1.8% | 2.4% |
| April 11, 2022 | Snow and Wind | 1.7 | 0.017 | 1.5% | 1.8% |
| June 17, 2022 | Wind | 2.6 | 0.012 | 2.3% | 1.3% |
| June 18, 2022 | Wind and Fire Conditions | 2.0 | 0.016 | 1.8% | 1.7% |
| | **TOTAL** | **11** | **0.080** | **9.6%** | **8.7 %** |

[1] A Major Event (ME) is defined as a 24-hour period where SAIDI exceeds a statistically derived threshold value (Reliability Standard IEEE 1366-2012) based on the 2.5 beta methodology. The values used for the reporting period are shown below:

| Effective Date | Customer Count | ME Threshold SAIDI | ME Customer Minutes Lost |
|---|---|---|---|
| 1/1-12/31/2022 | 1,002,258 | 4.40 | 4,418,888 |

[2] Significant event days are 1.75 times the standard deviation of the company's natural log daily SAIDI results (by state or appropriate reliability reporting region).

## 1.4 Restore Service to 80% of Customers within 3 Hours

| RESTORATIONS WITHIN 3 HOURS | | | | | |
|---|---|---|---|---|---|
| **Reporting Period Cumulative = 83%** | | | | | |
| January | February | March | April | May | June |
| 85% | 83% | 88% | 89% | 91% | 76% |
| July | August | September | October | November | December |
| 79% | 86% | 71% | 90% | 76% | 83% |

## 1.5 CAIDI Performance

The table below shows the average time, during the reporting period, for outage restoration. This augments previous reporting for the percent of customers whose power was restored within 3 hours of notification of an outage event and uses IEEE industry indices.

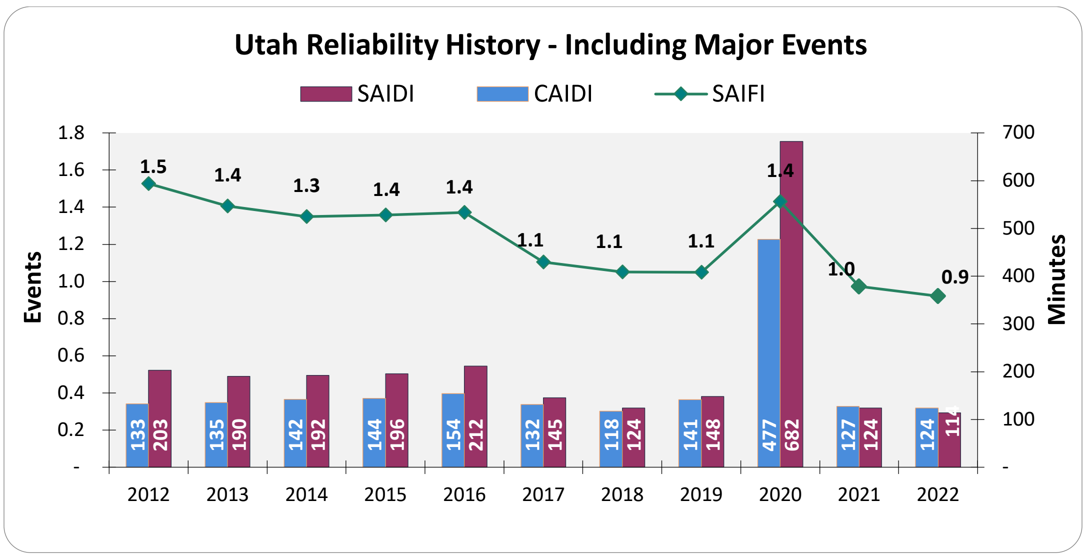
| CAIDI (Average Outage Duration) | |
|---|---|
| Underlying Performance | 118 minutes |
| Total Performance | 124 minutes |

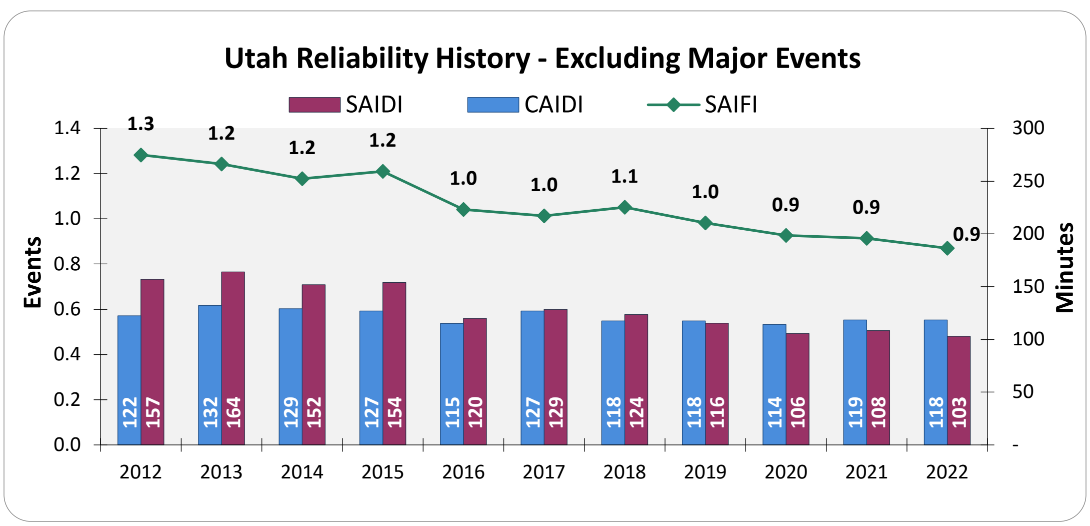
# 2 Reliability History

Historically the Company has improved reliability as measured by SAIDI and SAIFI reliability indices; at the same time outage response performance (CAIDI) has varied from year to year with no specific trend apparent. The SAIDI and SAIFI trends are further evidenced in Sections 2.2 and 2.3, where 365-day rolling performance trends are depicted. These indices demonstrate the efficacy of the long-term improvement strategies targeted toward reducing the frequency of interruptions that the company under-took after the implementation of its automated outage management system. As previously discussed, this report reflects the updated baselines, which are detailed further in Section 2.3.

It is particularly noteworthy that these two metrics show durable improvement for both underlying and major event performance within the state, meaning that the system is more resilient on a day-to-day basis as well as when extreme weather or other system impacting events occur.

## 2.1 Utah Reliability Historical Performance

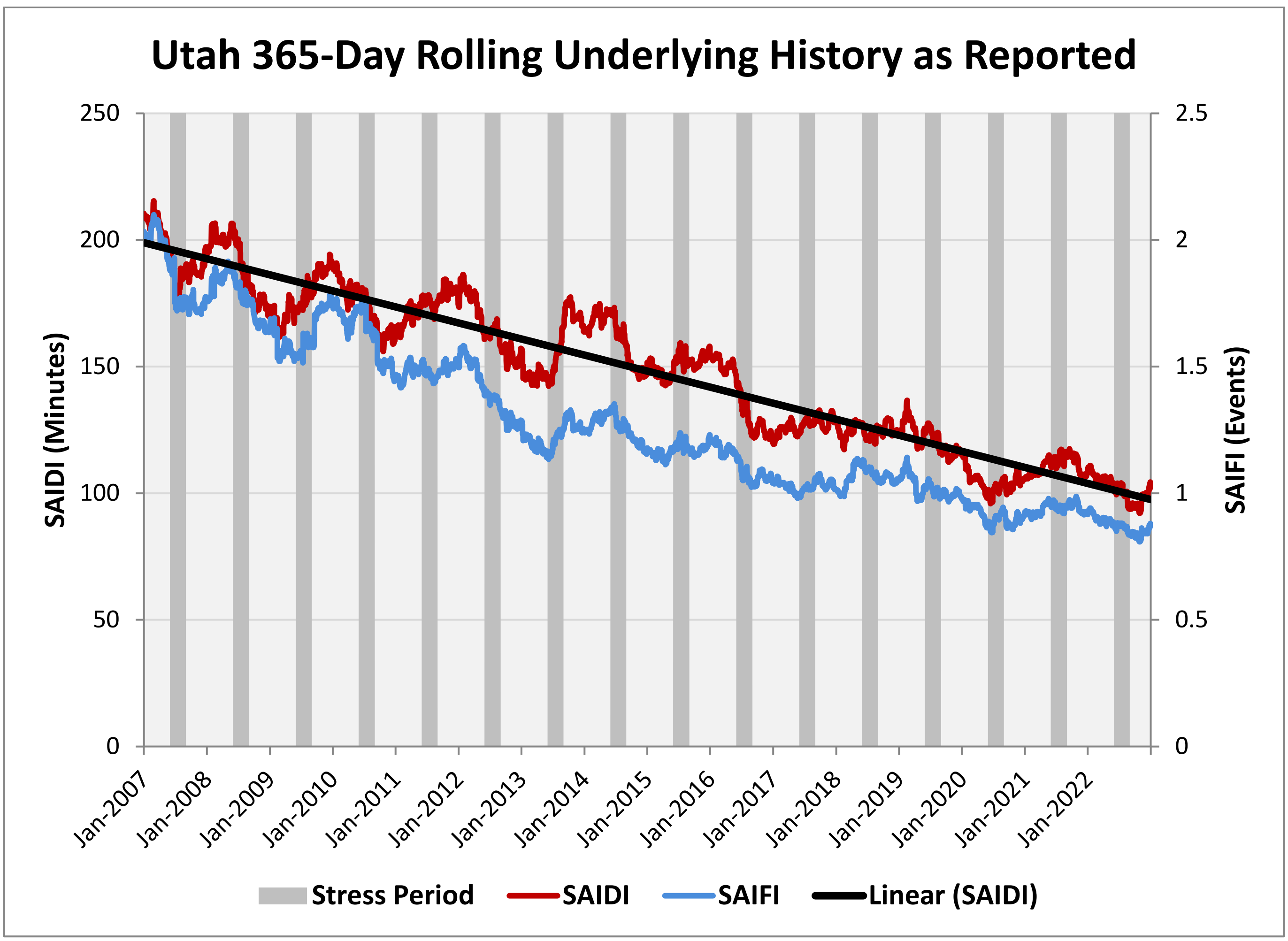


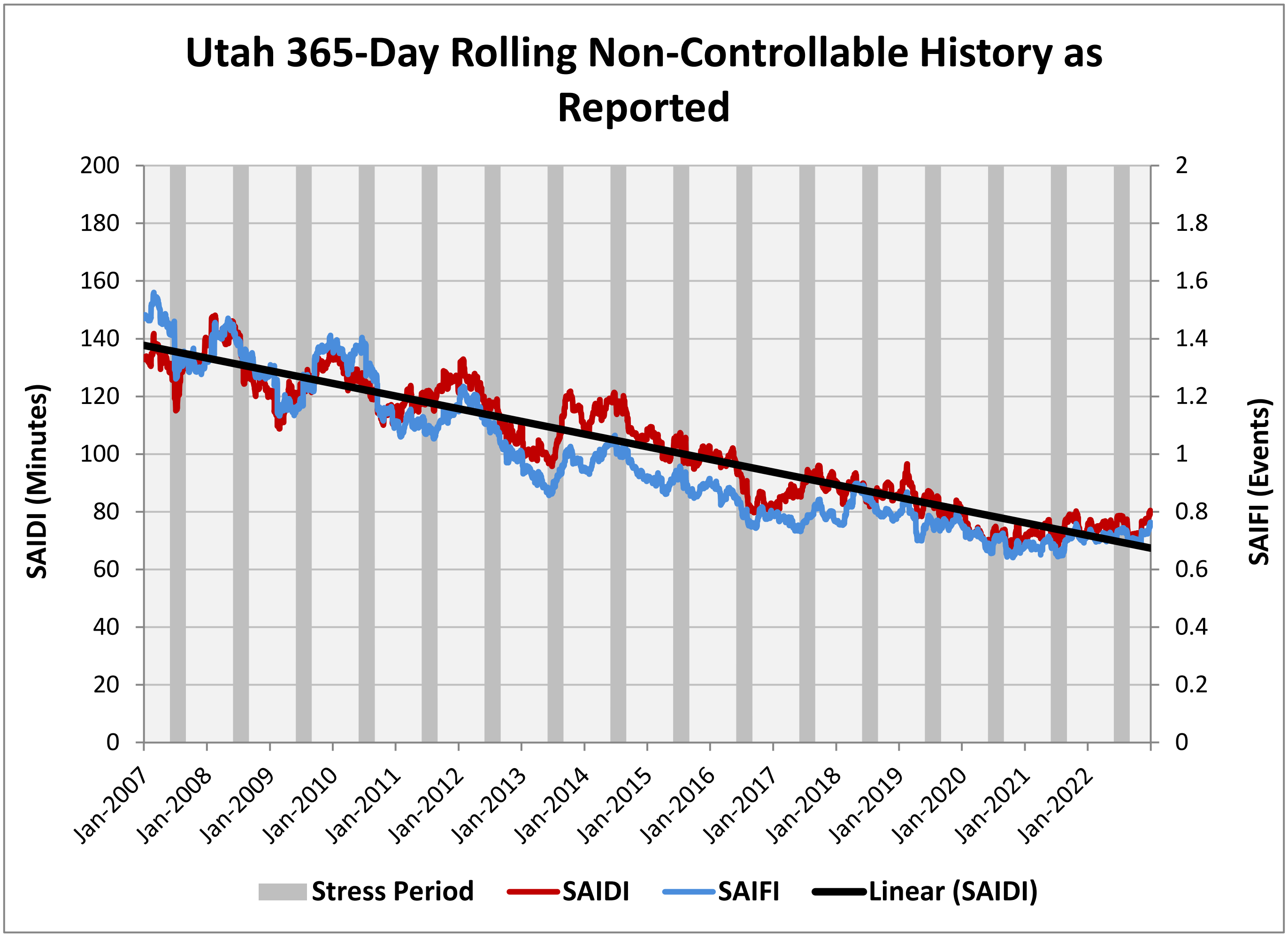



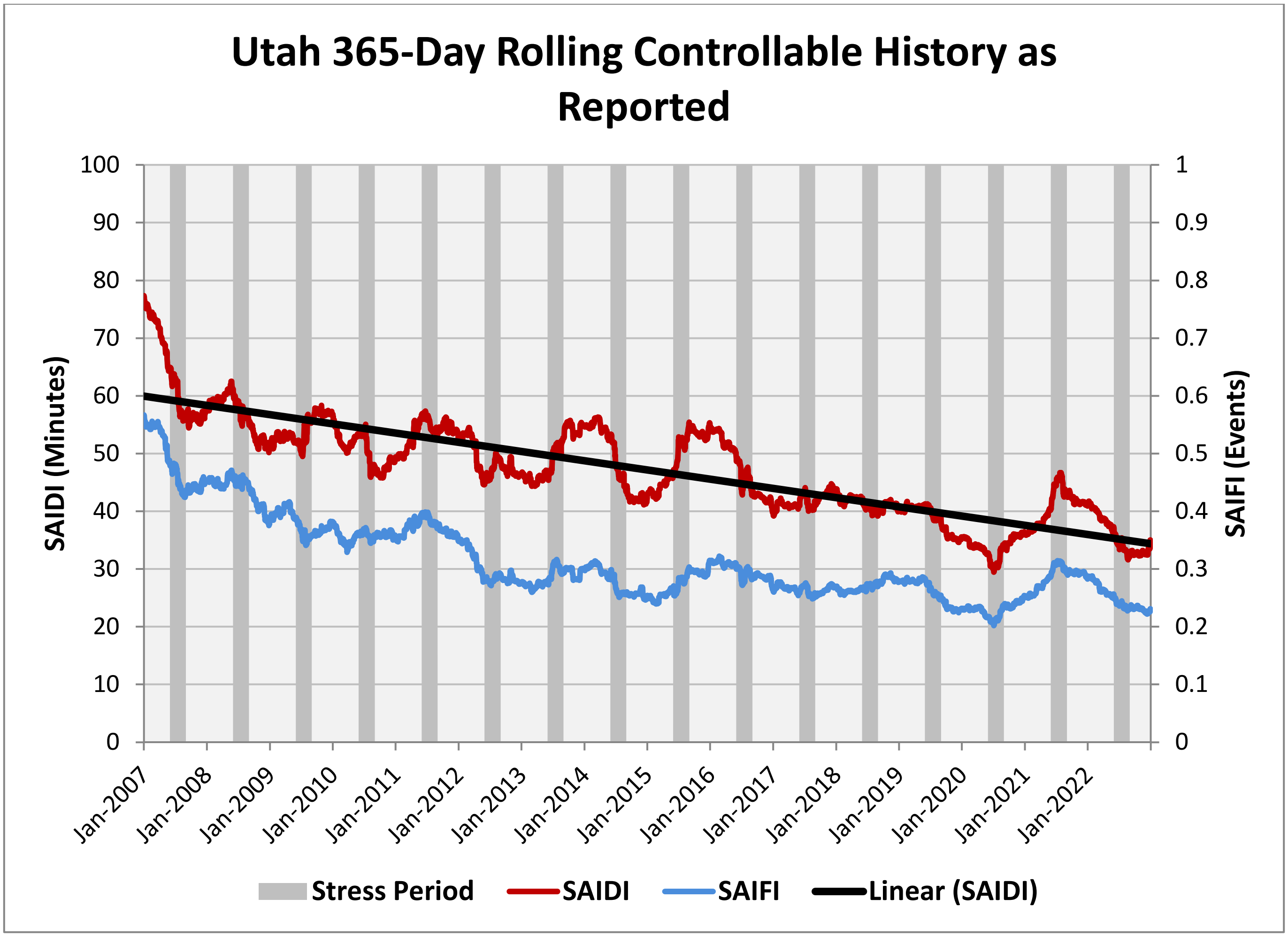
## 2.2 Controllable, Non-Controllable and Underlying Performance Review

In 2008, the Company introduced a further categorization of outage causes, which it subsequently used to develop improvement programs. This categorization was titled Controllable Distribution Outages and recognized that certain types of outages can be cost-effectively avoided. As an example, animal-caused or equipment failure interruptions have a less random nature than lightning caused interruptions. Other controllable causes have also been determined and are specified in Section 2.4. Engineers can develop plans to mitigate against controllable distribution outages and provide better future reliability at the lowest possible cost. At that time, there was concern that the Company would lose focus on non-controllable outages. To provide insight into the response and history for those outages, the charts below distinguish between the outage groupings.

The graphic history demonstrates controllable, non-controllable, and underlying performance on a rolling 365-day basis. In general, analysis of the trends displayed in the charts below shows an improving trend for all charts. To also focus on non-controllable outages, the Company has continued to improve its resilience to extreme weather using such programs as its visual assurance program to evaluate facility condition. It also has undertaken efforts to establish impacts of loss of supply events on its customers and deliver appropriate improvements when identified. It uses its web-based notification tool for alerting field engineering and operational resources when devices have exceeded performance thresholds to react as quickly as possible to trends in declining reliability. These notifications are conducted regardless of if the outage cause was controllable.



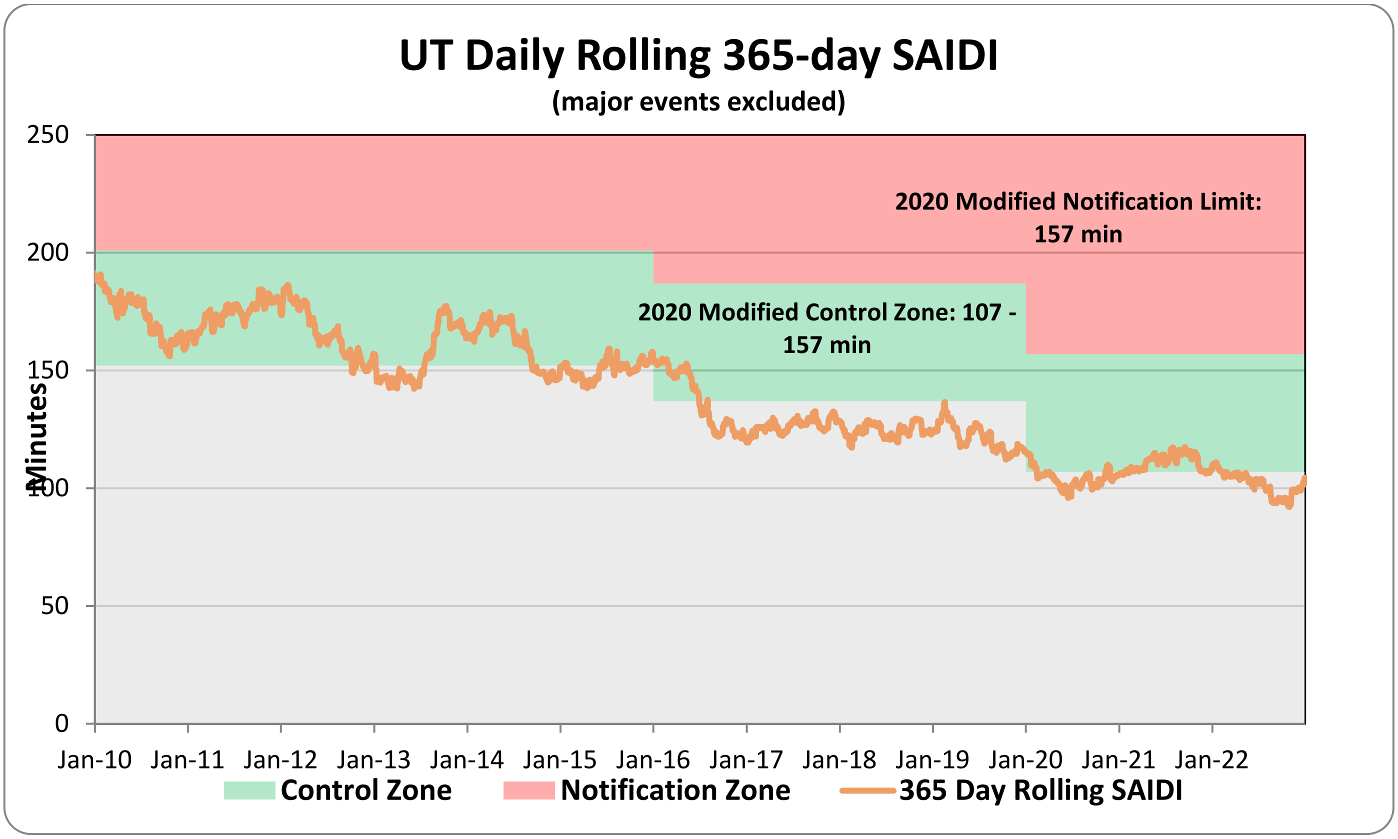

Utah 365-Day Rolling Non-Controllable History as Reported
SAIDI (Minutes)
SAIFI (Events)
200
180
160
140
120
100
80
60
40
20
0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Jan-2007
Jan-2008
Jan-2009
Jan-2010
Jan-2011
Jan-2012
Jan-2013
Jan-2014
Jan-2015
Jan-2016
Jan-2017
Jan-2018
Jan-2019
Jan-2020
Jan-2021
Jan-2022
Stress Period
SAIDI
SAIFI
Linear (SAIDI)

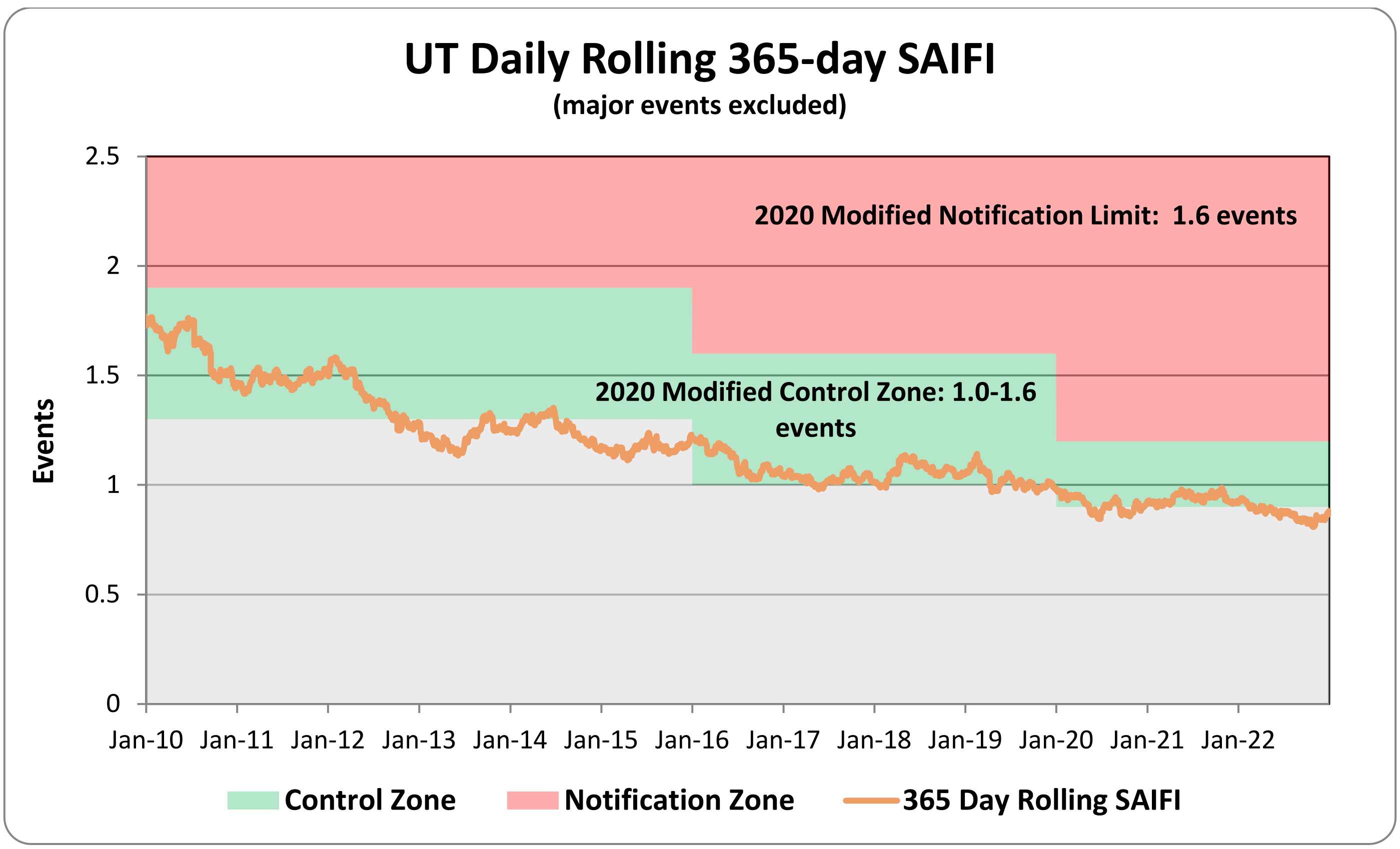



## 2.3 Baseline Performance

In compliance with Utah Reliability Reporting Rules, the Company developed performance baselines that it subsequently filed for approval (based on 2008-2012 history). The baseline values were calculated using the 12-month moving average data for SAIDI and SAIFI over a 5-year period as the mean, plus or minus approximately two standard deviations. These baselines were approved, but stakeholders advocated that periodically refreshing baseline levels would be beneficial. As a result, on December 20, 2016, the Public Service Commission of Utah approved modified electric service reliability performance baseline notification levels (Docket No. 13-035-01 and 15-035-72). On June 23, 2020, the Commission directed the Company to work with parties to review the baselines. The original and modified baselines are shown below.

| | SAIDI (Minutes) | | SAIFI (Events) | |
|---|---|---|---|---|
| | Lower Value Control Zone | Upper Value Control Zone | Lower Value Control Zone | Upper Value Control Zone |
| **Prior Baseline** | 151 | 201 | 1.3 | 1.9 |
| **2016 Modified Baseline** | 137 | 187 | 1.0 | 1.6 |
| **2020 Modified Baseline** | 107 | 157 | 0.9 | 1.2 |


UT Daily Rolling 365-day SAIDI
(major events excluded)
2020 Modified Notification Limit: 157 min
2020 Modified Control Zone: 107 - 157 min
Minutes
250
200
150
100
50
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Control Zone
Notification Zone
365 Day Rolling SAIDI


UT Daily Rolling 365-day SAIFI
(major events excluded)
2020 Modified Notification Limit: 1.6 events
2020 Modified Control Zone: 1.0-1.6 events
Events
2.5
2
1.5
1
0.5
0
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Control Zone
Notification Zone
365 Day Rolling SAIFI

## 2.4 Reliability Reporting Post-Rule R.746-313 Modifications

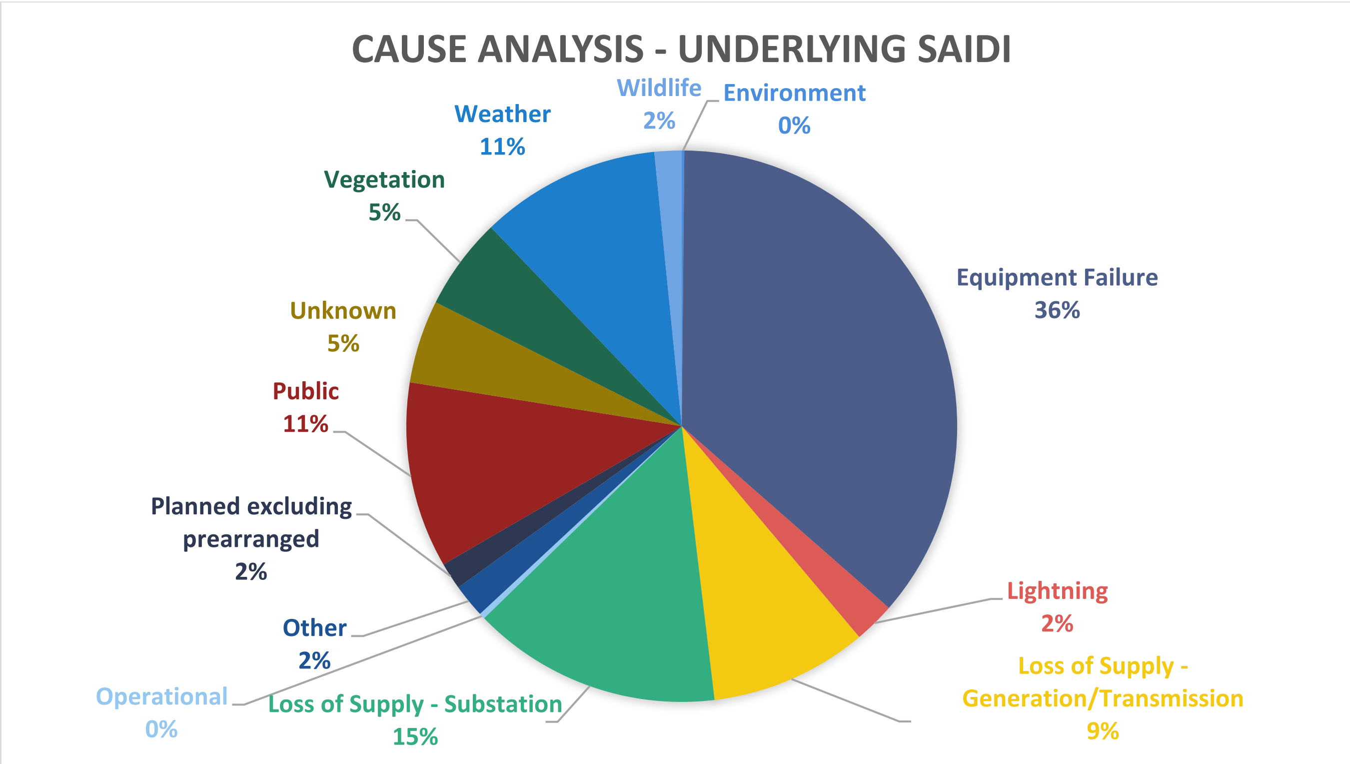
In 2012, the Company and stakeholders developed reliability reporting rules that are codified in Utah Administrative Code R746.313. Certain reliability reporting details were outlined in these rules that had not been previously required in the Company's Service Quality Review Report. Certain elements may be at least partially redundant or segmented differently than has been provided in the past.

The final rule required five-year history at an operating area level for SAIDI, SAIFI and CAIDI. At a state level, these metrics in addition to $MAIFI_e$ are required.

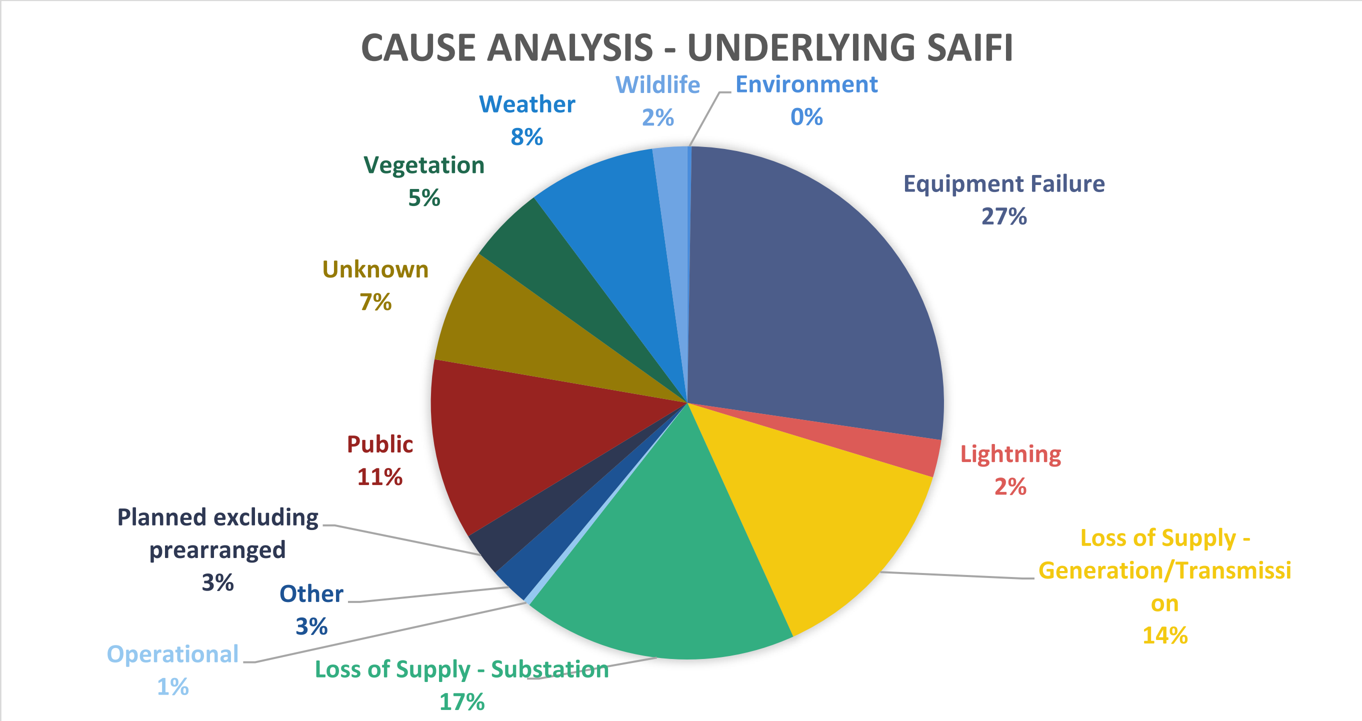
| Major Events and Prearranged Excluded* | 2017 | | | | 2018 | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATE | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe |
| Utah | 129 | 1.0 | 127 | 1.11 | 124 | 1.1 | 118 | 2.17 | 116 | 1.0 | 118 | 2.64 | 106 | 0.9 | 114 | 3.46 | 108 | 0.9 | 119 | 1.89 | 104 | 0.9 | 118 | 0.42 |
| OP AREA | | | | | | | | | | | | | | | | | | | | | | | | |
| AMERICAN FORK | 77 | 0.8 | 102 | | 85 | 0.8 | 109 | | 59 | 0.6 | 100 | | 65 | 0.7 | 91 | | 56 | 0.4 | 144 | | 78 | 0.6 | 121 | |
| CEDAR CITY | 183 | 1.7 | 109 | | 157 | 1.2 | 136 | | 160 | 1.4 | 114 | | 149 | 1.3 | 111 | | 144 | 1.3 | 111 | | 110 | 1.0 | 110 | |
| CEDAR CITY (MILFORD) | 565 | 2.5 | 230 | | 226 | 1.4 | 164 | | 563 | 3.2 | 177 | | 296 | 1.9 | 154 | | 270 | 2.0 | 133 | | 182 | 0.9 | 197 | |
| EVANSTON | 49 | 0.2 | 219 | | 23 | 0.2 | 96 | | 9 | 0.1 | 76 | | 12 | 0.1 | 192 | | 26 | 0.2 | 112 | | 21 | 0.2 | 128 | |
| JORDAN VALLEY | 109 | 0.8 | 139 | | 137 | 1.1 | 121 | | 100 | 0.8 | 118 | | 99 | 0.8 | 121 | | 109 | 1.0 | 114 | | 74 | 0.7 | 104 | |
| LAYTON | 115 | 0.8 | 149 | | 90 | 0.9 | 101 | | 83 | 0.9 | 90 | | 71 | 0.8 | 93 | | 119 | 1.2 | 96 | | 69 | 0.6 | 112 | |
| MOAB | 190 | 2.4 | 80 | | 111 | 1.1 | 103 | | 171 | 2.0 | 87 | | 239 | 1.9 | 123 | | 146 | 1.2 | 126 | | 125 | 1.2 | 103 | |
| MONTPELIER | 452 | 0.7 | 624 | | 34 | 0.4 | 94 | | 13 | 0.2 | 75 | | 33 | 0.2 | 142 | | 78 | 1.1 | 73 | | 216 | 0.9 | 235 | |
| OGDEN | 119 | 0.9 | 138 | | 116 | 1.0 | 114 | | 153 | 1.1 | 139 | | 116 | 0.9 | 128 | | 126 | 1.0 | 127 | | 119 | 0.8 | 141 | |
| PARK CITY | 227 | 1.4 | 159 | | 165 | 1.2 | 143 | | 187 | 1.1 | 171 | | 251 | 1.9 | 132 | | 121 | 0.7 | 166 | | 171 | 0.9 | 186 | |
| PRICE | 171 | 2.5 | 69 | | 203 | 2.3 | 90 | | 101 | 1.9 | 53 | | 140 | 1.3 | 109 | | 64 | 1.0 | 63 | | 143 | 1.5 | 94 | |
| RICHFIELD | 187 | 2.0 | 95 | | 173 | 1.4 | 125 | | 222 | 2.2 | 103 | | 135 | 1.5 | 92 | | 213 | 1.2 | 175 | | 254 | 1.8 | 141 | |
| RICHFIELD (DELTA) | 139 | 1.3 | 105 | | 171 | 1.0 | 163 | | 100 | 0.7 | 136 | | 203 | 1.0 | 197 | | 340 | 2.7 | 128 | | 138 | 2.0 | 70 | |
| SLC METRO | 114 | 1.0 | 111 | | 120 | 1.0 | 118 | | 113 | 0.9 | 125 | | 95 | 0.9 | 108 | | 226 | 1.9 | 120 | | 102 | 1.0 | 107 | |
| SMITHFIELD | 139 | 0.9 | 149 | | 96 | 1.0 | 99 | | 127 | 1.5 | 83 | | 88 | 0.9 | 100 | | 80 | 0.9 | 86 | | 93 | 0.8 | 116 | |
| TOOELE | 140 | 1.4 | 100 | | 196 | 1.5 | 135 | | 146 | 1.3 | 110 | | 137 | 1.0 | 137 | | 155 | 1.4 | 112 | | 192 | 1.8 | 104 | |
| TREMONTON | 200 | 2.0 | 99 | | 151 | 1.1 | 137 | | 259 | 1.6 | 167 | | 178 | 1.3 | 140 | | 92 | 0.8 | 117 | | 213 | 1.9 | 115 | |
| VERNAL | 77 | 0.8 | 96 | | 48 | 0.6 | 82 | | 58 | 0.6 | 98 | | 68 | 0.7 | 94 | | 64 | 0.4 | 165 | | 86 | 0.7 | 127 | |

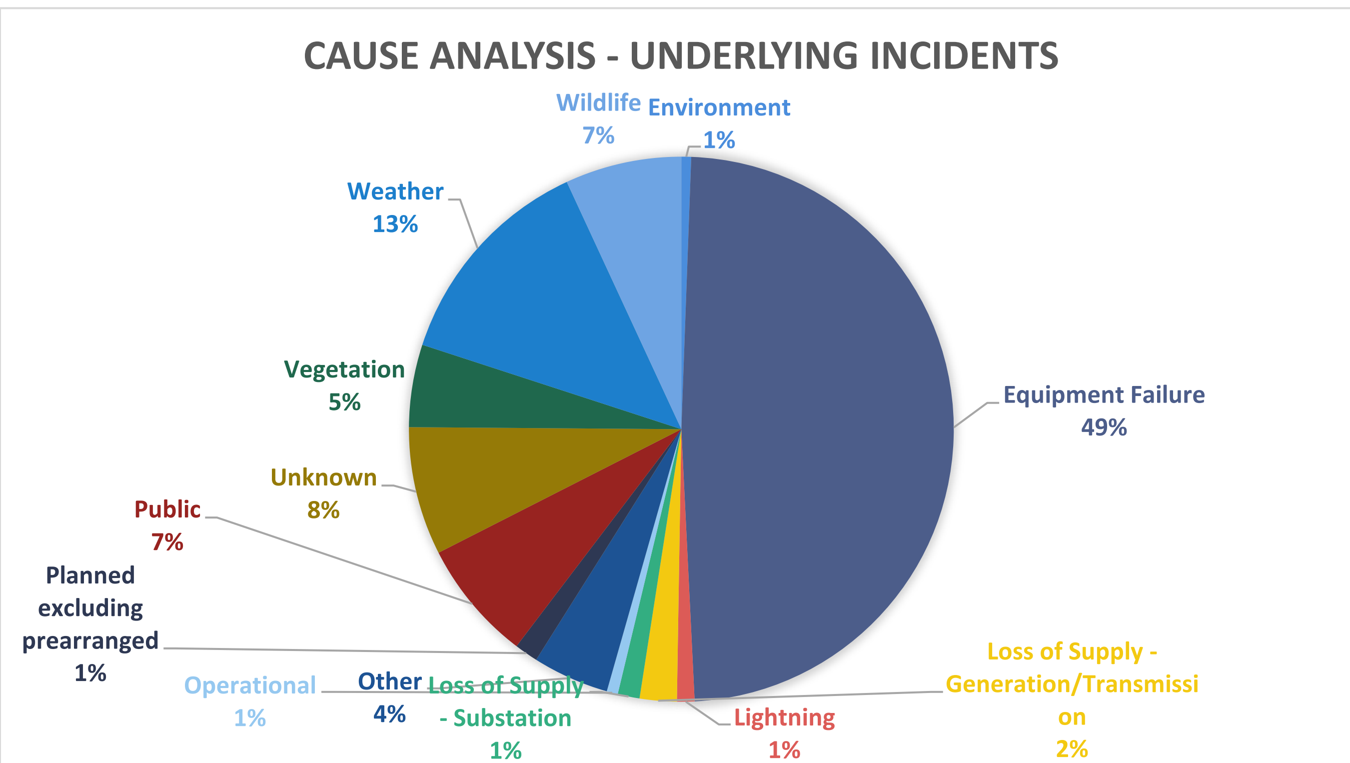
Note: The difference between the underlying SAIDI performance of 103, reported above, and the 104 (rounded from 103.7) SAIDI number reflected here is accounted for by SAIDI minutes when Elevated Fire Risk (EFR) settings are enabled, which are included here and not in the underlying data below.

| Utah Cause Category | 2017 | | 2018 | | 2019 | | 2020 | | 2021 | | 2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI |
| Environment | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0.0 |
| Equipment Failure | 46 | 0.2 | 50 | 0.4 | 42 | 0.4 | 37 | 0.2 | 42 | 0.4 | 38 | 0.2 |
| Lightning | 3 | 0 | 3 | 0 | 3 | 0 | 1 | 0 | 3 | 0 | 2 | 0.0 |
| Loss of Supply - Generation/Transmission | 13 | 0.1 | 13 | 0.2 | 9 | 0.1 | 15 | 0.2 | 9 | 0.1 | 10 | 0.1 |
| Loss of Supply - Substation | 11 | 0.1 | 9 | 0.1 | 11 | 0.1 | 6 | 0.1 | 10 | 0.1 | 15 | 0.2 |
| Operational | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0.0 |
| Other | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0.0 |
| Planned (excl. Prearranged) | 8 | 0.1 | 10 | 0.1 | 9 | 0.1 | 6 | 0.1 | 3 | 0 | 2 | 0.0 |
| Public | 15 | 0.1 | 15 | 0.1 | 16 | 0.1 | 16 | 0.1 | 13 | 0.1 | 11 | 0.1 |
| Unknown | 6 | 0.1 | 6 | 0.1 | 5 | 0.1 | 5 | 0.1 | 5 | 0.1 | 5 | 0.1 |
| Vegetation | 6 | 0 | 5 | 0 | 7 | 0 | 7 | 0 | 6 | 0 | 6 | 0.0 |
| Weather | 16 | 0.1 | 9 | 0.1 | 11 | 0.1 | 7 | 0.1 | 10 | 0.1 | 11 | 0.1 |
| Wildlife | 3 | 0 | 3 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 2 | 0.0 |
| **UTAH Underlying** | **129** | **1** | **124** | **1.1** | **116** | **1** | **106** | **0.9** | **108** | **0.9** | **104** | **0.9** |




Note: This chart depicts the percentage that each category contributes to the SAIDI metric. Although the percent of SAIDI for equipment failure compared to total SAIDI value continues to be high, the actual SAIDI associated with equipment failure is trending downward, year over year. It was 42% in 2021 and 36% in 2022. We continue to implement changes inspection cycles as a proactive approach to reduce outages associated with equipment failure.


CAUSE ANALYSIS - UNDERLYING SAIFI
Wildlife 2%
Environment 0%
Weather 8%
Vegetation 5%
Equipment Failure 27%
Unknown 7%
Public 11%
Lightning 2%
Loss of Supply - Generation/Transmission 14%
Planned excluding prearranged 3%
Other 3%
Operational 1%
Loss of Supply - Substation 17%


CAUSE ANALYSIS - UNDERLYING INCIDENTS
Wildlife 7%
Environment 1%
Weather 13%
Vegetation 5%
Equipment Failure 49%
Unknown 8%
Public 7%
Planned excluding prearranged 1%
Loss of Supply - Generation/Transmission 2%
Operational 1%
Other 4%
Loss of Supply - Substation 1%
Lightning 1%

# 3 Improve Reliability Performance in Areas of Concern

Rocky Mountain Power is committed to delivering safe and reliable power. For years, the company has developed, monitored, and tracked reliability metrics in accordance with industry standards and regulatory requirements. Over time, improvements have been made to minimize the negative impact of power interruptions by reducing outage duration and frequency. To continue keeping its commitment to deliver safe and reliable power, Rocky Mountain Power develops a reliability plan annually to identify new projects and programs to continually improve system performance and resilience.

Rocky Mountain Power's reliability plan is a key program that is used to improve system reliability is the development of individual reliability work plans for areas of concern, which is a strategic approach based upon recent trends in performance as measured by customer minutes interrupted (CMI), from which SAIDI is derived. The decision to fund one performance improvement project over another is based on cost effectiveness as measured by the cost per avoided customer minute interruptions. Care is taken to ensure the cost effectiveness measure does not limit funding of improvement projects in areas of low customer density over more densely populated areas.

An area of concern that has been identified are circuits that serve many customers. As a result, Rocky Mountain Power implemented a new mainline sectionalizing guideline to reduce the number of customers exposed per feeder. The guide outlines recommendations for a maximum of 2,250 customers per feeder, which are to be further subdivided into protection zones of no more than 750 customers. A feeder analysis was performed to determine which feeders do not meet these recommendations and about 108 circuits were identified to currently exceed the maximum recommendation of 2,250 customers. In 2022, twelve projects were selected to be reconfigured to meet the new mainline sectionalizing guide. It is anticipated that those projects will take approximately 12-18 months to complete, and upon completion a similar number of new feeders will be selected for reconfiguration and improvements.

# 4 Customer Response

## 4.1 Telephone Service and Response to Commission Complaints

| COMMITMENT | GOAL | PERFORMANCE |
|---|---|---|
| PS5-Answer calls within 30 seconds[3] | 80% | 63% |
| PS6a) Respond to commission complaints within 3 days | 95% | 100% |
| PS6b) Respond to commission complaints regarding service disconnects within 4 hours | 95% | 100% |
| PS6c) Address commission[4] complaints within 30 days | 100% | 100% |

[3] Rocky Mountain Power was not able to achieve this goal due to staffing constraints, largely driven by labor market dynamics amid the COVID pandemic. Rocky Mountain Power has been working to improve our performance in this area and, as of Q1 2023, this metric was 70.1% trending toward the 80% target.

[4] Rocky Mountain Power follows the definitions for informal and formal complaints as set forth in the Utah Code, Title 54, Public Utilities Statutes and Public Service Commission Rules, R746-200-8 Informal review (A) and Commission review (D).

## 4.2 Utah Commitment U1

To identify when a 'wide-scale' outage has occurred, the company examines call data for customers who have selected either the power emergency or power outage option within the company's call menu. However, to report on performance during a 'wide-scale' outage, the company must use network information, which provides information for all call types, not just outage calls. Therefore, using the menu level data the company has identified the time intervals that exceed the agreed upon standard 2,000 calls/hour, and reports the network level statistics for the same intervals.

For the reporting period, there were five days identified as a wide-scale outage day; call statistics are shown in the table below:

- On December 27th, there were five major events that began the day prior spanning Oregon and California due to an atmospheric river system that landed on the western seaboard. This atmospheric river system affected approximately 95,841 customers.
- On August 9th, Bend, OR experienced a loss of transmission that affected approximately 32,370 customers, and Laramie, WY experienced a loss of transmission that affected approximately 9,783 customers.
- On August 1st, Southern Oregon experienced severe storms affecting 6,554 customers, and Ogden, UT experienced heavy winds that led to trees impacting lines and equipment failures that affected approximately 2,014 customers.
- On July 11th, Medford, OR experienced a loss of transmission that affected approximately 5,676 customers, and Oregon and Utah experienced equipment failures that affected approximately 1,342 customers.
- On January 3rd, Sunnyside, WA experienced a loss of transmission, which affected approximately 10,100 customers, and Oregon experienced a windstorm that affected about 30,200 customers.

| Date | Interval start/finish (MT Time) | | Network Total Calls* | Calls received but not delivered** | # of Calls Abandoned from Agent Queue | Max Delay Time Seconds*** | ASA Seconds |
|---|---|---|---|---|---|---|---|
| 12/27/2022 | 14:30 | 14:44 | 415 | 0 | 44 | 753 | 110 |
| | 14:45 | 14:59 | 413 | 0 | 54 | 916 | 93 |
| | 15:00 | 15:14 | 644 | 0 | 204 | 1012 | 344 |
| | 15:15 | 15:29 | 591 | 0 | 80 | 800 | 162 |
| | 15:30 | 15:44 | 465 | 0 | 40 | 559 | 97 |
| | 15:45 | 15:59 | 533 | 0 | 32 | 608 | 154 |
| 8/9/2022 | 13:00 | 13:14 | 351 | 0 | 128 | 2588 | 14 |
| | 13:15 | 13:29 | 346 | 0 | 115 | 2746 | 17 |
| | 13:30 | 13:44 | 809 | 6 | 142 | 2583 | 162 |
| | 13:45 | 13:59 | 743 | 0 | 140 | 2579 | 164 |
| | 14:00 | 14:14 | 454 | 0 | 129 | 2193 | 28 |
| | 14:15 | 14:29 | 464 | 0 | 114 | 2289 | 31 |
| | 14:30 | 14:44 | 434 | 0 | 96 | 2215 | 21 |
| 8/1/2022 | 10:00 | 10:14 | 439 | 0 | 132 | 2406 | 18 |
| | 10:15 | 10:29 | 485 | 0 | 118 | 2439 | 13 |
| | 10:30 | 10:44 | 568 | 0 | 108 | 2825 | 22 |
| | 10:45 | 10:59 | 586 | 1 | 110 | 3773 | 12 |
| | 11:00 | 11:14 | 713 | 0 | 127 | 3532 | 86 |
| | 11:15 | 11:29 | 679 | 0 | 152 | 3507 | 91 |
| | 11:30 | 11:44 | 536 | 0 | 126 | 3169 | 18 |
| | 11:45 | 11:59 | 595 | 0 | 99 | 2579 | 21 |
| | 12:00 | 12:14 | 554 | 0 | 104 | 2259 | 17 |

| Date | Interval start/finish (MT Time) | | Network Total Calls* | Calls received but not delivered** | # of Calls Abandoned from Agent Queue | Max Delay Time Seconds*** | ASA Seconds |
|---|---|---|---|---|---|---|---|
| | 12:15 | 12:29 | 509 | 0 | 96 | 2043 | 8 |
| | 12:30 | 12:44 | 493 | 0 | 126 | 1849 | 11 |
| | 12:45 | 12:59 | 444 | 0 | 109 | 1696 | 17 |
| 7/11/2022 | 13:00 | 13:14 | 341 | 0 | 103 | 2213 | 31 |
| | 13:15 | 13:29 | 551 | 0 | 109 | 1464 | 26 |
| | 13:30 | 13:44 | 747 | 0 | 94 | 1973 | 22 |
| | 13:45 | 13:59 | 482 | 0 | 127 | 2127 | 22 |
| | 14:00 | 14:14 | 442 | 0 | 110 | 1712 | 14 |
| | 14:15 | 14:29 | 414 | 0 | 100 | 2019 | 16 |
| 1/3/2022 | 9:30 | 9:44 | 393 | 0 | 83 | 684 | 12 |
| | 9:45 | 9:59 | 416 | 0 | 67 | 702 | 6 |
| | 10:00 | 10:14 | 481 | 0 | 96 | 777 | 11 |
| | 10:15 | 10:29 | 527 | 0 | 120 | 917 | 16 |
| | 10:30 | 10:44 | 558 | 0 | 111 | 931 | 9 |
| | 10:45 | 10:59 | 576 | 0 | 94 | 1049 | 18 |
| | 11:00 | 11:14 | 564 | 0 | 125 | 939 | 10 |
| | 11:15 | 11:29 | 600 | 0 | 111 | 922 | 16 |
| | 11:30 | 11:44 | 624 | 0 | 100 | 853 | 18 |
| | 11:45 | 11:59 | 594 | 0 | 79 | 891 | 16 |
| | 12:00 | 12:14 | 494 | 0 | 106 | 816 | 18 |
| | 12:15 | 12:29 | 532 | 0 | 93 | 810 | 25 |
| | 12:30 | 12:44 | 525 | 0 | 91 | 1014 | 12 |
| | 12:45 | 12:59 | 552 | 0 | 96 | 1250 | 109 |
| | 13:00 | 13:14 | 576 | 0 | 126 | 1355 | 56 |
| | 13:15 | 13:29 | 527 | 0 | 106 | 1325 | 17 |
| | 13:30 | 13:44 | 537 | 0 | 117 | 1287 | 13 |
| | 13:45 | 13:59 | 486 | 0 | 105 | 1082 | 11 |
| | 14:00 | 14:14 | 502 | 0 | 99 | 902 | 14 |
| | 14:15 | 14:29 | 584 | 0 | 78 | 803 | 19 |
| | 14:30 | 14:44 | 471 | 0 | 81 | 1089 | 12 |
| | 14:45 | 14:59 | 504 | 0 | 96 | 1166 | 9 |
| | 15:00 | 15:14 | 510 | 0 | 92 | 1012 | 11 |
| | 15:15 | 15:29 | 563 | 0 | 95 | 946 | 10 |
| | 15:30 | 15:44 | 466 | 0 | 92 | 1670 | 8 |
| | 15:45 | 15:59 | 472 | 0 | 97 | 1053 | 12 |
| | 16:00 | 16:14 | 484 | 0 | 88 | 1050 | 19 |
| | 16:15 | 16:29 | 430 | 0 | 86 | 975 | 13 |
| | 16:30 | 16:44 | 475 | 0 | 96 | 848 | 15 |
| | 16:45 | 16:59 | 409 | 0 | 71 | 766 | 13 |
| | 17:00 | 17:14 | 435 | 0 | 61 | 804 | 60 |

## 4.3 Utah State Customer Guarantee Summary Status

## customer*guarantees*

January to December 2022

***Utah***

| | Description | 2022 Events | 2022 Failures | 2022 % Success | 2022 Paid | 2021 Events | 2021 Failures | 2021 % Success | 2021 Paid |
|---|---|---|---|---|---|---|---|---|---|
| CG1 | Restoring Supply | 993,011 | 0 | 100.00% | $0 | 977,372 | 0 | 100.00% | $0 |
| CG2 | Appointments | 11,370 | 13 | 99.89% | $650 | 9,838 | 3 | 99.97% | $150 |
| CG3 | Switching on Power | 4,458 | 2 | 99.96% | $100 | 1,558 | 0 | 100.00% | $0 |
| CG4 | Estimates | 1,700 | 3 | 99.82% | $150 | 1,639 | 1 | 99.94% | $50 |
| CG5 | Respond to Billing Inquiries | 1,230 | 3 | 99.76% | $150 | 2,126 | 1 | 99.95% | $50 |
| CG6 | Respond to Meter Problems | 722 | 0 | 100.00% | $0 | 683 | 0 | 100.00% | $0 |
| CG7 | Notification of Planned Interruptions | 183,180 | 44 | 99.98% | $2,200 | 208,648 | 13 | 99.99% | $650 |
| | | **1,195,671** | **65** | **99.99%** | **$3,250** | **1,201,864** | **18** | **99.99%** | **$900** |

Overall Customer Guarantee performance remains above 99%, demonstrating Rocky Mountain Power's continued commitment to customer satisfaction. Major Events are excluded from the Customer Guarantees program. The program also defines certain exemptions, which are primarily for safety, access to outage site, and emergencies.

# 5 Maintenance Compliance to Annual Plan

## 5.1 T&D Preventive and Corrective Maintenance Programs

**Preventive Maintenance**

The primary focus of the preventive maintenance (PM) plan is to inspect facilities, identify abnormal conditions[5], and perform appropriate preventive actions upon those facilities. Assessment of policies, including the costs and benefits of delivery of these policies, will result in modifications to them. Thus, local triggers that result in more frequent or more burdensome inspection and maintenance practices have resulted in refinement to some of these PM activities. As the Company continues this assessment, further changes of the policies will result in refinement of the maintenance plan.

***Transmission and Distribution Lines***

- Visual assurance inspections are designed to identify damage or defects that may endanger public safety or adversely affect the integrity of the electric system.
- Detailed inspections are in depth visual inspections of each structure and the spans between each structure or pad-mounted distribution equipment.[6]
- Pole testing includes a sound and bore to identify decay pockets that would compromise the wood pole's structural integrity.

***Substations and Major Equipment***

- Rocky Mountain Power inspects and maintains substations and associated equipment to ascertain all components within the substation are operating as expected. Abnormal conditions that are identified are prioritized for repair (corrective maintenance).
- Rocky Mountain Power has a condition-based maintenance program for substation equipment including load tap changers, regulators, and transmission circuit breakers. Diagnostic testing is performed on a time-based interval and the results are analyzed to determine if the equipment is suitable for service or maintenance tasks to be performed. Protection system and communication system maintenance is performed based on a time interval basis.

**Corrective Maintenance**

The primary focus of the corrective maintenance plan is to correct the abnormal conditions found during the preventive maintenance process.

***Transmission and Distribution Lines***

- Correctable conditions are identified through the preventive maintenance process.
- Outstanding conditions are recorded in a database and remain until corrected.

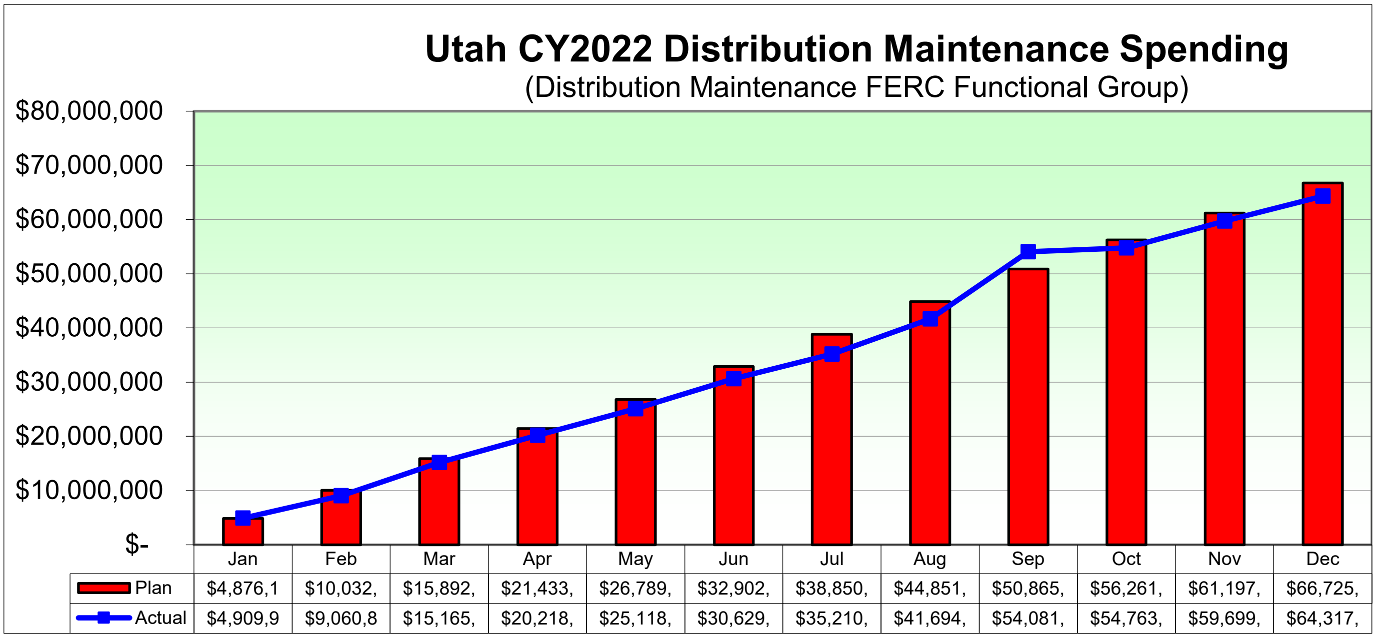
[5] Condition priorities are as follows:
Priority A: Conditions that pose a potential but not immediate hazard to the public or employees, or that risk loss of supply or damage to the electrical system.
Priority B: Conditions that are nonconforming, but that in the opinion of the inspector do not pose a hazard.
Priority C: Conditions that are nonconforming, but that in the opinion of the inspector do not need to be corrected until the next scheduled work is performed on that facility point.
Priority D: Conditions that conform to the NESC and are not reportable to the associated State Commission. Priority G: Conditions that conform to the regulations requirement that was in place when construction took place but do not conform to more recent code adoptions. These conditions are "grandfathered" and are considered conforming.

[6] Effective 1/1/2007, Rocky Mountain Power modified its reliability & preventive planning methods to utilize repeated reliability events to prioritize localized preventive maintenance activities using its Reliability Work Planning methodology. At this time, repeated outage events experienced by customers will result in localized inspection and correction activities rather than being programmatically performed at either the entire circuit or map section level.

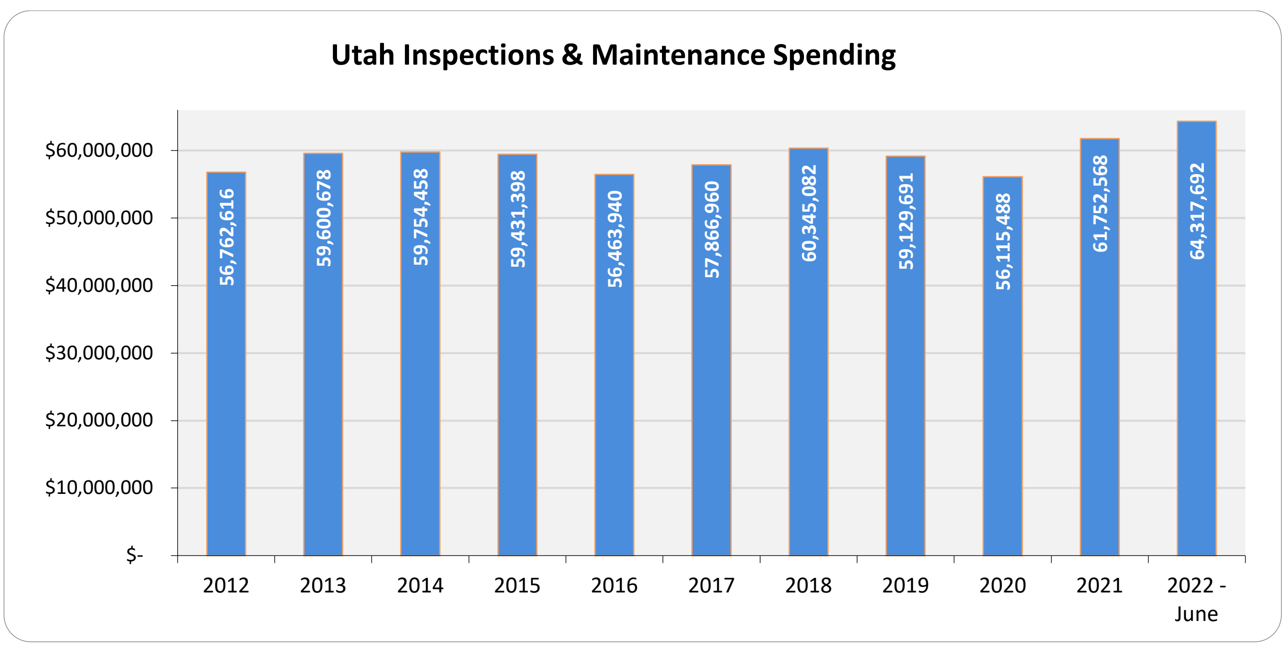
***Substations and Major Equipment***

- Correctable conditions are identified through the preventive maintenance process, often associated with actions performed on major equipment.
- Corrections consist of repairing equipment or responding to a failed condition.

## 5.2 Maintenance Spending – RMV

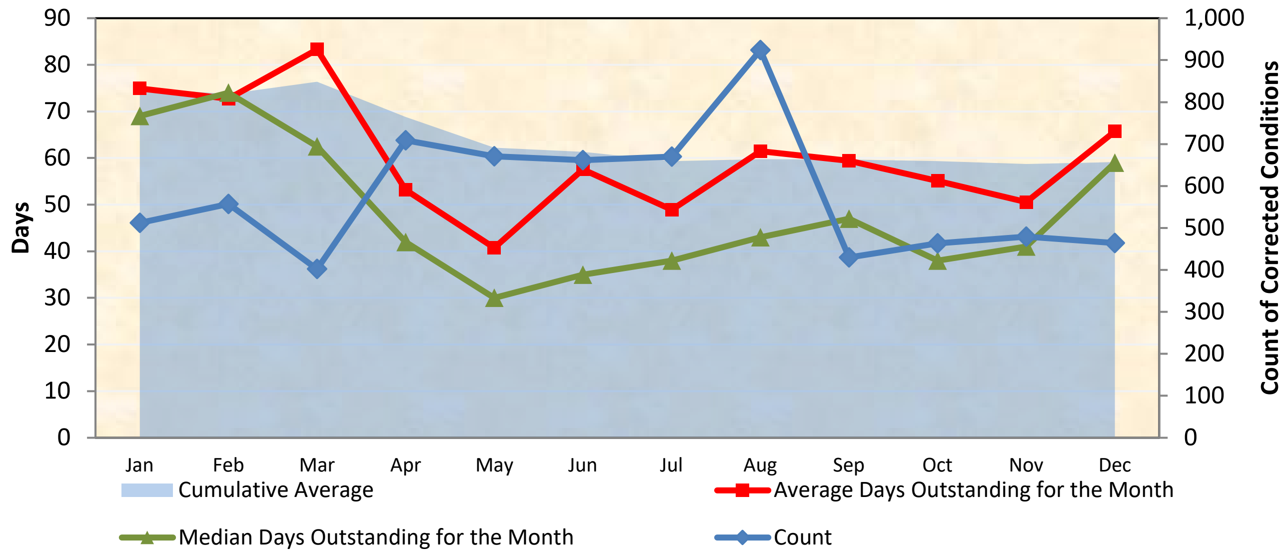



### 5.2.1 Maintenance Historical Spending - RMV



## 5.3 Distribution Priority "A" Conditions Correction History

Rocky Mountain Power is committed to correcting Priority "A" Conditions with an average age of 120 days or less. The Company believes that it is a useful indicator of its commitment to providing safe and reliable service to its Utah customers. As shown in the graph below, Rocky Mountain Power consistently delivers an average age of Priority "A" Conditions well below the 120-day target.



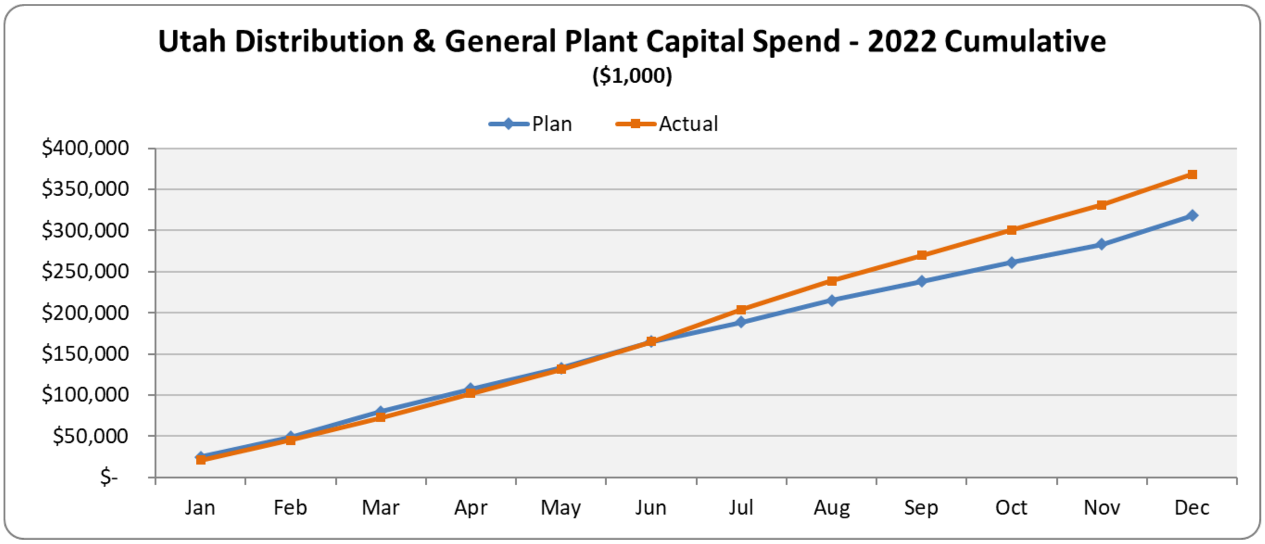

# 6 Capital Investment

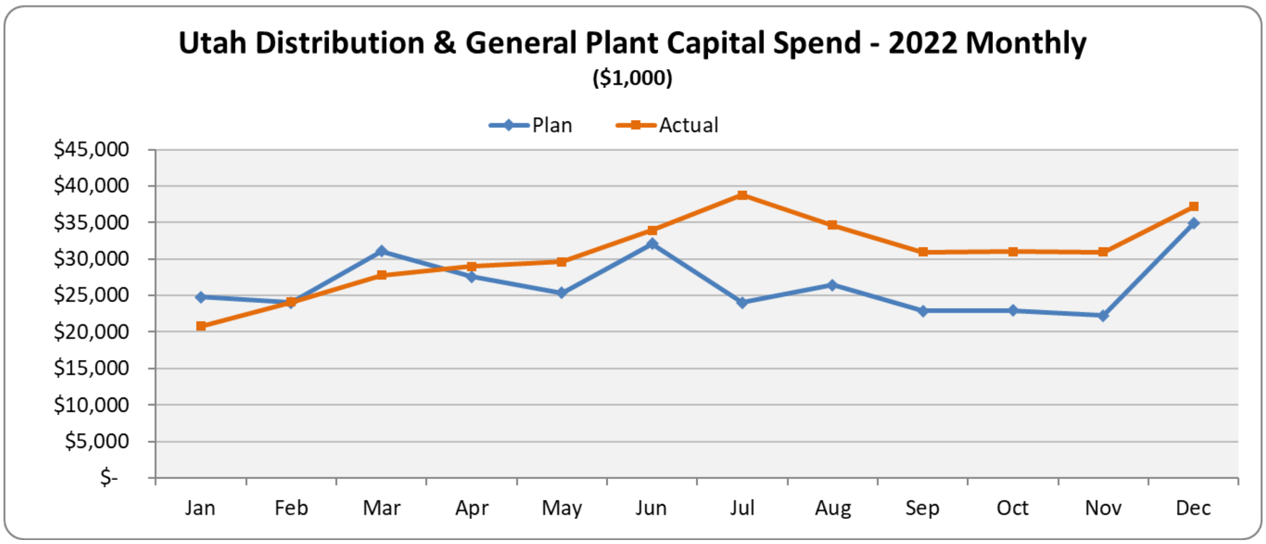
## 6.1 Capital Spending - Distribution and General Plant

**January – December 2022**

| Investment | Actuals ($M)[7] | Plan ($M) | Significant Variances (±$5m) |
|---|---|---|---|
| 1. Mandated | $71.5 | $45.0 | Mandated distribution wildfire mitigation over plan, (+$28m); national/regional regulatory under plan, (–$6m — incl. WestSmart @Scale –$6m). |
| 2. New Connect | $100.1 | $76.8 | Commercial new revenue connections over plan, (+$11m); residential new revenue connections over plan, (+$9m). 2022 plan anticipated significant new connection slowdown, which did not occur. |
| 3. System Reinforcement | $65.0 | $48.3 | Substation reinforcements over plan, (+$9m — including 126th South Sub +$7m, and Apple Valley Sub –$6m); feeder reinforcements over plan, (+$8m). |
| 4. Replacement | $93.9 | $76.7 | Overhead distribution poles replacements over plan, (+$8m); and vehicles replacements over plan, (+$5m). |
| 5. Upgrade & modernize | $38.1 | $71.4 | Facilities upgrade under plan, (–$18m — including NTO Campus Redevelopment –$18m); feeder improvements under plan, (–$18m — including Automated Metering Infrastructure –$15m). |
| **Total** | **$368.6** | **$318.2** | |

[7] Actual costs shown are expenditure values, not plant placed in service (PPIS) values. Actual expenditures are not directly tied to PPIS values.



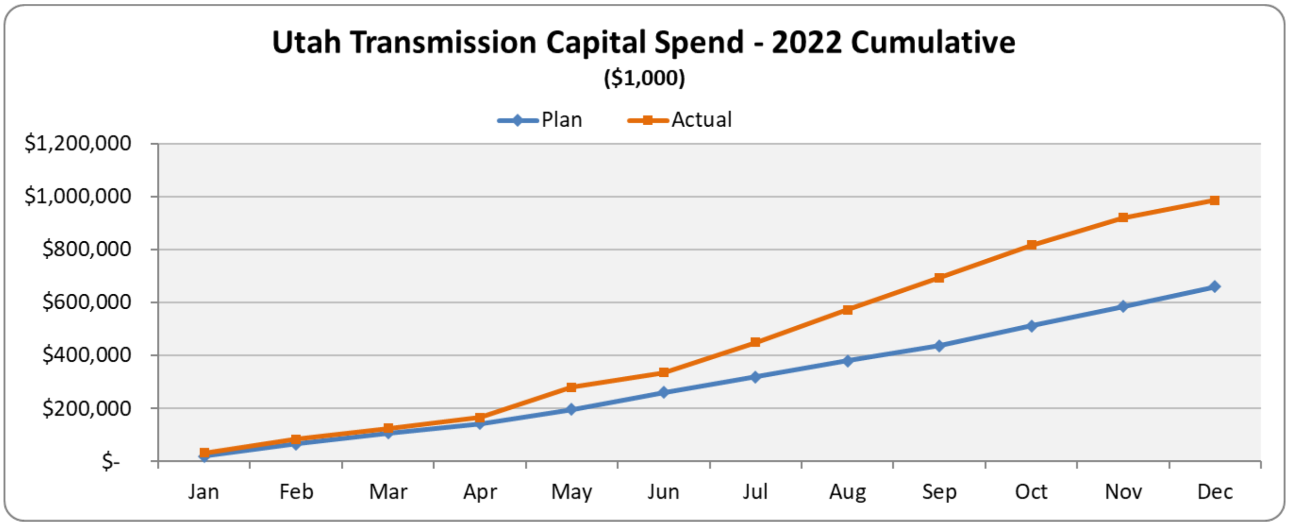

## 6.2 Capital Spending – Transmission/Interconnections

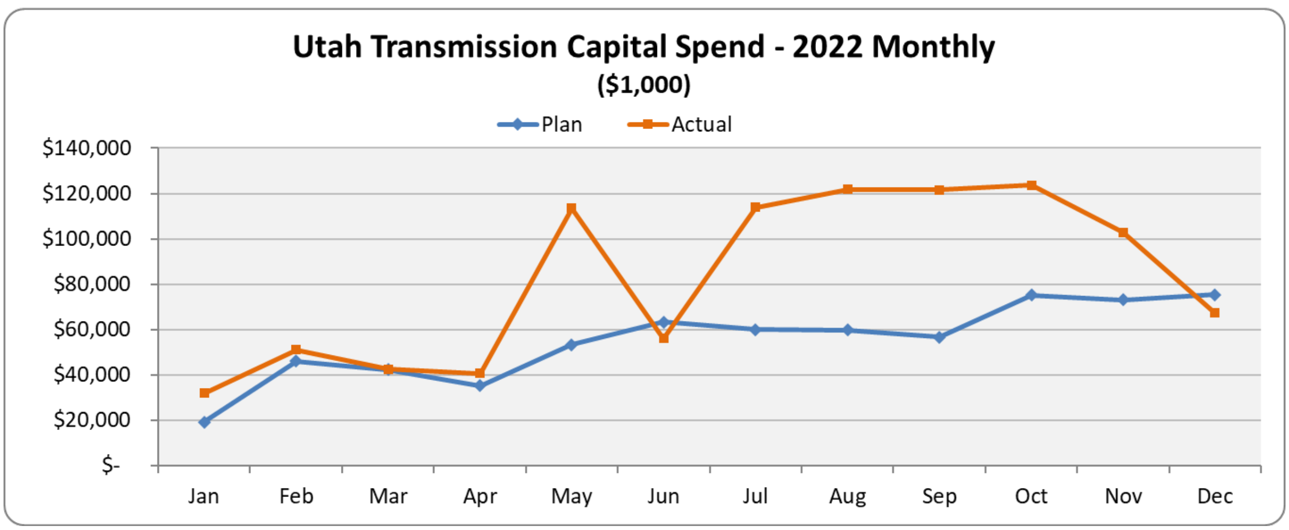
### January – December 2022

| Investment | Actuals ($M)[8] | Plan ($M) | Significant Variances (±$5m) |
|---|---|---|---|
| 1. Mandated | 25.9 | 53.8 | Mandated transmission wildfire mitigation under plan, (–$22m); right of way renewals under plan, (–$6m). |
| 2. New Connect | 5.0 | 0.4 | |
| 3. Local Transmission System Reinforcements | 11.3 | 6.1 | Multiple transmission reinforcement projects < ±$5m contributed to overall variance. |

[8] Actual costs shown are expenditure values, not plant placed in service (PPIS) values. Actual expenditures are not directly tied to PPIS values.

| | | | | |
|---|---|---|---|---|
| 4. | Main Grid Reinforcements / Interconnections[9] | 50.1 | 83.8[10] | Unidentified main grid/generation interconnections under plan, (–$32m — *see note below****). |
| 5. | Energy Gateway Transmission | 863.7 | 483.9 | Increased spend on Gateway South Aeolus Mona 500kV Ln (+$385m), to accelerate contractor schedule on project material and foundation work--ensures firm fixed price on material and avoids commodity price risk adjustments later in projects. |
| 6. | Replacement | 27.0 | 30.1 | |
| 7. | Upgrade & modernize | 4.0 | 1.8 | |
| | **Total** | **987.0** | **659.9** | |




[9] Main Grid Reinforcement/Interconnections and Energy Gateway Transmission values include a small amount of General Plant $ for communications work.

[10] Unidentified main grid/generation interconnection projects are managed at the program level. Plan funding is 100% allocated to Utah, by necessity, for Plan application purposes only. Actual funding is reallocated to specific projects across PacifiCorp as identified or as customer agreements are signed, not necessarily within the state of Utah.

## 6.3 New Connects

| | 2021 | 2022 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **YEAR** | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | **YEAR** |
| | | | | | | | ***Residential*** | | | | | | | |
| UT Central[11] | 2,307 | 172 | 130 | 211 | 163 | 188 | 265 | 163 | 204 | 177 | 237 | 190 | 215 | 2,315 |
| UT North/Metro[12] | 10,403 | 900 | 714 | 721 | 631 | 718 | 811 | 600 | 1,178 | 646 | 978 | 1,026 | 966 | 9,889 |
| UT South[13] | 17,666 | 1,282 | 1,270 | 1,352 | 1,574 | 1,310 | 1,089 | 1,140 | 1,456 | 1,165 | 1,407 | 1,358 | 1,096 | 15,499 |
| **Total Residential** | **30,376** | **2,354** | **2,114** | **2,284** | **2,368** | **2,216** | **2,165** | **1,903** | **2,838** | **1,988** | **2,622** | **2,574** | **2,277** | **27,703** |
| | | | | | | | ***Commercial*** | | | | | | | |
| UT South | 387 | 24 | 25 | 41 | 29 | 23 | 33 | 44 | 43 | 21 | 33 | 28 | 31 | 375 |
| UT North/Metro | 1,580 | 117 | 107 | 140 | 88 | 93 | 151 | 128 | 152 | 126 | 117 | 102 | 122 | 1,443 |
| UT Central | 2,466 | 242 | 200 | 251 | 187 | 248 | 260 | 207 | 247 | 224 | 198 | 173 | 160 | 2,597 |
| **Total Commercial** | **4,433** | **383** | **332** | **432** | **304** | **364** | **444** | **379** | **442** | **371** | **348** | **303** | **313** | **4,415** |
| | | | | | | | ***Industrial*** | | | | | | | |
| UT South | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| UT North/Metro | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| UT Central | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Total Industrial** | **3** | **0** | **0** | **0** | **1** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **3** |
| | | | | | | | ***Irrigation*** | | | | | | | |
| UT South | 42 | 0 | 3 | 8 | 8 | 6 | 5 | 3 | 2 | 5 | 0 | 3 | 1 | 44 |
| UT North/Metro | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 |
| UT Central | 9 | 1 | 0 | 0 | 5 | 3 | 1 | 0 | 2 | 2 | 1 | 2 | 0 | 17 |
| **Total Irrigation** | **53** | **1** | **3** | **8** | **15** | **11** | **6** | **3** | **4** | **7** | **1** | **6** | **1** | **66** |
| | | | | | | | ***TOTAL New Connects*** | | | | | | | |
| UT South | 2,737 | 196 | 158 | 260 | 200 | 217 | 303 | 210 | 249 | 203 | 270 | 221 | 248 | 2,735 |
| UT North/Metro | 11,986 | 1,017 | 821 | 861 | 721 | 813 | 963 | 728 | 1,330 | 772 | 1,095 | 1,129 | 1,088 | 11,338 |
| UT Central | 20,142 | 1,525 | 1,470 | 1,603 | 1,767 | 1,561 | 1,350 | 1,347 | 1,705 | 1,391 | 1,606 | 1,533 | 1,256 | 18,114 |
| **TOTAL New Connects**[14] | **34,865** | **2,738** | **2,449** | **2,724** | **2,688** | **2,591** | **2,616** | **2,285** | **3,284** | **2,366** | **2,971** | **2,883** | **2,592** | **32,187** |

[11] Utah Central region included American Fork, Vernal, Tooele, Jordan Valley, and Park City
[12] Utah North/Metro region includes SLC Metro, Ogden, and Layton
[13] Utah South region includes Moab, Price, Cedar City and Richfield
[14] Region areas are subject to change for operational purposes and may differ from historical reporting. Smithfield, Tremonton and Laketown are excluded for consistency with earlier reports that included them under ID/WY WEST and not Utah.

# 7 Vegetation Management

## 7.1 Production

**UTAH**
**Tree Program Reporting**
**January 1, 2022 through December 31, 2022**
**Distribution**

| | Total | Calendar Year Reporting | | | | Cycle Reporting | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3 Year Program/Total Line Miles | 1/1/2022-12/31/2022 Miles Planned | 1/1/2022-12/31/2022 Actual Miles | 1/1/2022-12/31/2022 Ahead/Behind | 1/1/2022-12/31/2022 % Ahead/Behind | 1/1/2020-12/31/2022 Miles Planned | 1/1/2020-12/31/2022 Actual Miles | 01/01/2020-12/31/2022 Ahead/Behind | 1/1/2020-12/31/2022 % Ahead/Behind |
| | *column a* | *column b* | *column c* | *column d* | *column e* | *column f* | *column g* | *column h* | *column i* |
| **UTAH** | 9,680 | 3,164 | 3,167 | 3 | 100.1% | 9,680 | 9,565 | -115 | 98.8% |
| AMERICAN FORK | 799 | 393 | 393 | 0 | 100.0% | 799 | 801 | 2 | 100.3% |
| CEDAR CITY | 999 | 427 | 427 | 0 | 100.0% | 999 | 1,181 | 182 | 118.2% |
| JORDAN VALLEY | 703 | 225 | 225 | 0 | 100.0% | 703 | 633 | -70 | 90.0% |
| LAYTON | 307 | 0 | 0 | 0 | #DIV/0! | 307 | 297 | -10 | 96.7% |
| MOAB | 625 | 121 | 121 | 0 | 100.0% | 625 | 633 | 8 | 101.3% |
| OGDEN | 783 | 184 | 184 | 0 | 100.0% | 783 | 690 | -93 | 88.1% |
| PARK CITY | 332 | 159 | 159 | 0 | 100.0% | 332 | 380 | 48 | 114.5% |
| PRICE | 564 | 100 | 100 | 0 | 100.0% | 564 | 544 | -20 | 96.5% |
| RICHFIELD | 1,207 | 424 | 424 | 0 | 100.0% | 1,207 | 1,259 | 52 | 104.3% |
| SL METRO | 1,130 | 266 | 266 | 0 | 100.0% | 1,130 | 922 | -208 | 81.6% |
| SMITHFIELD | 736 | 226 | 229 | 3 | 101.3% | 736 | 696 | -40 | 94.6% |
| TOOELE | 497 | 250 | 250 | 0 | 100.0% | 497 | 348 | -149 | 70.0% |
| TREMONTON | 740 | 334 | 334 | 0 | 100.0% | 740 | 905 | 165 | 122.3% |
| VERNAL | 258 | 55 | 55 | 0 | 100.0% | 258 | 276 | 18 | 107.0% |

| | |
|---|---|
| Distribution cycle $/tree: | $139.15 |
| Distribution cycle $/mile: | $2,941 |
| Distribution cycle removal % | 10.38% |

Transmission

| Total Line Miles | Line Miles Scheduled | Line Miles Worked | Miles Ahead(behind) Schedule | % of miles on/behind Schedule |
|---|---|---|---|---|
| 6,588 | 443 | 628 | 185 | 142% |

Current distribution cycle begain January 1, 2020 and extends until December 31, 2022.

Notes:
Column a: Total overhead distribution pole miles by district
Column b: Total overhead distribution pole miles planned for the period January 1, 2022 through December 31, 2022
Column c: Actual overhead distribution pole miles worked during the period January 1, 2022 through December 31, 2022
Column d: Miles ahead or behind for the period January 1, 2022 through December 31, 2022 (column c-column b)
Column e: Percent of actual compared to planned for the period January 1, 2022 through December 31, 2022 ((column c÷b)×100)
Column f: Total overhead distribution pole miles planned for the period January 1, 2020 through December 31, 2022
Column g: Actual overhead distribution pole miles worked during the period January 1 2020 through December 31, 2022
Column h: Miles ahead or behind for the period January 1, 2020 through December 31, 2022 (column g-column f)
Column i: Percent of actual compared to planned for the period January 1, 2020 through December 31, 2022 ((column g÷f)×100). Max = 100%

## 7.2 Budget

**UTAH**
**Tree Program Reporting**
**January 1, 2022 through December 31, 2022**

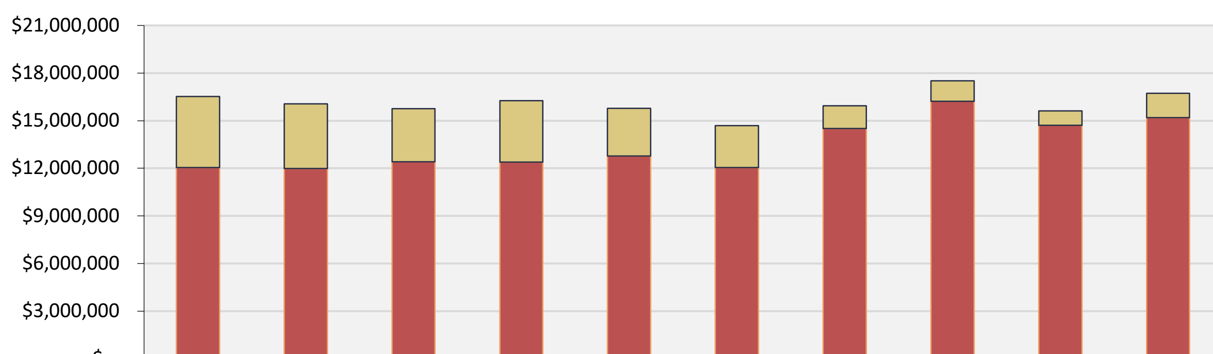
| | CY2022 | CY2023 | CY2024 |
|---|---|---|---|
| **Distribution** | | | |
| **Tree Budget** | $14,885,500 | $15,340,207 | $15,340,207 |
| **Transmission** | | | |
| **Tree Budget** | $1,095,105 | $1,643,600 | $1,643,600 |
| **Total Tree Budget** | $15,980,605 | $16,983,807 | $16,983,807 |

| | Distribution Actuals | Distribution Budget | Distribution Variance | Transmission Actuals | Transmission Budget | Transmission Variance |
|---|---|---|---|---|---|---|
| **Calendar year 2022** | | | | | | |
| **Jan** | $ 1,061,108 | $ 1,177,251 | -$116,143 | $ 98,864 | $ 86,570 | $12,295 |
| **Feb** | $ 1,206,710 | $ 1,177,251 | $29,459 | $ 43,922 | $ 86,570 | -$42,647 |
| **Mar** | $ 1,317,199 | $ 1,352,287 | -$35,088 | $ 116,447 | $ 99,555 | $16,892 |
| **Apr** | $ 1,078,207 | $ 1,235,596 | -$157,389 | $ 122,561 | $ 90,898 | $31,663 |
| **May** | $ 1,218,599 | $ 1,235,596 | -$16,998 | $ 166,246 | $ 90,898 | $75,348 |
| **Jun** | $ 1,080,337 | $ 1,293,942 | -$213,604 | $ 145,288 | $ 61,814 | $83,474 |
| **Jul** | $ 886,986 | $ 1,177,251 | -$290,265 | $ 176,181 | $ 86,570 | $89,611 |
| **Aug** | $ 1,512,670 | $ 1,352,287 | $160,383 | $ 176,141 | $ 99,555 | $76,586 |
| **Sep** | $ 1,739,827 | $ 1,235,596 | $504,231 | $ 142,034 | $ 90,898 | $51,136 |
| **Oct** | $ 1,613,093 | $ 1,235,596 | $377,497 | $ 108,097 | $ 90,898 | $17,199 |
| **Nov** | $ 1,486,265 | $ 1,177,251 | $309,014 | $ 210,218 | $ 86,570 | $123,648 |
| **Dec** | $ 998,905 | $ 1,235,596 | -$236,691 | $ 15,961 | $ 90,898 | -$74,937 |
| **Total** | $ 15,199,905 | $ 14,885,500 | $314,405 | $ 1,521,960 | $ 1,061,692 | $ 460,267 |

| | |
|---|---|
| **Average # Tree Crews on Property (YTD)** | 61 |

## 7.2.1 Vegetation Historical Spending

**Utah Vegetation Spending**




| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| Transmission | 4,483,668 | 4,070,233 | 3,360,658 | 3,873,554 | 3,015,928 | 2646404.79 | 1,433,587 | 1,298,388 | 920,956 | 1,521,960 |
| Distribution | 12,037,620 | 11,991,602 | 12,403,052 | 12,385,378 | 12,767,302 | 12046258.66 | 14,509,606 | 16,214,426 | 14,702,921 | 15,199,905 |

# 8 Standard Guarantees/Program Summary

## 8.1 Service Standards Program Summary[15]

### 8.1.1 Rocky Mountain Power Customer Guarantees[16]

| | |
|---|---|
| Customer Guarantee 1:<br>Restoring Supply After an Outage | The Company will restore supply after an outage within 24 hours of notification with certain exceptions as described in Rule 25. |
| Customer Guarantee 2:<br>Appointments | The Company will keep mutually agreed upon appointments, which will be scheduled within a two-hour time window. |
| Customer Guarantee 3:<br>Switching on Power | The Company will switch on power within 24 hours of the customer or applicant's request, provided no construction is required, all government inspections are met and communicated to the Company and required payments are made. Disconnection for nonpayment, subterfuge or theft/diversion of service is excluded. |
| Customer Guarantee 4:<br>Estimates For New Supply | The Company will provide an estimate for new supply to the applicant or customer within 15 working days after the initial meeting and all necessary information is provided to the Company and any required payments are made. |
| Customer Guarantee 5:<br>Respond To Billing Inquiries | The Company will respond to most billing inquiries at the time of the initial contact. For those that require further investigation, the Company will investigate and respond to the Customer within 10 working days. |
| Customer Guarantee 6:<br>Resolving Meter Problems | The Company will investigate and respond to reported problems with a meter or conduct a meter test and report results to the customer within 10 working days. |
| Customer Guarantee 7:<br>Notification of Planned Interruptions | The Company will provide the customer with at least two days' notice prior to turning off power for planned interruptions consistent will Rule 25 and relevant exemptions. |

[15] In 2012, rules were codified in Utah Administrative Code R746-313. The Company, Commission and other stakeholders worked to develop mechanisms that comply with these rules and supersedes the Company's Service Standards Program.
[16] See Rule 25 for a complete description of terms and conditions for the Customer Guarantee Program.

### 8.1.2 Rocky Mountain Power Performance Standards[17]

| | |
|---|---|
| *Network Performance Standard 1: Improve System Average Interruption Duration Index (SAIDI) | In 2016 Utah Commission adopted a modified 365-day rolling (rather than calendar year) performance baseline control zone of between 137-187 minutes. |
| *Network Performance Standard 2: Improve System Average Interruption Frequency Index (SAIFI) | In 2016 Utah Commission adopted a modified 365-day rolling (rather than calendar year) performance baseline control zone of between 1.0-1.6 events. |
| Network Performance Standard 3: Improve Under Performing System Segments | The Company will identify underperforming circuit segments and outline improvement actions and their costs, and evidence the outcome of the process for the circuit segments chosen[18]. |
| *Network Performance Standard 4: Supply Restoration | The Company will restore power outages due to loss of supply or damage to the distribution system within three hours to 80% of customers on average. |
| Customer Service Performance Standard 5: Telephone Service Level | The Company will answer 80% of telephone calls within 30 seconds. The Company will monitor customer satisfaction with the Company's Customer Service Associates and quality of response received by customers through the Company's eQuality monitoring system. |
| Customer Service Performance Standard 6: Commission Complaint Response/Resolution | The Company will a) respond to at least 95% of non-disconnect Commission complaints within three working days; b) respond to at least 95% of disconnect Commission complaints within four working hours; and c) resolve 95% of informal Commission complaints within 30 days, except in Utah where the Company will resolve 100% of informal Commission complaints within 30 days. |

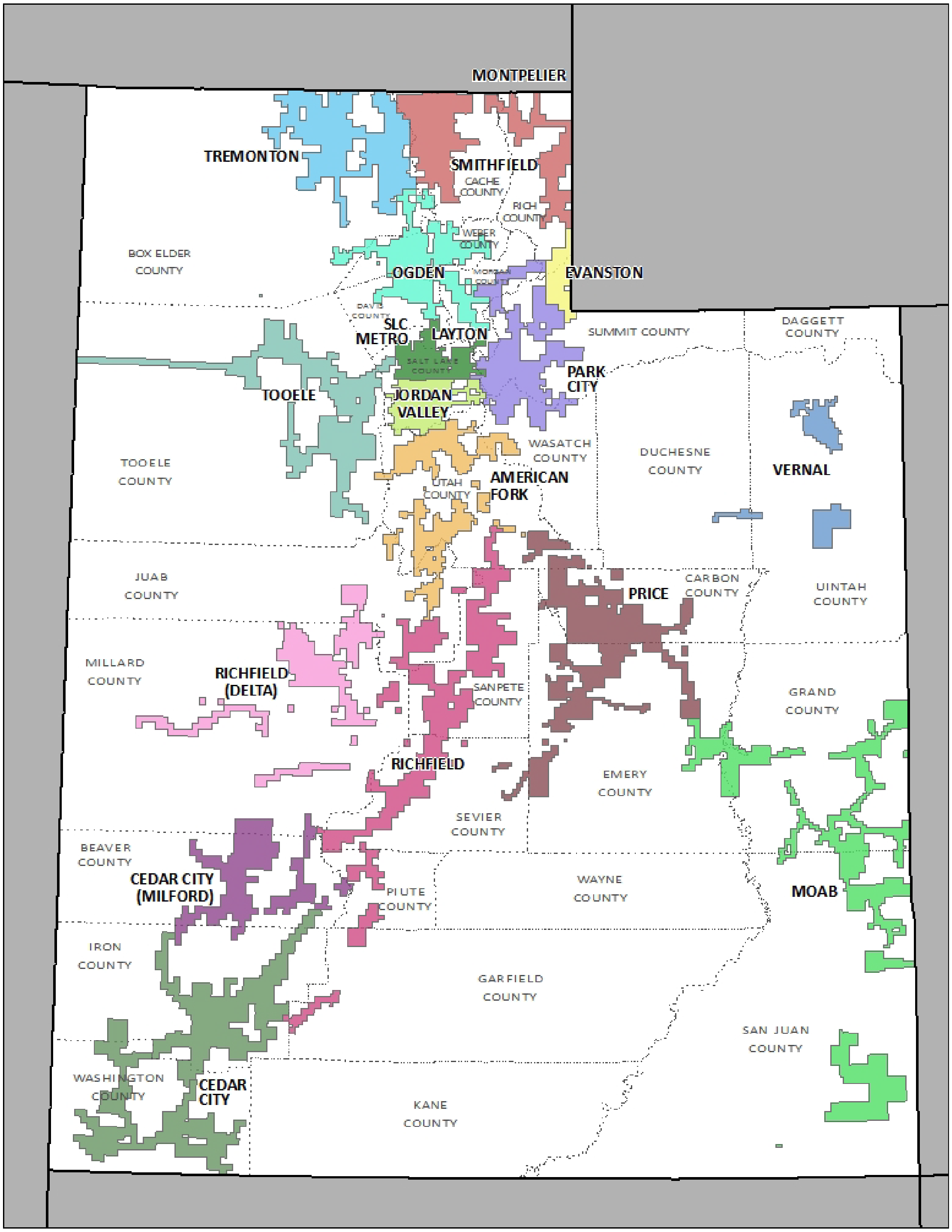
*Note: Performance Standards 1, 2, & 4 are for underlying performance days and exclude Major Events.

[17] On December 20, 2016, the Public Service Commission of Utah approved modified electric service reliability performance baseline notification levels of 187 SAIDI minutes and 1.6 SAIFI events, with proposed baseline control zones of 137-187 SAIDI and 1.0-1.6 SAIFI (Docket NOS. 13-035-01 and 15-035-72).

[18] On June 1, 2107, in Dockets 15-035-72 and 08-035-55, the Commission approved modified reliability improvement methods with the Company's Open Reliability Reporting (ORR) process, in which the Commission concluded that the process reasonably satisfies the requirements of Utah Administrative Code R746-313-7(3)(e) relating to reporting on electric service reliability for areas whose reliability performance warrants additional improvement efforts. This change is reflected in Section 2.8.

### 8.1.3 Utah Distribution Service Area Map with Operating Areas/Districts

Below is a graphic showing the specific areas where the Company's distribution facilities are located.



## 8.2 Cause Code Analysis

The tables below outline categories used in outage data collection. Charts and table in this report use these groupings to develop patterns for outage performance.

| Direct Cause Category | Category Definition & Example/Direct Cause |
|---|---|
| **Animals** | Any problem nest that requires removal, relocation, trimming, etc.; any birds, squirrels, or other animals, whether remains found.<br>• Animal (Animals)<br>• Bird Mortality (Non-protected species)<br>• Bird Mortality (Protected species) (BMTS)<br>• Bird Nest<br>• Bird or Nest<br>• Bird Suspected, No Mortality |
| **Environment** | Contamination or Airborne Deposit (i.e., salt, trona ash, other chemical dust, sawdust, etc.); corrosive environment; flooding due to rivers, broken water main, etc.; fire/smoke related to forest, brush or building fires (not including fires due to faults or lightning).<br>• Condensation/Moisture<br>• Contamination<br>• Fire/Smoke (not due to faults)<br>• Flooding<br>• Major Storm or Disaster<br>• Nearby Fault<br>• Pole Fire |
| **Equipment Failure** | Structural deterioration due to age (incl. pole rot); electrical load above limits; failure for no apparent reason; conditions resulting in a pole/cross arm fire due to reduced insulation qualities; equipment affected by fault on nearby equipment (e.g., broken conductor hits another line).<br>• B/O Equipment<br>• Overload<br>• Deterioration or Rotting<br>• Substation, Relays |
| **Interference** | Willful damage, interference, or theft, such as gun shots, rock throwing, etc.; customer, contractor, or other utility dig-in; contact by outside utility, contractor, or other third-party individual; vehicle accident, including car, truck, tractor, aircraft, manned balloon; other interfering object such as straw, shoes, string, balloon.<br>• Dig-in (Non-PacifiCorp Personnel)<br>• Other Interfering Object<br>• Vandalism or Theft<br>• Other Utility/Contractor<br>• Vehicle Accident |
| **Loss of Supply** | Failure of supply from Generator or Transmission system; failure of distribution substation equipment.<br>• Failure on other line or station<br>• Loss of Feed from Supplier<br>• Loss of Generator<br>• Loss of Substation<br>• Loss of Transmission Line<br>• System Protection |
| **Operational** | Accidental Contact by PacifiCorp or PacifiCorp's Contractors (including live-line work); switching error; testing or commissioning error; relay setting error, including wrong fuse size, equipment by-passed; incorrect circuit records or identification; faulty installation or construction; operational or safety restriction.<br>• Contact by PacifiCorp<br>• Faulty Install<br>• Improper Protective Coordination<br>• Incorrect Records<br>• Internal Contractor<br>• Internal Tree Contractor<br>• Switching Error<br>• Testing/Startup Error<br>• Unsafe Situation |
| **Other** | Cause Unknown; use comments field if there are some possible reasons.<br>• Invalid Code<br>• Other, Known Cause<br>• Unknown |
| **Planned** | Transmission requested, affects distribution sub and distribution circuits; Company outage taken to make repairs after storm damage, car hit pole, etc.; construction work, regardless of if notice is given; rolling blackouts.<br>• Construction<br>• Customer Notice Given<br>• Energy Emergency Interruption<br>• Intentional to Clear Trouble<br>• Emergency Damage Repair<br>• Customer Requested<br>• Planned Notice Exempt<br>• Transmission Requested |
| **Tree** | Growing or falling trees<br>• Tree-Non-preventable<br>• Tree-Trimmable<br>• Tree-Tree felled by Logger |
| **Weather** | Wind (excluding windborne material); snow, sleet or blizzard, ice, freezing fog, frost, lightning.<br>• Extreme Cold/Heat<br>• Freezing Fog & Frost<br>• Wind<br>• Lightning<br>• Rain<br>• Snow, Sleet, Ice and Blizzard |

## 8.3 Reliability Definitions

### Interruption Types

Below are the definitions for interruption events. For further details, refer to IEEE 1366-2003[19] Standard for Reliability Indices.

#### *Sustained Outage*

A sustained outage is defined as an outage of greater than 5 minutes in duration.

#### *Momentary Outage Event*

A momentary outage is defined as an outage equal to or less than 5 minutes in duration. Rocky Mountain Power has historically captured this data using substation breaker fault counts, but where SCADA (Supervisory Control and Data Acquisition Systems) exist, uses this data to calculate consistent with IEEE 1366-2003.

### Reliability Indices

#### *SAIDI*

SAIDI (system average interruption duration index) is an industry-defined term to define the average duration summed for all sustained outages a customer experiences in each period. It is calculated by summing all customer minutes lost for sustained outages (those exceeding 5 minutes) and dividing by all customers served within the study area. When not explicitly stated otherwise, this value can be assumed to be for a one-year period.

#### *Daily SAIDI*

To evaluate trends during a year and to establish Major Event Thresholds, a daily SAIDI value is often used as a measure. This concept was introduced in IEEE Standard 1366-2003. This is the day's total customer minutes out of service divided by the static customer count for the year. It is the total average outage duration customers experienced for that given day. When these daily values are accumulated through the year, it yields the year's SAIDI results.

#### *SAIFI*

SAIFI (system average interruption frequency index) is an industry-defined term that attempts to identify the frequency of all sustained outages that the average customer experiences during a given timeframe. It is calculated by summing all customer interruptions for sustained outages (those exceeding 5 minutes in duration) and dividing by all customers served within the study area.

#### *CAIDI*

CAIDI (customer average interruption duration index) is an industry-defined term that is the result of dividing the duration of the average customer's sustained outages by the frequency of outages for that average customer. While the Company did not originally specify this metric under the umbrella of the Performance Standards Program within the context of the Service Standards Commitments, it has since been determined to be valuable for reporting purposes. It is derived by dividing PS1 (SAIDI) by PS2 (SAIFI).

#### *$MAIFI_E$*

$MAIFI_E$ (momentary average interruption event frequency index) is an industry-defined term that attempts to identify the frequency of all momentary interruption events that the average customer experiences during a given timeframe. It is calculated by counting all momentary operations which occur within a 5-minute period, if the

[19] IEEE 1366-2003 was adopted by the IEEE on December 23, 2003. It was subsequently modified in IEEE 1366-2012, but all definitions used in this document are consistent between these two versions. The definitions and methodology detailed therein are now industry standards. Later, in Docket No. 04-035-T13 the Utah Public Utilities Commission adopted the standard methodology for determining major event threshold.

sequence did not result in a device experiencing a sustained interruption. This series of actions typically occurs when the system is trying to re-establish energy flow after a faulted condition and is associated with circuit breakers or other automatic reclosing devices.

### *Lockout*

Lockout is the state of device when it attempts to re-establish energy flow after a faulted condition but is unable to do so; it systematically opens to de-energize the facilities downstream of the device then recloses until a lockout operation occurs. The device then requires manual intervention to re-energize downstream facilities. This is generally associated with substation circuit breakers and is one of the variables used in the Company's calculation of blended metrics.

### *CEMI*

CEMI is an acronym for Customers Experiencing Multiple (Momentary Event and Sustained) Interruptions. This index depicts repetition of outages across the period being reported and can be an indicator of recent portions of the system that have experienced reliability challenges.

### *CPI99*

CPI99 is an acronym for Circuit Performance Indicator, which uses key reliability metrics of the circuit to identify underperforming circuits. It excludes Major Event and Loss of Supply or Transmission outages. The variables and equation for calculating CPI are:

CPI = Index * ((SAIDI * WF * NF) + (SAIFI * WF * NF) + ($MAIFI_E$ * WF * NF) + (Lockouts * WF * NF))

Index: 10.645
SAIDI: Weighting Factor 0.30, Normalizing Factor 0.029
SAIFI: Weighting Factor 0.30, Normalizing Factor 2.439
$MAIFI_E$: Weighting Factor 0.20, Normalizing Factor 0.70
Lockouts: Weighting Factor 0.20, Normalizing Factor 2.00
Therefore, 10.645 * ((3-year SAIDI * 0.30 * 0.029) + (3-year SAIFI * 0.30 * 2.439) + (3-year $MAIFI_E$* 0.20 * 0.70) + (3-year breaker lockouts * 0.20 * 2.00)) = CPI Score

### *CPI05*

CPI05 is an acronym for Circuit Performance Indicator, which uses key reliability metrics of the circuit to identify underperforming circuits. Unlike CPI99, it includes Major Event and Loss of Supply or Transmission outages. The calculation of CPI05 uses the same weighting and normalizing factors as CPI99.

## Performance Types

Rocky Mountain Power recognizes several categories of performance: major events, significant events, and underlying performance. Underlying performance days may be significant event days. Outages recorded during any day may be classified as "controllable" events.

### *Major Events*

A Major Event (ME) is defined as a 24-hour period where SAIDI exceeds a statistically derived threshold value (Reliability Standard IEEE 1366-2012) based on the 2.5 beta methodology. The values used for the reporting period and the prospective period are shown below.

| Effective Date | Customer Count | ME Threshold SAIDI | ME Customer Minutes Lost |
|---|---|---|---|
| 1/1-12/31/2022 | 1,002,258 | 4.38 | 4,418,888 |

### *Significant Events*

The Company has evaluated its year-to-year performance and as part of an industry weather normalization task force, sponsored by the IEEE Distribution Reliability Working Group, determined that when the Company recorded a day in excess of 1.75 beta (or 1.75 times the natural log standard deviation beyond the natural log daily average for the day's SAIDI) that generally these days' events are generally associated with weather events and serve as an indicator of a day which accrues substantial reliability metrics, adding to the cumulative reliability results for the period. As a result, the Company individually identifies these days so that year-on-year comparisons are informed by the quantity and their combined impact to the reporting period results.

***Underlying Events***

Within the industry, there has been a great need to develop methodologies to evaluate year-on-year performance. This has led to the development of methods for segregating outlier days, via the approaches described above. Those days which fall below the statistically derived threshold represent "underlying" performance and are valid. If any changes have occurred in outage reporting processes, those impacts need to be considered when making comparisons. Underlying events include all sustained interruptions, whether of a controllable or non-controllable cause, exclusive of major events, prearranged (which can include short notice emergency prearranged outages), customer requested interruptions and forced outages mandated by public authority typically regarding safety in an emergency.

**Controllable Distribution (CD) Events**

In 2008, the Company identified the benefit of separating its tracking of outage causes into those that can be classified as "controllable" (and thereby reduced through preventive work) from those that are "non-controllable" (and thus cannot be mitigated through engineering programs); they will generally be referred to in subsequent text as controllable distribution (CD). For example, outages caused by deteriorated equipment or animal interference are classified as controllable distribution since the Company can take preventive measures with a high probability to avoid future recurrences, while vehicle interference or weather events are largely out of the Company's control and generally not avoidable through engineering programs. (It should be noted that Controllable Events is a subset of Underlying Events. The *Cause Code Analysis* section of this report contains two tables for Controllable Distribution and Non-controllable Distribution, which list the Company's performance by direct cause under each classification.) At the time that the Company established the determination of controllable and non-controllable distribution it undertook significant root cause analysis of each cause type and its proper categorization (either controllable or non-controllable). Thus, when outages are completed and evaluated, and if the outage cause designation is improperly identified as non-controllable, then it would result in correction to the outage's cause to preserve the association between controllable and non-controllable based on the outage cause code. The company distinguishes the performance delivered using this differentiation for comparing year to date performance against underlying and total performance metrics.

**CERTIFICATE OF SERVICE**

Docket No. 23-035-21

I hereby certify that on May 1, 2023, a true and correct copy of the foregoing was served by electronic mail to the following:

**Utah Office of Consumer Services**

| | |
|---|---|
| Michele Beck | mbeck@utah.gov |
| | ocs@utah.gov |

**Division of Public Utilities**

dpudatarequest@utah.gov

**Assistant Attorney General**

| | |
|---|---|
| Patricia Schmid | pschmid@agutah.gov |
| Robert Moore | rmoore@agutah.gov |

**Rocky Mountain Power**

| | |
|---|---|
| Data Request Response Center | datarequest@pacificorp.com |
| Jana Saba | jana.saba@pacificorp.com<br>utahdockets@pacificorp.com |

Santiago Gutierrez
Coordinator, Regulatory Operations