

September 27, 2017

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 Secretary

RE: Docket No. 17-035-53 – Rocky Mountain Power’s Service Quality Review Report
Docket No. 08-035-55 – Service Quality Standards–June 2013 Service Quality Review Report
Docket No. 13-035-01 – In the Matter of Rocky Mountain Power’s Proposed Utah Service Reliability Performance Baselines
Docket No. 15-035-72 – Rocky Mountain Power’s Service Quality Review Report

In compliance with the Commission’s June 11, 2009 order in Docket 08-035-55 and pursuant to Commission orders in Dockets 13-035-01 and 15-035-72, and pursuant to the requirements of Rule R746-313, Rocky Mountain Power submits the Service Quality Review Report for the period January through June 2017.

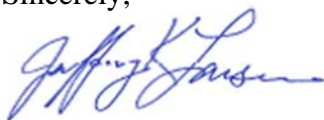
It is respectfully requested that all formal correspondence and Staff requests regarding this matter be addressed to:

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bob.lively@pacificorp.com

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PacifiCorp
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Informal inquiries may be directed to Bob Lively at (801) 220-4052.

Sincerely,



Jeffrey K. Larsen
Vice President, Regulation

Enclosures



UTAH SERVICE QUALITY REVIEW

**January 1 – June 30, 2017
Report**

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EXECUTIVE SUMMARY

Rocky Mountain Power has a number of Performance Standards and Customer Guarantee service quality measures and reports currently in place. These standards and measures are reflective of Rocky Mountain Power's performance (both customer service and network performance) in providing customers with high levels of service. The Company developed these standards and measures using industry standards for collecting and reporting performance data where they exist. In other cases, largely where the industry has no established standards, Rocky Mountain Power has developed metrics, reporting and targets. These existing standards and measures can be used over time, both historically and prospectively, to measure the quality of service delivered to our customers. In 2012 the Company and stakeholders collaboratively developed reliability reporting rules that were intended to replace the Service Standards Program. This report reflects those changes and captures the state rules. In 2016 the Company worked with the Division of Public Utilities to establish a method to recognize fundamental changes in the performance of the network allowing for updates to performance baselines. These changes are also incorporated into this document.

1 Service Standards Program Summary¹

1.1 Rocky Mountain Power Customer Guarantees

| | |
|---|---|
| <u>Customer Guarantee 1:</u> 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. |
| <u>Customer Guarantee 2:</u> Appointments | The Company will keep mutually agreed upon appointments, which will be scheduled within a two-hour time window. |
| <u>Customer Guarantee 3:</u> 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. |
| <u>Customer Guarantee 4:</u> 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. |
| <u>Customer Guarantee 5:</u> 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. |
| <u>Customer Guarantee 6:</u> 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. |
| <u>Customer Guarantee 7:</u> 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 with Rule 25 and relevant exemptions. |

Note: See Rule 25 for a complete description of terms and conditions for the Customer Guarantee Program.

¹ In 2012, rules were codified in Utah Administrative Code R746-313. The Company, Commission and other stakeholders have been working to develop mechanisms that comply with these rules and that will supersede the Company's Service Standards Program.

1.2 Rocky Mountain Power Performance Standards²

| | |
|--|---|
| <u>*Network Performance Standard 1:</u> 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. |
| <u>*Network Performance Standard 2:</u> 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. |
| <u>Network Performance Standard 3:</u> Improve Under Performing Circuits | Annually, the Company will target specific circuits or portions of circuits to improve performance by a forecast amount, using either its legacy worst performing circuit program (to reduce by 20% the circuit performance indicator (CPI) for a maximum of five underperforming circuits on an annual basis within five years after selection) or by application of its Open Reliability Reporting Program ³ . |
| <u>*Network Performance Standard 4:</u> 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. |
| <u>Customer Service Performance Standard 5:</u> 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. |
| <u>Customer Service Performance Standard 6:</u> 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. |

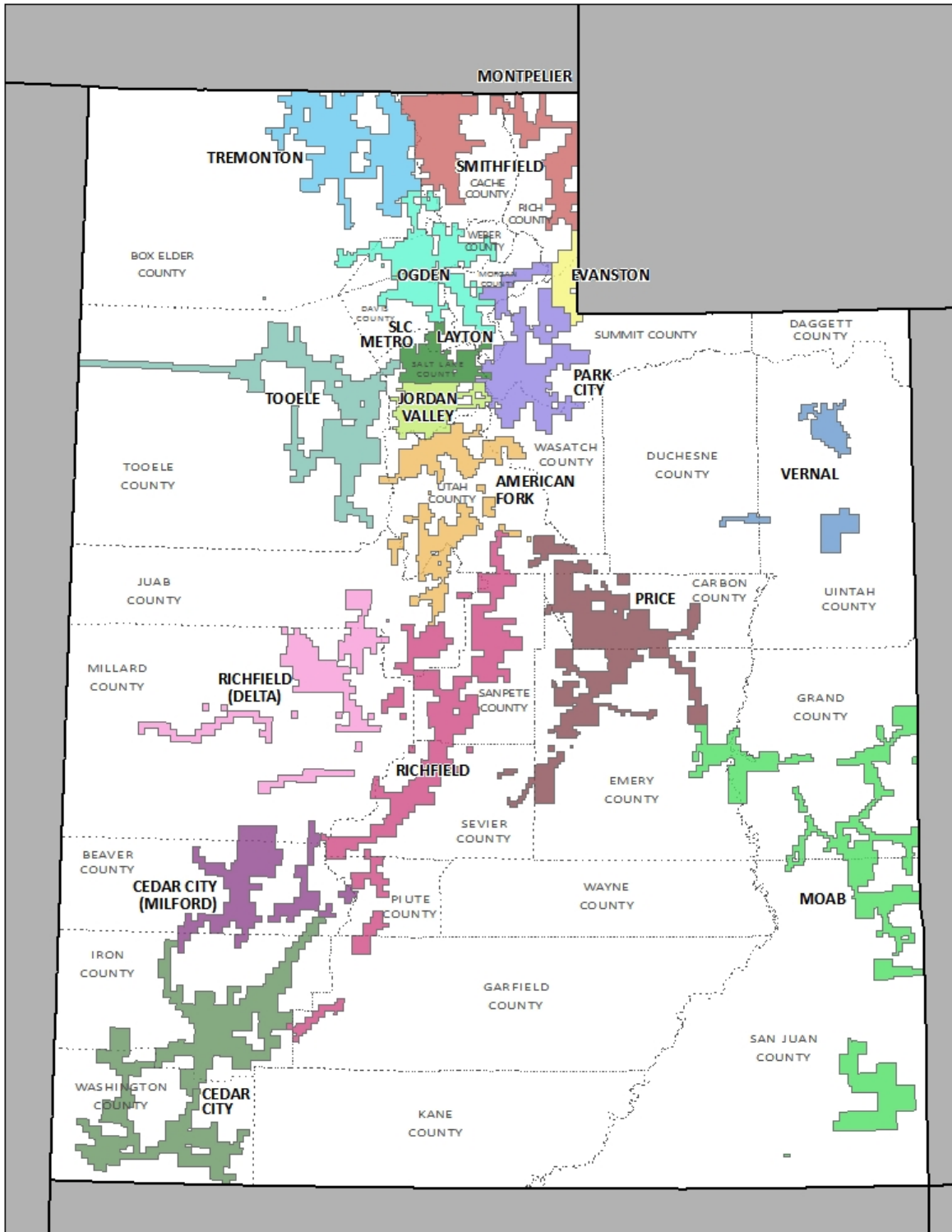
*Note: Performance Standards 1, 2 & 4 are for underlying performance days and exclude Major Events.

² On December 20, 2016, the Public Service Commission of Utah approved a modified electric service reliability performance baseline notification levels to 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).

³ The Company proposed modifications to its reliability improvement program which was approved by the Commission in Dockets 15-035-72 and 08-035-55, Order Approving Proposed Revisions. These reliability programs are discussed further in Section 2.8.

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.



2 RELIABILITY PERFORMANCE

For the reporting period, the Company's performance is on target for delivering system average interruption duration index (SAIDI) performance and system average interruption frequency index (SAIFI), within the performance baseline range (SAIDI between 137-187 minutes and SAIFI between 1.0 and 1.6 events). Results for the underlying performance can be seen in subsections 2.1 and 2.2 below, where the Company's current underlying reliability results are shown with to the Company's control zones, which are colored green in the graphic. History reflecting these metrics is displayed in Sections 2.3 and 2.4. Baselines are discussed in Section 2.5. Cause code information, which is reported consistently with past Service Quality Review Reports, is shown in Section 2.6. Finally, Section 2.7 contains reporting information complies with features outlined in Utah Title 746.313.

During the reporting period, there was one major event⁴ and four significant event days⁵ recorded.

Major Event Descriptions

| Major Events | | |
|-----------------|-----------------------|--------------|
| Date | Cause | SAIDI |
| March 5-6, 2017 | Storm – wind and snow | 10.62 |
| Total | | 10.62 |

- **March 5-6, 2017**

On March 5, 2017, a storm bringing high winds, rain and snow began impacting areas across the state. The storm began in Salt Lake City, creating weather-related outages in the early morning. As the day progressed the storm continued to grow and by the afternoon areas across the state were experiencing weather related outages. During the event the state recorded wind gusts between 57 mph (Salt Lake City) and 67 mph (Cedar City). At 9:12 pm on March 5th, the number of customers without power peaked at 25,328 customers, the result of 136 concurrent outages being addressed by the response teams. High winds and snow-related outages accounted for 62% of all customer minutes lost and 68% of all customer outages. In addition, the high winds were a factor in tree-related outages, which accounted for 11% of all customer minutes lost, on both distribution and transmission circuits. This major event filing was accepted by the Utah Commission on May 5, 2017 in Docket 17-035-22.

⁴ Major event threshold shown below:

| Effective Date | Customer Count | ME Threshold SAIDI | ME Customer Minutes Lost |
|----------------|----------------|--------------------|--------------------------|
| 1/1-12/31/2017 | 897,258 | 5.74 | 5,152,204 |

⁵ Significant event days are 1.75 times the standard deviation of the company's natural log daily SAIDI results (by state).

UTAH

January 1 – June 30, 2017

Significant Events

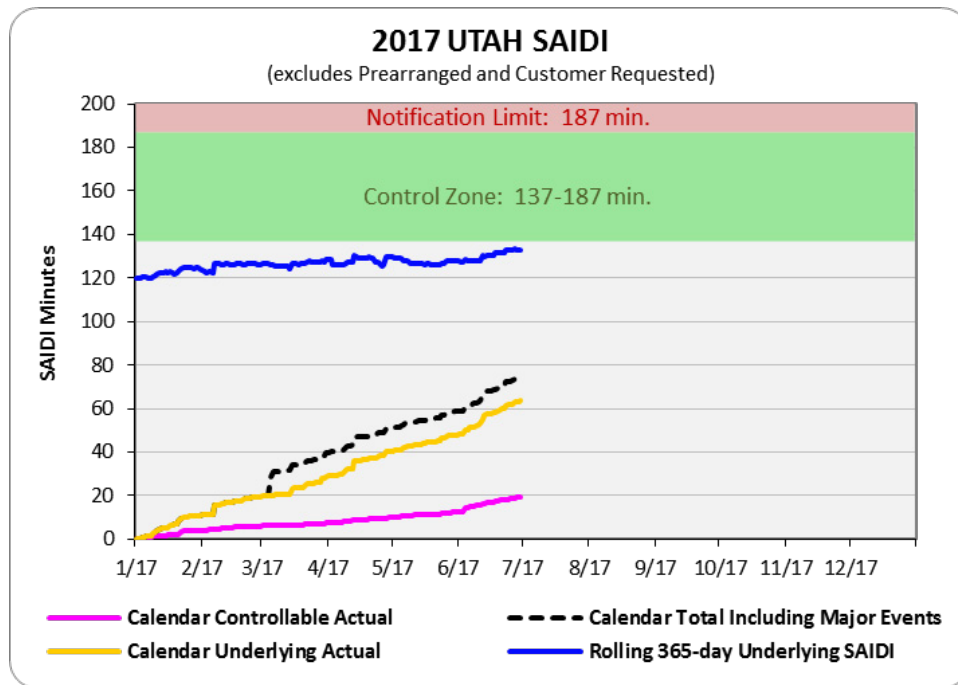
Significant event days add substantially to year-on-year cumulative performance results; fewer significant event days generally result in better reliability for the reporting period, while more significant event days generally mean poorer reliability results. During the reporting period four significant event days were recorded, which account for 12.5 SAIDI minutes; about 20% of the reporting period's underlying 64 SAIDI minutes. These significant events were triggered by weather impacts, loss of supply outages, trees, and pole fires.

| Significant Event Days | | | | | |
|------------------------|--|-------|-------|--------------------|--------------------|
| Dates | Cause: General Description | SAIDI | SAIFI | % Underlying SAIDI | % Underlying SAIFI |
| February 7, 2017 | Wind took down 4 poles in Northeast Utah | 4.2 | 0.009 | 7% | 2% |
| March 15, 2017 | Loss of Substation in Salt Lake City | 2.5 | 0.011 | 4% | 2% |
| April 13, 2017 | Wind Storm in Salt Lake City region | 3.5 | 0.027 | 6% | 6% |
| June 12, 2017 | Wind Storm caused tree and pole fire outages in Salt Lake City | 2.3 | 0.018 | 4% | 4% |
| TOTAL | | 12.5 | 0.065 | 20% | 14% |

2.1 System Average Interruption Duration Index (SAIDI)

Shown below is performance through the period.

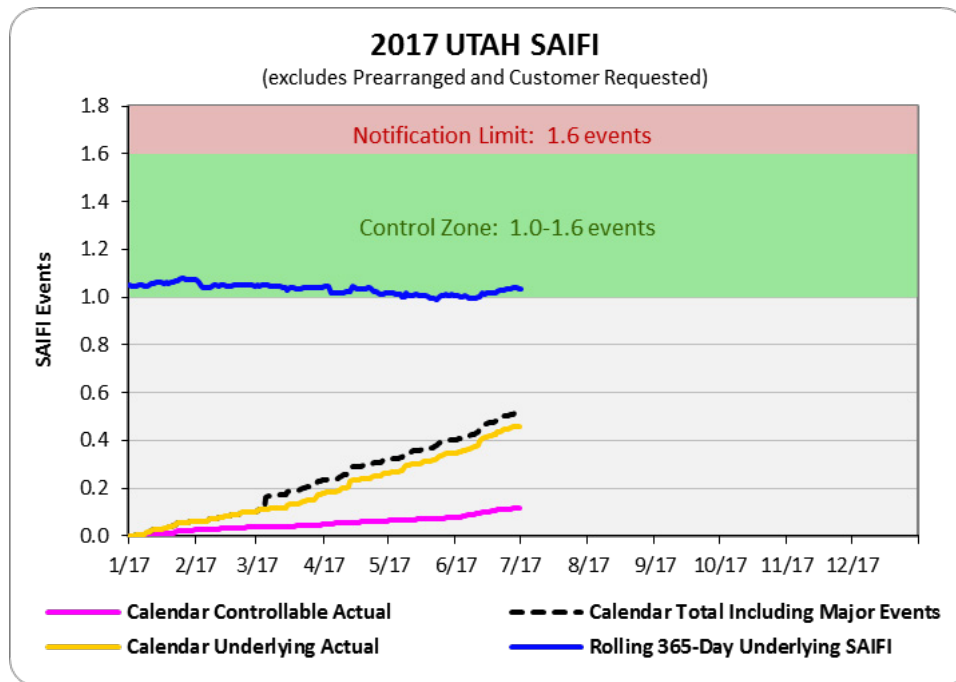
| SAIDI | Reporting Period |
|---------------------------|------------------|
| Total | 88 |
| Underlying | 64 |
| Controllable Distribution | 20 |



2.2 System Average Interruption Frequency Index (SAIFI)

Shown below is performance through the period.

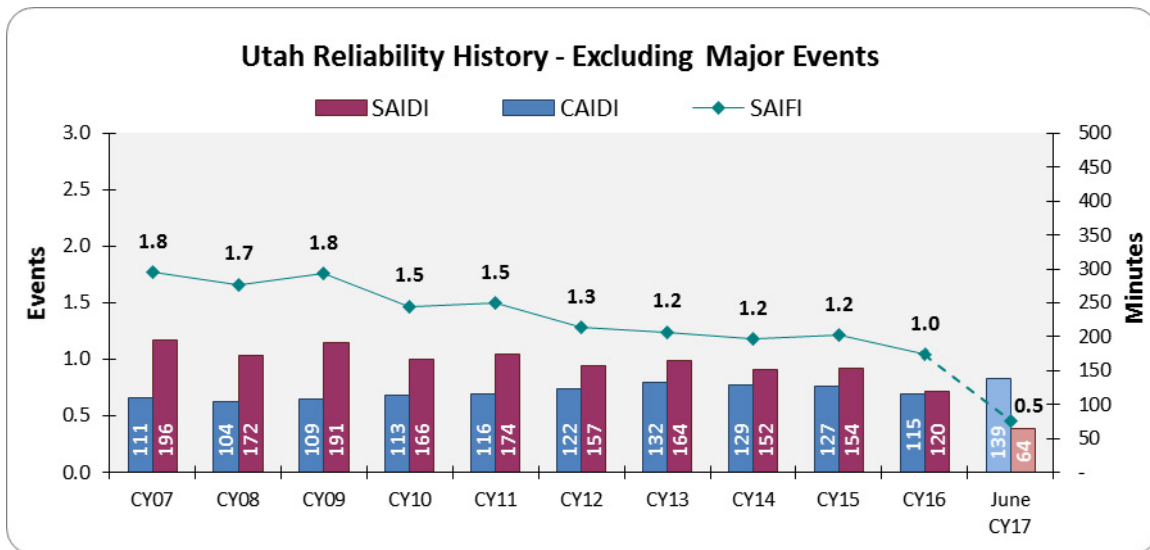
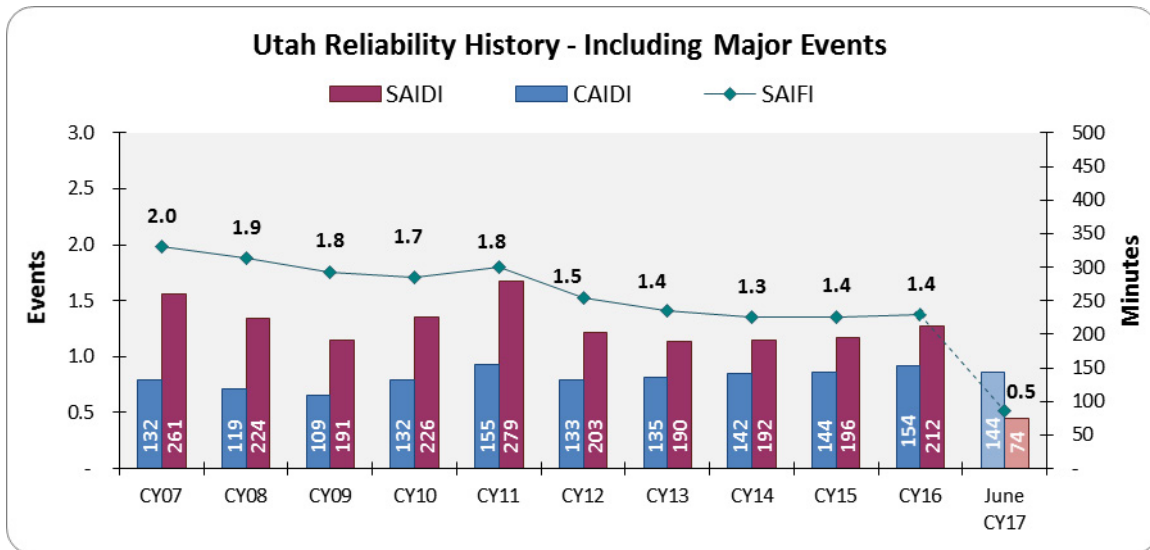
| SAIFI | Reporting Period |
|---------------------------|------------------|
| Total | 0.524 |
| Underlying | 0.459 |
| Controllable Distribution | 0.119 |



2.3 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 2.4 and 2.6, where 365-day rolling performance trends are depicted. These indices (shown in the history charts below and in Sections 2.4 and 2.6) 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. In recognition of the improved performance the Commission directed the Company to work with the Division to develop processes to establish modified performance baselines, which are detailed further in Section 2.6.

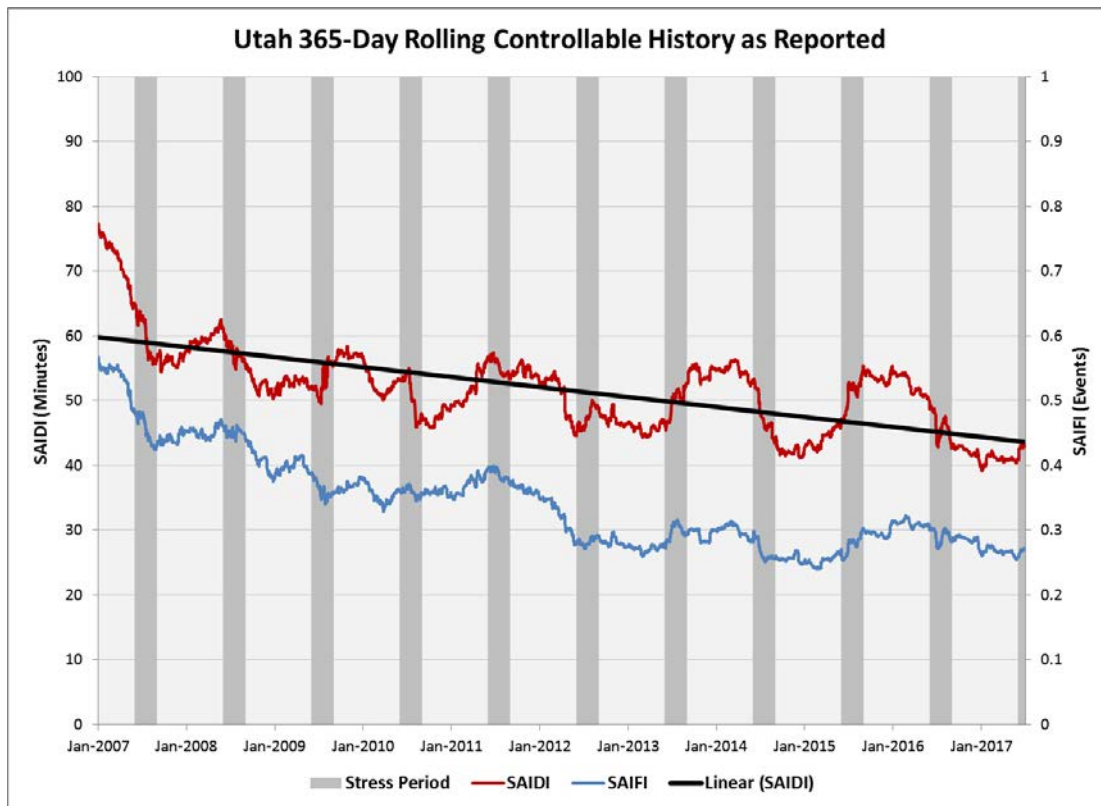
It is particularly noteworthy that these two metrics show improvement for both underlying and major event performance within the state, meaning that the system is more resilient on a day-to-day basis as well as when extreme weather or other system impacting events occur.



2.4 Controllable, Non-Controllable and Underlying Performance Review

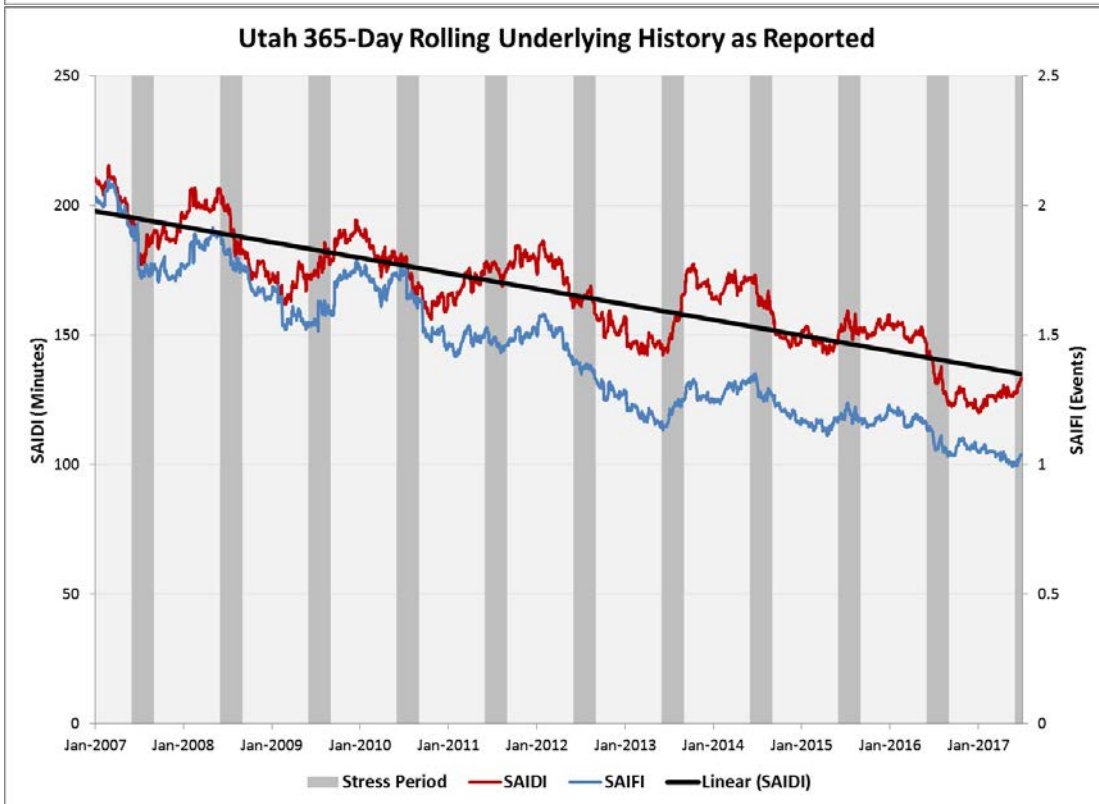
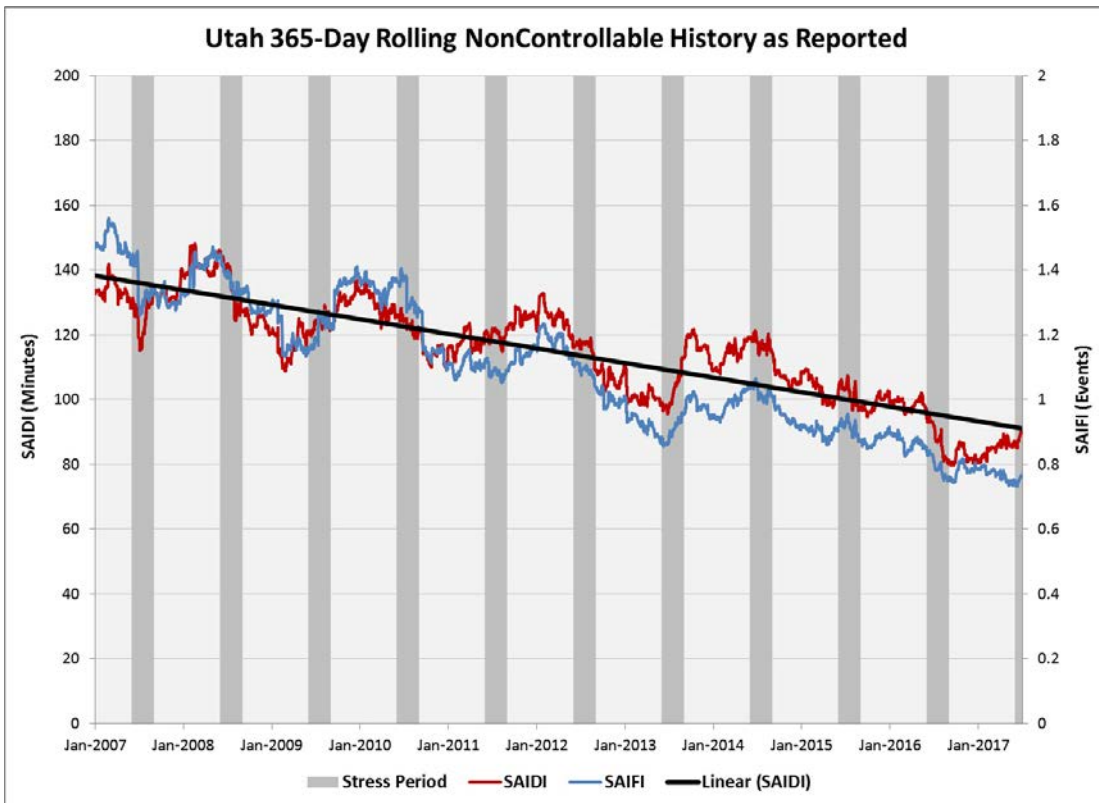
In 2008 the Company introduced a further categorization of outage causes, which it subsequently used to develop improvement programs as developed by engineering resources. This categorization was titled Controllable Distribution outages and recognized that certain types of outages can be cost-effectively avoided. So, for example, animal-caused interruptions, as well as equipment failure interruptions have a less random nature than lightning caused interruptions; other causes have also been determined and are specified in Section 2.5. 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 outages⁶. In order to provide insight into the response and history for those outages, the charts below distinguish amongst the outage groupings.

The graphic history demonstrates controllable, non-controllable and underlying performance on a rolling 365-day basis. Analysis of the trends displayed in the charts below shows a general improving trend for all charts. In order 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 in order to react as quickly as possible to trends in declining reliability. These notifications are conducted regardless of whether the outage cause was controllable or not.



⁶ 3. The Company shall provide, as an appendix to its Service Quality Review reports, information regarding non-controllable outages, including, when applicable, descriptions of efforts made by the Company to improve service quality and reliability for causes the Company has identified as not controllable.

4. The Company shall provide a supplemental filing, within 90 days, consisting of a process for measuring performance and improvements for the non-controllable events.



2.5 Cause Analysis Tables (Pre-Title 746-313 Modification)

Certain types of outages typically result in a large amount of customer minutes lost, but are infrequent, such as Loss of Supply outages. Others tend to be more frequent, but result in few customer minutes lost.

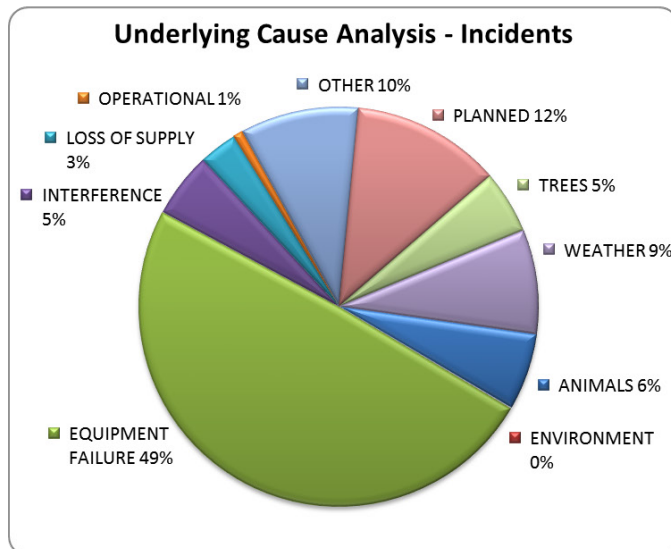
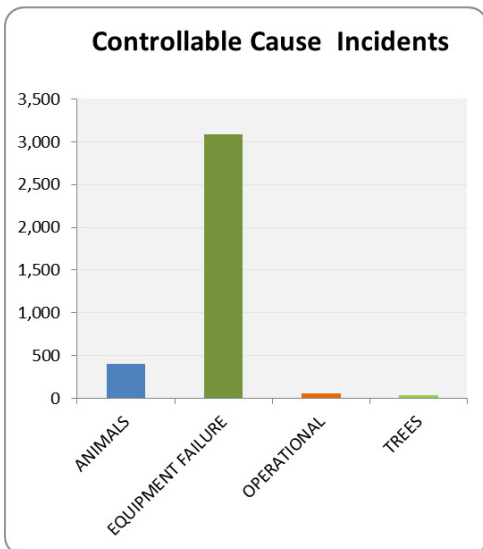
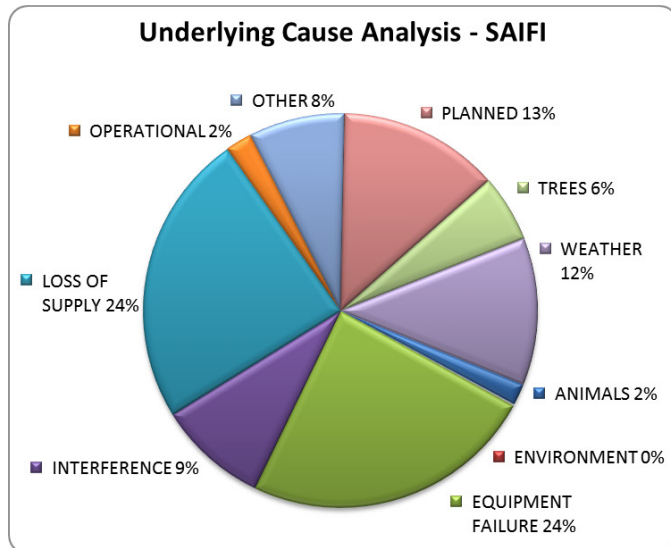
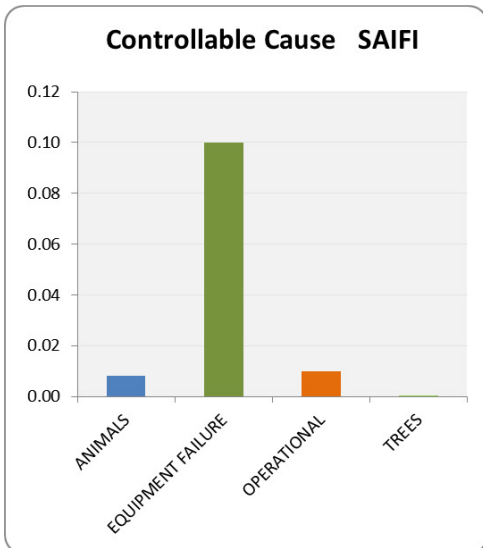
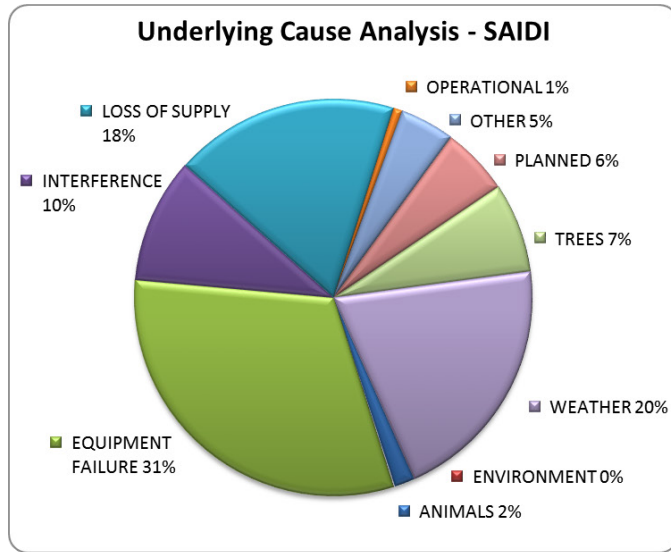
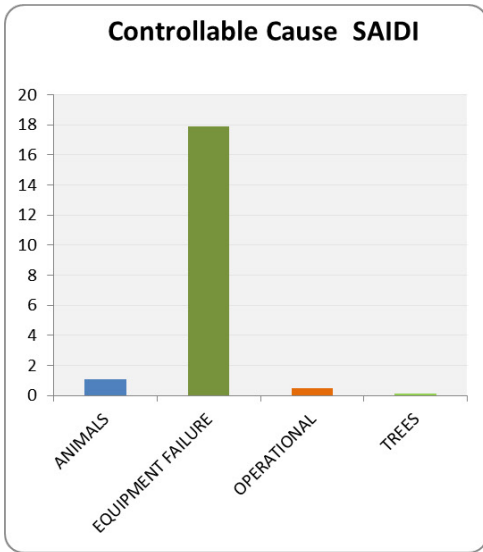
The cause analysis tables below detail SAIDI⁷ and SAIFI by direct cause, with separate tables for the company's Controllable metrics and its Underlying metrics. (Both tables exclude major events.) Following the detail tables are pie charts showing the percentages attributed to each cause category with respect to three measures: total incidents, total customer minutes lost and total sustained customer interruptions, again with separate pie charts for Controllable and Underlying.

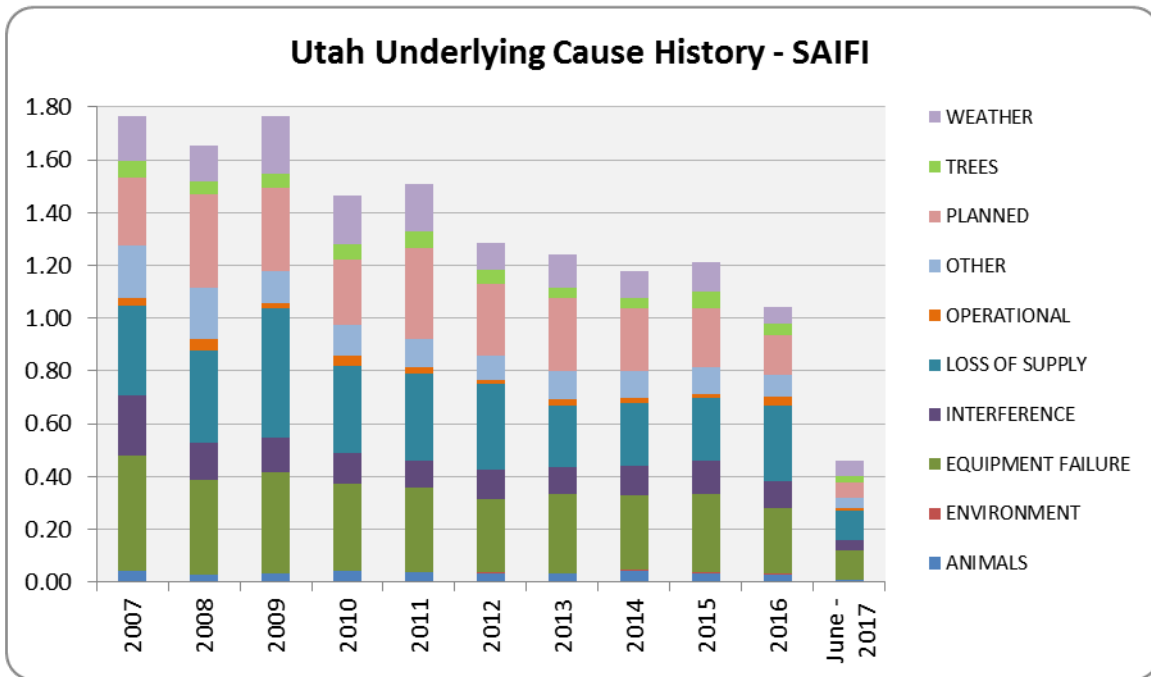
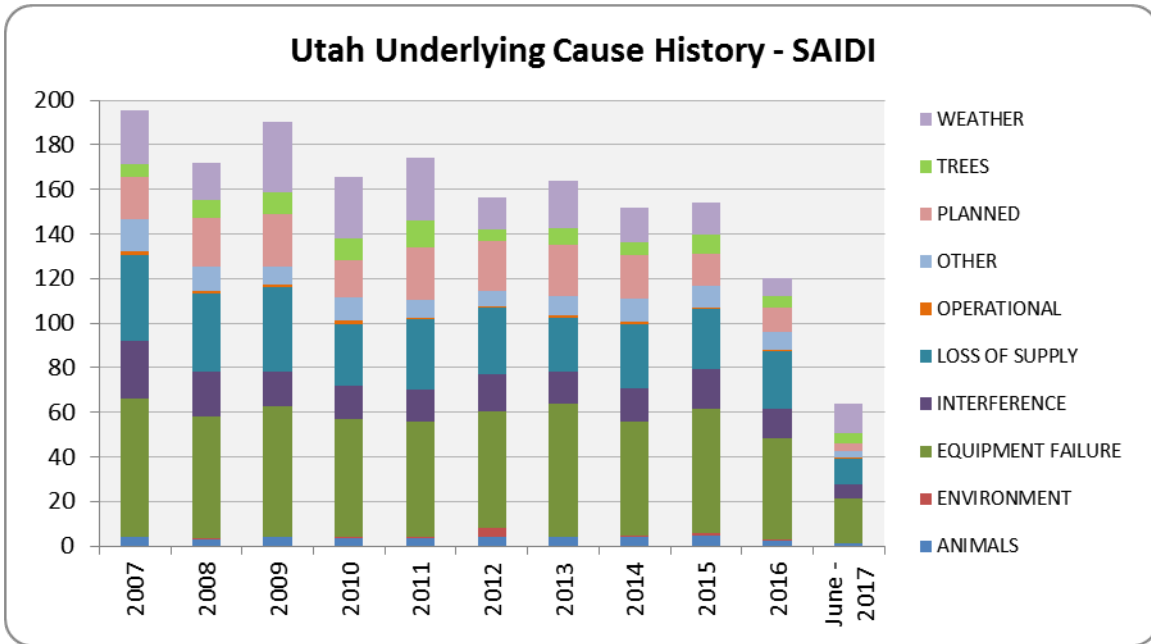
Note that the Underlying cause analysis table includes prearranged outages (*Customer Requested and Customer Notice Given* line items) with subtotals for their inclusion, while the grand totals in the table exclude these prearranged outages so that grand totals align with reported SAIDI and SAIFI metrics for the period. The following pie and historical cause detail reflect the cause category performance; these charts exclude prearranged outages, to align with the underlying reportable results. Following the charts, a table of definitions provides descriptive examples for each direct cause category. Further cause analysis is explored in Section 2.7.

| Utah Cause Analysis - Controllable 01/01/2017 - 06/30/2017 | | | | | |
|--|------------------------------------|---------------------------------|--------------------------|--------------|--------------|
| Direct Cause | Customer Minutes Lost for Incident | Customers in Incident Sustained | Sustained Incident Count | SAIDI | SAIFI |
| ANIMALS | 234,262 | 2,241 | 199 | 0.26 | 0.002 |
| BIRD MORTALITY (NON-PROTECTED SPECIES) | 472,788 | 3,073 | 89 | 0.53 | 0.003 |
| BIRD MORTALITY (PROTECTED SPECIES) (BMTS) | 60,672 | 417 | 29 | 0.07 | 0.000 |
| BIRD NEST (BMTS) | 88,863 | 541 | 25 | 0.10 | 0.001 |
| BIRD SUSPECTED, NO MORTALITY | 92,992 | 982 | 57 | 0.10 | 0.001 |
| ANIMALS | 949,577 | 7,254 | 399 | 1.06 | 0.008 |
| B/O EQUIPMENT | 2,074,238 | 13,353 | 267 | 2.31 | 0.015 |
| DETERIORATION OR ROTTING | 13,617,003 | 72,911 | 2,737 | 15.18 | 0.081 |
| OVERLOAD | 364,271 | 3,474 | 46 | 0.41 | 0.004 |
| RELAYS, BREAKERS, SWITCHES | 361 | 4 | 25 | 0.00 | 0.000 |
| STRUCTURES, INSULATORS, CONDUCTOR | 2,854 | 8 | 13 | 0.00 | 0.000 |
| EQUIPMENT FAILURE | 16,058,727 | 89,750 | 3,088 | 17.90 | 0.100 |
| FAULTY INSTALL | 75,815 | 3,112 | 13 | 0.08 | 0.003 |
| IMPROPER PROTECTIVE COORDINATION | 23,749 | 461 | 6 | 0.03 | 0.001 |
| INCORRECT RECORDS | 6,947 | 175 | 13 | 0.01 | 0.000 |
| INTERNAL CONTRACTOR | 36,317 | 268 | 3 | 0.04 | 0.000 |
| PACIFICORP EMPLOYEE – FIELD | 278,458 | 4,941 | 17 | 0.31 | 0.006 |
| OPERATIONAL | 421,286 | 8,957 | 52 | 0.47 | 0.010 |
| TREE – TRIMMABLE | 146,848 | 459 | 34 | 0.16 | 0.001 |
| TREES | 146,848 | 459 | 34 | 0.16 | 0.001 |
| Utah Including Prearranged | 17,576,438 | 106,420 | 3,573 | 19.6 | 0.119 |

⁷ To convert SAIDI (Outage Duration) and SAIFI (Outage Frequency) to Customer Minutes Lost and Sustained Customer Interruptions, respectively, multiply the SAIDI or SAIFI value by 897,258 (2016 Utah frozen customer count).

| Utah Cause Analysis - Underlying 01/01/2017 - 06/30/2017 | | | | | |
|--|------------------------------------|---------------------------------|--------------------------|--------------|--------------|
| Direct Cause | Customer Minutes Lost for Incident | Customers in Incident Sustained | Sustained Incident Count | SAIDI | SAIFI |
| ANIMALS | 234,262 | 2,241 | 199 | 0.26 | 0.002 |
| BIRD MORTALITY (NON-PROTECTED SPECIES) | 472,788 | 3,073 | 89 | 0.53 | 0.003 |
| BIRD MORTALITY (PROTECTED SPECIES) (BMTS) | 60,672 | 417 | 29 | 0.07 | 0.000 |
| BIRD NEST (BMTS) | 88,863 | 541 | 25 | 0.10 | 0.001 |
| BIRD SUSPECTED, NO MORTALITY | 92,992 | 982 | 57 | 0.10 | 0.001 |
| ANIMALS | 949,577 | 7,254 | 399 | 1.06 | 0.008 |
| CONTAMINATION | 62,159 | 566 | 2 | 0.07 | 0.001 |
| FIRE/SMOKE (NOT DUE TO FAULTS) | 18,937 | 67 | 5 | 0.02 | 0.000 |
| ENVIRONMENT | 81,097 | 633 | 7 | 0.09 | 0.001 |
| B/O EQUIPMENT | 2,074,238 | 13,353 | 267 | 2.31 | 0.015 |
| DETERIORATION OR ROTTING | 13,617,003 | 72,911 | 2,737 | 15.18 | 0.081 |
| NEARBY FAULT | 66,719 | 931 | 5 | 0.07 | 0.001 |
| OVERLOAD | 364,271 | 3,474 | 46 | 0.41 | 0.004 |
| POLE FIRE | 1,732,724 | 8,754 | 95 | 1.93 | 0.010 |
| RELAYS, BREAKERS, SWITCHES | 361 | 4 | 25 | 0.00 | 0.000 |
| STRUCTURES, INSULATORS, CONDUCTOR | 2,854 | 8 | 13 | 0.00 | 0.000 |
| EQUIPMENT FAILURE | 17,858,170 | 99,435 | 3,188 | 19.90 | 0.111 |
| DIG-IN (NON-PACIFICORP PERSONNEL) | 671,375 | 7,812 | 108 | 0.75 | 0.009 |
| OTHER INTERFERING OBJECT | 552,214 | 5,329 | 41 | 0.62 | 0.006 |
| OTHER UTILITY/CONTRACTOR | 217,836 | 1,972 | 38 | 0.24 | 0.002 |
| VANDALISM OR THEFT | 1,347 | 15 | 6 | 0.00 | 0.000 |
| VEHICLE ACCIDENT | 4,362,849 | 22,011 | 149 | 4.86 | 0.025 |
| INTERFERENCE | 5,805,621 | 37,139 | 342 | 6.47 | 0.041 |
| FAILURE ON OTHER LINE OR STATION | 420 | 1 | 2 | 0.00 | 0.000 |
| LOSS OF FEED FROM SUPPLIER | 2,367 | 15 | 1 | 0.00 | 0.000 |
| LOSS OF GENERATOR | 14,996 | 126 | 2 | 0.02 | 0.000 |
| LOSS OF SUBSTATION | 5,325,073 | 44,270 | 36 | 5.93 | 0.049 |
| LOSS OF TRANSMISSION LINE | 5,090,603 | 55,027 | 159 | 5.67 | 0.061 |
| LOSS OF SUPPLY | 10,433,458 | 99,439 | 200 | 11.63 | 0.111 |
| FAULTY INSTALL | 75,815 | 3,112 | 13 | 0.08 | 0.003 |
| IMPROPER PROTECTIVE COORDINATION | 23,749 | 461 | 6 | 0.03 | 0.001 |
| INCORRECT RECORDS | 6,947 | 175 | 13 | 0.01 | 0.000 |
| INTERNAL CONTRACTOR | 36,317 | 268 | 3 | 0.04 | 0.000 |
| PACIFICORP EMPLOYEE - FIELD | 278,458 | 4,941 | 17 | 0.31 | 0.006 |
| TESTING/STARTUP ERROR | 14,022 | 78 | 1 | 0.02 | 0.000 |
| OPERATIONAL | 435,309 | 9,035 | 53 | 0.49 | 0.010 |
| OTHER, KNOWN CAUSE | 88,624 | 2,780 | 79 | 0.10 | 0.003 |
| UNKNOWN | 2,458,915 | 29,564 | 536 | 2.74 | 0.033 |
| OTHER | 2,547,538 | 32,344 | 615 | 2.84 | 0.036 |
| CONSTRUCTION | 334,664 | 3,531 | 84 | 0.37 | 0.004 |
| CUSTOMER NOTICE GIVEN | 8,870,805 | 44,974 | 1,368 | 9.89 | 0.050 |
| CUSTOMER REQUESTED | 8,540,407 | 1,118 | 14 | 9.52 | 0.001 |
| EMERGENCY DAMAGE REPAIR | 2,597,674 | 43,156 | 569 | 2.90 | 0.048 |
| INTENTIONAL TO CLEAR TROUBLE | 215,758 | 7,636 | 35 | 0.24 | 0.009 |
| PLANNED NOTICE EXEMPT | 4,191,419 | 11,898 | 150 | 4.67 | 0.013 |
| PLANNED | 24,750,727 | 112,313 | 2,220 | 27.58 | 0.125 |
| TREE - NON-PREVENTABLE | 4,013,509 | 22,202 | 297 | 4.47 | 0.025 |
| TREE - TRIMMABLE | 146,848 | 459 | 34 | 0.16 | 0.001 |
| TREES | 4,160,358 | 22,661 | 331 | 4.64 | 0.025 |
| FREEZING FOG & FROST | 154 | 1 | 1 | 0.00 | 0.000 |
| ICE | 1,095,071 | 1,857 | 16 | 1.22 | 0.002 |
| LIGHTNING | 570,561 | 6,705 | 37 | 0.64 | 0.007 |
| SNOW, SLEET AND BLIZZARD | 1,681,866 | 6,004 | 202 | 1.87 | 0.007 |
| WIND | 8,322,541 | 35,293 | 290 | 9.28 | 0.039 |
| WEATHER | 11,670,192 | 49,860 | 546 | 13.01 | 0.056 |
| Utah Including Prearranged | 78,692,045 | 470,113 | 7,901 | 87.7 | 0.524 |
| Utah Excluding Prearranged | 57,089,414 | 412,123 | 6,369 | 63.6 | 0.459 |



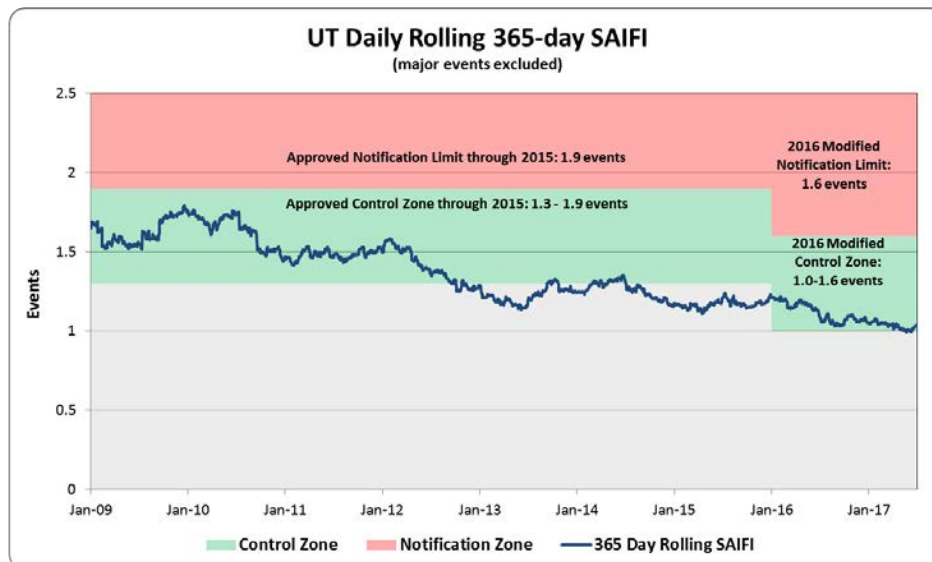
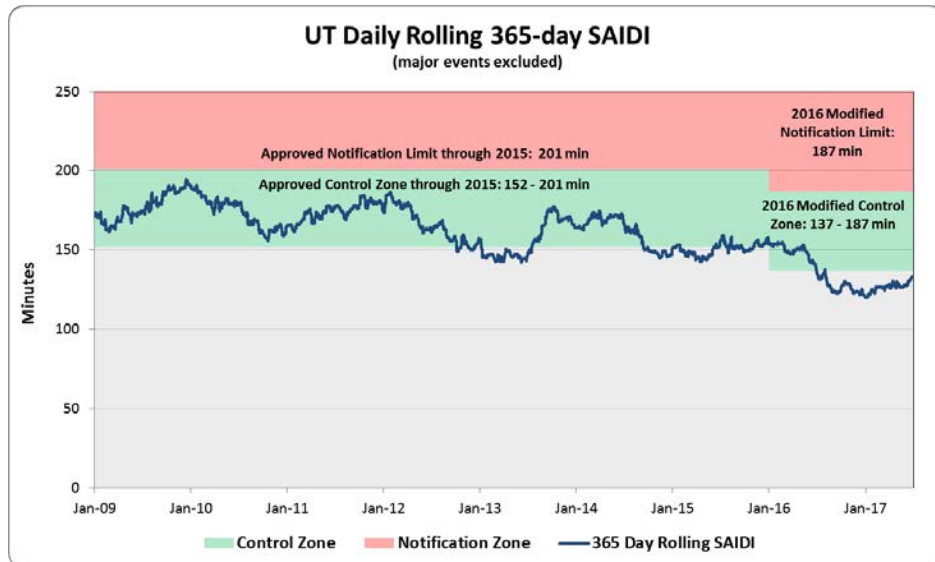


| Direct Cause Category | Category Definition & Example/Direct Cause |
|--------------------------|--|
| Animals | Any problem nest that requires removal, relocation, trimming, etc.; any birds, squirrels or other animals, whether or not remains found. |
| | <ul style="list-style-type: none"> • Animal (Animals) • Bird Mortality (Non-protected species) • Bird Mortality (Protected species)(BMTS) <ul style="list-style-type: none"> • Bird Nest • Bird or Nest • 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). |
| | <ul style="list-style-type: none"> • Condensation/Moisture • Contamination • Fire/Smoke (not due to faults) • Flooding <ul style="list-style-type: none"> • Major Storm or Disaster • Nearby Fault • 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). |
| | <ul style="list-style-type: none"> • B/O Equipment • Overload <ul style="list-style-type: none"> • Deterioration or Rotting • 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. |
| | <ul style="list-style-type: none"> • Dig-in (Non-PacifiCorp Personnel) • Other Interfering Object • Vandalism or Theft <ul style="list-style-type: none"> • Other Utility/Contractor • Vehicle Accident |
| Loss of Supply | Failure of supply from Generator or Transmission system; failure of distribution substation equipment. |
| | <ul style="list-style-type: none"> • Failure on other line or station • Loss of Feed from Supplier • Loss of Generator <ul style="list-style-type: none"> • Loss of Substation • Loss of Transmission Line • 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. |
| | <ul style="list-style-type: none"> • Contact by PacifiCorp • Faulty Install • Improper Protective Coordination • Incorrect Records • Internal Contractor <ul style="list-style-type: none"> • Internal Tree Contractor • Switching Error • Testing/Startup Error • Unsafe Situation |
| Other | Cause Unknown; use comments field if there are some possible reasons. |
| | <ul style="list-style-type: none"> • Invalid Code • Other, Known Cause <ul style="list-style-type: none"> • 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 if notice is given; rolling blackouts. |
| | <ul style="list-style-type: none"> • Construction • Customer Notice Given • Energy Emergency Interruption • Intentional to Clear Trouble <ul style="list-style-type: none"> • Emergency Damage Repair • Customer Requested • Planned Notice Exempt • Transmission Requested |
| Tree | Growing or falling trees |
| | <ul style="list-style-type: none"> • Tree-Non-preventable • Tree-Trimable <ul style="list-style-type: none"> • Tree-Tree felled by Logger |
| Weather | Wind (excluding windborne material); snow, sleet or blizzard, ice, freezing fog, frost, lightning. |
| | <ul style="list-style-type: none"> • Extreme Cold/Heat • Freezing Fog & Frost • Wind <ul style="list-style-type: none"> • Lightning • Rain • Snow, Sleet, Ice and Blizzard |

2.6 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). 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 NOS. 13-035-01 and 15-035-72). The original and modified baselines are shown below.

| | SAIDI (Minutes) | | | SAIFI (Events) | | |
|------------------------|-----------------|--------------------------|--------------------------|----------------|--------------------------|--------------------------|
| | Average | Lower Value Control Zone | Upper Value Control Zone | Average | Lower Value Control Zone | Upper Value Control Zone |
| Prior Baseline | - | 152 | 201 | - | 1.3 | 1.9 |
| 2016 Modified Baseline | 160 | 137 | 187 | 1.34 | 1.0 | 1.6 |



2.7 Reliability Reporting Post-Rule R.746-313 Modifications

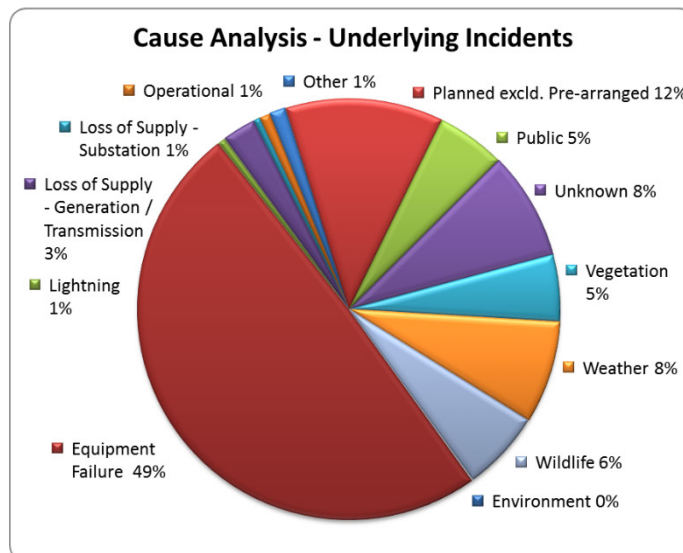
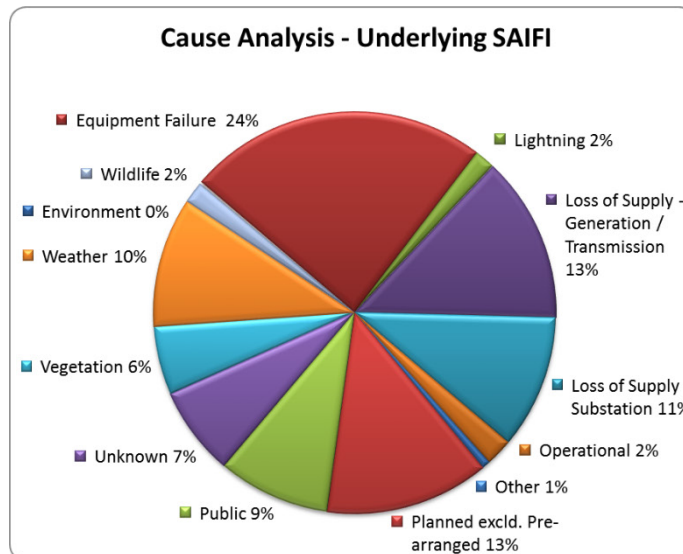
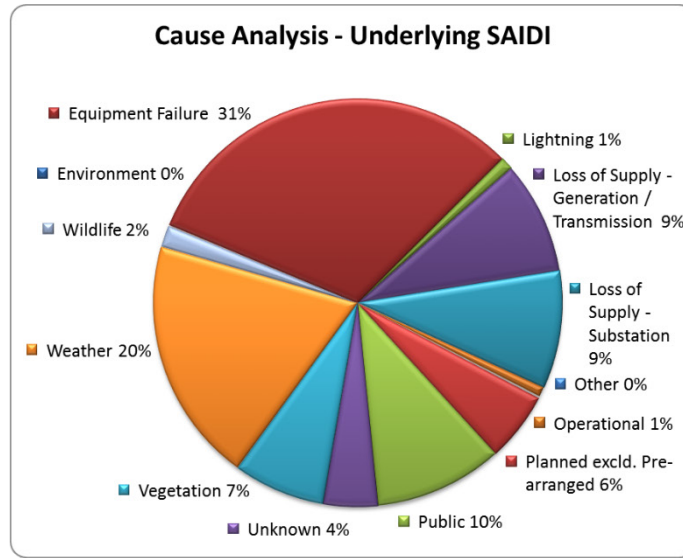
In 2012, the Company and stakeholders developed reliability reporting rules that are codified in Utah Rule R746.313. Certain reliability reporting details were outlined in these rules that had not been previously required in the Company’s Service Quality Review Report. Certain elements may be at least partially redundant or segmented differently than has been provided in the past. Thus, in order to include both, the new required segmentation in addition to the pre-reporting rule segmentation was considered the ideal reporting approach. As this report evolves, certain of these redundancies may be eliminated.

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* | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | | 2016 | | | | June 2017 | | | |
|--|-------|-------|-------|--------------------|-------|-------|-------|--------------------|-------|-------|-------|--------------------|-------|-------|-------|--------------------|-------|-------|-------|--------------------|-----------|-------|-------|--------------------|
| STATE | SAIDI | SAIFI | CAIDI | MAIFI _e | SAIDI | SAIFI | CAIDI | MAIFI _e | SAIDI | SAIFI | CAIDI | MAIFI _e | SAIDI | SAIFI | CAIDI | MAIFI _e | SAIDI | SAIFI | CAIDI | MAIFI _e | SAIDI | SAIFI | CAIDI | MAIFI _e |
| Utah | 157 | 1.3 | 122 | 0.72 | 164 | 1.2 | 132 | 0.81 | 152 | 1.2 | 129 | 1.21 | 154 | 1.2 | 127 | 1.48 | 120 | 1.0 | 115 | 1.76 | 64 | 0.5 | 139 | 1.44 |
| OP AREA | | | | | | | | | | | | | | | | | | | | | | | | |
| AMERICAN FORK | 101 | 0.8 | 135 | | 126 | 1.3 | 99 | | 113 | 1.0 | 109 | | 134 | 1.1 | 128 | | 92 | 1.0 | 93 | | 38 | 0.3 | 119 | |
| CEDAR CITY | 279 | 1.8 | 154 | | 225 | 1.8 | 127 | | 170 | 1.1 | 151 | | 238 | 1.6 | 146 | | 174 | 1.5 | 116 | | 84 | 0.5 | 160 | |
| CEDAR CITY (MILFORD) | 363 | 2.8 | 129 | | 707 | 3.3 | 213 | | 891 | 3.3 | 271 | | 334 | 3.6 | 92 | | 650 | 4.9 | 132 | | 239 | 1.2 | 199 | |
| JORDAN VALLEY | 106 | 0.8 | 129 | | 106 | 0.7 | 145 | | 103 | 0.7 | 141 | | 128 | 1.0 | 126 | | 100 | 0.8 | 131 | | 50 | 0.3 | 156 | |
| LAYTON | 105 | 0.8 | 131 | | 105 | 1.0 | 109 | | 108 | 0.8 | 127 | | 122 | 1.1 | 109 | | 90 | 0.9 | 103 | | 57 | 0.4 | 145 | |
| MOAB | 375 | 3.1 | 122 | | 284 | 1.9 | 147 | | 412 | 2.3 | 181 | | 426 | 3.5 | 122 | | 278 | 3.0 | 93 | | 69 | 0.7 | 95 | |
| OGDEN | 153 | 1.3 | 117 | | 168 | 1.4 | 122 | | 218 | 1.9 | 113 | | 175 | 1.4 | 123 | | 120 | 1.0 | 120 | | 54 | 0.4 | 143 | |
| PARK CITY | 184 | 1.8 | 100 | | 232 | 1.5 | 155 | | 147 | 1.1 | 140 | | 247 | 1.5 | 162 | | 183 | 1.6 | 117 | | 120 | 0.6 | 191 | |
| PRICE | 133 | 1.4 | 97 | | 514 | 1.8 | 293 | | 394 | 2.2 | 180 | | 230 | 1.8 | 127 | | 340 | 3.3 | 104 | | 59 | 0.8 | 79 | |
| RICHFIELD | 200 | 2.0 | 100 | | 469 | 3.4 | 138 | | 181 | 1.7 | 104 | | 303 | 2.2 | 137 | | 132 | 1.3 | 101 | | 142 | 1.5 | 96 | |
| RICHFIELD (DELTA) | 329 | 2.9 | 113 | | 316 | 3.7 | 85 | | 202 | 1.9 | 108 | | 536 | 3.0 | 180 | | 215 | 2.1 | 103 | | 93 | 0.7 | 141 | |
| SLC METRO | 129 | 1.2 | 112 | | 170 | 1.2 | 139 | | 145 | 1.1 | 129 | | 107 | 0.9 | 125 | | 104 | 0.9 | 113 | | 62 | 0.6 | 110 | |
| SMITHFIELD | 267 | 2.6 | 102 | | 81 | 0.7 | 117 | | 114 | 0.9 | 126 | | 236 | 1.6 | 150 | | 117 | 1.0 | 118 | | 105 | 0.7 | 156 | |
| TOOELE | 595 | 3.7 | 163 | | 137 | 1.3 | 103 | | 239 | 2.1 | 115 | | 129 | 1.3 | 103 | | 161 | 1.1 | 151 | | 33 | 0.2 | 148 | |
| TREMONTON | 447 | 3.0 | 147 | | 335 | 3.3 | 102 | | 216 | 2.0 | 111 | | 462 | 4.2 | 110 | | 399 | 3.1 | 129 | | 58 | 0.6 | 93 | |
| VERNAL | 236 | 2.9 | 82 | | 160 | 2.1 | 75 | | 119 | 1.2 | 101 | | 68 | 0.8 | 87 | | 53 | 0.6 | 84 | | 33 | 0.4 | 82 | |

* except MAIFI_e

| Utah Cause Category | 2013 | | 2014 | | 2015 | | 2016 | | June - 2017 | |
|--|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|
| | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI |
| Environment | 0 | 0.0 | 1 | 0.0 | 1 | 0.0 | 1 | 0.0 | 0 | 0.0 |
| Equipment Failure | 60 | 0.3 | 51 | 0.3 | 56 | 0.3 | 45 | 0.2 | 20 | 0.1 |
| Lightning | 9 | 0.1 | 7 | 0.1 | 6 | 0.1 | 3 | 0.0 | 1 | 0.0 |
| Loss of Supply - Generation/Transmission | 19 | 0.2 | 23 | 0.2 | 22 | 0.2 | 13 | 0.2 | 6 | 0.1 |
| Loss of Supply - Substation | 6 | 0.0 | 6 | 0.0 | 5 | 0.0 | 13 | 0.1 | 6 | 0.0 |
| Operational | 1 | 0.0 | 1 | 0.0 | 1 | 0.0 | 1 | 0.0 | 0 | 0.0 |
| Other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Planned (excl. Prearranged) | 24 | 0.3 | 20 | 0.2 | 14 | 0.2 | 11 | 0.2 | 4 | 0.1 |
| Public | 14 | 0.1 | 15 | 0.1 | 18 | 0.1 | 14 | 0.1 | 6 | 0.0 |
| Unknown | 8 | 0.1 | 10 | 0.1 | 10 | 0.1 | 7 | 0.1 | 3 | 0.0 |
| Vegetation | 7 | 0.0 | 6 | 0.0 | 8 | 0.1 | 5 | 0.0 | 5 | 0.0 |
| Weather | 12 | 0.1 | 8 | 0.0 | 8 | 0.0 | 5 | 0.0 | 12 | 0.0 |
| Wildlife | 4 | 0.0 | 4 | 0.0 | 5 | 0.0 | 2 | 0.0 | 1 | 0.0 |
| UTAH Underlying | 164 | 1.2 | 152 | 1.2 | 154 | 1.2 | 120 | 1.0 | 64 | 0.5 |



2.8 Improve Reliability Performance in Areas of Concern

Over the past decade the Company has developed approaches, including tools, automated and manual processes and methods to improve reliability. As it has done so, the Company's ability to diagnose portions of the system requiring improvement has improved, which yields its legacy "Worst Performing Circuit" program obsolete, as described in section 2.8.4. As a result it has devised a more contemporary approach to identifying improvement plans, determining the value of those plans and monitoring to ensure that results delivered meet or exceed expected targets. This program is called Open Reliability Reporting (ORR), and the Company has proposed that during 2017 transition to this approach be completed by finalizing work started with Commission stakeholders to ensure understanding and obtain concurrence. Contained below is explanatory language in addition to the proposed 2017 plan information which would be provided regularly.

The ORR process shifts the Company's reliability program from a circuit-based view reliant on blended reliability metrics (using circuit SAIDI, SAIFI and MAIFI) to a more strategic and targeted approach based upon recent trends in performance of the local area, as measured by customer minutes interrupted (from which SAIDI is derived). The decision to fund one performance improvement project versus another is based on cost effectiveness as measured by the cost per avoided annual customer minute interrupted. However, the cost effectiveness measure will not limit funding of improvement projects in areas of low customer density where cost effectiveness per customer may not be as high as projects in more densely populated areas.

2.8.1 Reliability Work Plans

The Company has worked to improve reliability through Reliability Work Plans. To assist in identification of problem areas, Area Improvement Teams (AIT) meetings and Frequent Interrupters Requiring Evaluation (FIRE) reports have been established. On a daily basis the Company systems alert operations and engineering team members regarding outages experienced at interrupting devices (circuit breakers, line reclosers and fuses). When repetition occurs, it is an indicator that system improvements may be needed. On a routine basis, local operations and engineering team members review the performance of the network using geospatial and tabular tools to look for opportunities to improve reliability. As system improvement projects are identified, cost estimates of reliability improvement and costs to deliver that improvement are prepared. If the project's cost effectiveness metrics are favorable, i.e. low cost and high avoidance of future customer minutes interrupted, the project is approved for funding and the forecast customer minutes interrupted are recorded for subsequent comparison. This process allows individual districts to take ownership and identify the greatest impact to their customers. Rather than focusing on a large area at high costs, districts can focus on problem areas or devices.

2.8.2 Project approvals by district

The identification of projects is an ongoing process throughout the year. An approval team reviews projects weekly and once approved, design and construction begins. Upon completion of the construction, the project is identified for follow up review of effectiveness. One year after completion, routine assessments of performance are prepared. This comparison is summarized for all projects for each year's plans, and actual versus forecast results are assessed to determine whether targets were met or if additional work may be required. The table below is provided to demonstrate the measures the Company believes represents cost/effectiveness measures that are important in determining the success of the projects that have been completed.

| Approval Metrics | | | Effectiveness Metrics | | | | | | In Progress |
|------------------|---------------|-------------------|--|------------------------------|---------------------------|--------------------------------------|------------------------------------|---|-------------------------------|
| District | Project Count | Budgeted Cost/CML | Plans Meeting Goals (>1 year since project completion) | Estimated Avoided Annual CML | Actual Avoided Annual CML | Budgeted Cost per Annual Avoided CML | Actual Cost per Annual Avoided CML | Plans Not Meeting Goals (not included in metrics) | Plans Waiting for Information |
| Program Year 18 | | | | | | | | | |
| American Fork | 8 | \$1.05 | 4 | 207,684 | 269,466 | \$0.59 | \$0.15 | 0 | 4 |
| Cedar City | 2 | \$4.76 | 1 | 79,853 | 114,614 | \$2.41 | \$1.18 | 1 | 0 |
| Jordan Valley | 17 | \$0.60 | 8 | 317,521 | 541,182 | \$0.89 | \$0.57 | 1 | 8 |
| Layton | 4 | \$0.63 | 3 | 129,819 | 164,040 | \$1.43 | \$1.37 | 0 | 1 |
| Metro | 16 | \$0.38 | 10 | 2,619,725 | 4,422,054 | \$0.34 | \$0.19 | 0 | 6 |
| Montpelier | 1 | \$0.75 | 0 | - | - | \$0.00 | \$0.00 | 0 | 1 |
| Ogden | 11 | \$0.55 | 7 | 433,014 | 827,372 | \$1.20 | \$0.55 | 1 | 3 |
| Park City | 4 | \$1.23 | 1 | 2,669 | 5,337 | \$41.97 | \$12.21 | 0 | 3 |
| Price | 6 | \$0.23 | 3 | 127,794 | 137,091 | \$0.67 | \$0.94 | 0 | 3 |
| Richfield | 3 | \$1.78 | 1 | 349 | 349 | \$28.35 | \$17.08 | 0 | 2 |
| Smithfield | 2 | \$1.02 | 0 | - | - | \$0.00 | \$0.00 | 1 | 1 |
| Tooele | 4 | \$0.42 | 3 | 158,168 | 196,832 | \$1.24 | \$0.58 | 0 | 1 |
| Tremonton | 2 | \$3.08 | 1 | 58,070 | 150,495 | \$2.58 | \$0.59 | 0 | 1 |
| Vernal | 2 | \$5.80 | 1 | 246 | 491 | \$109.98 | \$0.00 | 0 | 1 |
| TOTAL | 82 | \$0.52 | 43 | 4,134,913 | 6,829,323 | \$0.59 | \$0.29 | 4 | 35 |

2.8.3 Reduce CPI for Worst Performing Circuits by 20%

Prior to the Open Reliability Reporting process, the Company reviewed circuits for performance. One of the measures that it used was called circuit performance indicator (CPI), which was a blended weighting of key reliability metrics covering a three-year period. The higher the number, the poorer the blended performance the circuit is delivering. As part of the Company's Performance Standards Program, it annually selected a set of Worst Performing Circuits for improvements, which were to be completed within two years of selection. Within five years of selection, the average performance of the five-selection circuits must have improved by at least 20% (as measured by comparing current performance against baseline performance).

2.8.4 Circuit Performance Score Updates for Prior-Year Selections

Annually, the company tracked the performance of circuits designated in the Worst Performing Circuits program, until the Program Year has successfully met the target score.

| WORST PERFORMING CIRCUITS | STATUS | BASELINE ⁸ | Performance 6/30/2017 |
|----------------------------------|-------------------|-----------------------|--------------------------|
| Program Year 17: (CY2016) | | | |
| Red mountain 33 | IN PROGRESS | 1283 | 1772 |
| Fountain Green 12 | IN PROGRESS | 266 | 226 |
| Middleton 24 | IN PROGRESS | 253 | 300 |
| Willowridge 11 | IN PROGRESS | 177 | 149 |
| Summitt Park 11 | IN PROGRESS | 116 | 118 |
| TARGET SCORE = 335 | | 419 | 513 |
| Program Year 16: (CY2015) | | | |
| Nibley 21 | COMPLETE | 179 | 314 |
| Brighton 12 | COMPLETE | 270 | 172 |
| Rattlesnake 22 | COMPLETE | 456 | 365 |
| Decker Lake 12 | COMPLETE | 167 | 61 |
| Toquerville 31 | COMPLETE | 475 | 303 |
| TARGET SCORE = 248 | | 309 | 243 |
| Program Year 15: (CY2014) | | | |
| Skull Valley 11 | COMPLETE | 468 | 183 |
| Fort Douglas 13 | COMPLETE | 417 | 82 |
| Parowan Valley 25 | COMPLETE | 408 | 319 |
| Brighton 21 | COMPLETE | 364 | 225 |
| Bush 12 | COMPLETE | 281 | 163 |
| TARGET SCORE = 248 | Target Met | 310 | 195 |

⁸ RMP transitioned fully to applying CPI99 rather than CPI05 based on prior review with Stakeholders where the limitations of CPI05 were explored. Due to inclusion of major event and transmission outages, reporting period comparisons yielded a limited ability to identify the benefits of improvements made for each of the circuits. The application of CPI99 proved to demonstrate more consistently how performance comparisons could be made.

| WORST PERFORMING CIRCUITS | STATUS | BASELINE | Performance 6/30/2017 |
|----------------------------------|-------------------|------------|--------------------------|
| Program Year 14: (CY2013) | | | |
| Snyderville 16 | COMPLETE | 72 | 119 |
| Eden 11 | COMPLETE | 116 | 124 |
| Bush 11 | COMPLETE | 228 | 126 |
| Pioneer 12 | COMPLETE | 177 | 62 |
| Grantsville 12 | COMPLETE | 250 | 97 |
| TARGET SCORE = 108 | Target Met | 135 | 106 |
| Program Year 13: (CY2012) | | | |
| Fielding 11 | COMPLETE | 207 | 215 |
| East Bench 12 | COMPLETE | 112 | 43 |
| Clinton 11 | COMPLETE | 133 | 38 |
| Redwood 16 | COMPLETE | 145 | 60 |
| Orangeville 11 | COMPLETE | 114 | 46 |
| TARGET SCORE = 114 | Target Met | 142 | 80 |
| Program Year 12: (CY2011) | | | |
| Lincoln 15 | COMPLETE | 173 | 66 |
| Huntington City 12 | COMPLETE | 285 | 42 |
| Magna 15 | COMPLETE | 140 | 46 |
| Gunnison 12 | COMPLETE | 110 | 112 |
| Capitol 11 | COMPLETE | 129 | 85 |
| TARGET SCORE = 134 | Target Met | 167 | 70 |
| Program Year 11: (CY2010) | | | |
| Decker Lake 12 | COMPLETE | 102 | 61 |
| North Bench 13 | COMPLETE | 95 | 59 |
| Newgate 14 | COMPLETE | 164 | 72 |
| Newton 12 | COMPLETE | 105 | 54 |
| St Johns 11 | COMPLETE | 547 | 218 |
| TARGET SCORE = 162 | Target Met | 203 | 93 |
| Program Year 10: (CY2009) | | | |
| Fruit Heights 12 | COMPLETE | 113 | 94 |
| Mathis 12 | COMPLETE | 132 | 133 |
| Parrish 11 | COMPLETE | 137 | 57 |
| Valley Center 11 | COMPLETE | 169 | 16 |
| Hammer 15 | COMPLETE | 95 | 24 |
| TARGET SCORE = 104 | Target Met | 129 | 65 |

Note: Goals were met for Program Years 1 through 13 and filed in prior reporting periods; however, data for Program Years 10-13 are retained in this report in order to show circuit selections over a longer period of history for discussion purposes.

2.9 Restore Service to 80% of Customers within 3 Hours⁹

| RESTORATIONS WITHIN 3 HOURS | | | | | |
|-----------------------------------|----------|-------|-------|-----|------|
| Reporting Period Cumulative = 81% | | | | | |
| January | February | March | April | May | June |
| 76% | 84% | 80% | 74% | 91% | 82% |

2.10 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 | 115 minutes |
| Total Performance | 167 minutes |

2.11 Telephone Service and Response to Commission Complaints

| COMMITMENT | GOAL | PERFORMANCE |
|---|------|-------------|
| PS5-Answer calls within 30 seconds | 80% | 82% |
| 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 ¹⁰ complaints within 30 days | 100% | 100% |

⁹ In some cases a substation residing in one state may have a circuit which feeds customers within another state. In this case restoration times are allocated to the state in which the feeding substation resides, as opposed to the customer's physical location.

¹⁰ 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).

2.12 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, in order 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.

Through June 30, 2017, there were five dates identified as a wide-scale outage days; call statistics are shown in the table below. On January 3rd a winter storm heavily affected parts of Southern Oregon and Northern California as snow laden trees and lines were downed resulting in major events in both states. On February 3rd a loss of feed from supplier event occurred in the Willamette Valley region of Oregon when feed from the Bonneville Power Administration substation was lost, resulting in approximately 14,931 customers out of service for durations ranging from 42 minutes to 1 hour 8 minutes. On March 3rd call volumes exceeded the agreed upon standard calls/hour due to customer billing concerns given the significant winter bills that had just been received; there were no significant outages on this day. On March 6th Salt Lake City experienced an outage due to a loss of Substation. The event affected 3,001 customers with outage durations ranging from 4 hours to 6 hours 43 minutes. On April 7th a wind storm blew through Southern Oregon and Northern California causing wide spread outages due to downed trees and transmission line structures. The event affected nearly 219,000 Pacific Power customers and resulted in major events in both Oregon and California.

| Date | Interval start/finish (Mountain Time) | | Network Total Calls* | Calls received but not delivered** | # of Calls Abandoned from Agent Queue | Max Delay Time Seconds*** | ASA Seconds |
|------------------------|--|-------|-------------------------|---|--|---------------------------------|-------------|
| 1/3/2017 | 11:00 | 11:14 | 670 | 0 | 7 | 97 | 33 |
| | 11:15 | 11:29 | 651 | 23 | 13 | 171 | 69 |
| | 11:30 | 11:44 | 722 | 0 | 8 | 93 | 29 |
| | 11:45 | 11:59 | 738 | 3 | 10 | 109 | 29 |
| | 12:00 | 12:14 | 746 | 8 | 16 | 208 | 91 |
| | 12:15 | 12:29 | 713 | 12 | 27 | 195 | 88 |
| | 12:30 | 12:44 | 709 | 16 | 12 | 124 | 64 |
| 2/3/2017 | 11:45 | 11:59 | 1556 | 205 | 117 | 348 | 75 |
| | 12:00 | 12:14 | 1083 | 63 | 23 | 123 | 17 |
| | 12:15 | 12:29 | 1218 | 84 | 20 | 197 | 36 |
| | 12:30 | 12:44 | 1082 | 44 | 8 | 109 | 35 |
| | 12:45 | 12:59 | 777 | 5 | 17 | 228 | 94 |
| 3/3/2017 ¹¹ | 9:00 | 9:14 | 557 | 0 | 6 | 170 | 52 |
| | 9:15 | 9:29 | 641 | 0 | 10 | 146 | 62 |
| | 9:30 | 9:44 | 537 | 0 | 10 | 137 | 40 |
| | 9:45 | 9:59 | 496 | 0 | 3 | 139 | 14 |
| | 10:00 | 10:14 | 493 | 0 | 1 | 118 | 16 |
| 3/6/2017 | 9:30 | 9:44 | 890 | 45 | 18 | 280 | 69 |
| | 9:45 | 9:59 | 744 | 4 | 8 | 178 | 46 |
| | 10:00 | 10:14 | 708 | 0 | 18 | 151 | 49 |
| | 10:15 | 10:29 | 729 | 11 | 10 | 145 | 53 |
| | 10:30 | 10:44 | 681 | 0 | 24 | 222 | 59 |

¹¹ High call volumes during this time were unrelated to wide-scale outages and were instead due to customer billing concerns from the significant winter bills received.

UTAH

January 1 – June 30, 2017

| Date | Interval start/finish (Mountain Time) | | Network Total Calls* | Calls received but not delivered** | # of Calls Abandoned from Agent Queue | Max Delay Time Seconds*** | ASA Seconds |
|----------|--|-------|-------------------------|---|--|---------------------------------|-------------|
| | 10:45 | 10:59 | 652 | 0 | 12 | 134 | 54 |
| | 11:00 | 11:14 | 660 | 0 | 22 | 158 | 82 |
| | 11:15 | 11:29 | 709 | 48 | 29 | 237 | 113 |
| | 11:30 | 11:44 | 676 | 2 | 8 | 214 | 27 |
| 4/7/2017 | 8:00 | 8:14 | 2660 | 614 | 58 | 214 | 94 |
| | 8:15 | 8:29 | 2027 | 387 | 31 | 1057 | 49 |
| | 8:30 | 8:44 | 2037 | 288 | 55 | 874 | 66 |
| | 8:45 | 8:59 | 2008 | 300 | 49 | 485 | 81 |
| | 9:00 | 9:14 | 1799 | 224 | 10 | 115 | 14 |
| | 9:15 | 9:29 | 1506 | 53 | 1 | 39 | 4 |
| | 9:30 | 9:44 | 1203 | 4 | 6 | 50 | 7 |
| | 9:45 | 9:59 | 1036 | 0 | 2 | 175 | 10 |
| | 10:00 | 10:14 | 1131 | 19 | 12 | 195 | 49 |
| | 10:15 | 10:29 | 1054 | 9 | 4 | 139 | 11 |
| | 10:30 | 10:44 | 960 | 0 | 2 | 69 | 6 |
| | 10:45 | 10:59 | 951 | 0 | 2 | 256 | 8 |
| | 11:00 | 11:14 | 1031 | 0 | 15 | 351 | 18 |
| | 11:15 | 11:29 | 1023 | 0 | 3 | 133 | 8 |
| | 11:30 | 11:44 | 902 | 0 | 1 | 125 | 6 |
| | 11:45 | 11:59 | 970 | 0 | 7 | 77 | 11 |
| | 12:00 | 12:14 | 869 | 0 | 3 | 262 | 10 |
| | 12:15 | 12:29 | 861 | 0 | 3 | 71 | 5 |
| | 12:30 | 12:44 | 812 | 0 | 6 | 163 | 22 |
| | 12:45 | 12:59 | 817 | 0 | 5 | 186 | 25 |
| | 13:00 | 13:14 | 826 | 0 | 3 | 73 | 5 |
| | 13:15 | 13:29 | 770 | 0 | 5 | 87 | 8 |
| | 13:30 | 13:44 | 744 | 0 | 8 | 146 | 15 |
| | 13:45 | 13:59 | 752 | 0 | 5 | 208 | 17 |
| | 14:00 | 14:14 | 722 | 0 | 10 | 134 | 23 |
| | 14:15 | 14:29 | 785 | 0 | 9 | 209 | 18 |
| | 14:30 | 14:44 | 724 | 0 | 6 | 302 | 42 |
| | 14:45 | 14:59 | 789 | 0 | 10 | 180 | 48 |
| | 15:00 | 15:14 | 1450 | 123 | 23 | 521 | 84 |
| | 15:15 | 15:29 | 1379 | 80 | 10 | 197 | 26 |
| | 15:30 | 15:44 | 878 | 0 | 2 | 238 | 13 |
| | 15:45 | 15:59 | 864 | 0 | 0 | 167 | 9 |
| 16:00 | 16:14 | 852 | 0 | 5 | 131 | 9 | |
| 16:15 | 16:29 | 999 | 0 | 2 | 196 | 8 | |
| 16:30 | 16:44 | 1049 | 26 | 14 | 390 | 26 | |
| 16:45 | 16:59 | 1481 | 131 | 25 | 292 | 65 | |
| 17:00 | 17:14 | 1136 | 16 | 21 | 271 | 40 | |

Twenty First Century, an external Interactive Voice Response system, was utilized.

* All customers attempting to reach PacifiCorp Network.

** When Twenty First Century is manually invoked, the AT&T Network returns a courtesy message to non-outage callers. This includes repeated attempts.

*** Longest time any customer waited.

2.13 Utah State Customer Guarantee Summary Status

customer *guarantees*

January to June 2017

Utah

| Description | 2017 | | | | 2016 | | | |
|---|----------------|-----------|---------------|----------------|----------------|-----------|---------------|----------------|
| | Events | Failures | % Success | Paid | Events | Failures | % Success | Paid |
| CG1 Restoring Supply | 424,021 | 1 | 100.00% | \$50 | 428,732 | 0 | 100% | \$0 |
| CG2 Appointments | 5,227 | 4 | 99.92% | \$200 | 4,202 | 6 | 99.86% | \$300 |
| CG3 Switching on Power | 2,806 | 1 | 99.96% | \$50 | 3,170 | 0 | 100% | \$0 |
| CG4 Estimates | 690 | 4 | 99.42% | \$200 | 652 | 1 | 99.85% | \$50 |
| CG5 Respond to Billing Inquiries | 818 | 5 | 99.39% | \$250 | 929 | 0 | 100% | \$0 |
| CG6 Respond to Meter Problems | 404 | 0 | 100% | \$0 | 413 | 0 | 100% | \$0 |
| CG7 Notification of Planned Interruptions | 44,974 | 19 | 99.96% | \$950 | 57,283 | 23 | 99.96% | \$1,150 |
| | 478,940 | 34 | 99.99% | \$1,700 | 495,381 | 30 | 99.99% | \$1,500 |

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.

3 MAINTENANCE COMPLIANCE TO ANNUAL PLAN

3.1 T&D Preventive and Corrective Maintenance Programs

Preventive Maintenance

The primary focus of the preventive maintenance plan is to inspect facilities, identify abnormal conditions¹², 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 variations of the policies will result in refinement to 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.¹³
- § 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.

Substations and Major Equipment

¹² The primary focus of the preventive maintenance plan is to inspect facilities, identify abnormal conditions, and perform appropriate preventive actions upon those facilities. 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.

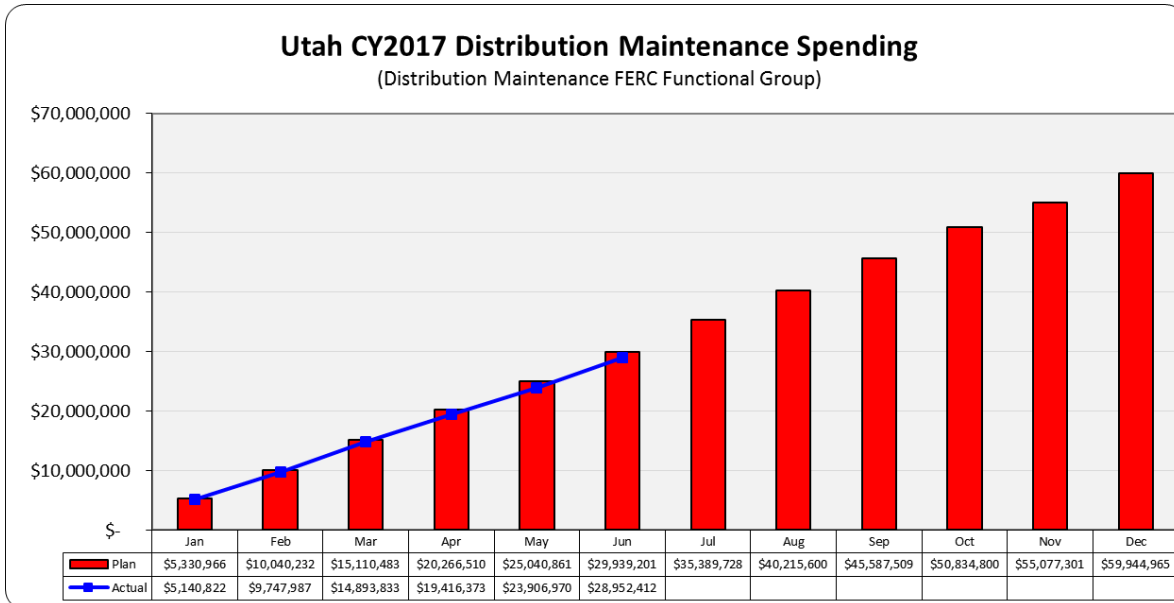
¹³ Effective 1/1/2007, Rocky Mountain Power modified its reliability & preventive planning methods to utilize repeated reliability events to prioritize localized preventive maintenance activities, using its Reliability Work Planning methodology. At this time, repeated outage events experienced by customers will result in localized inspection and correction activities, rather than being programmatically performed at either the entire circuit or map section level.

UTAH

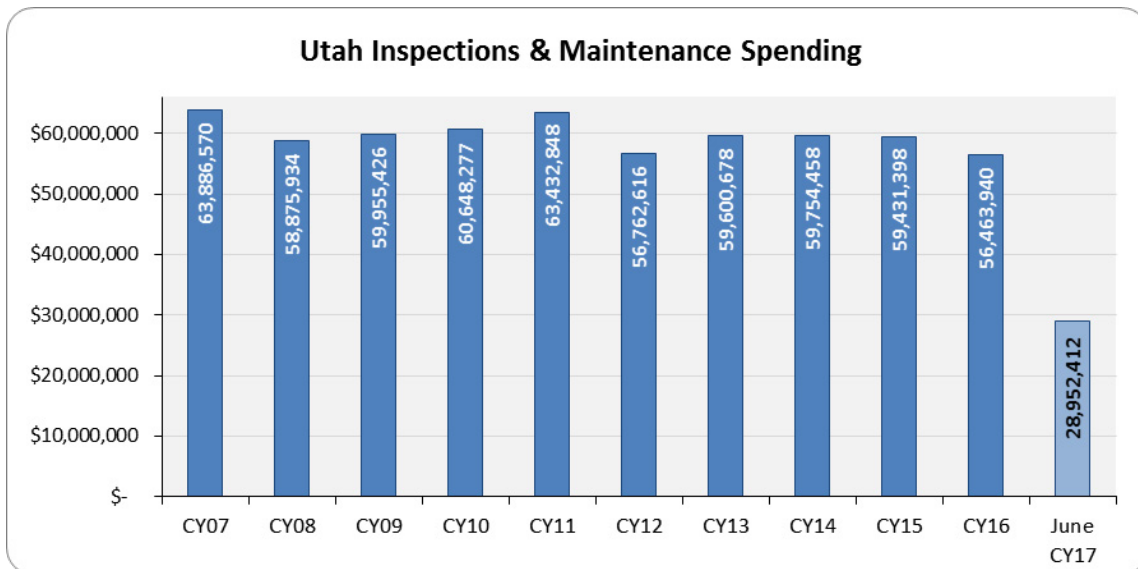
January 1 – June 30, 2017

- § 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.

3.2 Maintenance Spending^{14,15}



3.2.1 Maintenance Historical Spending

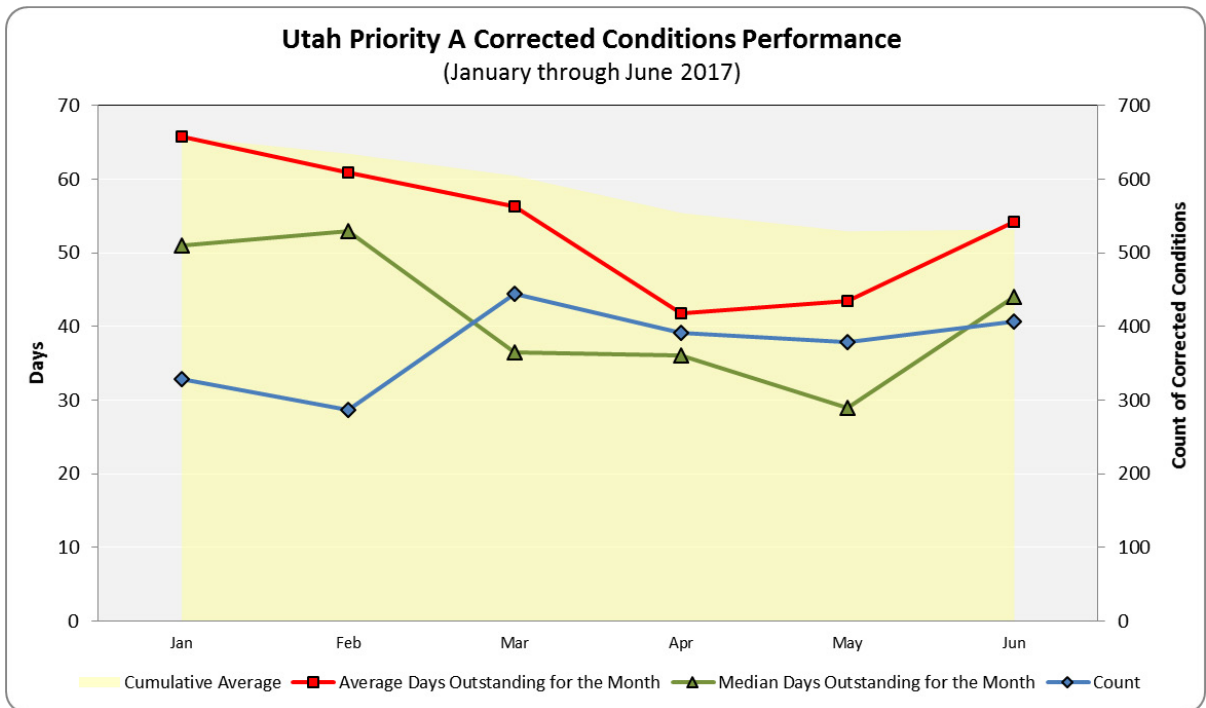


¹⁴ Maintenance spending reflected does not include Vegetation Management and Fault Locating costs, which when reporting under FERC accounting methodology, FERC has traditionally considered maintenance.

¹⁵ The Utah distribution maintenance total plan of \$63.8m is overstated by \$6.4m due to a misplaced system allocated entry in the plan. The Utah distribution maintenance plan should be \$57.4m. The overall PacifiCorp plan is correct as actual expenses for the misplaced plan item will be incurred in the correct department for which no plan exists.

3.3 Distribution Priority "A" Conditions Correction History

The Company reports history of A priority corrections. This reporting element dates back to Docket-04-035-070, which expired on December 31, 2011. In this commitment the Company was required to correct distribution A priority conditions on average within 120 days. After the commitment expired, stakeholders requested the Company continue to report the information, believing it to be a useful indicator of work delivered by the Company. As can be seen in the chart below, the company has consistently delivered the average age of priority A conditions well below the 120 day target.



UTAH

January 1 – June 30, 2017

3.3.1 Oldest Outstanding Priority A Conditions in Utah

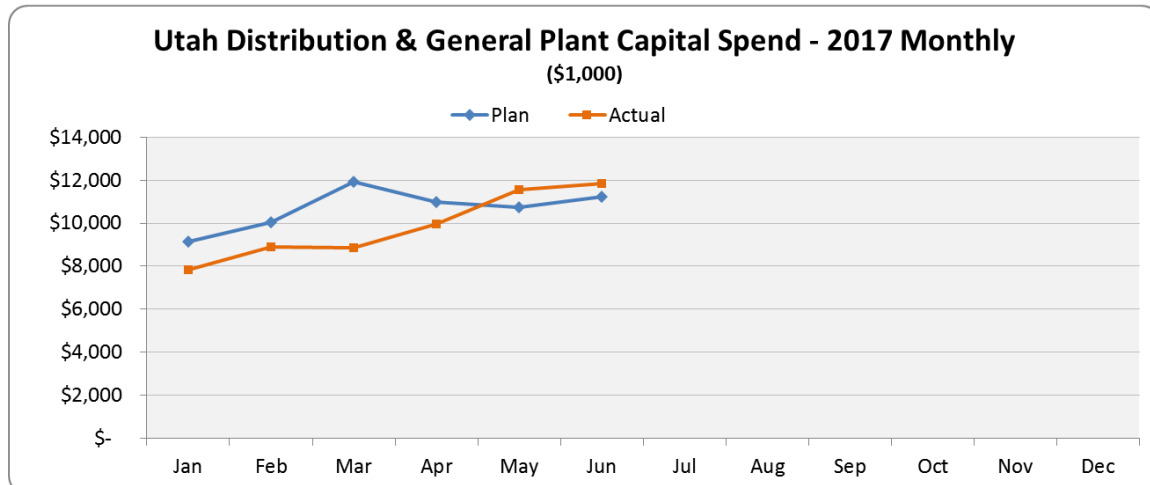
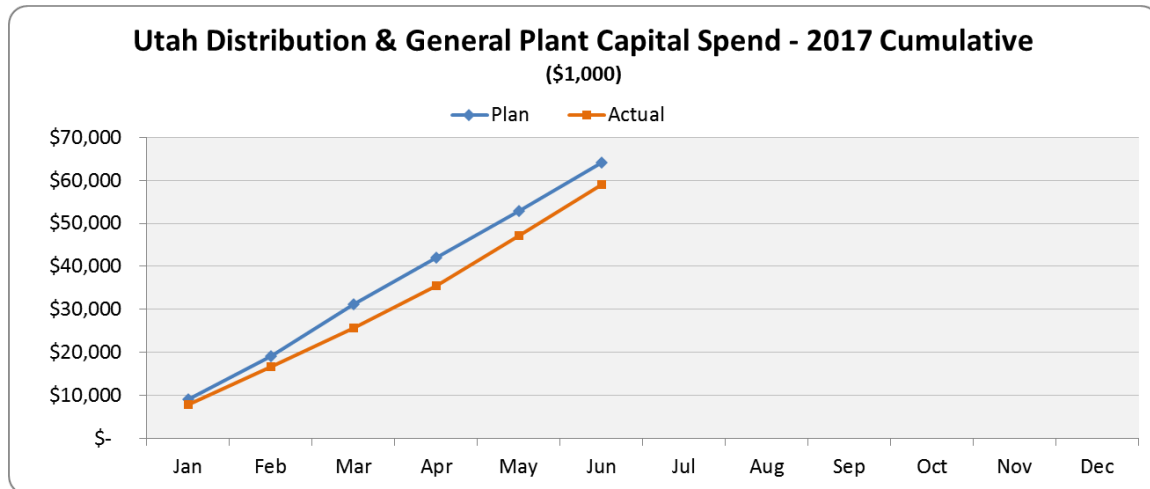
| District | Map string | Facility Point | Condition | Inspection Remarks | Inspection Date | Completion Date | Days to Correct | Circuit | Explanation |
|-----------|------------|----------------|-----------|--|-----------------|-----------------|-----------------|---------|---|
| Ogden | 11206001 | 281009 | BOPOLE | ROTTED POLE | 2/8/2016 | 6/25/2017 | 503 | EBH13 | These two poles were going to be replaced as part of the Weber County Library renovation. It didn't make sense to replace them when they were found, since they'd have to be relocated and replaced as part of the renovation. The poles were relocated and replaced as construction progressed on the library renovation. |
| Ogden | 11206001 | 281008 | BOPOLE | ROTTED POLE | 2/8/2016 | 7/17/2017 | 525 | EBH13 | |
| Park City | 11402004 | 221102 | BOPADVLT | DMGD PAD/VLT/ GRND SLEEVE WO 6224286 ___SCH 4/18/17 CC | 7/6/2016 | 7/10/2017 | 369 | JUD14 | The jobs needed to be drawn up by an estimator before they could be worked. By the time they were identified and drawn up, it was winter and the facility points were inaccessible. The winter load on the circuit had increased making switching unfeasible. Park City's electric load peaks in the wintertime. They had to wait until summertime for the load to drop enough that the switching could be performed. Once the switching took place, they replaced the equipment. |
| Park City | 11402004 | 271912 | BOPADVLT | RUSTY HOLES__WO 6235953 ___SCH 4/18/17 | 7/12/2016 | 7/12/2017 | 365 | JUD14 | |
| Park City | 11402004 | 221100 | BOXFRMR | XFRMR LKG OIL/ WO 6224283 SCH 02-15-2017 | 7/12/2016 | 7/13/2017 | 366 | JUD14 | |

4 CAPITAL INVESTMENT

4.1 Capital Spending - Distribution and General Plant

January – June 2017

| Investment | Actual (\$M) | Plan (\$M) | Significant Variances |
|-------------------------|---------------|---------------|--|
| 1. Mandated | \$6.1 | \$4.2 | Mandated road relocations over plan, (+\$1.5M). |
| 2. New Connect | \$21.2 | \$22.0 | Street lights/other new revenue connections under plan, (-\$0.5M). |
| 3. System Reinforcement | \$9.5 | \$10.6 | Feeder and substation reinforcement under plan, (-\$3.2M); Subtransmission reinforcement over plan, (+\$2.1M). |
| 4. Replacement | \$19.0 | \$24.0 | Replacements for microwave/fiber communications, underground cable, overhead distribution poles, and storm & casualty under plan, (-\$3.9M). |
| 5. Upgrade & Modernize | \$3.1 | \$3.3 | |
| Total | \$58.9 | \$64.1 | |

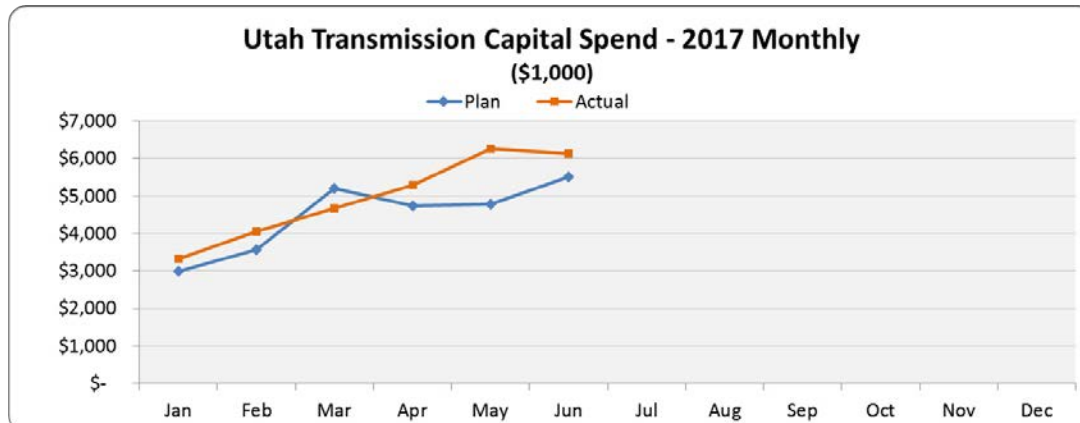
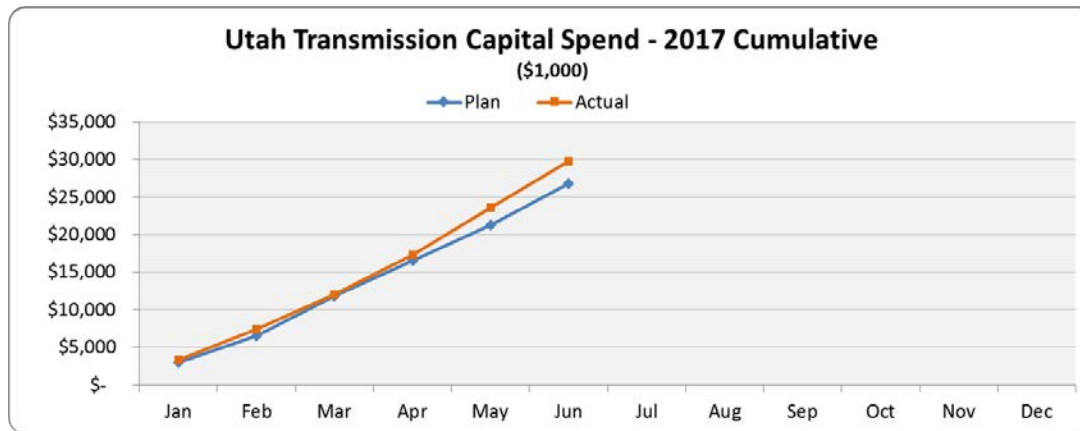


* Actual costs shown are expenditure values, not plant placed in service (PPIS) values. Actual expenditures are not directly tied to PPIS values.

4.2 Capital Spending – Transmission/Interconnections

January – June 2017

| Investment | Actual (\$M) | Plan (\$M) | Significant Variances |
|--|--------------|-------------|--|
| 1. Mandated | 2.1 | 3.2 | Mandated NERC reliability under plan, (-\$1.3M); mandated environmental/avian protection over plan, (+\$0.6M). |
| 2. New Connect | (0.0) | 0.3 | |
| 3. Local Transmission System Reinforcements | 7.8 | 5.9 | Subtransmission and feeder reinforcement over plan, (+\$1.9M). |
| **4. Main Grid Reinforcements/Interconnections | 10.3 | 10.0 | Purgatory Flat New 138kV (-\$1.2M) under plan; OTP115 UAMPS Lehi City 6th POD (+\$0.8M), and Syracuse 2nd Transformer (+\$0.7M) over plan. |
| **5. Energy Gateway Transmission | 0.9 | 0.9 | |
| 6. Replacement | 8.4 | 6.3 | Replacements for substation transformers under plan, (-\$0.6M); replacements for substation switchgear/breakers/reclosers, overhead transmission poles, and storm & casualty over plan, (+\$2.8M). |
| 7. Upgrade & Modernize | 0.4 | 0.3 | |
| Total | 29.7 | 26.8 | |



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

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

4.3 New Connects

| | 2016 | 2017 | | | | | | | | | | | |
|---------------------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------|----------|--------------|
| | Jan - Dec 2016 | Jan | Feb | Mar | Q1 Total | Apr | May | Jun | Q2 Total | Jan - Jun 2017 | Q3 Total | Q4 Total | YEAR TO DATE |
| Residential | | | | | | | | | | | | | |
| UT South | 910 | 53 | 44 | 69 | 166 | 68 | 95 | 81 | 244 | 410 | | | 410 |
| UT North/Metro | 4,775 | 421 | 301 | 804 | 1,526 | 321 | 360 | 527 | 1,208 | 2,734 | | | 2,734 |
| UT Central | 9,364 | 961 | 728 | 810 | 2,499 | 780 | 839 | 642 | 2,261 | 4,760 | | | 4,760 |
| Total Residential | 15,049 | 1,435 | 1,073 | 1,683 | 4,191 | 1,169 | 1,294 | 1,250 | 3,713 | 7,904 | | | 7,904 |
| Commercial | | | | | | | | | | | | | |
| UT South | 273 | 11 | 22 | 12 | 45 | 9 | 18 | 29 | 56 | 101 | | | 101 |
| UT North/Metro | 669 | 58 | 56 | 39 | 153 | 69 | 69 | 59 | 197 | 350 | | | 350 |
| UT Central | 814 | 56 | 55 | 47 | 158 | 54 | 63 | 101 | 218 | 376 | | | 376 |
| Total Commercial | 1,756 | 125 | 133 | 98 | 356 | 132 | 150 | 189 | 471 | 827 | | | 827 |
| Industrial | | | | | | | | | | | | | |
| UT South | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 |
| UT North/Metro | 2 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 1 | 3 | | | 3 |
| UT Central | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 |
| Total Industrial | 6 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 1 | 3 | | | 3 |
| Irrigation | | | | | | | | | | | | | |
| UT South | 58 | 0 | 1 | 4 | 5 | 7 | 11 | 5 | 23 | 28 | | | 28 |
| UT North/Metro | 5 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 3 | | | 3 |
| UT Central | 8 | 0 | 0 | 0 | 0 | 2 | 1 | 5 | 8 | 8 | | | 8 |
| Total Irrigation | 71 | 1 | 1 | 4 | 6 | 10 | 12 | 11 | 33 | 39 | | | 39 |
| Total New Connects | | | | | | | | | | | | | |
| UT South | 1,242 | 64 | 67 | 85 | 216 | 84 | 124 | 115 | 323 | 539 | | | 539 |
| UT North/Metro | 5,451 | 481 | 358 | 843 | 1,682 | 391 | 429 | 588 | 1,408 | 3,090 | | | 3,090 |
| UT Central | 10,189 | 1,017 | 783 | 857 | 2,657 | 836 | 903 | 748 | 2,487 | 5,144 | | | 5,144 |
| TOTAL New Connects | 16,882 | 1,562 | 1,208 | 1,785 | 4,555 | 1,311 | 1,456 | 1,451 | 4,218 | 8,773 | | | 8,773 |

Utah South region includes Moab, Price, Cedar City and Richfield

Utah North/Metro region includes SLC Metro, Ogden and Layton

Utah Central region included American Fork, Vernal, Toole, Jordan Valley and Park City

Region areas a subject to change for operational purposes and may differ from historical reporting

Laketown and Smithfield new connects are excluded, as a result of an old coding system that places them under ID/ WY WEST and not Utah.

New connects report reflects the volume of all new connections in the system in the reporting period, which does not include temporary connections, that are subsequently removed in the future periods; it is not necessarily an auditable count of new permanent connection for the reporting period.

UTAH

January 1 – June 30, 2017

5 VEGETATION MANAGEMENT

5.1 Production

UTAH
Tree Program Reporting
January 1, 2017 through June 30, 2017
Distribution

| | Total | Calendar Year Reporting | | | | Cycle Reporting | | | |
|---------------|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| | 3 Year Program/ Total Line Miles | 1/1/2017-6/30/2017 Miles Planned | 1/1/2017-6/30/2017 Actual Miles | 1/1/2017-6/30/2017 Ahead/Behind | 1/1/2017-6/30/2017 % on Schedule | 1/1/2017-12/31/2019 Miles Planned | 1/1/2017-12/31/2019 Actual Miles | 1/1/2017-12/31/2019 Ahead/Behind | 1/1/2017-12/31/2019 % on Schedule |
| | <i>column a</i> | <i>column b</i> | <i>column c</i> | <i>column d</i> | <i>column e</i> | <i>column f</i> | <i>column g</i> | <i>column h</i> | <i>column i</i> |
| UTAH | 11,009 | 1,908 | 2,152 | 244 | 113% | 1,908 | 2,152 | 244 | 113% |
| AMERICAN FORK | 824 | 64 | 110 | 46 | 172% | 64 | 110 | 46 | 172% |
| CEDAR CITY | 1,373 | 516 | 463 | -53 | 90% | 516 | 463 | -53 | 90% |
| JORDAN VALLEY | 769 | 173 | 109 | -64 | 63% | 173 | 109 | -64 | 63% |
| LAYTON | 284 | 34 | 0 | -34 | 0% | 34 | 0 | -34 | 0% |
| MOAB | 976 | 0 | 50 | 50 | Above Plan | 0 | 50 | 50 | Above Plan |
| OGDEN | 885 | 45 | 153 | 108 | 340% | 45 | 153 | 108 | 340% |
| PARK CITY | 538 | 0 | 88 | 88 | Above Plan | 0 | 88 | 88 | Above Plan |
| PRICE | 589 | 189 | 150 | -39 | 79% | 189 | 150 | -39 | 79% |
| RICHFIELD | 1,340 | 183 | 151 | -32 | 83% | 183 | 151 | -32 | 83% |
| SL METRO | 1,206 | 239 | 358 | 119 | 150% | 239 | 358 | 119 | 150% |
| SMITHFIELD | 762 | 118 | 131 | 13 | 111% | 118 | 131 | 13 | 111% |
| TOOELE | 481 | 44 | 0 | -44 | 0% | 44 | 0 | -44 | 0% |
| TREMONTON | 732 | 228 | 329 | 101 | 144% | 228 | 329 | 101 | 144% |
| VERNAL | 250 | 75 | 60 | -15 | 80% | 75 | 60 | -15 | 80% |

| | |
|------------------------------|----------|
| Distribution cycle \$/tree: | \$111.97 |
| Distribution cycle \$/mile: | \$2,612 |
| Distribution cycle removal % | 14% |

Transmission

| Total Line Miles | Line Miles Scheduled | Line Miles Worked | Miles Ahead/Behind Schedule | Miles on Schedule | % of miles on Schedule |
|------------------|----------------------|-------------------|-----------------------------|-------------------|------------------------|
| 6,629 | 428 | 236 | -192 | 6,437 | 97% |

Transmission \$/mile: \$3,451

Current distribution cycle began January 1, 2017 and extends until December 31, 2019.

Notes:

Column a: Total overhead distribution pole miles by district

Column b: Total overhead distribution pole miles planned for the period January 1, 2017 through June 30, 2017

Column c: Actual overhead distribution pole miles worked during the period January 1, 2017 through June 30, 2017

Column d: Miles ahead or behind for the period January 1, 2017 through June 30, 2017 (column c-column b)

Column e: Percent of actual compared to planned for the period January 1, 2017 through June 30, 2017 ((column c÷b)×100)

Column f: Total overhead distribution pole miles planned for the period January 1, 2017 through December 31, 2019

Column g: Actual overhead distribution pole miles worked during the period January 1 2017 through December 31, 2019

Column h: Miles ahead or behind for the period January 1, 2017 through December 31, 2019 (column g-column f)

Column i: Percent of actual compared to planned for the period January 1, 2017 through December 31, 2019 ((column g÷f)×100). Max = 100%

UTAH

January 1 – June 30, 2017

5.2 Budget

UTAH

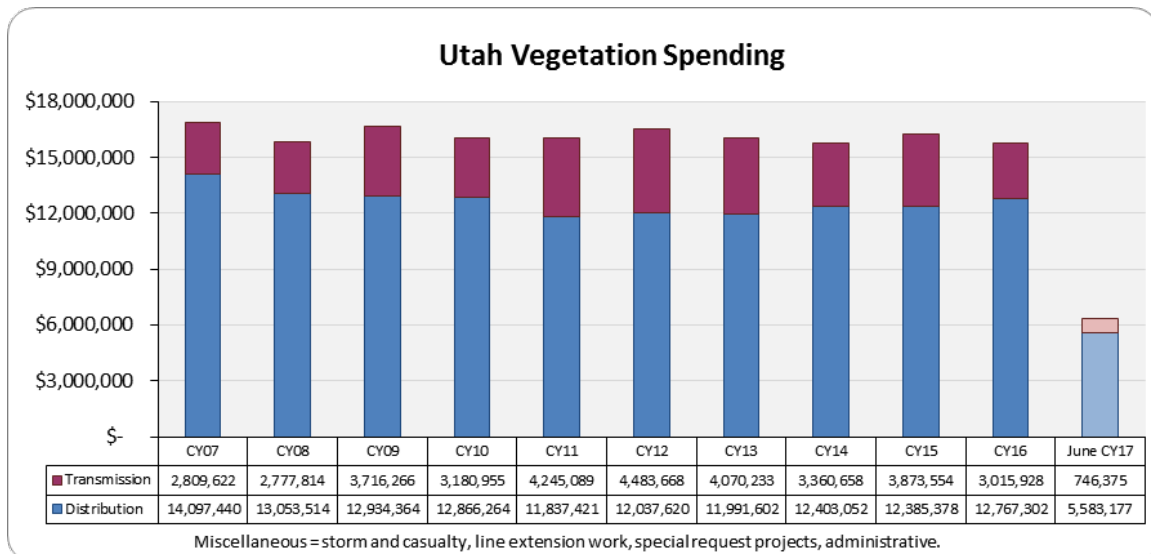
Tree Program Reporting

| | CY2017 | CY2018 | CY2019 |
|-------------------|--------------|--------------|--------------|
| Distribution | \$11,400,000 | \$11,400,000 | \$11,400,000 |
| Transmission | \$3,760,000 | \$3,760,000 | \$3,760,000 |
| Total Tree Budget | \$15,160,000 | \$15,160,000 | \$15,160,000 |

| Calendar year 2017 | Distribution | | | Transmission | | |
|-----------------------|--------------------|--------------------|-------------------|------------------|--------------------|---------------------|
| | Actuals | Budget | Variance | Actuals | Budget | Variance |
| Jan | \$572,296 | \$950,000 | -\$377,704 | \$96,589 | \$313,333 | -\$216,744 |
| Feb | \$1,297,670 | \$950,000 | \$347,670 | \$127,197 | \$313,333 | -\$186,136 |
| Mar | \$878,938 | \$950,000 | -\$71,062 | \$105,170 | \$313,333 | -\$208,163 |
| Apr | \$942,334 | \$950,000 | -\$7,666 | \$62,453 | \$313,333 | -\$250,880 |
| May | \$880,929 | \$950,000 | -\$69,071 | \$104,136 | \$313,333 | -\$209,197 |
| Jun | \$1,011,010 | \$950,000 | \$61,010 | \$250,830 | \$313,333 | -\$62,503 |
| Jul | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Aug | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Sep | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Oct | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Nov | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Dec | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$5,583,177 | \$5,700,000 | -\$116,823 | \$746,375 | \$1,879,998 | -\$1,133,623 |

Average # Tree Crews on Property (YTD) 52

5.2.1 Vegetation Historical Spending



6 Appendix

6.1 Reliability Definitions

Interruption Types

Below are the definitions for interruption events. For further details, refer to IEEE 1366-2003¹⁶ 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 a given 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

In order 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 time-frame. 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).

¹⁶ 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.

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 time-frame. It is calculated by counting all momentary operations which occur within a 5 minute time period, as long as the 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:

$$\text{CPI} = \text{Index} * ((\text{SAIDI} * \text{WF} * \text{NF}) + (\text{SAIFI} * \text{WF} * \text{NF}) + (\text{MAIFI}_E * \text{WF} * \text{NF}) + (\text{Lockouts} * \text{WF} * \text{NF}))$$

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, $10.645 * ((3\text{-year SAIDI} * 0.30 * 0.029) + (3\text{-year SAIFI} * 0.30 * 2.439) + (3\text{-year MAIFI}_E * 0.20 * 0.70) + (3\text{-year breaker lockouts} * 0.20 * 2.00)) = \text{CPI Score}$

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 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 |
|----------------|----------------|--------------------|--------------------------|
| 1/1-12/31/2016 | 876,438 | 6.06 | 5,312,799 |
| 1/1-12/31/2017 | 897,258 | 5.74 | 5,152,204 |

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 situation.

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. 17-035-53

I hereby certify that on September 27, 2017, a true and correct copy of the foregoing was served by electronic mail to the following:

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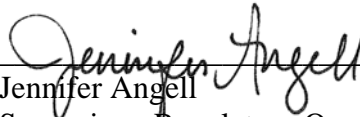
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