ROCKY MOUNTAIN POWER
A DIVISION OF PACIFICORP

# UTAH
# SERVICE QUALITY
# REVIEW

**January 1 – June 30, 2016**
**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 recently-adopted state rules.

# 1 Service Standards Program Summary[1]

## 1.1 Rocky Mountain Power Customer Guarantees

| | |
|---|---|
| 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. |

*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 Regulations 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 Standards[1]

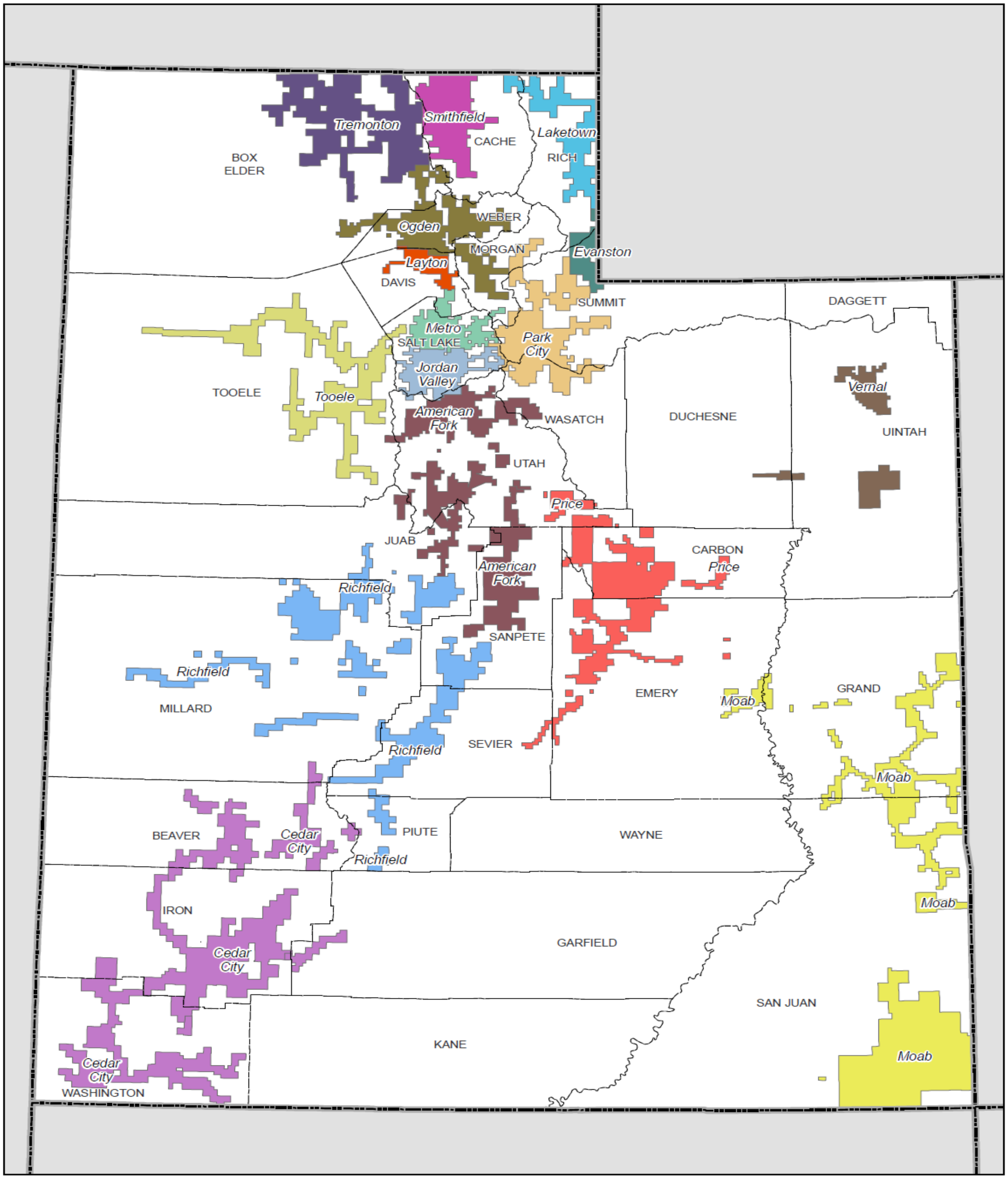
| | |
|---|---|
| *Network Performance Standard 1: Improve System Average Interruption Duration Index (SAIDI) | Utah Commission adopted baselines recognizing 365-day rolling (rather than calendar) performance levels of between 152-201 minutes. |
| *Network Performance Standard 2: Improve System Average Interruption Frequency Index (SAIFI) | Utah Commission adopted baselines recognizing 365-day rolling (rather than calendar) performance levels of between 1.3-1.9 events. |
| Network Performance Standard 3: Improve Under Performing Circuits | The Company will reduce by 20% the circuit performance indicator (CPI) for a maximum of five underperforming circuits on an annual basis within five years after selection. |
| *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.

In 2012, rules were codified in Utah Regulations 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.

## 1.3 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 experienced underlying interruption duration (SAIDI) and interruption frequency (SAIFI) performance in Utah that was favorable to target. Results for the underlying performance can be seen in subsections 2.1 and 2.2 below, where the Company's 2015 underlying reliability results fall within 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 explored 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 were three major events[2] (all of which have been accepted as a major event by the Utah Commission upon recommendation of the Utah Division of Public Utilities) and two significant event days[3] recorded.

**Major Event Descriptions**

| Major Events | | |
|---|---|---|
| **Date** | **Cause** | **SAIDI** |
| **February 18-19, 2016** | Storm | 9.65 |
| **April 30 – May 1, 2016** | Wind storm | 36.86 |
| **May 19-20, 2016** | Lightning Storm | 11.29 |
| | **Total** | **57.80** |

- **February 18-19, 2016**
  Utah experienced a severe windstorm which heavily impacted areas in and around the Salt Lake City Valley with high winds, wet snow and lightning. First, winds gusting above 75 mph blew through the Salt Lake Valley, uprooting trees and launching windborne debris. Thereafter snow followed, impacting travel and loading electrical lines with snow. This major event filing was accepted by the Utah Commission on 5/13/16 in Docket 16-035-13.
- **April 30 - May 1, 2016**
  On the evening of, April 30, 2016, a strong easterly down-sloping wind began severely impacting facilities in Weber and Davis Counties. High winds continued through the next day with gusts reported as high as 91 mph. Wind and tree-related outages broke poles and ripped equipment and mounting hardware. This major event filing was accepted by the Utah Commission on 7/11/16 in Docket 16-035-24.
- **May 19-20, 2016**
  On May 19, 2016, a lightning storm made its way across the northern portion of Utah. The storm brought wind and lightning to the area causing large scale outages to the distribution and transmission network. Transmission feeds were heavily impacted when lightning destroyed static lines which then dropped into transmission lines, causing several circuit breakers to trip and de-energize. As several transmission feeds were lost, loading levels on alternate sources increased, causing those sources to overload and de-energize consistent with reliability standards requirements. This major event filing was accepted by the Utah Commission on 8/16/16 in Docket 16-035-31.

[2] Major event threshold 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 |

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

**Significant Events**

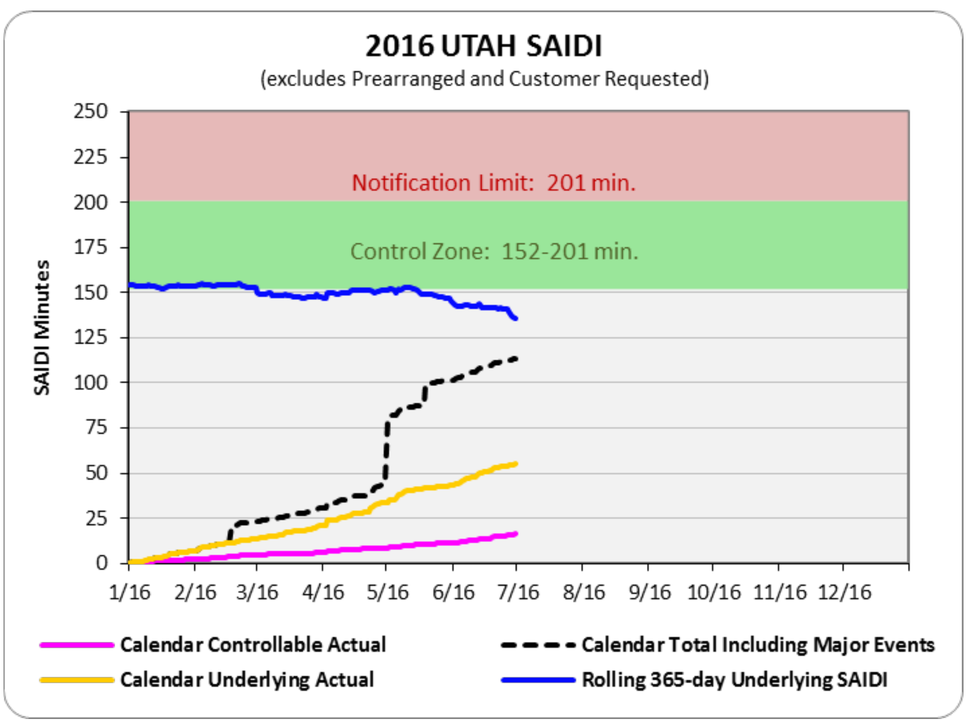
Significant event days add substantially to year on year cumulative performance results; fewer significant event days generally result in better reliability for the reporting period, while more significant event days generally mean poorer reliability results. During the reporting period two significant event days were recorded, which account for 5.5 SAIDI minutes; about 10% of the reporting period's underlying 55.5 SAIDI minutes. These significant events were triggered by weather impacts and loss of supply outages.

| Significant Event Days | | | | | |
|---|---|---|---|---|---|
| **Dates** | **Cause: General Description** | **SAIDI** | **SAIFI** | **% Underlying SAIDI** | **% Underlying SAIFI** |
| April 3, 2016 | Wind and Lightning in Salt Lake City Metro area | 2.8 | 0.031 | 5% | 7% |
| May 6, 2016 | Loss of substation in American Fork. | 2.6 | 0.015 | 5% | 3% |
| | **TOTAL** | **5.5** | **0.047** | **10%** | **10%** |

## 2.1 System Average Interruption Duration Index (SAIDI)

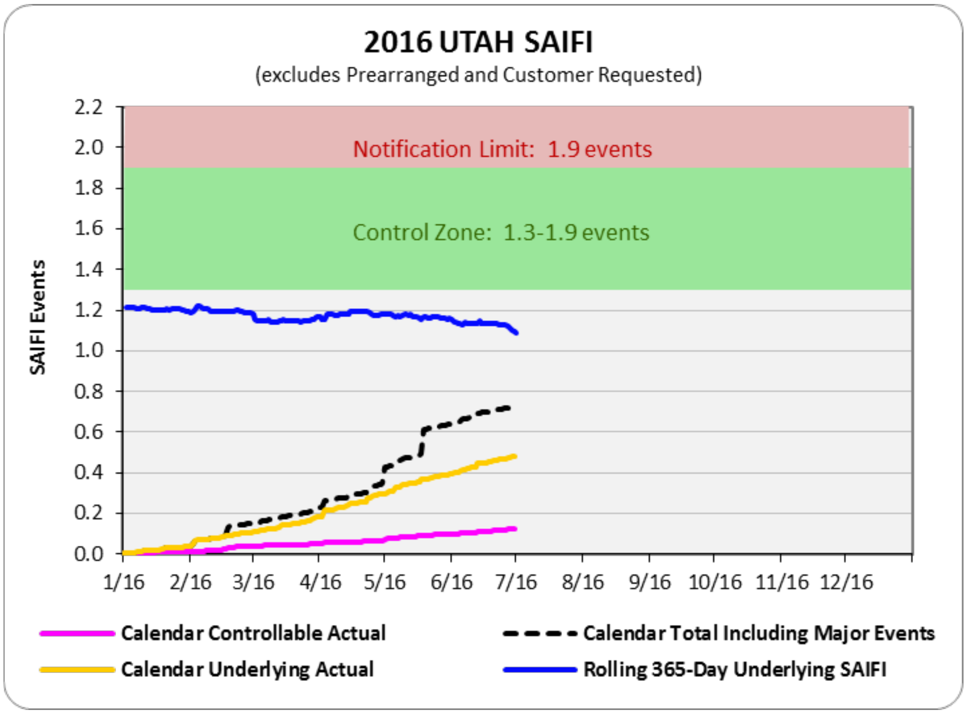
Over time the Company has made system changes to minimize how many customers are affected for any given outage. This approach has resulted in improvements to both outage duration and outage frequency, and has yielded improved performance as delivered to customers, as generally shown in the graphic below and in 2.2.

| SAIDI | Reporting Period |
|---|---|
| **Total** | 113 |
| **Underlying** | 56 |
| **Controllable Distribution** | 16 |



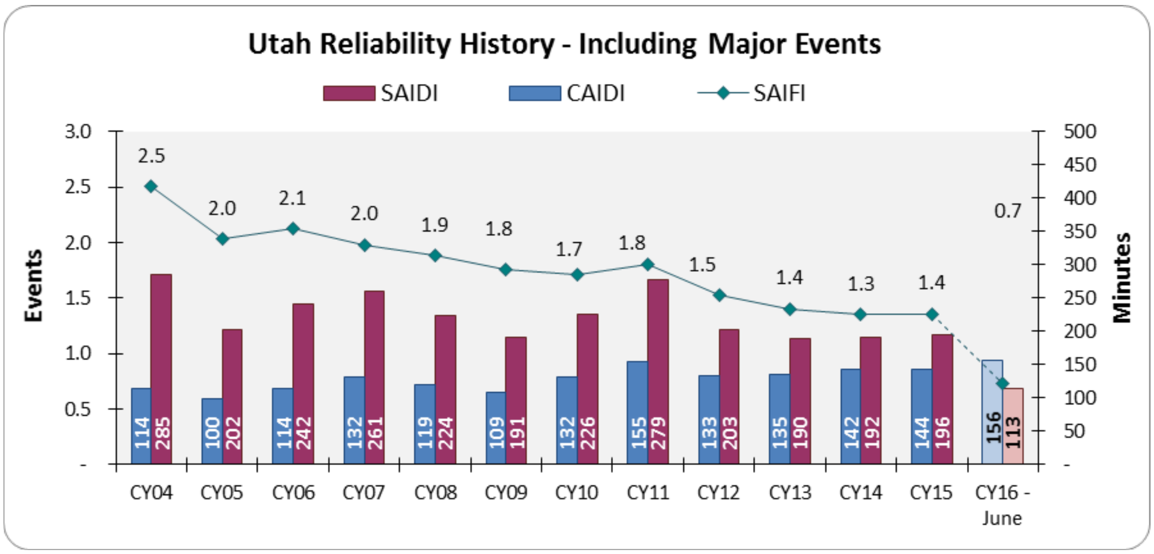
## 2.2 System Average Interruption Frequency Index (SAIFI)

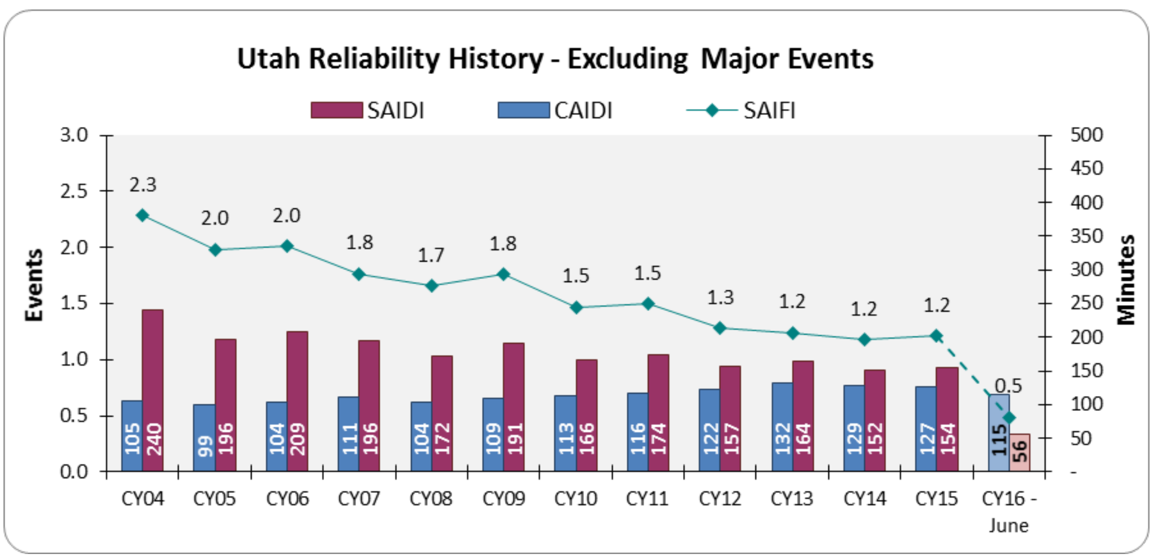
| SAIFI | Reporting Period |
|---|---|
| **Total** | 0.707 |
| **Underlying** | 0.485 |
| **Controllable Distribution** | 0.112 |



## 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. 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.

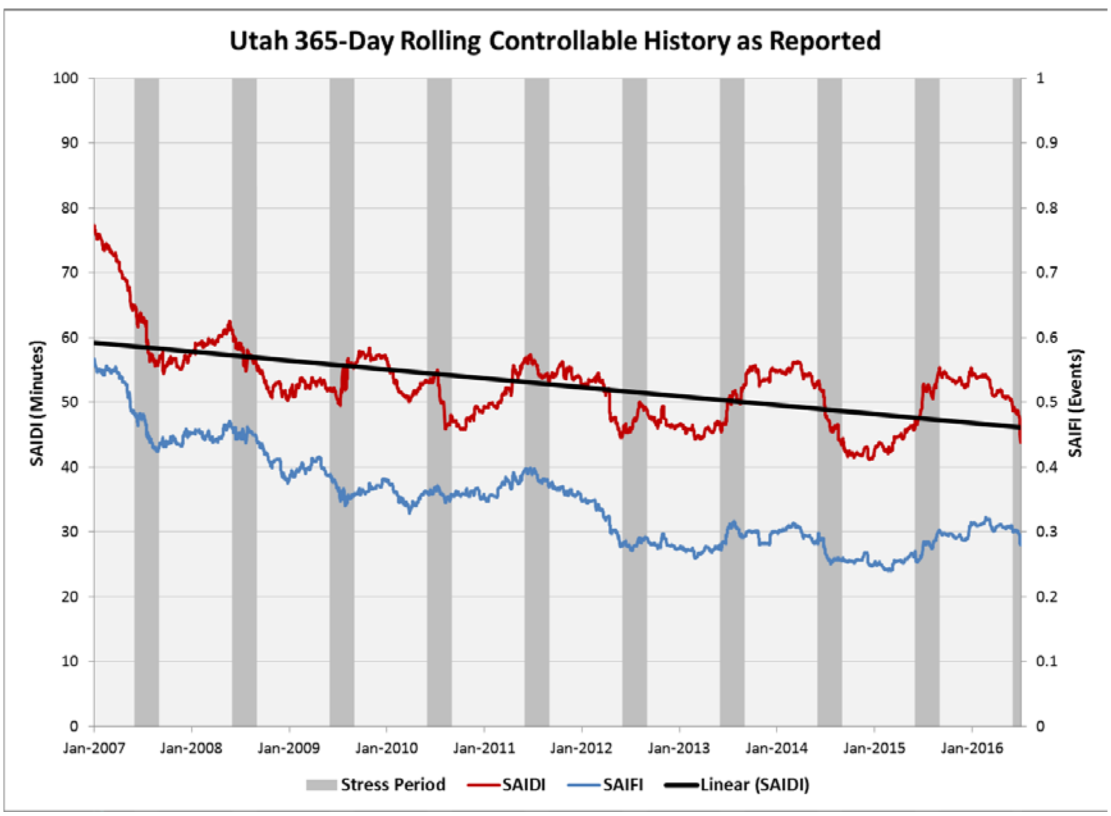


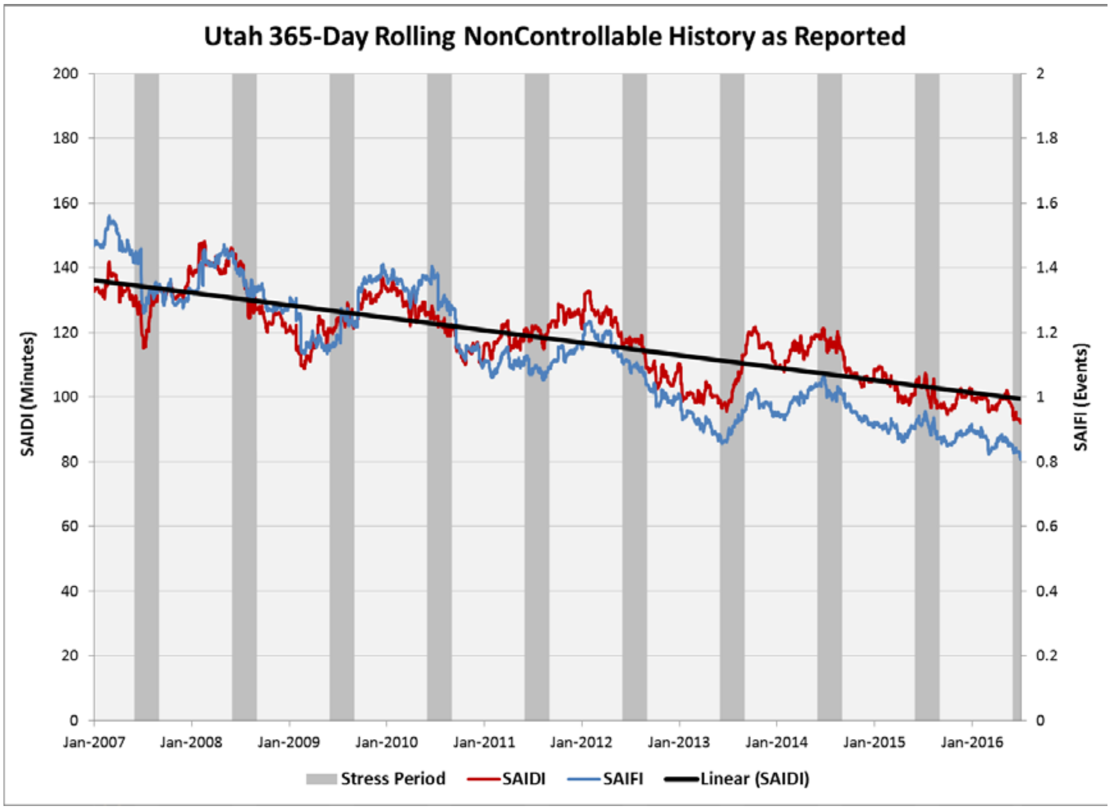
## 2.4 Controllable, Non-Controllable and Underlying Performance Review

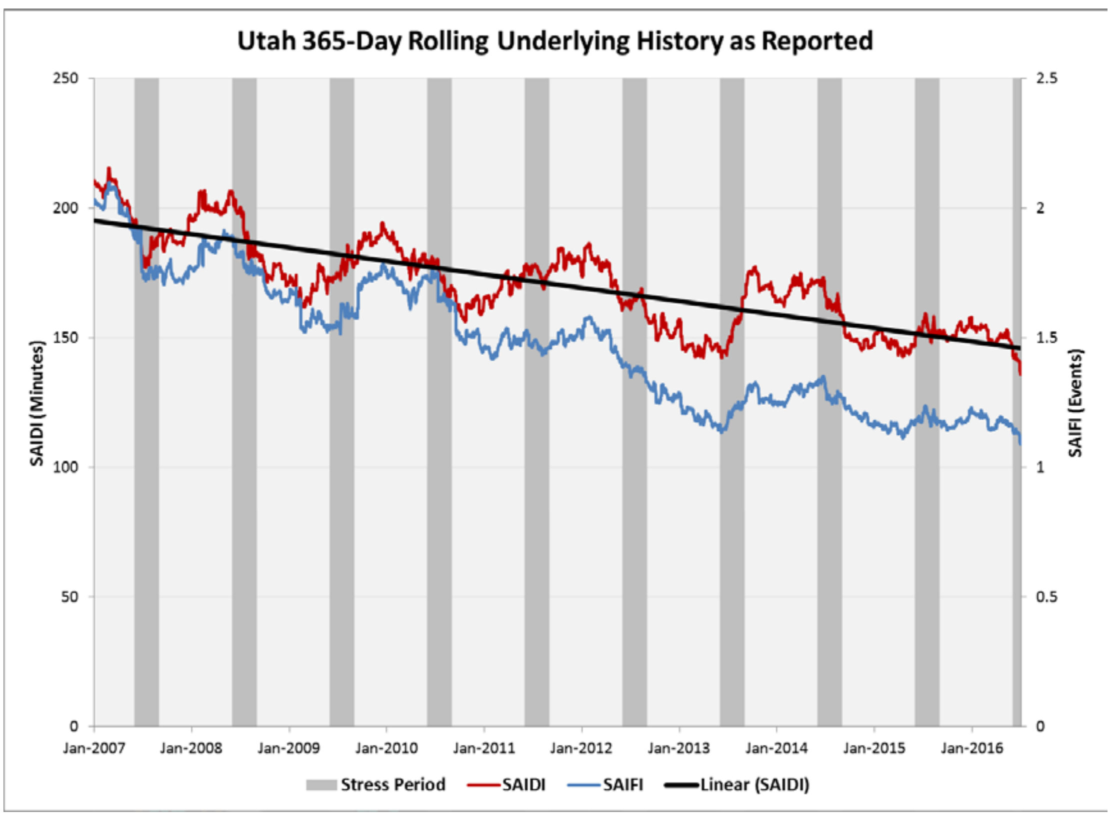
In 2008 the Company introduced a further categorization of outage causes, which it subsequently used to develop improvement programs as developed by engineering resources. This categorization was titled Controllable Distribution outages and recognized that certain types of outages can be cost-effectively 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 outages[4]. 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.




[4] 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.


Utah 365-Day Rolling NonControllable 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
Stress Period
SAIDI
SAIFI
Linear (SAIDI)


Utah 365-Day Rolling Underlying History as Reported
SAIDI (Minutes)
SAIFI (Events)
250
200
150
100
50
0
2.5
2
1.5
1
0.5
0
Jan-2007
Jan-2008
Jan-2009
Jan-2010
Jan-2011
Jan-2012
Jan-2013
Jan-2014
Jan-2015
Jan-2016
Stress Period
SAIDI
SAIFI
Linear (SAIDI)

## 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 SAIDI[5] 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 01/01/2016 - 06/30/2016 | | | | | |
|---|---|---|---|---|---|
| **Direct Cause** | **Customer Minutes Lost for Incident** | **Customers in Incident Sustained** | **Sustained Incident Count** | **SAIDI** | **SAIFI** |
| ANIMALS | 77,707 | 911 | 150 | 0.09 | 0.001 |
| BIRD MORTALITY (NON-PROTECTED SPECIES) | 92,070 | 2,320 | 82 | 0.11 | 0.003 |
| BIRD MORTALITY (PROTECTED SPECIES) (BMTS) | 386,872 | 2,200 | 39 | 0.44 | 0.003 |
| BIRD NEST (BMTS) | 19,741 | 165 | 27 | 0.02 | 0.000 |
| BIRD SUSPECTED, NO MORTALITY | 68,797 | 714 | 52 | 0.08 | 0.001 |
| **ANIMALS** | **645,186** | **6,310** | **350** | **0.74** | **0.007** |
| B/O EQUIPMENT | 1,736,262 | 10,437 | 286 | 1.98 | 0.012 |
| DETERIORATION OR ROTTING | 10,895,425 | 62,174 | 1,447 | 12.43 | 0.071 |
| OVERLOAD | 358,400 | 2,460 | 51 | 0.41 | 0.003 |
| RELAYS, BREAKERS, SWITCHES | 842 | 7 | 12 | 0.00 | 0.000 |
| STRUCTURES, INSULATORS, CONDUCTOR | 2,037 | 3 | 15 | 0.00 | 0.000 |
| **EQUIPMENT FAILURE** | **12,992,967** | **75,081** | **1,811** | **14.82** | **0.086** |
| FAULTY INSTALL | 157 | 2 | 2 | 0.00 | 0.000 |
| IMPROPER PROTECTIVE COORDINATION | 66,606 | 655 | 6 | 0.08 | 0.001 |
| INCORRECT RECORDS | 5,699 | 168 | 10 | 0.01 | 0.000 |
| INTERNAL CONTRACTOR | 242 | 1 | 1 | 0.00 | 0.000 |
| PACIFICORP EMPLOYEE - FIELD | 123,414 | 5,451 | 4 | 0.14 | 0.006 |
| PACIFICORP EMPLOYEE - SUB | 27,049 | 2,110 | 5 | 0.03 | 0.002 |
| **OPERATIONAL** | **223,168** | **8,387** | **28** | **0.25** | **0.010** |
| TREE - TRIMMABLE | 335,882 | 8,891 | 52 | 0.38 | 0.010 |
| **TREES** | **335,882** | **8,891** | **52** | **0.38** | **0.010** |
| **Utah Including Prearranged** | **14,197,203** | **98,669** | **2,241** | **16.20** | **0.113** |

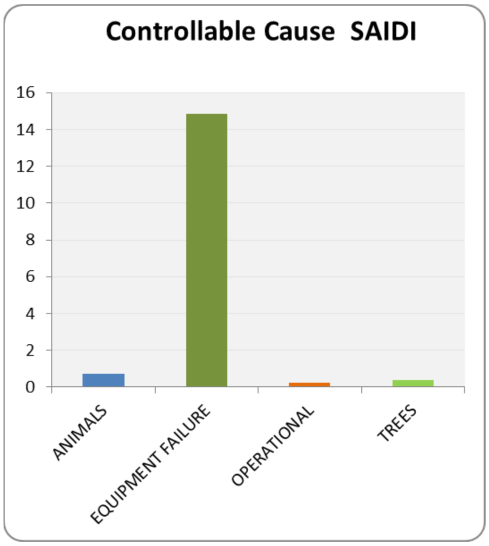
[5] To convert SAIDI (Outage Duration) and SAIFI (Outage Frequency) to Customer Minutes Lost and Sustained Customer Interruptions, respectively, multiply the SAIDI or SAIFI value by 876,438 (2016 Utah frozen customer count).

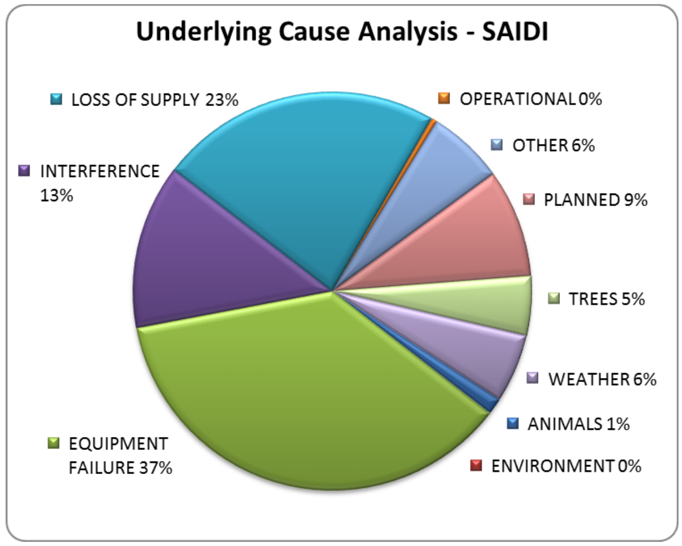
## UTAH

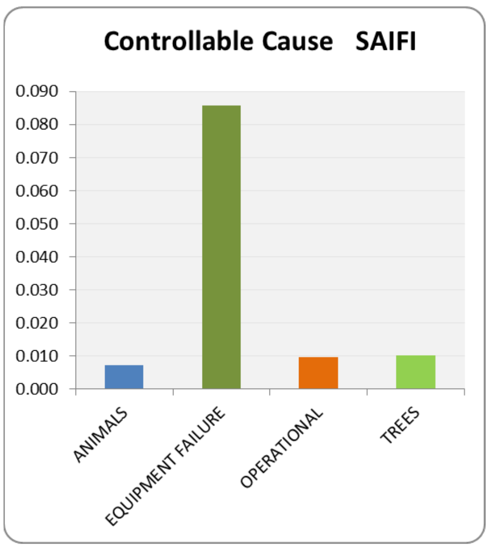
January 1 – June 30, 2016

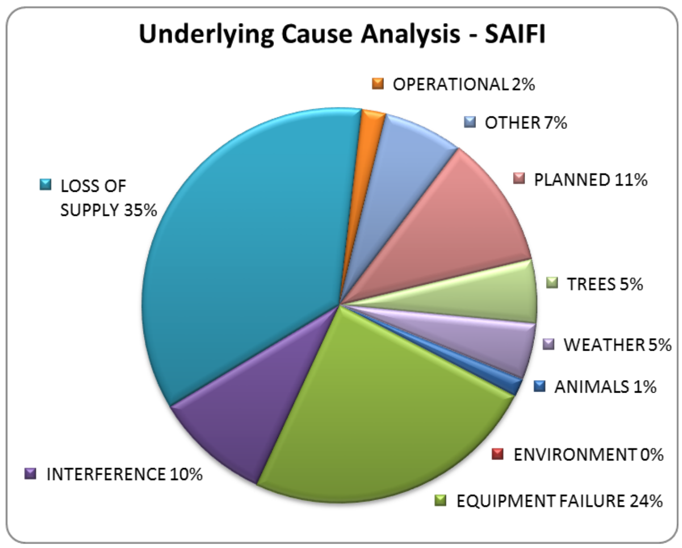
| Utah Cause Analysis - Underlying 01/01/2016 - 06/30/2016 | | | | | |
|---|---|---|---|---|---|
| **Direct Cause** | **Customer Minutes Lost for Incident** | **Customers in Incident Sustained** | **Sustained Incident Count** | **SAIDI** | **SAIFI** |
| ANIMALS | 77,707 | 911 | 150 | 0.09 | 0.001 |
| BIRD MORTALITY (NON-PROTECTED SPECIES) | 92,070 | 2,320 | 82 | 0.11 | 0.003 |
| BIRD MORTALITY (PROTECTED SPECIES) (BMTS) | 386,872 | 2,200 | 39 | 0.44 | 0.003 |
| BIRD NEST (BMTS) | 19,741 | 165 | 27 | 0.02 | 0.000 |
| BIRD SUSPECTED, NO MORTALITY | 68,797 | 714 | 52 | 0.08 | 0.001 |
| **ANIMALS** | **645,186** | **6,310** | **350** | **0.74** | **0.007** |
| CONDENSATION / MOISTURE | 2,623 | 12 | 4 | 0.00 | 0.000 |
| CONTAMINATION | 494 | 3 | 1 | 0.00 | 0.000 |
| FIRE/SMOKE (NOT DUE TO FAULTS) | 6,912 | 35 | 10 | 0.01 | 0.000 |
| FLOODING | 1,075 | 9 | 3 | 0.00 | 0.000 |
| **ENVIRONMENT** | **11,104** | **59** | **18** | **0.01** | **0.000** |
| B/O EQUIPMENT | 1,736,262 | 10,437 | 286 | 1.98 | 0.012 |
| DETERIORATION OR ROTTING | 10,895,425 | 62,174 | 1,447 | 12.43 | 0.071 |
| NEARBY FAULT | 12,910 | 339 | 3 | 0.01 | 0.000 |
| OVERLOAD | 358,400 | 2,460 | 51 | 0.41 | 0.003 |
| POLE FIRE | 4,764,310 | 27,713 | 125 | 5.44 | 0.032 |
| RELAYS, BREAKERS, SWITCHES | 842 | 7 | 12 | 0.00 | 0.000 |
| STRUCTURES, INSULATORS, CONDUCTOR | 2,037 | 3 | 15 | 0.00 | 0.000 |
| **EQUIPMENT FAILURE** | **17,770,187** | **103,133** | **1,939** | **20.28** | **0.118** |
| DIG-IN (NON-PACIFICORP PERSONNEL) | 1,372,532 | 9,020 | 99 | 1.57 | 0.010 |
| OTHER INTERFERING OBJECT | 315,796 | 4,004 | 46 | 0.36 | 0.005 |
| OTHER UTILITY/CONTRACTOR | 86,877 | 979 | 24 | 0.10 | 0.001 |
| VANDALISM OR THEFT | 1,147 | 6 | 4 | 0.00 | 0.000 |
| VEHICLE ACCIDENT | 4,730,159 | 26,418 | 165 | 5.40 | 0.030 |
| **INTERFERENCE** | **6,506,511** | **40,427** | **338** | **7.42** | **0.046** |
| FAILURE ON OTHER LINE OR STATION | 444 | 2 | 2 | 0.00 | 0.000 |
| LOSS OF FEED FROM SUPPLIER | 955 | 8 | 1 | 0.00 | 0.000 |
| LOSS OF SUBSTATION | 6,492,901 | 71,848 | 82 | 7.41 | 0.082 |
| LOSS OF TRANSMISSION LINE | 4,661,177 | 78,826 | 189 | 5.32 | 0.090 |
| **LOSS OF SUPPLY** | **11,155,477** | **150,684** | **274** | **12.73** | **0.172** |
| FAULTY INSTALL | 157 | 2 | 2 | 0.00 | 0.000 |
| IMPROPER PROTECTIVE COORDINATION | 66,606 | 655 | 6 | 0.08 | 0.001 |
| INCORRECT RECORDS | 5,699 | 168 | 10 | 0.01 | 0.000 |
| INTERNAL CONTRACTOR | 242 | 1 | 1 | 0.00 | 0.000 |
| PACIFICORP EMPLOYEE - FIELD | 123,414 | 5,451 | 4 | 0.14 | 0.006 |
| PACIFICORP EMPLOYEE - SUB | 27,049 | 2,110 | 5 | 0.03 | 0.002 |
| **OPERATIONAL** | **223,168** | **8,387** | **28** | **0.25** | **0.010** |
| OTHER, KNOWN CAUSE | 67,238 | 978 | 61 | 0.08 | 0.001 |
| UNKNOWN | 2,948,503 | 26,670 | 501 | 3.36 | 0.030 |
| **OTHER** | **3,015,742** | **27,648** | **562** | **3.44** | **0.032** |
| CONSTRUCTION | 123,946 | 1,479 | 104 | 0.14 | 0.002 |
| CUSTOMER NOTICE GIVEN | 9,412,070 | 57,342 | 1,521 | 10.74 | 0.065 |
| CUSTOMER REQUESTED | 15,760 | 74 | 33 | 0.02 | 0.000 |
| EMERGENCY DAMAGE REPAIR | 3,628,750 | 36,497 | 593 | 4.14 | 0.042 |
| ENERGY EMERGENCY INTERRUPTION | 10,907 | 53 | 3 | 0.01 | 0.000 |
| INTENTIONAL TO CLEAR TROUBLE | 343,586 | 6,046 | 44 | 0.39 | 0.007 |
| MAINTENANCE | 557 | 1 | 149 | 0.00 | 0.000 |
| PLANNED NOTICE EXEMPT | 205,064 | 3,937 | 64 | 0.23 | 0.004 |
| TRANSMISSION REQUESTED | 173,771 | 2,290 | 7 | 0.20 | 0.003 |
| **PLANNED** | **13,914,412** | **107,719** | **2,518** | **15.88** | **0.123** |
| TREE - NON-PREVENTABLE | 2,005,081 | 13,496 | 220 | 2.29 | 0.015 |
| TREE - TRIMMABLE | 335,882 | 8,891 | 52 | 0.38 | 0.010 |
| **TREES** | **2,340,963** | **22,387** | **272** | **2.67** | **0.026** |
| FREEZING FOG & FROST | 26 | 1 | 1 | 0.00 | 0.000 |
| ICE | 2,957 | 21 | 5 | 0.00 | 0.000 |
| LIGHTNING | 1,000,678 | 6,246 | 122 | 1.14 | 0.007 |
| SNOW, SLEET AND BLIZZARD | 497,379 | 2,823 | 57 | 0.57 | 0.003 |
| WIND | 1,208,191 | 10,454 | 197 | 1.38 | 0.012 |
| **WEATHER** | **2,709,232** | **19,545** | **382** | **3.09** | **0.022** |
| **Utah Including Prearranged** | **58,291,982** | **486,299** | **6,681** | **66.51** | **0.555** |
| **Utah Excluding Prearranged** | **48,659,088** | **424,946** | **5,063** | **55.52** | **0.485** |

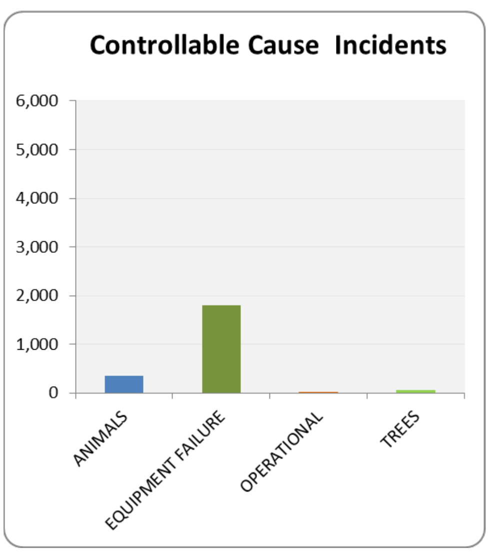
**UTAH** January 1 – June 30, 2016

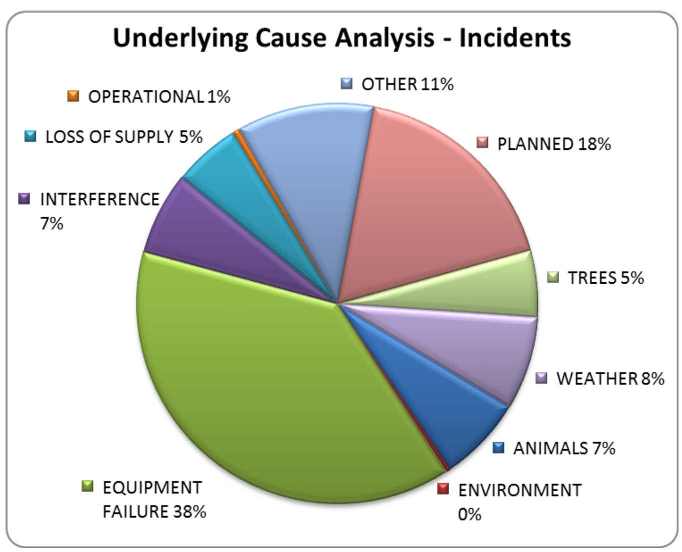


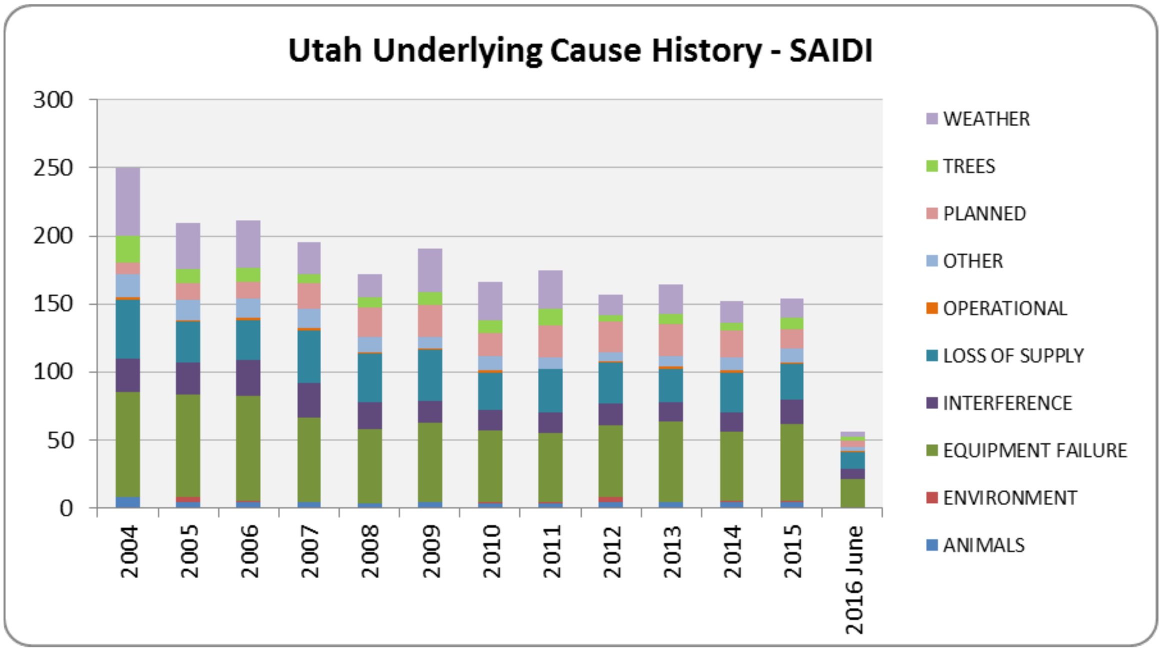



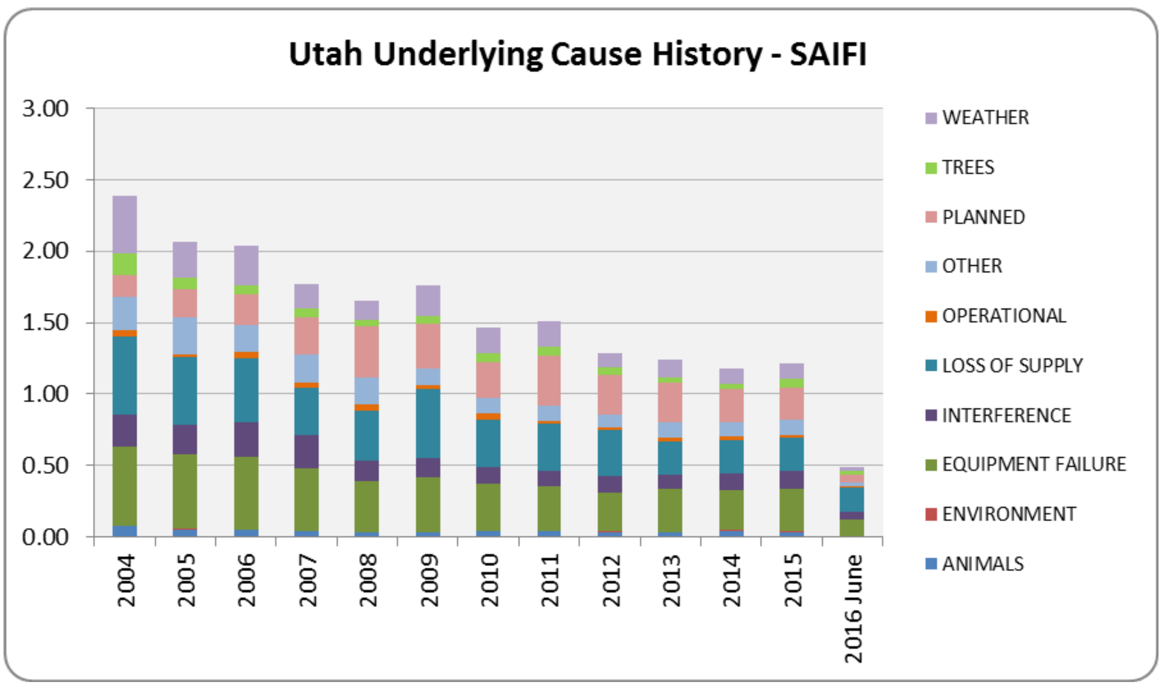




Utah Underlying Cause History - SAIDI
300
250
200
150
100
50
0
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016 June
WEATHER
TREES
PLANNED
OTHER
OPERATIONAL
LOSS OF SUPPLY
INTERFERENCE
EQUIPMENT FAILURE
ENVIRONMENT
ANIMALS


Utah Underlying Cause History - SAIFI
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016 June
WEATHER
TREES
PLANNED
OTHER
OPERATIONAL
LOSS OF SUPPLY
INTERFERENCE
EQUIPMENT FAILURE
ENVIRONMENT
ANIMALS

| 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. |
| | • 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). |
| | • 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). |
| | • 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. |
| | • 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. |
| | • 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. |
| | • 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. |
| | • 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 if notice is given; rolling blackouts. |
| | • Construction<br>• Customer Notice Given<br>• Energy Emergency Interruption<br>• Intentional to Clear Trouble<br>• Emergency Damage Repair<br>• Customer Requested<br>• Transmission Requested |
| **Tree** | Growing or falling trees |
| | • 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. |
| | • Extreme Cold/Heat<br>• Freezing Fog & Frost<br>• Wind<br>• Lightning<br>• Rain<br>• Snow, Sleet, Ice and Blizzard |

## 2.6 Baseline Performance

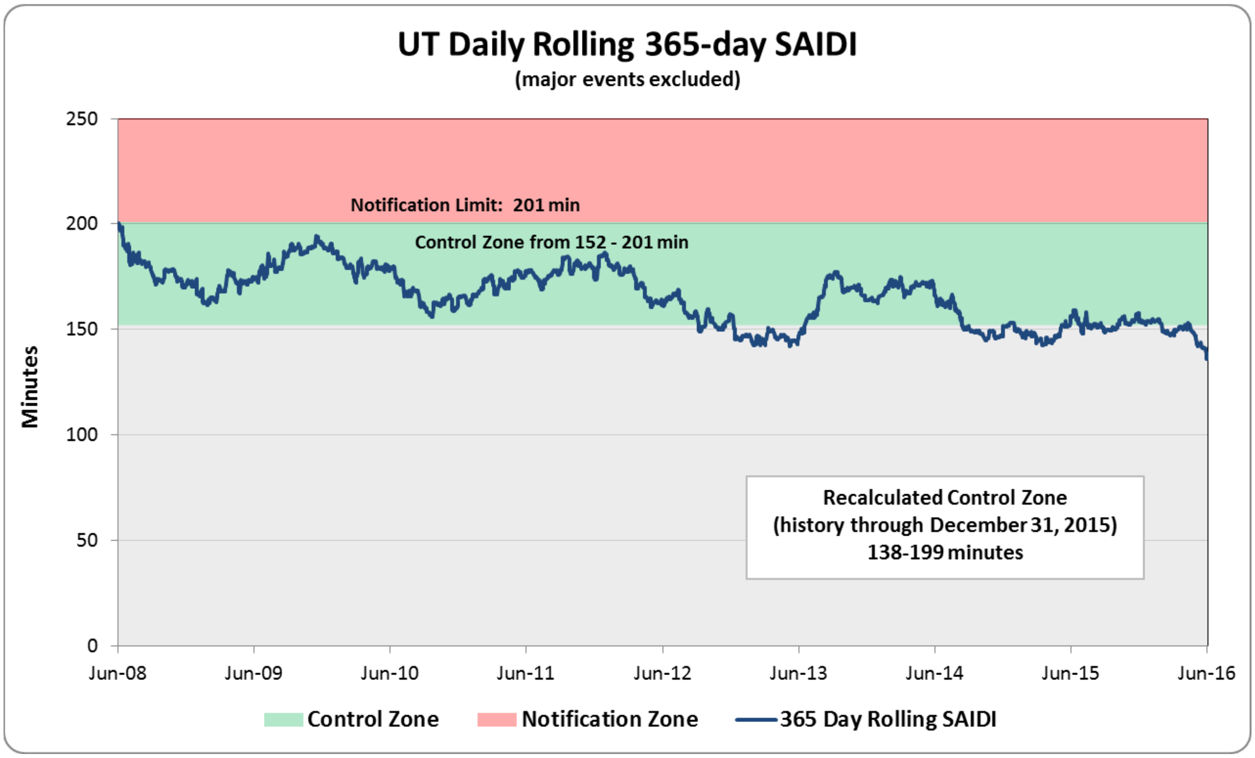
In compliance with Utah Reliability Reporting Rules, the Company developed performance baselines that it subsequently filed for approval (based on 2008-2012 history). These baselines were approved, but stakeholders advocated that periodically refreshing baseline levels would be beneficial. As a result this section of the report is updated using the methods that resulted in the approved baselines; refreshing through December 31, 2015 yields the values shown below. In spite of performing this recalculation the Company is not advocating modifications to these baselines.

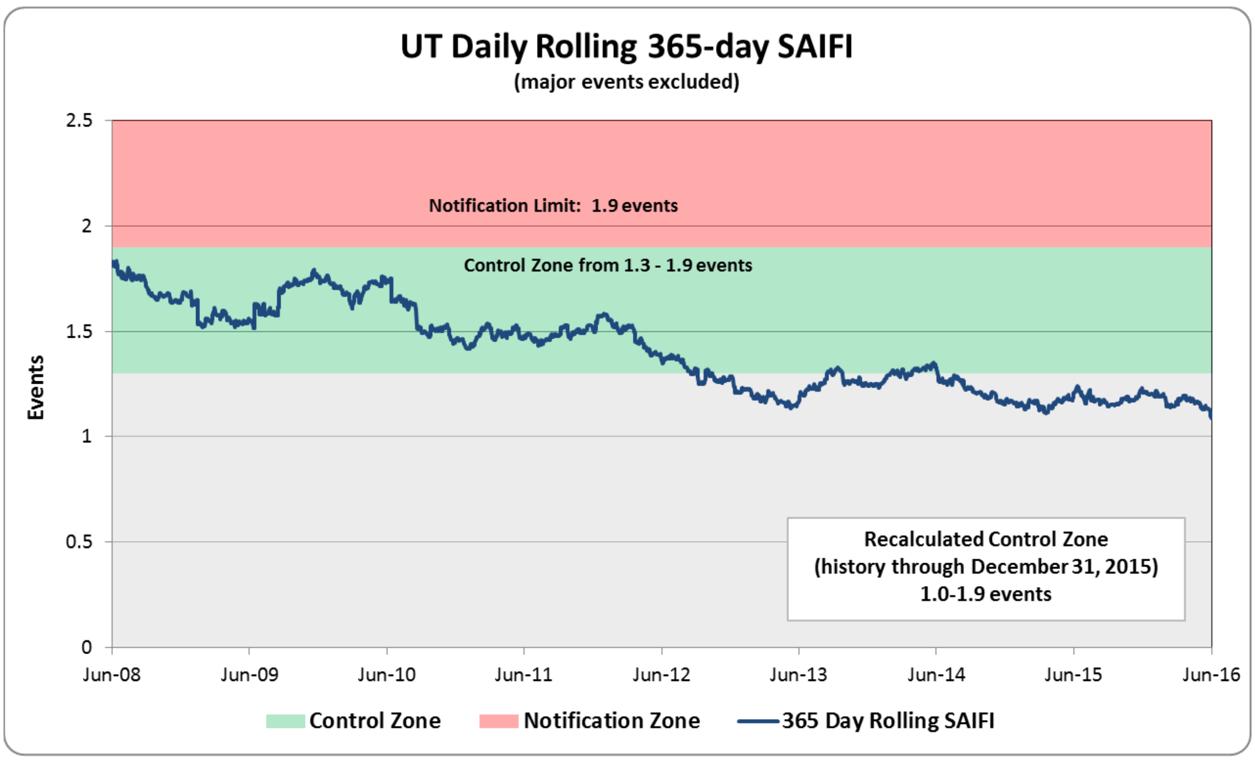
The Company refreshed the dataset and calculated using the last six years of daily reliability data, which was selected to align with major event calculations, but required the addition of the prior 365 days in order to construct the daily rolling 365-days curves used for these calculations. The 365-day average performance was 176 minutes and 1.59 events. The baselines filed were based on a 95% probability and resulted in a SAIDI range of 152-201 minutes and a SAIFI range of 1.3-1.9 events. The same methods applied through December 31, 2015 result in an average of 157 minutes and 1.21 events, with a SAIDI range of 144-192 minutes and a SAIFI range of 1.1-1.8 events. These values are shown in the table below. Values will be recalculated for the current year in the annual report.

| | SAIDI (Minutes) | | | SAIFI (Events) | | |
|---|---|---|---|---|---|---|
| | Average | Lower Value Control Zone | Upper Value Control Zone | Average | Lower Value Control Zone | Upper Value Control Zone |
| **As Filed** | 176 | 152 | 201 | 1.59 | 1.3 | 1.9 |
| **Recalculated through December 31, 2015** | 169 | 138 | 199 | 1.45 | 1.0 | 1.9 |
| **2015 Period (January 1-December 31, 2015)** | 151 | 143 | 158 | 1.17 | 1.12 | 1.22 |

**UTAH**

January 1 – June 30, 2016



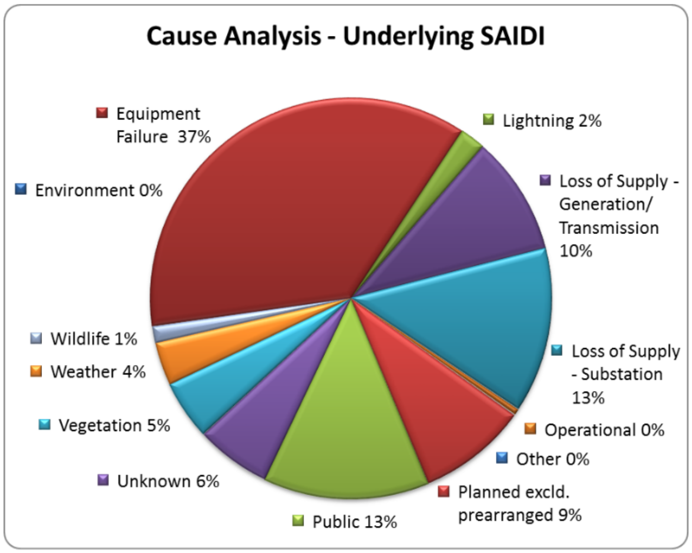
## 2.7 Reliability Reporting Post-Rule R.746-313 Modifications

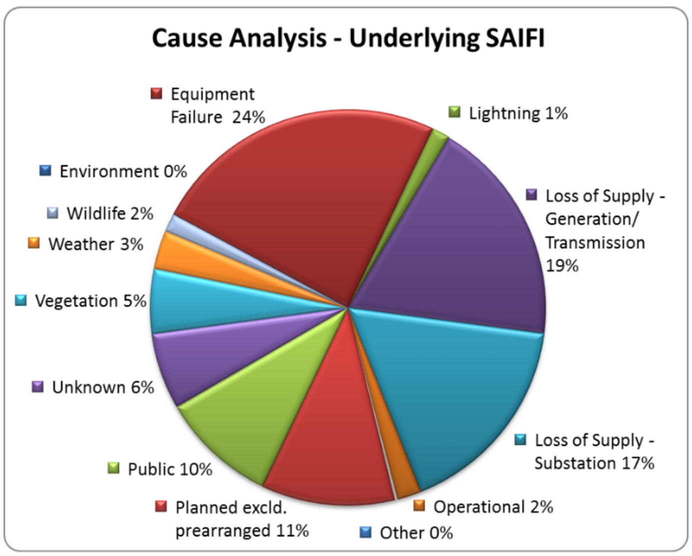
In 2012, the Company and stakeholders developed reliability reporting rules that are codified in Utah Rule R746.313. Certain reliability reporting details were outlined in these rules that had not been previously required in the Company's Service Quality Review Report. Certain elements may be at least 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.

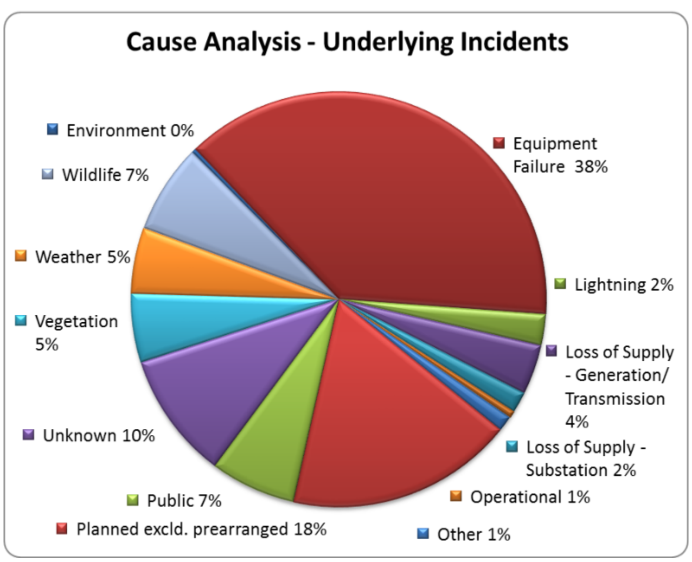
The final rule required five-year history at an operating area level for SAIDI, SAIFI and CAIDI. At a state level, these metrics in addition to $MAIFI_e$ are required.

| Major Events and Prearranged Excluded* | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | | 2016 June | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **STATE** | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe | SAIDI | SAIFI | CAIDI | MAIFIe |
| 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 | 56 | 0.5 | 115 | 0.84 |
| **OP AREA** | | | | | | | | | | | | | | | | | | | | |
| **AMERICAN FORK** | 101 | 0.8 | 135 | | 126 | 1.3 | 99 | | 113 | 1.0 | 109 | | 134 | 1.1 | 128 | | 54 | 0.7 | 77 | |
| **CEDAR CITY** | 279 | 1.8 | 154 | | 225 | 1.8 | 127 | | 170 | 1.1 | 151 | | 238 | 1.6 | 146 | | 103 | 0.7 | 155 | |
| **CEDAR CITY (MILFORD)** | 363 | 2.8 | 129 | | 707 | 3.3 | 213 | | 891 | 3.3 | 271 | | 334 | 3.6 | 92 | | 149 | 2.7 | 55 | |
| **JORDAN VALLEY** | 106 | 0.8 | 129 | | 106 | 0.7 | 145 | | 103 | 0.7 | 141 | | 128 | 1.0 | 126 | | 48 | 0.4 | 136 | |
| **LAYTON** | 105 | 0.8 | 131 | | 105 | 1.0 | 109 | | 108 | 0.8 | 127 | | 122 | 1.1 | 109 | | 52 | 0.4 | 126 | |
| **MOAB** | 375 | 3.1 | 122 | | 284 | 1.9 | 147 | | 412 | 2.3 | 181 | | 426 | 3.5 | 122 | | 144 | 1.1 | 130 | |
| **OGDEN** | 153 | 1.3 | 117 | | 168 | 1.4 | 122 | | 218 | 1.9 | 113 | | 175 | 1.4 | 123 | | 52 | 0.4 | 138 | |
| **PARK CITY** | 184 | 1.8 | 100 | | 232 | 1.5 | 155 | | 147 | 1.1 | 140 | | 247 | 1.5 | 162 | | 137 | 1.2 | 111 | |
| **PRICE** | 133 | 1.4 | 97 | | 514 | 1.8 | 293 | | 394 | 2.2 | 180 | | 230 | 1.8 | 127 | | 93 | 1.3 | 71 | |
| **RICHFIELD** | 200 | 2.0 | 100 | | 469 | 3.4 | 138 | | 181 | 1.7 | 104 | | 303 | 2.2 | 137 | | 35 | 0.6 | 56 | |
| **RICHFIELD (DELTA)** | 329 | 2.9 | 113 | | 316 | 3.7 | 85 | | 202 | 1.9 | 108 | | 536 | 3.0 | 180 | | 53 | 0.4 | 138 | |
| **SLC METRO** | 129 | 1.2 | 112 | | 170 | 1.2 | 139 | | 145 | 1.1 | 129 | | 107 | 0.9 | 125 | | 42 | 0.3 | 124 | |
| **SMITHFIELD** | 267 | 2.6 | 102 | | 81 | 0.7 | 117 | | 114 | 0.9 | 126 | | 236 | 1.6 | 150 | | 27 | 0.3 | 104 | |
| **TOOELE** | 595 | 3.7 | 163 | | 137 | 1.3 | 103 | | 239 | 2.1 | 115 | | 129 | 1.3 | 103 | | 38 | 0.3 | 122 | |
| **TREMONTON** | 447 | 3.0 | 147 | | 335 | 3.3 | 102 | | 216 | 2.0 | 111 | | 462 | 4.2 | 110 | | 185 | 2.1 | 89 | |
| **VERNAL** | 236 | 2.9 | 82 | | 160 | 2.1 | 75 | | 119 | 1.2 | 101 | | 68 | 0.8 | 87 | | 23 | 0.2 | 142 | |

| Utah Cause Category | 2012 | | 2013 | | 2014 | | 2015 | | 2016 June | |
|---|---|---|---|---|---|---|---|---|---|---|
| | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI | SAIDI | SAIFI |
| **Environment** | 4 | 0.0 | 0 | 0.0 | 1 | 0.0 | 1 | 0.0 | 0 | 0.0 |
| **Equipment Failure** | 53 | 0.3 | 60 | 0.3 | 51 | 0.3 | 56 | 0.3 | 20 | 0.1 |
| **Lightning** | 4 | 0.0 | 9 | 0.1 | 7 | 0.1 | 6 | 0.1 | 1 | 0.0 |
| **Loss of Supply - Generation/Transmission** | 25 | 0.3 | 19 | 0.2 | 23 | 0.2 | 22 | 0.2 | 5 | 0.1 |
| **Loss of Supply - Substation** | 5 | 0.1 | 6 | 0.0 | 6 | 0.0 | 5 | 0.0 | 7 | 0.1 |
| **Operational** | 0 | 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)** | 22 | 0.3 | 24 | 0.3 | 20 | 0.2 | 14 | 0.2 | 5 | 0.1 |
| **Public** | 16 | 0.1 | 14 | 0.1 | 15 | 0.1 | 18 | 0.1 | 7 | 0.0 |
| **Unknown** | 7 | 0.1 | 8 | 0.1 | 10 | 0.1 | 10 | 0.1 | 3 | 0.0 |
| **Vegetation** | 5 | 0.1 | 7 | 0.0 | 6 | 0.0 | 8 | 0.1 | 3 | 0.0 |
| **Weather** | 11 | 0.1 | 12 | 0.1 | 8 | 0.0 | 8 | 0.0 | 2 | 0.0 |
| **Wildlife** | 4 | 0.0 | 4 | 0.0 | 4 | 0.0 | 5 | 0.0 | 1 | 0.0 |
| **UTAH Underlying** | **157** | **1.3** | **164** | **1.2** | **151** | **1.2** | **154** | **1.2** | **56** | **0.5** |


Cause Analysis - Underlying SAIDI
Equipment Failure 37%
Lightning 2%
Environment 0%
Loss of Supply - Generation/ Transmission 10%
Wildlife 1%
Weather 4%
Loss of Supply - Substation 13%
Vegetation 5%
Operational 0%
Other 0%
Unknown 6%
Planned excld. prearranged 9%
Public 13%


Cause Analysis - Underlying SAIFI
Equipment Failure 24%
Lightning 1%
Environment 0%
Wildlife 2%
Loss of Supply - Generation/ Transmission 19%
Weather 3%
Vegetation 5%
Unknown 6%
Loss of Supply - Substation 17%
Public 10%
Planned excld. prearranged 11%
Operational 2%
Other 0%


Cause Analysis - Underlying Incidents
Environment 0%
Equipment Failure 38%
Wildlife 7%
Weather 5%
Lightning 2%
Vegetation 5%
Loss of Supply - Generation/ Transmission 4%
Unknown 10%
Loss of Supply - Substation 2%
Public 7%
Operational 1%
Planned excld. prearranged 18%
Other 1%

## 2.8 Reduce CPI for Worst Performing Circuits by 20%

On a routine basis, the Company reviews circuits for performance. One of the measures that it uses is called circuit performance indicator (CPI), which is 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 selects a set of Worst Performing Circuits for improvements, which are to be completed within two years of selection. Within five years of selection, the average performance of the five-selection set must improve by at least 20% (as measured by comparing current performance against baseline performance).

### 2.8.1 Circuit Performance Score Updates for Prior-Year Selections

Annually, the company tracks 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[6] | Performance 6/30/2016 |
|---|---|---|---|
| **Program Year 17: (CY2016)** | | | |
| Red mountain 33 | IN PROGRESS | 1283 | 1093 |
| Fountain Green 12 | IN PROGRESS | 266 | 275 |
| Middleton 24 | IN PROGRESS | 253 | 271 |
| Willowridge 11 | IN PROGRESS | 177 | 167 |
| Summitt Park 11 | IN PROGRESS | 116 | 141 |
| TARGET SCORE = **335** | | **419** | **389** |
| **Program Year 16: (CY2015)** | | | |
| Nibley 21 | COMPLETE | 179 | 194 |
| Brighton 12 | COMPLETE | 270 | 249 |
| Rattlesnake 22 | IN PROGRESS | 456 | 399 |
| Decker Lake 12 | COMPLETE | 167 | 110 |
| Toquerville 31 | COMPLETE | 475 | 473 |
| TARGET SCORE = **248** | | **309** | **285** |
| **Program Year 15: (CY2014)** | | | |
| Skull Valley 11 | COMPLETE | 468 | 304 |
| Fort Douglas 13 | COMPLETE | 417 | 163 |
| Parowan Valley 25 | COMPLETE | 408 | 419 |
| Brighton 21 | COMPLETE | 364 | 269 |
| Bush 12 | COMPLETE | 281 | 246 |
| TARGET SCORE = **248** | | **310** | **280** |

[6] 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.

| | | | |
|---|---|---|---|
| **Program Year 14: (CY2013)** | | | |
| Snyderville 16 | COMPLETE | 72 | 66 |
| Eden 11 | COMPLETE | 116 | 204 |
| Bush 11 | COMPLETE | 228 | 149 |
| Pioneer 12 | COMPLETE | 177 | 73 |
| Grantsville 12 | COMPLETE | 250 | 168 |
| **TARGET SCORE = 108** | | **135** | **132** |
| **Program Year 13: (CY2012)** | | | |
| Fielding 11 | COMPLETE | 207 | 339 |
| East Bench 12 | COMPLETE | 112 | 54 |
| Clinton 11 | COMPLETE | 133 | 30 |
| Redwood 16 | COMPLETE | 145 | 42 |
| Orangeville 11 | COMPLETE | 114 | 21 |
| TARGET SCORE = **114** | **Target Met** | **142** | **97** |
| **Program Year 12: (CY2011)** | | | |
| Lincoln 15 | COMPLETE | 173 | 53 |
| Huntington City 12 | COMPLETE | 285 | 62 |
| Magna 15 | COMPLETE | 140 | 51 |
| Gunnison 12 | COMPLETE | 110 | 55 |
| Capitol 11 | COMPLETE | 129 | 74 |
| TARGET SCORE = **134** | **Target Met** | **167** | **59** |
| **Program Year 11: (CY2010)** | | | |
| Decker Lake 12 | COMPLETE | 102 | 110 |
| North Bench 13 | COMPLETE | 95 | 46 |
| Newgate 14 | COMPLETE | 164 | 71 |
| Newton 12 | COMPLETE | 105 | 43 |
| St Johns 11 | COMPLETE | 547 | 318 |
| TARGET SCORE = **162** | **Target Met** | **203** | **118** |
| **Program Year 10: (CY2009)** | | | |
| Fruit Heights 12 | COMPLETE | 113 | 91 |
| Mathis 12 | COMPLETE | 132 | 90 |
| Parrish 11 | COMPLETE | 137 | 64 |
| Valley Center 11 | COMPLETE | 169 | 34 |
| Hammer 15 | COMPLETE | 95 | 46 |
| 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 Hours

| RESTORATIONS WITHIN 3 HOURS | | | | | |
|---|---|---|---|---|---|
| Reporting Period Cumulative = 88% | | | | | |
| January | February | March | April | May | June |
| 71% | 91% | 91% | 92% | 91% | 79% |
| July | August | September | October | November | December |
| - | - | - | - | - | - |

## 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 | 156 minutes |

## 2.11 Telephone Service and Response to Commission Complaints

| COMMITMENT | GOAL | PERFORMANCE |
|---|---|---|
| PS5-Answer calls within 30 seconds | 80% | 80% |
| PS6a) Respond to commission complaints within 3 days | 95% | 100% |
| PS6b) Respond to commission complaints regarding service disconnects within 4 hours | 95% | NA* |
| PS6c) Address commission[7] complaints within 30 days | 100% | 100% |

*None received

[7] 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, 2016, there were three dates identified as a wide-scale outage days; call statistics are shown in the table below. The outage event on January 4th was an emergency damage repair outage which occurred at the Murder Creek Substation in Albany, Oregon, resulting in approximately 6,500 customer out of service for 9 minutes. On February 2nd a loss in transmission outage occurred in American Fork, Utah, resulting in approximately 7,600 customers out of service for durations ranging from 31 minutes to just under 2 hours. On April 15th a loss of substation event occurred in Stayton, Oregon, when a transformer fuse blew, resulting in approximately 9,000 customers out of service with all outages restored within 2 hours 19 minutes.

| 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 |
|---|---|---|---|---|---|---|---|
| 1/4/2016 | 15:30 | 15:44 | 586 | 38 | 15 | 379 | 58 |
| | 15:45 | 15:59 | 1207 | 126 | 38 | 287 | 39 |
| | 16:00 | 16:14 | 530 | 0 | 30 | 126 | 29 |
| | 16:15 | 16:29 | 517 | 0 | 14 | 148 | 87 |
| 2/2/2016 | 14:15 | 14:29 | 1346 | 111 | 1 | 52 | 5 |
| | 14:30 | 14:44 | 852 | 0 | 6 | 97 | 15 |
| | 14:45 | 14:59 | 535 | 0 | 5 | 67 | 19 |
| | 15:00 | 15:15 | 501 | 0 | 1 | 88 | 26 |
| 4/15/2016 | 9:30 | 9:44 | 924 | 48 | 55 | 401 | 84 |
| | 9:45 | 9:59 | 1033 | 10 | 14 | 174 | 36 |
| | 10:00 | 10:14 | 622 | 0 | 8 | 145 | 50 |
| | 10:15 | 10:29 | 634 | 0 | 13 | 140 | 56 |

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 2016

*Utah*

| | Description | 2016 Events | 2016 Failures | 2016 % Success | 2016 Paid | 2015 Events | 2015 Failures | 2015 % Success | 2015 Paid |
|---|---|---|---|---|---|---|---|---|---|
| CG1 | Restoring Supply | 428,732 | 0 | 100% | $0 | 525,996 | 1 | 100.00% | $50 |
| CG2 | Appointments | 4,202 | 6 | 99.86% | $300 | 3,664 | 3 | 99.92% | $150 |
| CG3 | Switching on Power | 3,170 | 0 | 100% | $0 | 3,793 | 1 | 99.97% | $50 |
| CG4 | Estimates | 652 | 1 | 99.85% | $50 | 649 | 1 | 99.85% | $50 |
| CG5 | Respond to Billing Inquiries | 929 | 0 | 100% | $0 | 873 | 2 | 99.77% | $100 |
| CG6 | Respond to Meter Problems | 413 | 0 | 100% | $0 | 375 | 1 | 99.73% | $50 |
| CG7 | Notification of Planned Interruptions | 57,283 | 23 | 99.96% | $1,150 | 45,486 | 16 | 99.96% | $800 |
| | | **495,381** | **30** | **99.99%** | **$1,500** | **580,836** | **25** | **99.99%** | **$1,250** |

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 conditions[8], 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.[9]
- 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***

[8] 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.

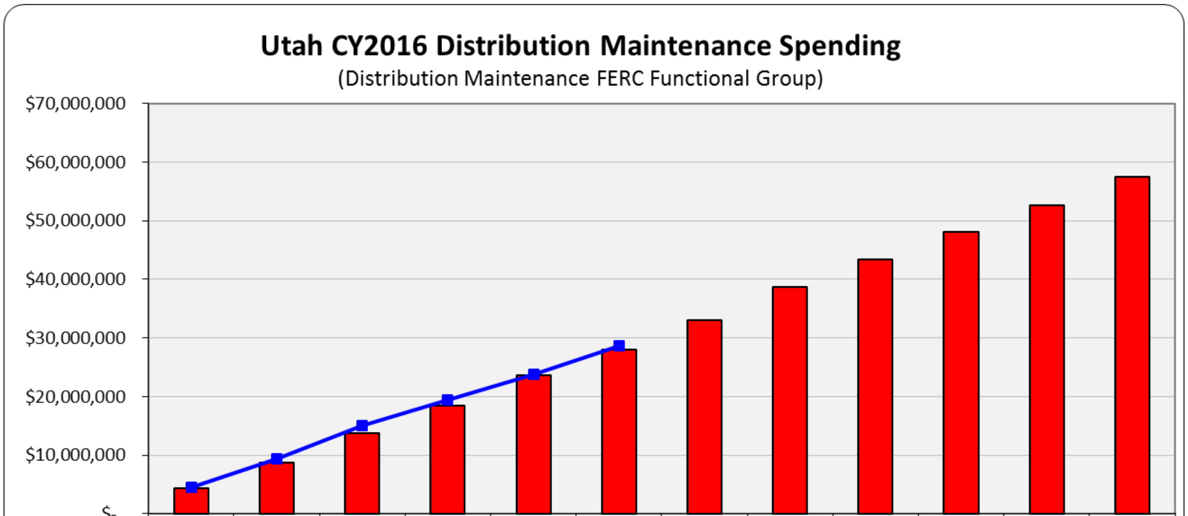
Priority C: Conditions that are nonconforming, but that in the opinion of the inspector do not need to be corrected until the next scheduled work is performed on that facility point.

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.

[9] 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.

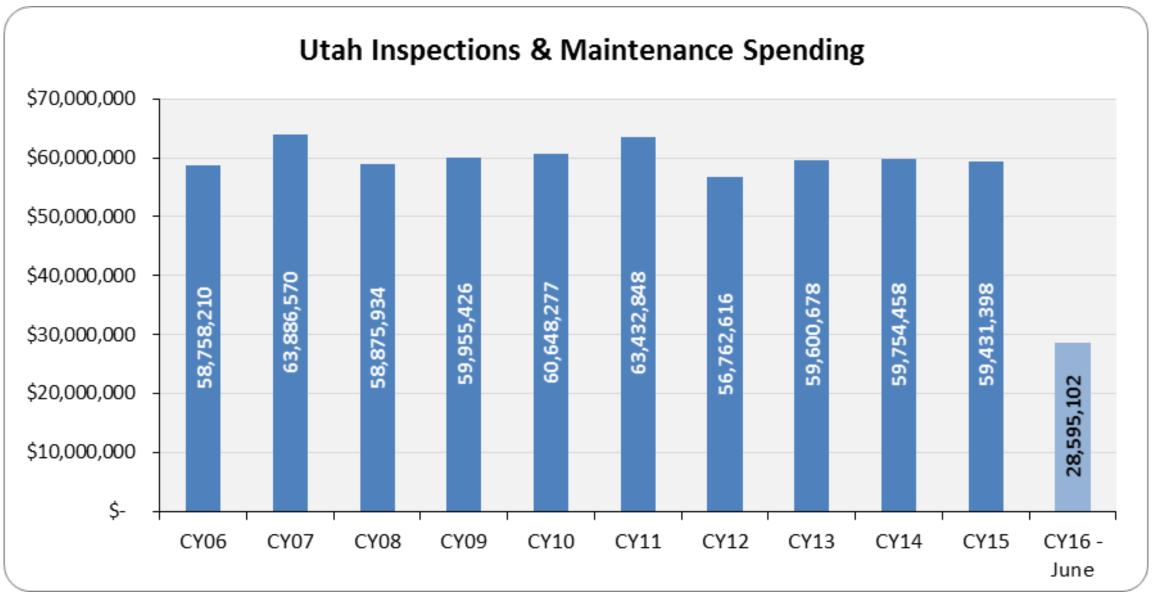
- Correctable conditions are identified through the preventive maintenance process, often associated with actions performed on major equipment.
- Corrections consist of repairing equipment or responding to a failed condition.

## 3.2 Maintenance Spending[10,11]




| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Plan | $4,429,769 | $8,673,942 | $13,677,659 | $18,531,617 | $23,600,393 | $28,070,624 | $33,092,103 | $38,670,430 | $43,378,177 | $48,111,560 | $52,671,194 | $57,451,240 |
| Actual | $4,590,455 | $9,461,553 | $15,066,028 | $19,470,444 | $23,869,398 | $28,595,102 | | | | | | |

### 3.2.1 Maintenance Historical Spending

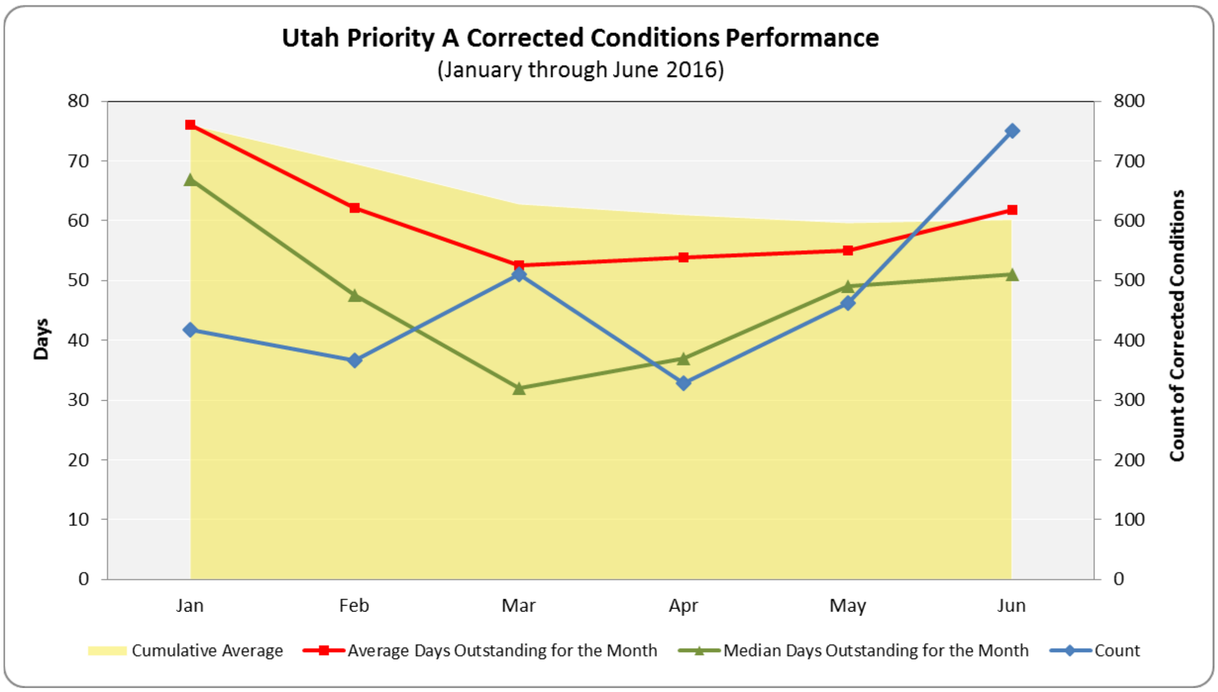



[10] Maintenance spending reflected does not include Vegetation Management and Fault Locating costs, which when reporting under FERC accounting methodology, FERC has traditionally considered maintenance.

[11] The Utah distribution maintenance total year 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.



## Oldest Outstanding Priority A Conditions In Utah

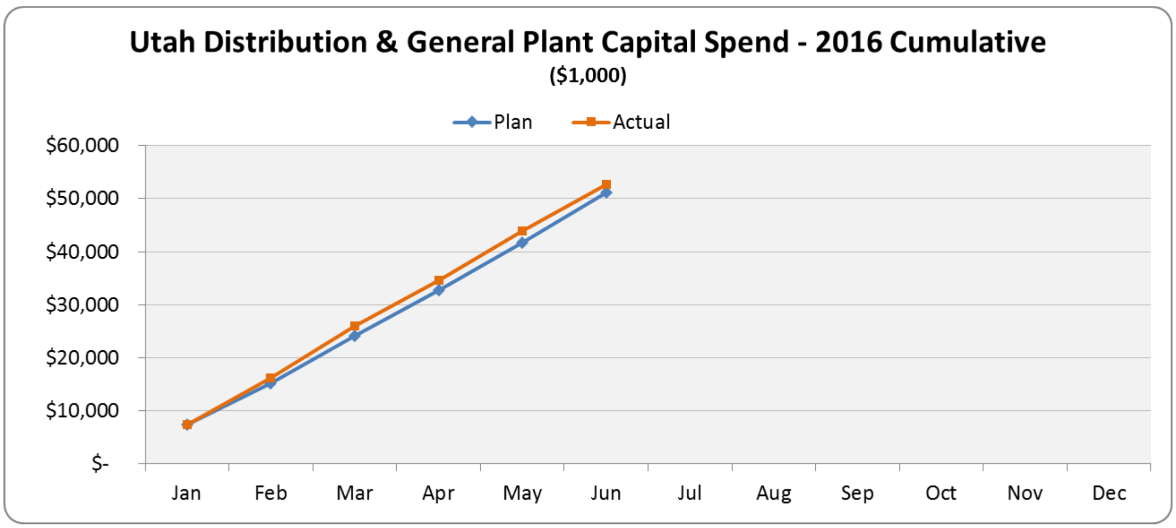
| District | Map-string | Pole | Condition | Inspection Remarks | Inspection Date | Completion Date | Days to Fix | Circuit | Explanation |
|---|---|---|---|---|---|---|---|---|---|
| Ogden | 11205002 | 120304 | BOXFRMR | UNSECURE LID 16530088 | 8/18/2015 | 7/11/2016 | 328 | MID13 | An order was created to secure the lid, however, on further inspection, it was determined that the transformer needed to be replaced. The work was delayed until subsequent review of outstanding work identified that this item still needed to be done. |
| American Fork | 82036 | 308 | BOXBRACE | BOLT LOOSE, BRACES PULLED FROM POLE 16453622 | 10/1/2015 | 7/29/2016 | 302 | 082036 | The work couldn't be performed on this line until an outage window was available. |
| American Fork | 82042 | 187 | BOXARM | 12T CON-STRUCTION XARM BROKEN, PIN FALLING OUT | 10/1/2015 | 8/9/2016 | 313 | 082042 | The work couldn't be performed on this line until work was completed on the Soldier Summit 46 kV Line and an outage window was available. |
| American Fork | 82042 | 524 | BOXARM | 12T CON-STRUCTION XARM BROKEN | 10/1/2015 | 8/25/2016 | 329 | 082042 | The work couldn't be performed on this line until work was completed on the Soldier Summit 46 kV Line and an outage window is available. |
| American Fork | 78005 | 314 | BOPOLE | BURNED OFF TOP SECTION OF POLE. TEMP FIXED. | 10/9/2015 | | | 078005 | It took a couple of months to engineer a solution, and construction can't take place in the winter because this structure will need to be blasted and the pole will need to be placed with a helicopter. There is a road directly beneath the structure that will need to be closed during digging. The project has been re-scoped and we are in the process of awarding the bid and initiating construction in October. |

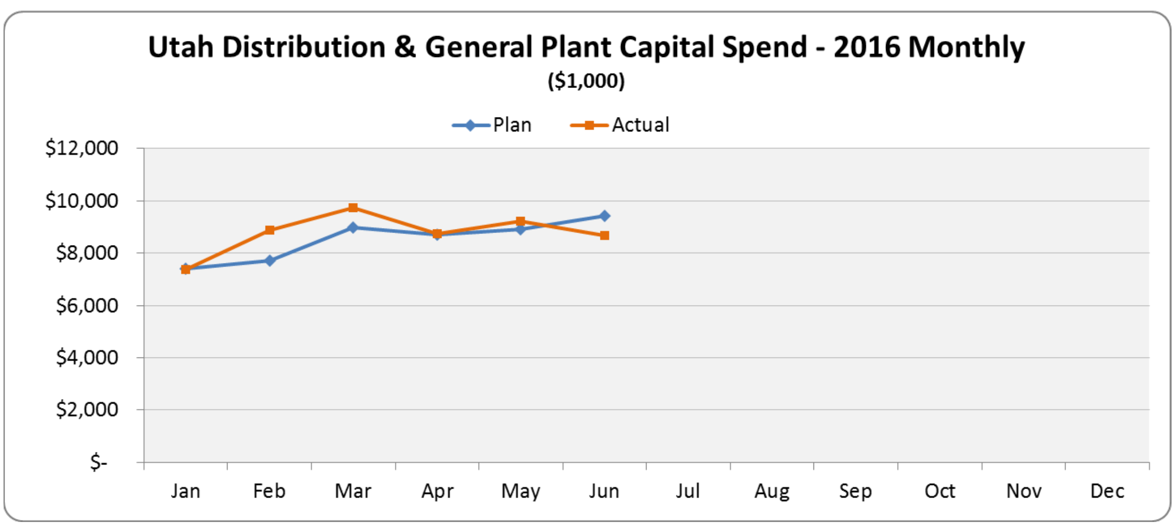
# 4 CAPITAL INVESTMENT

## 4.1 Capital Spending - Distribution and General Plant

**January –June 2016**

| | Investment | Actuals ($M) | Target ($M) | Significant Variances |
|---|---|---|---|---|
| 1. | Mandated | $5.9 | $3.1 | Mandated road relocations, NERC reliability and net metering over target, (+$2.6M). |
| 2. | New Connect | $22.6 | $19.8 | Residential and commercial new revenue connection over target, (+$2.4M). |
| 3. | System Reinforcement | $6.0 | $6.9 | Substation reinforcement under target, (-$1.1M). |
| 4. | Replacement | $15.4 | $20.1 | Replacements for vehicles (transport), microwave/fiber communications, overhead distribution poles, substation transformers and facilities under target, (-$4.0M). |
| 5. | Upgrade & Modernize | $2.7 | $1.4 | Functional upgrade reliability over target, (+$0.9M). |
| | **Total** | **$52.6** | **$51.2** | |



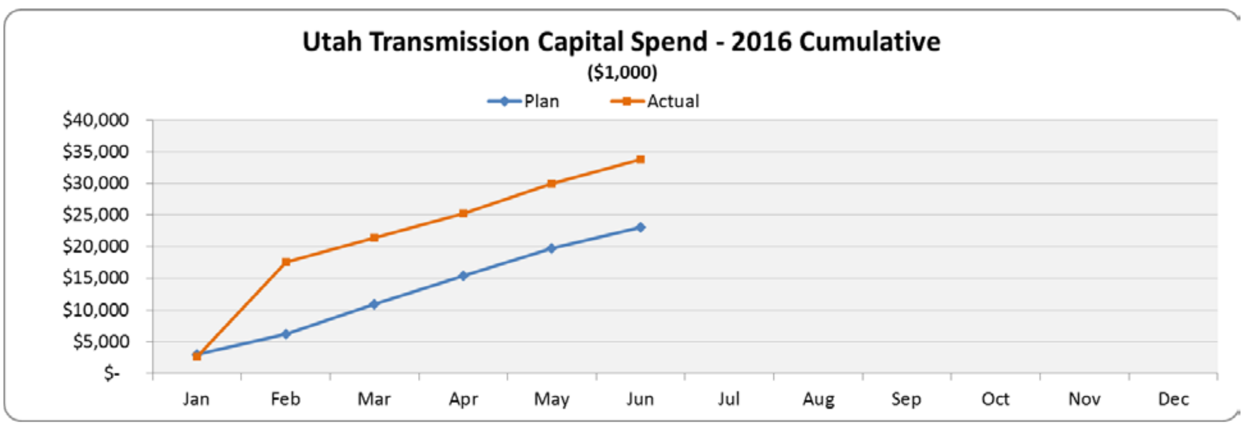



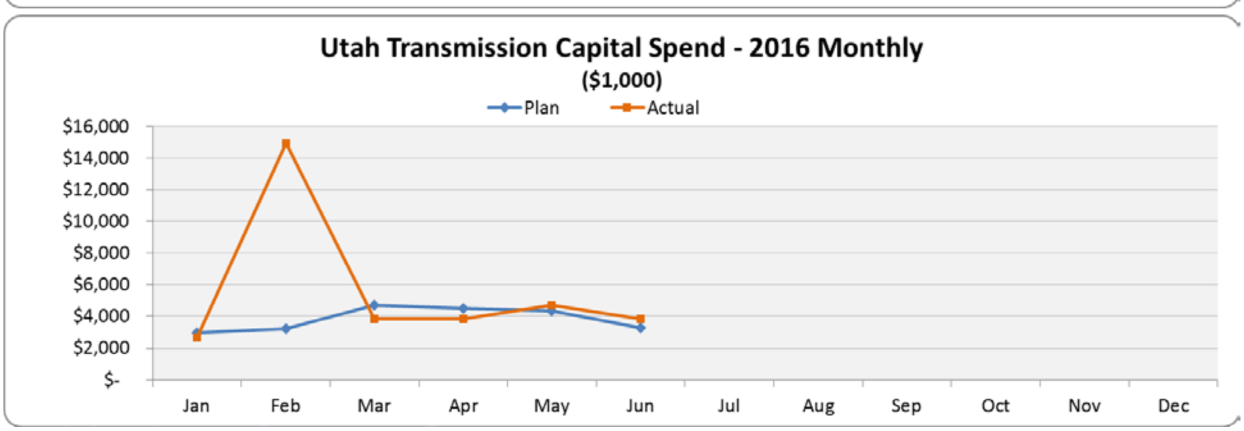

* Actual costs shown are expenditure values, not plant placed in service (PPIS) values. Actual expenditures are not directly tied to PPIS values.

## 4.2 Capital Spending – Transmission/Interconnections

### January –June 2016

| | Investment | Actuals ($M) | Target ($M) | Significant Variances |
|---|---|---|---|---|
| 1. | Mandated | $1.6 | $1.6 | |
| 2. | New Connect | $0.1 | $0.8 | Industrial new revenue connection under target, (-$0.7M). |
| 3. | Local Transmission System Reinforcements | $8.0 | $7.7 | |
| **4. | Main Grid Reinforcements / Interconnections | $6.6 | $5.7 | Pinto 3rd Ph Shifting Transformer (+$1.1M), Purgatory Flat New 138kV (+$1.0M) and Carbon Plant Replacement ($0.9M) over target; Holden Irrigation-Fillmore Rebuild (-$2.3M) under target. |
| **5. | Energy Gateway Transmission | $11.0 | $1.4 | Sigurd Red Butte Crystal 345kV Line (+$9.7M) over target -- *(Note: $9.8M posted in February for a settlement with the construction contractor for current disputed and outstanding changes in work; this impact had previously been forecasted for 2017 due to concerns over finalizing a settlement in 2016).* |
| 6. | Replacement | $6.1 | $5.7 | Replacements for substation switchgear/breakers/reclosers over target, (+$0.7M). |
| 7. | Upgrade & Modernize | $0.4 | $0.3 | |
| | **Total** | **$33.8** | **$23.0** | |




* 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 distribution and general plant/communications $.

## 4.3 New Connects

| | 2015 | 2016 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan - Dec 2015 | Jan | Feb | Mar | Q1 Total | Apr | May | Jun | Q2 Total | Jan - Jun 2016 | Q3 Total | Q4 Total | YEAR TO DATE |
| ***Residential*** | | | | | | | | | | | | | |
| UT South | 848 | 37 | 27 | 54 | 118 | 73 | 40 | 43 | 156 | 274 | | | 274 |
| UT North/Metro | 4,354 | 299 | 255 | 293 | 847 | 225 | 212 | 175 | 612 | 1,459 | | | 1,459 |
| UT Central | 9,154 | 615 | 703 | 559 | 1,877 | 587 | 412 | 488 | 1,487 | 3,364 | | | 3,364 |
| **Total Residential** | **14,356** | **951** | **985** | **906** | **2,842** | **885** | **664** | **706** | **2,255** | **5,097** | | | **5,097** |
| ***Commercial*** | | | | | | | | | | | | | |
| UT South | 236 | 10 | 13 | 12 | 35 | 11 | 22 | 16 | 49 | 84 | | | 84 |
| UT North/Metro | 680 | 40 | 48 | 34 | 122 | 39 | 40 | 45 | 124 | 246 | | | 246 |
| UT Central | 794 | 55 | 54 | 57 | 166 | 70 | 67 | 63 | 200 | 366 | | | 366 |
| **Total Commercial** | **1,710** | **105** | **115** | **103** | **323** | **120** | **129** | **124** | **373** | **696** | | | **696** |
| ***Industrial*** | | | | | | | | | | | | | |
| UT South | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | | | 1 |
| UT North/Metro | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | | | 1 |
| UT Central | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | | | 2 |
| **Total Industrial** | **11** | **0** | **0** | **2** | **2** | **1** | **0** | **1** | **2** | **4** | | | **4** |
| ***Irrigation*** | | | | | | | | | | | | | |
| UT South | 40 | 1 | 3 | 4 | 8 | 9 | 11 | 5 | 25 | 33 | | | 33 |
| UT North/Metro | 9 | 0 | 1 | 1 | 2 | 0 | 0 | 2 | 2 | 4 | | | 4 |
| UT Central | 16 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 4 | 5 | | | 5 |
| **Total Irrigation** | **65** | **1** | **4** | **6** | **11** | **12** | **12** | **7** | **31** | **42** | | | **42** |
| ***Total New Connects*** | | | | | | | | | | | | | |
| UT South | 1,128 | 48 | 43 | 70 | 161 | 93 | 73 | 65 | 231 | 392 | | | 392 |
| UT North/Metro | 5,048 | 339 | 304 | 329 | 972 | 264 | 252 | 222 | 738 | 1,710 | | | 1,710 |
| UT Central | 9,966 | 670 | 757 | 618 | 2,045 | 661 | 480 | 551 | 1,692 | 3,737 | | | 3,737 |
| **TOTAL New Connects** | **16,142** | **1,057** | **1,104** | **1,017** | **3,178** | **1,018** | **805** | **838** | **2,661** | **5,839** | | | **5,839** |

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.
The Town of Eagle Mountain was integrated into the company network in the American Fork district in Feb/Mar 2015. To achieve this changeover, around 6,500 homes and businesses were added as new connects. These connections are removed from the report as not to affect the accurate representation of new connects and the historical volume trends of newly connected customers.
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 permeant connection for the reporting period.

# 5 VEGETATION MANAGEMENT

## 5.1 Production

**UTAH**
**Tree Program Reporting**
**January 1, 2016 through June 30, 2016**
**Distribution**

| | Total | Calendar Year Reporting | | | | Cycle Reporting | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 3 Year Program/ Total Line Miles | 1/1/2016-6/30/2016 Miles Planned | 1/1/2016-6/30/2016 Actual Miles | 01/01/2016-6/30/2016 Ahead/ Behind | 1/1/2016-6/30/2016 Ahead/ Behind | 1/1/2014-12/31/2016 Miles Planned | 1/1/2014-12/31/2016 Actual Miles | 01/01/2014-12/31/2016 Ahead/ Behind | 1/1/2014-12/31/2016 % Ahead/ Behind |
| | *column a* | *column b* | *column c* | *column d* | *column e* | *column f* | *column g* | *column h* | *column i* |
| **UTAH** | 11,009 | 1,835 | 1,508 | -327 | 82.2% | 8,537 | 9,080 | 543 | 106.4% |
| AMERICAN FORK | 824 | 137 | 90 | -47 | 65.7% | 639 | 559 | -80 | 87.5% |
| CEDAR CITY | 1,373 | 229 | 185 | -44 | 80.8% | 1,065 | 1,006 | -59 | 94.5% |
| JORDAN VALLEY | 769 | 128 | 37 | -91 | 28.9% | 596 | 588 | -8 | 98.7% |
| LAYTON | 284 | 47 | 49 | 2 | 104.3% | 220 | 267 | 47 | 121.4% |
| MOAB | 976 | 163 | 82 | -81 | 50.3% | 757 | 919 | 162 | 121.4% |
| OGDEN | 885 | 148 | 122 | -26 | 82.4% | 686 | 741 | 55 | 108.0% |
| PARK CITY | 538 | 90 | 115 | 25 | 127.8% | 417 | 497 | 80 | 119.2% |
| PRICE | 589 | 98 | 80 | -18 | 81.6% | 457 | 570 | 113 | 124.7% |
| RICHFIELD | 1,340 | 223 | 204 | -19 | 91.5% | 1,039 | 1,019 | -20 | 98.1% |
| SL METRO | 1,206 | 201 | 180 | -21 | 89.6% | 935 | 1,048 | 113 | 112.1% |
| SMITHFIELD | 762 | 127 | 112 | -15 | 88.2% | 591 | 574 | -17 | 97.1% |
| TOOELE | 481 | 80 | 136 | 56 | 170.0% | 373 | 376 | 3 | 100.8% |
| TREMONTON | 732 | 122 | 116 | -6 | 95.1% | 568 | 747 | 179 | 131.5% |
| VERNAL | 250 | 42 | 0 | -42 | 0.0% | 194 | 169 | -25 | 87.1% |

**Distributition**

| | |
|---|---|
| Distribution cycle $/tree: | $96.99 |
| Distribution cycle $/mile: | $4,143 |
| Distribution cycle removal % | 19.32% |

**Transmission**

| Total Line Miles | Line Miles Scheduled | Line Miles Worked | Miles Ahead/Behind Schedule | Miles on Schedule | % of miles on/behind Schedule |
|---|---|---|---|---|---|
| 6,629 | 392 | 390 | -2 | 6,627 | 1 |

| | |
|---|---|
| Transmission $/mile: | $4,370 |

Current distribution cycle begain January 1, 2014 and extends until December 31, 2016.

**Notes:**

Column a: Total overhead distribution pole miles by district
Column b: Total overhead distribution pole miles planned for the period January 1, 2016 through June 30, 2016
Column c: Actual overhead distribution pole miles worked during the period January, 2016 through June 30, 2016
Column d: Miles ahead or behind for the period January 1, 2016 through June 30, 2016 (column c-column b)
Column e: Percent of actual compared to planned for the period January 1, 2016 through June 30, 2016 ((column c÷b)×100)
Column f: Total overhead distribution pole miles planned for the period January 1, 2014 through December 31, 2016
Column g: Actual overhead distribution pole miles worked during the period January 1 2014 through December 31, 2016
Column h: Miles ahead or behind for the period January 1, 2014 through December 31, 2016 (column g-column f)
Column i: Percent of actual compared to planned for the period January 1, 2014 through December 31, 2016 ((column g÷f)×100). Max = 100%

# 5.2 Budget

**UTAH**

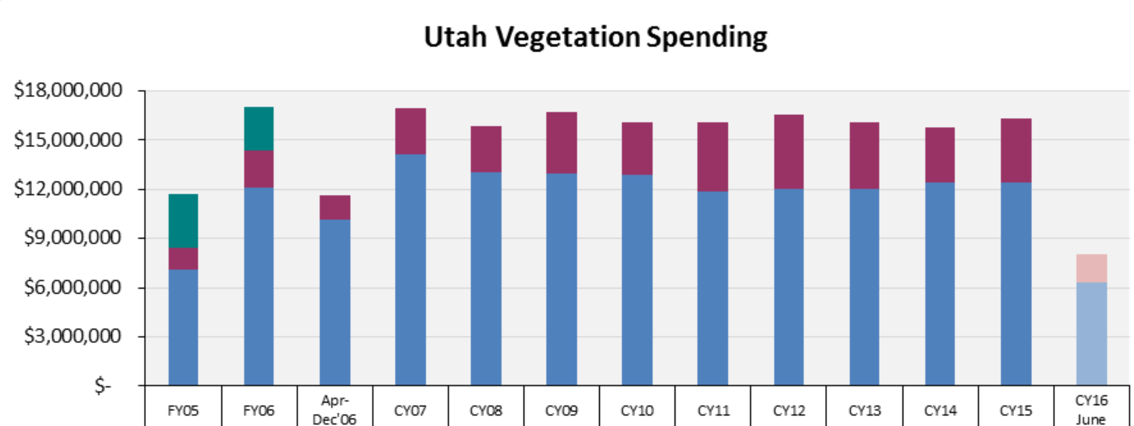
**Tree Program Reporting**

| | 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 2016 | Distribution | | | Transmission | | |
|---|---|---|---|---|---|---|
| | Actuals | Budget | Variance | Actuals | Budget | Variance |
| **Jan** | $910,692 | $944,470 | -$33,778 | $263,069 | $309,714 | -$46,645 |
| **Feb** | $1,100,162 | $944,470 | $155,692 | $224,075 | $309,714 | -$85,639 |
| **Mar** | $1,226,616 | $1,086,074 | $140,542 | $310,467 | $356,113 | -$45,646 |
| **Apr** | $1,115,086 | $991,671 | $123,415 | $281,641 | $325,180 | -$43,539 |
| **May** | $972,138 | $991,671 | -$19,533 | $312,566 | $325,180 | -$12,614 |
| **Jun** | $995,019 | $1,038,873 | -$43,854 | $306,774 | $340,646 | -$33,872 |
| **Jul** | | | $0 | | | $0 |
| **Aug** | | | $0 | | | $0 |
| **Sep** | | | $0 | | | $0 |
| **Oct** | | | $0 | | | $0 |
| **Nov** | | | $0 | | | $0 |
| **Dec** | | | $0 | | | $0 |
| **Total** | $6,319,713 | $5,997,229 | $322,484 | $1,698,592 | $1,966,547 | -$267,955 |

**Average # Tree Crews on Property (YTD)** **66**

## 5.2.1 Vegetation Historical Spending




| | FY05 | FY06 | Apr-Dec'06 | CY07 | CY08 | CY09 | CY10 | CY11 | CY12 | CY13 | CY14 | CY15 | CY16 June |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Miscellaneous | 3,306,952 | 2,666,318 | | | | | | | | | | | |
| Transmission | 1,351,143 | 2,273,513 | 1,489,985 | 2,809,622 | 2,777,814 | 3,716,266 | 3,180,955 | 4,245,089 | 4,483,668 | 4,070,233 | 3,360,658 | 3,873,554 | 1,698,592 |
| Distribution | 7,070,339 | 12,072,30 | 10,107,31 | 14,097,44 | 13,053,51 | 12,934,36 | 12,866,26 | 11,837,42 | 12,037,62 | 11,991,60 | 12,403,05 | 12,385,37 | 6,319,713 |

Miscellaneous = storm and casualty, line extension work, special request projects, administrative.

# 6 Appendix

## 6.1 Reliability Definitions

### Interruption Types

Below are the definitions for interruption events. For further details, refer to IEEE 1366-2003[12] 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).

[12] 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:

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 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.

***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 and customer requested interruptions.

***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.