

201 South Main, Suite 2300 Salt Lake City, Utah 84111

April 30, 2015

#### VIA ELECTRONIC FILING AND OVERNIGHT DELIVERY

Public Service Commission of Utah Heber M. Wells Building, 4th Floor 160 East 300 South Salt Lake City, UT 84111

Attention:	Gary Widerburg
	Commission Secretary

Re: Docket 08-035-55 Service Quality Standards –June 2013 Service Quality Review Report Docket No. 13-035-70, 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 the requirements of Rule R746-313, Rocky Mountain Power submits the Service Quality Review Report for the period January through December 2014. Rocky Mountain Power will schedule a meeting in the near future to review the attached with the Commission and other interested parties.

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

By E-mail (preferred):	<u>datarequest@pacificorp.com</u> <u>bob.lively@pacificorp.com</u>
By regular mail:	Data Request Response Center PacifiCorp 825 NE Multnomah, Suite 2000 Portland, OR 97232

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

Sincerely,

Lansing

Vice President, Regulation Enclosures



# UTAH SERVICE QUALITY REVIEW

January 1 – December 31, 2014 Report



January 1 – December, 2014

# TABLE OF CONTENTS

T.	ABLE (	DF CONTENTS	2
E	XECUT	IVE SUMMARY	3
1	Sei	vice Standards Program Summary	3
	1.1 1.2 1.3	Rocky Mountain Power Customer Guarantees Rocky Mountain Power Performance Standards <sup>1</sup> Utah Distribution Service Area Map with Operating Areas/Districts	4
2	RE	LIABILITY PERFORMANCE	6
	2.8.2 2.9 2.10 2.11 2.12	System Average Interruption Duration Index (SAIDI) System Average Interruption Frequency Index (SAIFI) Reliability History Controllable, Non-Controllable and Underlying Performance Review Cause Analysis Tables (Pre-Title 746-313 Modification) Baseline Performance Reliability Reporting Post-Rule R.746-313 Modifications Reduce CPI for Worst Performing Circuits by 20% <i>Circuit Selections for CY2015 (Program Year 16)</i> <i>Circuit Performance Score Updates for Prior-Year Selections</i> . Restore Service to 80% of Customers within 3 Hours CAIDI Performance Telephone Service and Response to Commission Complaints Utah Commitment U1 Utah State Customer Guarantee Summary Status	8 9 .10 .12 .18 .20 .22 .23 .25 .25 .25 .25
3	MA	AINTENANCE COMPLIANCE TO ANNUAL PLAN	.28
	3.1 3.2 3.2.1 3.3	T&D Preventive and Corrective Maintenance Programs Maintenance Spending Maintenance Historical Spending Distribution Priority "A" Conditions Correction History	. 29 . 29
4	CA	PITAL INVESTMENT	31
	4.1 4.2 4.3	Capital Spending - Distribution and General Plant Capital Spending – Transmission New Connects	.32
5	VE	GETATION MANAGEMENT	.34
	5.1 5.2 5.2.1	Production Budget Vegetation Historical Spending	.35
6	Ар	pendix	.36
	6.1	Reliability Definitions	.36



# 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<sup>1</sup>

Customer Customer 1	The Community ill matters and after an extension within 24
Customer Guarantee 1:	The Company will restore supply after an outage within 24
Restoring Supply After an Outage	hours of notification with certain exceptions as described in
	Rule 25.
Customer Guarantee 2:	The Company will keep mutually agreed upon appointments,
Appointments	which will be scheduled within a two-hour time window.
Customer Guarantee 3:	The Company will switch on power within 24 hours of the
Switching on Power	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:	The Company will provide an estimate for new supply to the
Estimates For New Supply	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:	The Company will respond to most billing inquiries at the time
Respond To Billing Inquiries	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:	The Company will investigate and respond to reported
Resolving Meter Problems	problems with a meter or conduct a meter test and report
	results to the customer within 10 working days.
Customer Guarantee 7:	The Company will provide the customer with at least two days'
Notification of Planned Interruptions	notice prior to turning off power for planned interruptions.

## **1.1** Rocky Mountain Power Customer Guarantees

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

<sup>&</sup>lt;sup>1</sup> 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<sup>1</sup>

Utah Commission adopted baselines recognizing 365-day
rolling (rather than calendar) performance levels of between
152-201 minutes.
Utah Commission adopted baselines recognizing 365-day
rolling (rather than calendar) performance levels of between
1.3-1.9 events.
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.
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.
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.
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

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

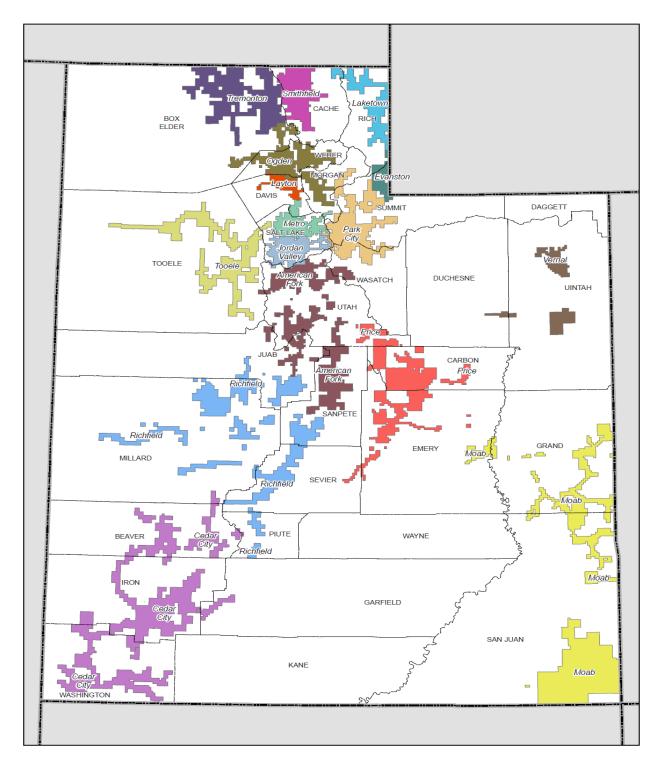
<sup>1</sup> In 2012, rules were codified in Utah Regulations R746-313. The Company, Commission and other stakeholders have been working to develop mechanisms that comply with these rules and that will supersede the Company's Service Standards Program.



January 1 – December, 2014

## 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

As shown in charts under subsections 2.1 and 2.2 below, the Company's 2014 underlying reliability results fall within the Company's control zones, which are shown as 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.

In 2014, there were three major events<sup>2</sup> (which were accepted as major events by the Utah Commission upon recommendation of the Utah Division of Public Utilities) and three significant event days<sup>3</sup> recorded.

Utah Major Events 2014					
Date	Cause	SAIDI			
April 22-23, 2014	Windstorm	21.7			
May 10-12, 2014	Wind and Snowstorms	9.3			
November 1-2, 2014	Wind and Snowstorms	9.3			
	TOTAL	40.3			

#### • April 22-23, 2014

A fast-moving windstorm in northern Utah caused substantial damage to Rocky Mountain Power's facilities and a significant impact on its reliability performance April 22 through April 24, 2014. Winds in excess of 80 miles per hour toppled trees into power lines and blew a heavy, contaminated cloud of dust from Utah's west desert into the Wasatch Front. That contamination on facilities, in combination with subsequent light rain, resulted in numerous pole fires. A double-circuit transmission structure carrying two of the three power sources to Summit County, Utah, burned in remote, mountainous terrain and required rolling load curtailment outages during repairs from 7:10 a.m. to noon. This major event filing was accepted by the Utah Commission on 7/1/14 in Docket 14-035-63.

#### • May 10-12, 2014

Spring storms bringing heavy fog, rain, high winds, lightning and snowfall to southern Utah caused substantial damage to Rocky Mountain Power's facilities and a significant impact on its reliability performance May 10 through May 12, 2014. Wind-blown and snow-laden trees toppled into electrical facilities, blowing fuses, pulling wire down or breaking poles. Sustained interruptions were experienced by 58% of the company's Cedar City customers. This major event filing was accepted by the Utah Commission on 8/4/14 in Docket 14-035-81.

#### • <u>November 1-2, 2014</u>

Fall storms bringing high winds, rain and snowfall to northeastern and southern Utah caused substantial damage to Rocky Mountain Power's facilities and a significant impact on its reliability performance November 1 through November 3, 2014. Wind-blown and snow-laden trees toppled into electrical facilities, blowing fuses, pulling wire down or breaking poles. Across the state sustained interruptions were experienced by approximately 4% of the company's Utah customers, however within Ogden

<sup>2</sup> Major event threshold shown below:

Customer Count	ME Threshold SAIDI	ME Customer Minutes Lost
863,425	6.60	5,699,230
869,108	6.52	5,669,347
	Customer Count 863,425	Customer CountME Threshold SAIDI863,4256.60

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



January 1 – December, 2014

approximately 20% of the company's customers were impacted by the major event. This major event filing was accepted by the Utah Commission on 1/26/15 in Docket 14-035-148.

Utah Significant Event Days 2014				
Date	Cause: General Description	Underlying SAIDI	% of Total Underlying SAIDI (152)	
January 29, 2014	Snowstorm: loss of transmission in Montpelier	2.8	1.8%	
March 17, 2014	Windstorm: loss of transmission in Price operating area	2.5	1.6%	
March 30, 2014	Windstorm: loss of transmission in Moab, Tooele, and Price operating areas	3.5	2.3%	
July 14, 2014	Storm: loss of transmission and other weather related outages due to wind across the state	2.7	1.8%	
July 15, 2014	Storm: July 14 event continued	2.7	1.8%	
July 20, 2014	Wildfire: Fire Marshal requested de-energizing transmission lines in Ogden and other various lightning-related issues across the SLC Metro area	2.9	1.9%	
August 12, 2014	Lightning: loss of transmission due to lightning and wind in SLC Metro area	5.1	3.4%	
November 22, 2014	Pole fires: outages caused by Winter Storm across SLC Metro area	2.7	1.8%	
December 30, 2014	Windstorm: caused outages across SLC Metro area	4.0	2.7%	
	TOTAL	29.1	19.1%	

## 2.1 System Average Interruption Duration Index (SAIDI)

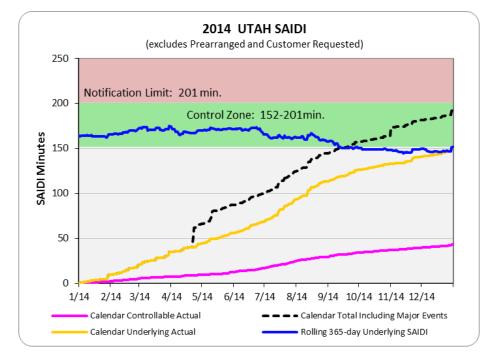
Over time the Company has made system changes to minimize how many customers are affected for any given outage. This approach has resulted in improvements to both outage duration and outage frequency, and has yielded improved performance as delivered to customers.

Utah - SAIDI	January 1 - December 31, 2014	
Total	193	
Underlying	152	
Controllable Distribution	43	



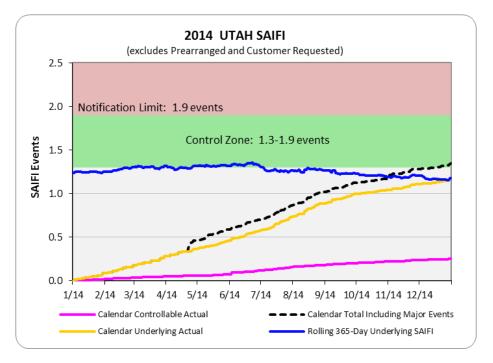
#### **Service Quality Review**

January 1 – December, 2014



## 2.2 System Average Interruption Frequency Index (SAIFI)

Utah - SAIFI	January 1 - December 31, 2014		
Total	1.349		
Underlying	1.175		
Controllable Distribution	0.255		

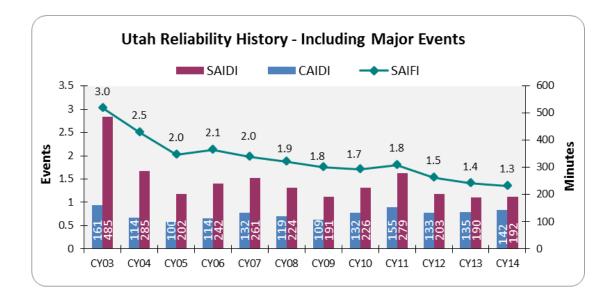


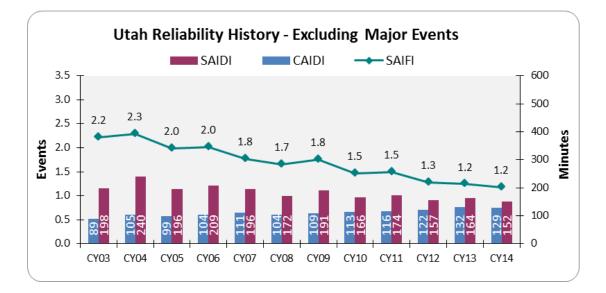


January 1 – December, 2014

## 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.







January 1 – December, 2014

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

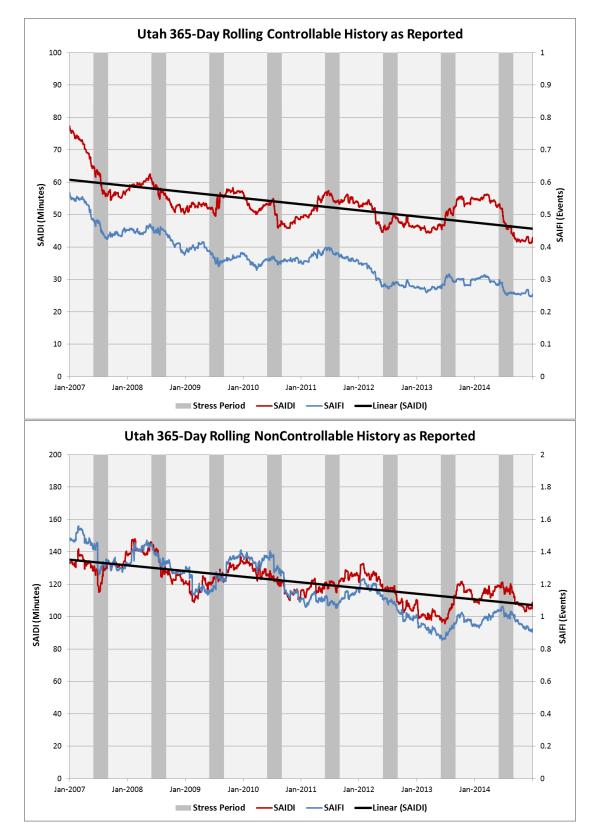
In 2008 the Company introduced a further categorization of outage causes, which it subsequently used to develop improvement programs as developed by engineering resources. This categorization was titled Controllable Distribution outages and recognized that certain types of outages can be cost-effectively 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<sup>4</sup>. 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 365day 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.

<sup>&</sup>lt;sup>4</sup> 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.

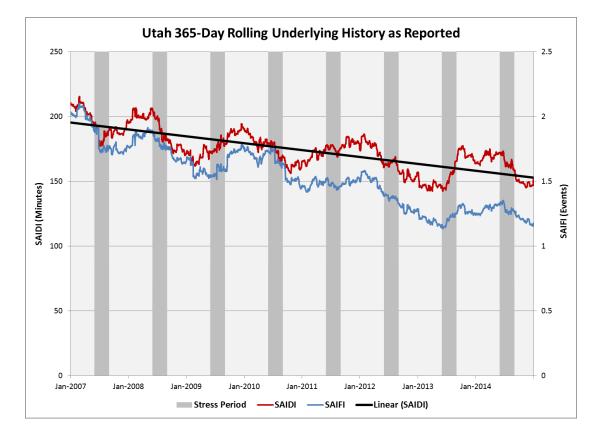


#### **Service Quality Review**





#### January 1 – December, 2014



## 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<sup>5</sup> 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. However, for ease of charting, the pie charts reflect the rollup-level cause category rather than the detail-level direct cause within each category. Therefore, the pie charts for Underlying include prearranged causes (listed within the *planned* category). Following the pie charts, a table of definitions provides descriptive examples for each direct cause category. Further cause analysis is explored in Section 2.7.

<sup>&</sup>lt;sup>5</sup> 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 863,425 (2014 Utah frozen customer count).



#### **Service Quality Review**

#### UTAH

2014 UTAH CAUSE ANALYSIS - CONTROLLABLE										
Direct Cause	Customer Minutes Lost for Incident	Customers In Incident Sustained	Sustained Incident Count	SAIDI	SAIFI					
ANIMALS	1,611,926	22,037	582	1.87	0.026					
BIRD MORTALITY (NON-PROTECTED SPECIES)	1,005,665	7,949	320	1.16	0.009					
BIRD MORTALITY (PROTECTED SPECIES) (BMTS)	548,159	4,292	60	0.63	0.005					
BIRD NEST (BMTS)	24,641	243	20	0.03	0.000					
BIRD SUSPECTED, NO MORTALITY	299,153	3,176	145	0.35	0.004					
ANIMALS	3,489,545	37,697	1,127	4.04	0.044					
B/O EQUIPMENT	3,760,746	25,695	734	4.36	0.030					
DETERIORATION OR ROTTING	25,798,274	124,010	4,833	29.88	0.144					
OVERLOAD	1,342,125	9,634	128	1.55	0.011					
STRUCTURES, INSULATORS, CONDUCTOR	55,980	27	61	0.06	0.000					
RELAYS, BREAKERS, SWITCHES	601	9	19	0.00	0.000					
EQUIPMENT FAILURE	30,957,725	159,375	5,775	35.85	0.185					
FAULTY INSTALL	26,835	293	44	0.03	0.000					
IMPROPER PROTECTIVE COORDINATION	541,078	2,056	20	0.63	0.002					
INCORRECT RECORDS	57,383	1,584	55	0.07	0.002					
INTERNAL CONTRACTOR	297,513	2,401	7	0.34	0.003					
INTERNAL TREE CONTRACTOR	7,072	62	6	0.01	0.000					
PACIFICORP EMPLOYEE - FIELD	97,718	4,374	29	0.11	0.005					
PACIFICORP EMPLOYEE - SUB	8,658	1,367	1	0.01	0.002					
SWITCHING ERROR	35,450	241	2	0.04	0.000					
OPERATIONAL	1,071,708	12,378	164	1.24	0.014					
TREE - TRIMMABLE	966,969	6,868	151	1.12	0.008					
TREES	966,969	6,868	151	1.12	0.008					
UTAH CONTROLLABLE	36,485,948	216,318	7,217	42.26	UTAH CONTROLLABLE 36,485,948 216,318 7,217 42.26 0.251					

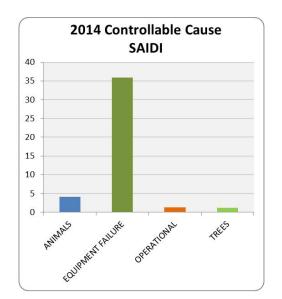


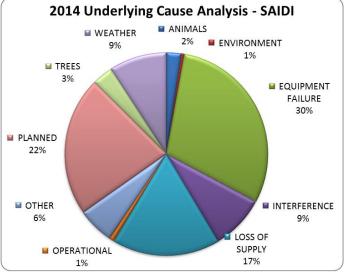
#### **Service Quality Review**

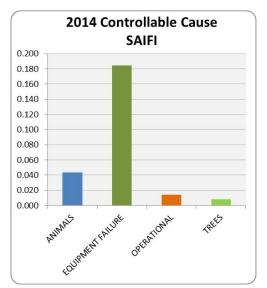
Direct Cause	Customer Minutes Lost	Customers In Incident		SAIDI	SAIFI
ANIMALS	for Incident 1,611,926	Sustained 22,037	Count 582	1.87	0.026
BIRD MORTALITY (NON-PROTECTED SPECIES)	1,011,920	7,949	320	1.87	0.020
BIRD MORTALITY (PROTECTED SPECIES) (BMTS)	548,159	4,292	60	0.63	0.005
BIRD NEST (BMTS)	24,641	243	20	0.03	0.000
BIRD SUSPECTED, NO MORTALITY	299,153	3,176	145	0.35	0.004
ANIMALS	3,489,545	37,697	1,127	4.04	0.044
CONDENSATION / MOISTURE	240,994	806	1	0.28	0.001
	14,456	99	3	0.02	0.000
FIRE/SMOKE (NOT DUE TO FAULTS) FLOODING	333,979 76,361	3,339 164	30	0.39	0.004
ENVIRONMENT	665,789	4,408	38	0.09	0.000
B/O EQUIPMENT	3,760,746	25,695	734	4.36	0.030
DETERIORATION OR ROTTING	25,798,274	124,010	4,833	29.88	0.144
NEARBY FAULT	217,005	3,112	15	0.25	0.004
OVERLOAD	1,342,125	9,634	128	1.55	0.011
POLE FIRE	12,453,743	77,069	345	14.42	0.089
STRUCTURES, INSULATORS, CONDUCTOR	55,980	27	61	0.06	0.000
RELAYS, BREAKERS, SWITCHES EQUIPMENT FAILURE	601 <b>43,628,473</b>	9 239,556	19 6,135	0.00 50.53	0.000
DIG-IN (NON-PACIFICORP PERSONNEL)	1,854,396	19,147	326	2.15	0.022
OTHER INTERFERING OBJECT	772,962	7,478	82	0.90	0.002
OTHER UTILITY/CONTRACTOR	532,031	5,413	76	0.62	0.006
VANDALISM OR THEFT	92,021	196	20	0.11	0.000
VEHICLE ACCIDENT	9,363,464	65,152	409	10.84	0.075
INTERFERENCE	12,614,875	97,386	913	14.61	0.113
FAILURE ON OTHER LINE OR STATION LOSS OF FEED FROM SUPPLIER	15	1 25	4	0.00	0.000
LOSS OF FEED FROM SUPPLIER	29,433 4,998,472	38,320	67	5.79	0.000
LOSS OF TRANSMISSION LINE	19,961,981	167,156	393	23.12	0.044
SYSTEM PROTECTION	849	3	12	0.00	0.000
LOSS OF SUPPLY	24,990,750	205,505	480	28.94	0.238
FAULTY INSTALL	26,835	293	44	0.03	0.000
IMPROPER PROTECTIVE COORDINATION	541,078	2,056	20	0.63	0.002
INCORRECT RECORDS	57,383	1,584	55	0.07	0.002
	297,513	2,401	7	0.34	0.003
INTERNAL TREE CONTRACTOR PACIFICORP EMPLOYEE - FIELD	7,072 97,718	62 4,374	29	0.01	0.000
PACIFICORP EMPLOYEE - SUB	8,658	1,367	1	0.01	0.002
SWITCHING ERROR	35,450	241	2	0.04	0.000
TESTING/STARTUP ERROR	40	1	1	0.00	0.000
UNSAFE SITUATION	122,187	3,325	2	0.14	0.004
OPERATIONAL	1,193,935	15,704	167	1.38	0.018
OTHER, KNOWN CAUSE	267,023	3,150	77	0.31	0.004
UNKNOWN	8,224,628	84,970	1,276	9.53	0.098
OTHER CONSTRUCTION	<b>8,491,651</b> 642,913	88,120 8,931	<b>1,353</b> 452	<b>9.83</b> 0.74	0.102
CONSTRUCTION - Scheduled Switching	-	0		0.00	0.000
CUSTOMER NOTICE GIVEN	15,296,270	86,623	3,219	17.72	0.100
CUSTOMER REQUESTED	234,231	1,815		0.27	0.002
EMERGENCY DAMAGE REPAIR	13,913,769	171,876		16.11	0.199
ENERGY EMERGENCY INTERRUPTION	1,311	5		0.00	0.000
INTENTIONAL TO CLEAR TROUBLE	800,520	11,146		0.93	0.013
MAINTENANCE TRANSMISSION REQUESTED	24,829 1,537,240	7 10,773	214 15	0.03	0.000
PLANNED	32,451,083	291,176		37.58	0.012
TREE - NON-PREVENTABLE	3,921,427	26,020		4.54	0.030
TREE - TRIMMABLE	966,969	6,868		1.12	0.008
TREES	4,888,396	32,888	585	5.66	0.038
FREEZING FOG & FROST	82	1		0.00	0.000
ICE	7,304	6		0.01	0.000
	6,085,066	48,331		7.05	0.056
SNOW, SLEET AND BLIZZARD	1,207,099	10,250		1.40	0.012
Wind	6,043,999	30,656		7.00	0.036
Weahter	13,343,549	89,244	1,109	15.45	0.103
Utah Including Prearranged	145,758,046	1,101,684	18,365	168.81	1.276

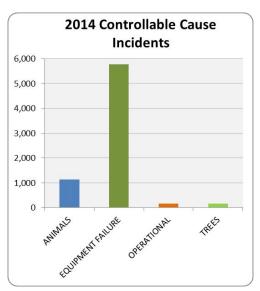


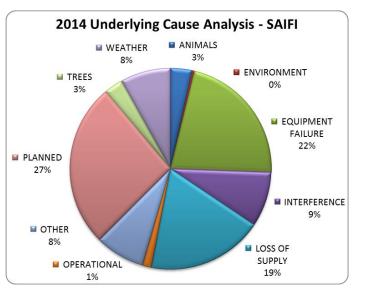
#### **Service Quality Review**

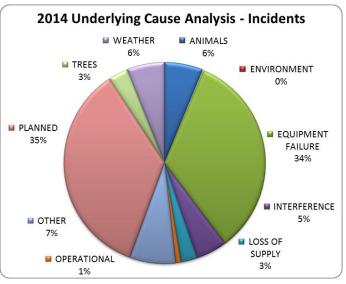






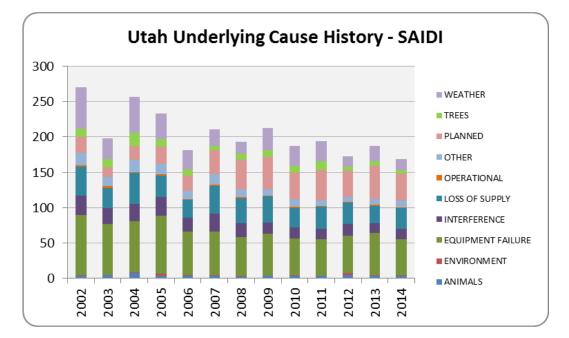


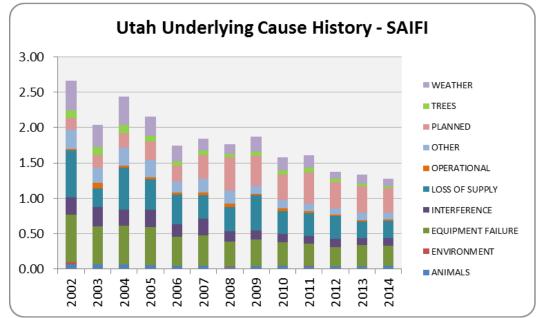














#### January 1 – December, 2014

Cause Category	Description and Examples
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).
Weather	Wind (excluding windborne material); snow, sleet or blizzard; ice; freezing fog; frost; lightning.
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 (i.e. broken conductor hits another line).
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.
Animals and Birds	Any problem nest that requires removal, relocation, trimming, etc; any birds, squirrels or other animals, whether or not remains found.
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.
Loss of Supply	Failure of supply from Generator or Transmission system; failure of distribution substation equipment.
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.
Trees	Growing or falling trees
Other	Cause Unknown; use comments field if there are some possible reasons.



## **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, 2014 yields the values shown below.

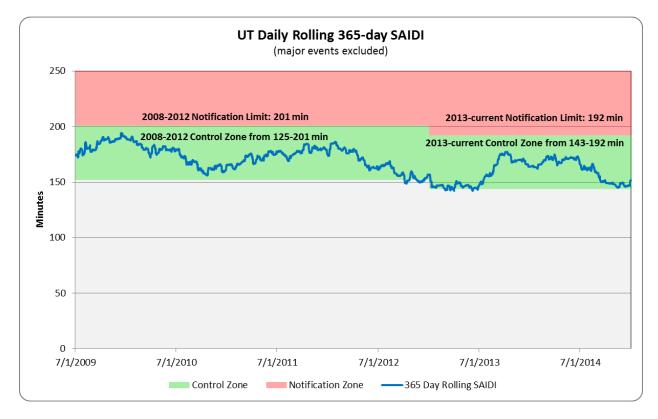
The Company refreshed the dataset and calculated using the last six years of daily reliability data, which was selected to align with major event calculations, but required the addition of the prior 365 days in order to construct the daily rolling 365-days curves used for these calculations. The 365-day 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, 2014 result in an average of 168 minutes and 1.44 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.

Ba	aseline	As Filed (his	tory through I 2012)	December 31,	Current Period (2014-December)				
		365-Day Average	Lower Value Control Zone	Upper Value Control Zone (Notification Limit)	365-Day Average	Lower Value Control Zone	Upper Value Control Zone (Notification Limit)		
	SAIDI	176 minutes	152 minutes	201 minutes	168 minutes	144 minutes	192 minutes		
:	SAIFI	1.59 events	1.3 events	1.9 events	1.44 events	1.1 events	1.8 events		

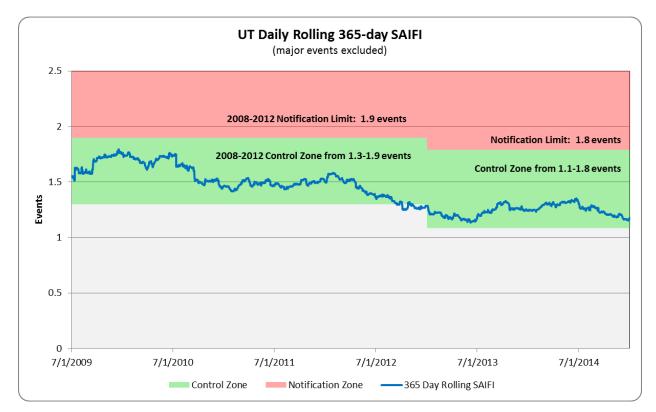


January 1 – December, 2014

#### **Baseline Summary SAIDI**



#### **Baseline Summary SAIFI**





## 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 R 746.313. 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<sub>e</sub> are required.

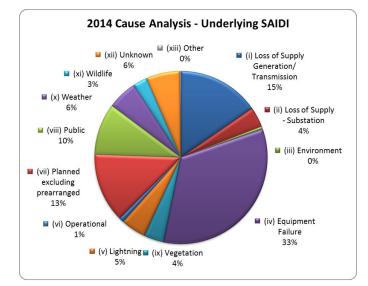
Major Events and Prearranged Excluded*		2	010			2	011			2	012			2	013			2	014	
STATE	SAIDI	SAIFI	CAIDI	MAIFle	SAIDI	SAIFI	CAIDI	MAIFle	SAIDI	SAIFI	CAIDI	MAIFIe	SAIDI	SAIFI	CAIDI	MAIFIe	SAIDI	SAIFI	CAIDI	MAIFIe
Utah	166	1.5	113	1.33	174	1.5	116	1.10	157	1.3	122	0.72	164	1.2	132	0.81	152	1.2	129	1.21
OP AREA																				
AMERICAN FORK	148	1.2	124		132	1.3	106		101	0.8	135		126	1.3	99		113	1.0	109	
CEDAR CITY	296	2.5	118		218	1.7	131		279	1.8	154		225	1.8	127		170	1.1	151	
CEDAR CITY (MILFORD)	389	2.1	183		980	8.1	121		363	2.8	129		707	3.3	213		891	3.3	271	
JORDAN VALLEY	112	1.0	116		113	0.9	121		106	0.8	129		106	0.7	145		103	0.7	141	
LAYTON	151	1.1	142		155	1.3	124		105	0.8	131		105	1.0	109		108	0.8	127	
MOAB	286	2.6	111		151	1.8	86		375	3.1	122		284	1.9	147		412	2.3	181	
OGDEN	171	1.8	96		204	1.8	116		153	1.3	117		168	1.4	122		218	1.9	113	
PARK CITY	251	2.2	116		186	1.6	116		184	1.8	100		232	1.5	155		147	1.1	140	
PRICE	505	3.4	150		421	2.5	166		133	1.4	97		514	1.8	293		394	2.2	180	
RICHFIELD	255	2.9	87		369	3.2	114		200	2.0	100		469	3.4	138		181	1.7	104	
RICHFIELD (DELTA)	189	2.5	76		316	3.6	89		329	2.9	113		316	3.7	85		202	1.9	108	
SLC METRO	144	1.3	107		178	1.5	117		129	1.2	112		170	1.2	139		145	1.1	129	
SMITHFIELD	229	1.7	135		174	1.6	106		267	2.6	102		81	0.7	117		114	0.9	126	
TOOELE	178	1.3	134		329	3.0	110		595	3.7	163		137	1.3	103		239	2.1	115	
TREMONTON	346	3.4	102		255	2.2	115		447	3.0	147		335	3.3	102		216	2.0	111	
VERNAL	105	0.9	115		117	2.2	54		236	2.9	82		160	2.1	75		119	1.2	101	

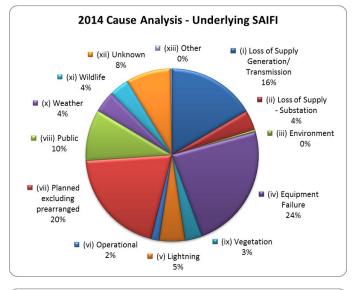
\* except MAIFIe

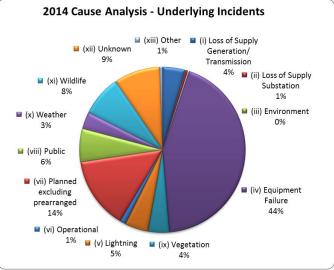
	20	10	20	11	20:	12	20	13	20:	14
Utah Cause Category	SAIDI	SAIFI								
Environment	1	0.0	0	0.0	4	0.0	0	0.0	1	0.0
Equipment Failure	53	0.3	52	0.3	53	0.3	60	0.3	51	0.3
Lightning	7	0.1	9	0.1	4	0.0	9	0.1	7	0.1
Loss of Supply - Generation/Transmission	21	0.3	26	0.3	25	0.3	19	0.2	23	0.2
Loss of Supply - Substation	7	0.1	6	0.1	5	0.1	6	0.0	6	0.0
Operational	1	0.0	1	0.0	0	0.0	1	0.0	1	0.0
Other	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0
Planned (excl. Prearranged)	17	0.3	23	0.3	22	0.3	24	0.3	20	0.2
Public	15	0.1	15	0.1	16	0.1	14	0.1	15	0.1
Unknown	10	0.1	7	0.1	7	0.1	8	0.1	10	0.1
Vegetation	10	0.1	13	0.1	5	0.1	7	0.0	6	0.0
Weather	21	0.1	19	0.1	11	0.1	12	0.1	8	0.0
Wildlife	4	0.0	4	0.0	4	0.0	4	0.0	4	0.0
UTAH Underlying	166	1.5	174	1.5	157	1.3	164	1.2	151	1.2



#### **Service Quality Review**









## 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 Selections for CY2015 (Program Year 16)

In prior Service Quality Reports the Company has advocated certain circuits be designated as Worst Performers. Prior comments received identified that the Company should list explicitly the 10 circuits experiencing the highest (or poorest) CPI score, with an explanation designating their treatment as a Worst Performer. Finally, the rationale for the five circuits selected is also required. The table below is responsive to this modification to the report.

Circuit Name	2014 CPI99	2013 CPI99	2012 CPI99	Stakeholder Comments
LITTLE MOUNTAIN #18	1,785	2,510	2,416	Circuit no longer exists
JORDAN #16	1,025	19	40	Customer count shifts from year to year impacts circuit SAIDI and SAIFI. CML and Sustained incidents evaluated by FE show good performance
RESEARCH #13	872	193	243	Recent performance shows significant improvement
STANSBURY #11	783	58	43	One large unavoidable outage (animal guarded substation)
RED MOUNTAIN #33 APEX MINE	768	922	1,626	Circuit has an improving trend, expect continued improvement
CLEAR LAKE #11	742	693	1,073	Not WPC; on watch-list for RWP. Lightning issues? High cost per avoided CML
FOUNTAIN GREEN #12	687	785	744	Improving trend, three year score is impacted by a range fire in 2012. Monitor UG failure trend
RED MOUNTAIN #32 SHIVWITS	572	410	366	Likelihood of two year project delivery is low due to land right issues
BIG MOUNTAIN #11	545	650	996	Improving trend, three year score is impacted by a weather event in 2012. Review substation improvements with sub ops.
PONDEROSA #11	493	329	288	Localized issue at FP241002 and FP253401 will be addressed through reliability work plan process
TOQUERVILLE #31	475	361	398	The sustained incidents and the CML for 2014 were over double the three year average 2011-2013. CPI99 score increasing against the average.
RATTLESNAKE #22	456	329	371	Over last four years this circuit averages 21 sustained incidents and has had over 1 million CML the last three years. The CPI99 score is increasing against the average.



January 1 – December, 2014

BRIGHTON #12	<b>RIGHTON #12</b> 270 174 579		579	The sustained incidents and the CML for 2014 were over double the three year average 2011-2013.
NIBLEY #21	179	192	205	This circuit averages 45 sustained incidents per year over 2011-2014
DECKER LAKE #12	167	120	88	This was a 2010 WPC and it has not maintained improvement from its initial selection score. It is increasing in CPI99 score against the average and increasing in CML against the average.

## 2.8.2 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. Goal Met is reported and then that program year removed from future Service Quality Reports.

WORST PERFORMING CIRCUITS	STATUS	BASELINE <sup>6</sup>	Performance 12/31/2014				
Program Year 15: (CY2014)							
Skull Valley 11	IN PROGRESS	468	440				
Fort Douglas 13	IN PROGRESS	417	140				
Parowan Valley 25	IN PROGRESS	408	355				
Brighton 21	IN PROGRESS	364	188				
Bush 12	IN PROGRESS	281	281				
TARGET SCORE = <b>248</b>		310	281				
Program Year 14: (CY2013)							
Snyderville 16	COMPLETE	72	81				
Eden 11	COMPLETE	116	234				
Bush 11	COMPLETE	228	309				
Pioneer 12	COMPLETE	177	145				
Grantsville 12	COMPLETE	250	218				
TARGET SCORE = 108		135	197				
Program Year 13: (CY2012)							
Fielding 11	COMPLETE	207	198				
East Bench 12	COMPLETE	112	66				
Clinton 11	COMPLETE	133	35				
Redwood 16	COMPLETE	145	55				
Orangeville 11	COMPLETE	114	19				

<sup>&</sup>lt;sup>6</sup> 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 on each of the circuits. The application of CPI99 proved to demonstrate more consistently how performance comparisons could be made.

January 1 – December, 2014



TARGET SCORE = <b>114</b>	Torget Met	142	75						
	Target Met	142	75						
Program Year 12: (CY2011)		r1							
Lincoln 15	COMPLETE	173	46						
Huntington City 12	COMPLETE	285	109						
Magna 15	COMPLETE	140	92						
Gunnison 12	COMPLETE	110	104						
Capitol 11	COMPLETE	129	50						
TARGET SCORE = <b>134</b>	Target Met	167	80						
Program Year 11: (CY2010)	Program Year 11: (CY2010)								
Decker Lake 12	COMPLETE	102	167						
North Bench 13	COMPLETE	95	54						
Newgate 14	COMPLETE	164	59						
Newton 12	COMPLETE	105	83						
St Johns 11	COMPLETE	547	361						
TARGET SCORE = <b>162</b>	Target Met	203	145						
Program Year 10: (CY2009)									
Fruit Heights 12	COMPLETE	113	54						
Mathis 12	COMPLETE	132	79						
Parrish 11	COMPLETE	137	43						
Valley Center 11	COMPLETE	169	50						
Hammer 15	COMPLETE	95	50						
TARGET SCORE = <b>104</b>	Target Met	129	55						

Note: Goals were met for Program Years 1 through 12 and filed in prior reporting periods; however, data for Program Years 10-12 are retained in this report in order to show circuit selections of the past 6 program years for discussion purposes.

#### UTAH

	RESTORATIONS WITHIN 3 HOURS									
CUMULATIVE January – December 2014 = 81%										
January	February March April May June									
85%	81%	87%	79%	75%	87%					
July	August	September	October	November	December					
76%	76% 84% 79% 73% 85% 72%									

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

## 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.

2014 CAIDI (Average Outage Duration)								
Underlying Performance	133 minutes							
Total Performance	145 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%	100%
PS6c) Address commission <sup>7</sup> complaints within 30 days	100%	100%

<sup>&</sup>lt;sup>7</sup> 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.

During 2014, there were two dates identified as a wide-scale outage day; call statistics are shown in the table below. The outage event on January 3rd was a substation bus lockout at Mcclelland substation in Utah, which affected the 46 kV system, resulting in approximately 8,320 customers out of service for approximately 20 minutes. The outage events that resulted in the wide-scale outage on August 12 were due to a loss of transmission cause by summer storm activity (including lightning).

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
	13:30	13:44	548	0	13	193	83
	13:45	13:59	546	21	25	247	113
	14:00	14:14	608	39	29	246	169
1/3/2014	14:15	14:29	1586	401	55	591	92
	14:30	14:44	1439	716	5	642	147
	14:45	14:59	537	0	8	614	27
	15:00	15:14	571	8	14	194	67
	15:30	15:44	354	1	47	488	43
	15:45	15:59	650	46	150	346	54
8/12/2014	16:00	16:14	2024	160	2	90	15
	16:15	16:29	402	0	9	123	44
	16:30	16:44	398	0	3	135	32

Twenty First Century, an external Interative Voice Response (IVR) 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.



January 1 – December, 2014

## 2.13 Utah State Customer Guarantee Summary Status

# customer*guarantees*

January to December 2014

Utah

			20	14	2013				
	Description	Events	Failures	% Success	Paid	Events	Failures	% Success	Paid
CG1	Restoring Supply	1,017,071	0	100%	\$0	1,058,805	1	100%	\$50
CG2	Appointments	7,115	26	99.6%	\$1,300	6,567	9	99.9%	\$450
CG3	Switching on Power	8,134	2	99.9%	\$100	10,958	5	99.95%	\$250
CG4	Estimates	1,263	5	100%	\$250	1,340	4	99.7%	\$200
CG5	Respond to Billing Inquiries	1,808	3	100%	\$150	1,612	1	99.9%	\$50
CG6	Respond to Meter Problems	978	0	100%	\$0	926	1	100%	\$50
CG7	Notification of Planned Interruptions	86,658	79	99.91%	\$3,950	70,152	58	99.9%	\$2,900
		1,123,027	115	99.9%	\$5,750	1,150,360	79	99.9%	\$3,950

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<sup>8</sup>, 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.<sup>9</sup>
- 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.

<sup>&</sup>lt;sup>8</sup> 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.

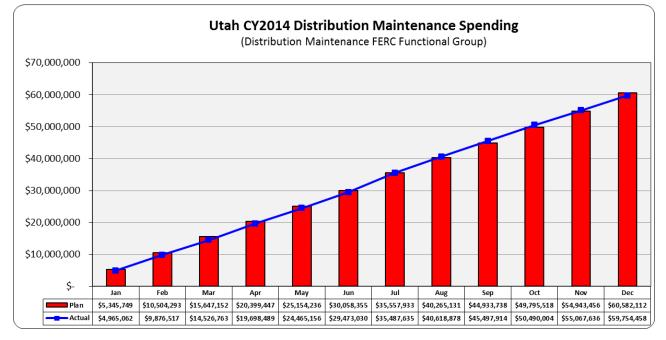
<sup>&</sup>lt;sup>9</sup> Effective 1/1/2007, Rocky Mountain Power modified its reliability & preventive planning methods to utilize repeated reliability events to prioritize localized preventive maintenance activities, using its Reliability Work Planning methodology. At this time, repeated outage events experienced by customers will result in localized inspection and correction activities, rather than being programmatically performed at either the entire circuit or map section level.



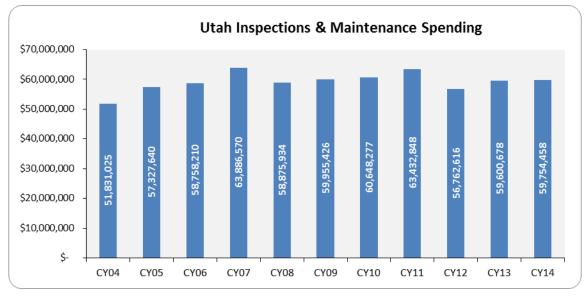
#### Substations and Major Equipment

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

# 3.2 Maintenance Spending <sup>10</sup>



## 3.2.1 Maintenance Historical Spending

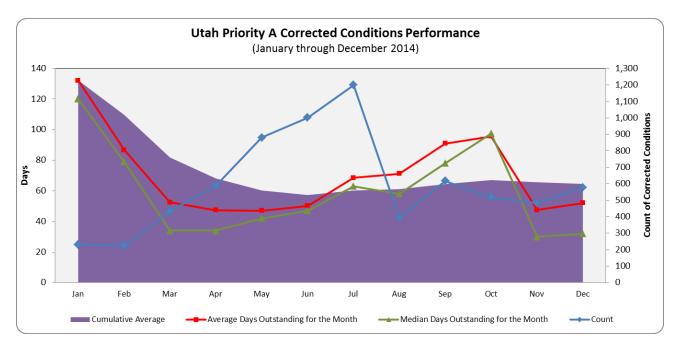


<sup>&</sup>lt;sup>10</sup> Maintenance spending reflected does not include Vegetation Management and Fault Locating costs, which when reporting under FERC accounting methodology, FERC has traditionally considered maintenance.



## 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. An individual month may exceed the target as happened in January, however, the cumulative average remains well below the target.



## **Oldest Outstanding Priority A Conditions In Utah**

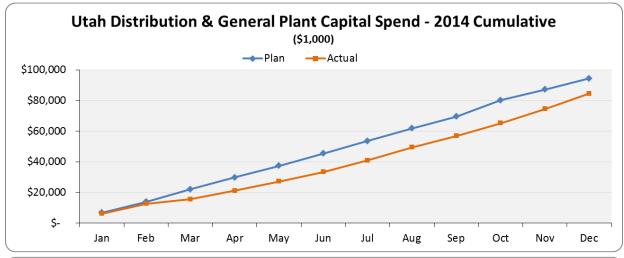
District	Mapstring	Pole	Condition	Inspection Remarks	Inspection Date	Completion Date	Days to Correct	Circuit	Explanation
Ogden	11103002	131000	BOPOLE	DECAY REJECT RESTORE_SR 1.59_SHELL ROT	4/16/2014	1/21/2015	280	MGN11	The local district managers initially planned to use internal resources to complete the work, but the workload increased to a point that a contract resource was required to complete.
Ogden	11205002	20212	BORECL	LID HINGE IS RUSTED AND FALLING APART	3/27/2014	1/23/2015	302	MID14	The local management determined the condition was not a safety hazard and elected to correct the condition in conjunction with a scheduled UDOT road widening project.
Ogden	11205001	224702	POLESTUR	POWER SUPPLY TO VACATE WHEN PULLED COMCAST TO NOTIFY	3/5/2014	1/21/2015	322	UIN12	RMP needed to wait for Comcast to remove their equipment before RMP could remove the pole. The polestub was removed on 5/30/14, however the FPI condition was not cleared until the local manager fielded the pole and verified it was removed on 1/21/15.
Metro	11301001	351244	BOXFRMR	ACTIVELY LEAKING OIL;OR BROKEN LATCH/HINGES	4/14/2014	1/28/2015	289	MEA15	As the conditions were being readied for correction it was determined that work should be expanded to address adjacent lower priority conditions and replace more equipment. Designs
Metro	11301001	351402	BOXFRMR	ACTIVELY LEAKING OIL;OR BROKEN LATCH/HINGES	4/14/2014	1/28/2015	289	MEA15	and subsequent outage coordination pushed the project's completion date.

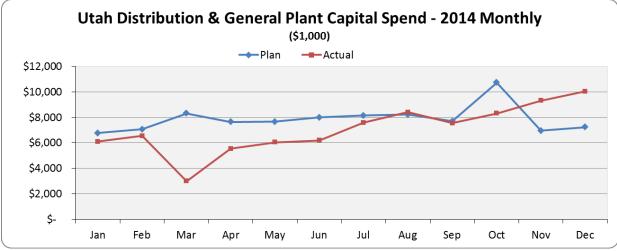


## **4 CAPITAL INVESTMENT**

## 4.1 Capital Spending - Distribution and General Plant

Investment	Actuals (\$M)	Plan (\$M)	Significant Variances
1. Mandated	\$6.7	\$9.4	Mandated environmental/avian protection over plan, (+\$1.1M); mandated road relocations and national/regional regulatory (WECC, FERC, etc.) under plan, (-\$3.8M). (Note: Plan included \$2.9M for UDOT MVC Wasatch Restoration Center Relocation, Oct-2014).
2. New Connect	\$34.6	\$43.1	Residential, commercial and street light new connects under plan, (-\$8.2M). (Note: Actuals include \$2.7M transfer from distribution to transmission for prior year City Creek project costs, Mar-2014).
3. System Reinforcement	\$6.3	\$8.5	Subtransmission reinforcement over plan, (+\$0.5M); feeder and substation reinforcement under plan, (-\$2.6M).
4. Replacement	\$32.5	\$29.9	Replacements for underground cable, vaults/equipment and vehicles (transport) over plan, (+\$4.8M); replacements for substation transformers and overhead distribution lines/other under plan, (-\$2.3M).
5. Upgrade & Modernize	\$4.4	\$3.5	Feeder improvement and functional reliability upgrades over plan (+\$1.7M); economically justified upgrades under plan (-\$1.1M).
Total	\$84.6	\$94.4	

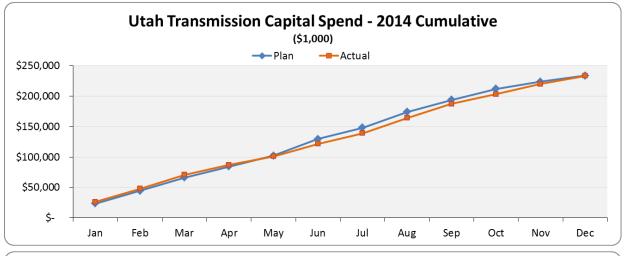


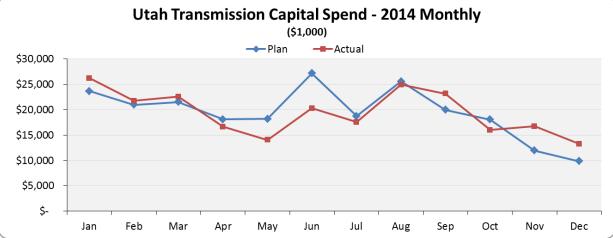




# 4.2 Capital Spending – Transmission

Investment	Actuals (\$M)	Plan (\$M)	Significant Variances
1. Mandated	\$27.8	\$23.6	Mandated NERC reliability, national/regional regulatory (WECC, FERC, etc.), and right-of-way renewals over plan, (+\$6.1M); mandated road relocations under plan, (-\$1.5M).
2. New Connect	\$2.9	\$0.3	Commercial new connect over plan, (+\$2.7M). (Note: Actuals include \$2.7M transfer from distribution to transmission for prior year City Creek project costs, Mar- 2014).
Local Transmission System 3. Reinforcements	\$8.8	\$6.7	Local subtransmission reinforcement over plan, (+\$1.7M).
4. Main Grid Reinforcements / Interconnections	\$34.0	\$46.1	Carbon Plant Replacement (-\$6.6M), Highland Sub-Lehi Rebld for Network Cust (-\$4.2M) and Mona Sub Series Reactor (-\$1.1M) under plan.
5. Energy Gateway 5. Transmission	\$147.8	\$143.6	Sigurd Red Butte Crystal Line (+\$3.6M) and Populus-Terminal Line (+\$1.3M) over plan; Mona-Oquirrh Line (-\$0.8M) under plan. ( <i>Note: Populus-Terminal Line project</i> crosses state lineacctg procedures assign all plan \$ to ID; capital spending report includes \$1.3M in UT expenditures.)
6. Replacement	\$11.5	\$13.5	Replacements for storm & casualty, substation bushings/glass/other, and overhead transmission poles over plan, (+\$2.3M); replacements for substation transformers under plan, (-\$4.8M).
7. Upgrade & Modernize	\$0.4	\$0.0	
Total	\$233.2	\$233.7	







#### **Service Quality Review**

January 1 – December, 2014

## 4.3 New Connects

	2013									20	)14								
	Jan - Dec 2013	Jan	Feb	Mar	Q1 Total	Apr	May	Jun	Q2 Total	Jan - Jun 2013	Jul	Aug	Sep	Q3 Total	Oct	Nov	Dec	Q4 Total	YEAR TO DATE
Residential																			
UT South	741	55	34	49	138	48	40	70	158	296	66	69	68	203	54	59	50	163	662
UT North/Metro	4,382	436	285	240	961	352	440	490	1,282	2,243	309	383	457	1,149	378	356	347	1,081	4,473
UT Central	5,634	539	355	454	1,348	433	455	473	1,361	2,709	527	575	701	1,803	930	743	707	2,380	6,892
Total Residential	10,757	1,030	674	743	2,447	833	935	1,033	2,801	5,248	902	1,027	1,226	3,155	1,362	1,158	1,104	3,624	12,027
Commercial																			
UT South	204	12	13	16	41	16	30	13	59	100	10	14	20	44	23	14	20	57	201
UT North/Metro	626	44	45	37	126	46	47	49	142	268	60	60	56	176	66	59	100	225	669
UT Central	653	53	35	55	143	51	57	51	159	302	67	75	73	215	110	103	172	385	902
Total Commercial	1,483	109	93	108	310	113	134	113	360	670	137	149	149	435	199	176	292	667	1,772
Industrial																			
UT South	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	3
UT North/Metro	6	-	-	-	-	1	-	-	1	1	-	-	-	-	-	1	28	29	30
UT Central	5	1	3	1	5	1	2	-	3	8	-	-	-	-	-	1	3	4	12
Total Industrial	18	1	3	1	5	2	2	-	4	9	-	-	-	-	-	4	32	36	45
Irrigation																			
UT South	74	2	1	2	5	12	7	4	23	28	5	7	3	15	-	-	2	2	45
UT North/Metro	5	-	-	1	1	-	-	-	-	1	1	1	-	2	-	1	1	2	5
UT Central	18	1	-	3	4	4	-	-	4	8	-	2	2	4	1	1	-	2	14
Total Irrigation	97	3	1	6	10	16	7	4	27	37	6	10	5	21	1	2	3	6	64
TOTAL New Connects																			
UT South	1,026	69	48	67	184	76	77	87	240	424	81	90	91	262	77	75	73	225	911
UT North/Metro	5,019	480	330	278	1,088	399	487	539	1,425	2,513	370	444	513	1,327	444	417	476	1,337	5,177
UT Central	6,310	594	393	513	1,500	489	514	524	1,527	3,027	594	652	776	2,022	1,041	848	882	2,771	7,820
TOTAL New Connects	12,355	1,143	771	858	2,772	964	1,078	1,150	3,192	5,964	1,045	1,186	1,380	3,611	1,562	1,340	1,431	4,333	13,908

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

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

Utah Central region includes American Fork, Vernal, Tooele, Jordan Valley and Park City

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

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



January 1 – December, 2014

## **5 VEGETATION MANAGEMENT**

## 5.1 Production

#### UTAH

#### Tree Program Reporting January 1, 2014 through December 31, 2014 Distribution

	Total		Calendar Ye	ar Reporting		Cycle Reporting				
	3 Year Program/Total Line Miles column a	1/1/2014- 12/31/2014 Miles Planned column b	1/1/2014- 12/31/2014 Actual Miles column c	01/01/2014- 12/31/2014 Ahead/ Behind column d	1/1/2014- 12/31/2014 % Ahead/ Behind column e	1/1/2014- 12/31/2016 Miles Planned column f	1/1/2014- 12/31/2016 Actual Miles column g	01/01/2014- 12/31/2016 Ahead/ Behind column h	1/1/2014- 12/31/2016 % Ahead/ Behind column i	
UTAH	10,871	3,623	3,993	370	110.2%	3,624	3,993	369	110.2%	
AMERICAN FORK	806	269	174	-95	64.7%	269	174	-95	64.8%	
CEDAR CITY	1,326	442	708	266	160.2%	442	708	266	160.2%	
JORDAN VALLEY	774	258	333	75	129.1%	258	333	75	129.1%	
LAYTON	281	94	27	-67	28.7%	94	27	-67	28.8%	
MOAB	955	318	172	-146	54.1%	318	172	-146	54.0%	
OGDEN	879	293	279	-14	95.2%	293	279	-14	95.2%	
PARK CITY	529	176	218	42	123.9%	176	218	42	123.6%	
PRICE	590	197	321	124	162.9%	197	321	124	163.2%	
RICHFIELD	1,346	449	247	-202	55.0%	449	247	-202	55.1%	
SL METRO	1,180	393	514	121	130.8%	393	514	121	130.7%	
SMITHFIELD	757	252	311	59	123.4%	252	311	59	123.2%	
TOOELE	481	160	92	-68	57.5%	160	92	-68	57.4%	
TREMONTON	728	243	519	276	213.6%	243	519	276	213.9%	
VERNAL	239	79	78	-1	98.7%	80	78	-2	97.9%	

#### Distribution

Distribution cycle \$/tree:	\$89.58
Distribution cycle \$/mile:	\$2,847
Distribution cycle removal %	20.89%

#### Transmission

Total	Line	Line	Miles	Miles	% of miles
Line	Miles	Miles	Ahead(behind)	on	on/behind
Miles	Scheduled	Worked	Schedule	Schedule	Schedule
6,379	601	875	274	6,653	1.043

Transmission \$/mile: \$3,878

Current distribution cycle begin 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, 2014 through December 31, 2014

Column c: Actual overhead distribution pole miles worked during the period January 1 2014 through December 31, 2014

Column d: Miles ahead or behind for the period January 1, 2014 through December 31, 2014 (column c-column b)

Column e: Percent of actual compared to planned for the period January 1, 2014 through December 31, 2014 ((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)

 $Column i: Percent of actual compared to planned for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100). Max = 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2014 through December 31, 2016 ((column g \div f) \times 100\% for the period January 1, 2016 through December 31, 2016 through December 31$ 



January 1 – December, 2014

## 5.2 Budget

#### UTAH

#### **Tree Program Reporting**

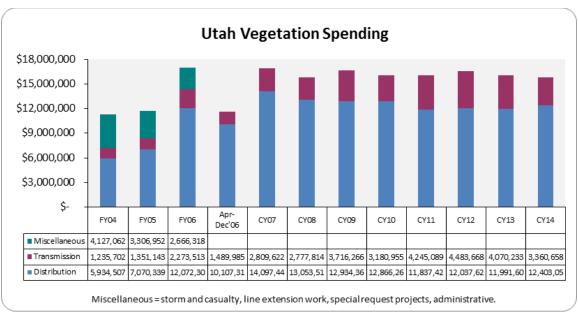
	CY2015	CY2016	CY2017
Distribution			
Tree Budget	\$11,910,000	\$11,910,000	\$11,910,000
Transmission			
Tree Budget	\$3,882,031	\$3,882,031	\$3,882,031
Total Tree Budget	\$15,792,031	\$15,792,031	\$15,792,031

Calendar	Distribution			Transmission		
vear 2014	Actuals	Budget	Variance	Actuals	Budget	Variance
Jan	\$1,054,710	\$1,028,962	\$25,748	\$301,982	\$329,778	-\$27,796
Feb	\$849,236	\$890,921	-\$41,685	\$196,325	\$285,951	-\$89,626
Mar	\$1,243,363	\$982,947	\$260,416	\$304,173	\$315,170	-\$10,997
Apr	\$1,176,415	\$1,028,962	\$147,453	\$275,078	\$329,778	-\$54,700
May	\$925,468	\$982,948	-\$57,480	\$235,710	\$315,169	-\$79,459
Jun	\$1,014,589	\$982,947	\$31,642	\$294,004	\$315,170	-\$21,166
Jul	\$943,311	\$982,948	-\$39,637	\$324,178	\$315,169	\$9,009
Aug	\$945,539	\$982,948	-\$37,409	\$353,152	\$315,169	\$37,983
Sep	\$1,039,350	\$982,947	\$56,403	\$264,069	\$315,170	-\$51,101
Oct	\$1,241,561	\$1,074,975	\$166,586	\$224,635	\$344,387	-\$119,752
Nov	\$903,556	\$844,908	\$58,648	\$272,778	\$271,341	\$1,437
Dec	\$1,065,952	\$1,028,961	\$36,991	\$314,575	\$329,779	-\$15,204
Total	\$12,403,052	\$11,795,374	\$607,678	\$3,360,658	\$3,782,031	-\$421,373

Average # Tree Crews on Property (YTD)

64

## 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 1366-2003<sup>11</sup> 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).

<sup>&</sup>lt;sup>11</sup> 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<sub>E</sub>

 $MAIFI_{E}$  (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.

#### CP199

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<sub>E</sub> \* 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<sub>E</sub>: 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<sub>E</sub>\* 0.20 \* 0.70) + (3-year breaker lockouts \* 0.20 \* 2.00)) = CPI Score

#### CP105

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 "noncontrollable" (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 noncontrollable 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.