

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities



Electric Distribution Reliability

April 17, 2019

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Note:

The March super storm event had many small outages that were not recorded due to the weather conditions and the demands on staff. The major events are indicated in the report.

CIRCUIT SAIDI IS CALCULATED ACCORDING TO THE NUMBER OF CUSTOMERS IN EACH CIRCUIT RESPECTIVELY											
Running SAIDI Circuit 13	Running SAIDI Circuit 14	Running SAIDI Circuit 15	Running SAIDI Circuit 16	Running SAIDI Circuit 17	Running SAIDI Circuit 18	SAIDI Circuit EA4 & Royal Crest	Running SAIDI Circuit WR1	Running SAIDI Circuit WR2	Monthly SAIDI	Monthly Customer Minutes out of service	WEATHER SAIDI
			0:00:12				0:00:40		APRIL 0:00:09	23:30:00	
			0:01:40								
								0:01:00	0:00:24	61:00:00	
								0:04:07			
								0:07:04			
								0:10:41			
0:06:56											
			0:01:46						JUNE 0:02:19	349:15:00	
	0:20:02										
0:16:00								0:01:00	JULY 0:01:18	183:00:00	
								0:07:00	AUGUST 0:02:18	346:00:00	
								0:11:35			
							0:02:22				
							0:03:19				0:00:10
							0:03:35				
								0:14:12	SEPTEMBER 0:01:17	49:00:00	
0:32:33								0:15:44	OCTOBER 0:00:10	66:30:00	
				0:00:30							
0:33:34											
0:36:17											
								0:18:12	NOVEMBER 0:03:43	561:30:00	
								0:17:46			
							0:05:51		FEBRUARY 0:01:02	259:34:00	
						0:16:44		0:18:08			
0:25:08											
0:34:16											
3:03:15											
3:15:39											
3:15:56		0:00:42									
									MARCH 0:36:20	4481:00:00	0:36:20
Circ 13 1655	Circ 14 539	Circ 15 1875	Circ 16 1842	Circ 17 209	Circ 18 213	Circ EA4 165	Circ WR1 1586	Circ WR2 961	Total 9045		0:36:30

Twelve Month History	March 2019	
Total # Accounts	9045	
Total # Interruptions	34	
Sum Customer Interruption Durations	7389:13:00	hours:min:sec
# Customers Interrupted	3325	
SAIFI(APPA AVG. = 1.0)	.37	int./cust.
SAIDI (APPA AVG. = 1:00)	00:49	hours:min
CAIDI	2:13	hours:min/INT
ASAI	99.9996%	% available

- **SAIFI - System Average Interruption Frequency Index**
A measure of interruptions per customer (Per Year)

$$\text{SAIFI} = \frac{(\text{Total number of customer interruptions})}{(\text{Total number of customers served})}$$

- **SAIDI – System Average Interruption Duration Index**
A measure of outage time per customer if all customers were out at the same time (hours per year)

$$\text{SAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customers served})}$$

- **CAIDI – Customer Average Interruption Duration Index**
A measure of the average outage duration per customer (hours per interruption)

$$\text{CAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customer interruptions})} = \frac{\text{SAIDI}}{\text{SAIFI}}$$

- **ASAI – Average System Availability Index**
A measure of the average service availability (Per unit)

$$\text{ASAI} = \frac{(\text{Service hours available})}{(\text{Customer demand hours})} = \frac{8760 - \text{SAIDI}}{8760}$$

EACH POINT IS A 12 MONTH SAIDI HISTORY
1:00:00 = APPA BENCHMARK SAIDI

