

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities



Electric Distribution Reliability

February 20, 2019

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CIRCUIT SAIDI IS CALCULATED ACCORDING TO THE NUMBER OF CUSTOMERS IN EACH CIRCUIT RESPECTIVELY											
<u>Running SAIDI Circuit 13</u>	<u>Running SAIDI Circuit 14</u>	<u>Running SAIDI Circuit 15</u>	<u>Running SAIDI Circuit 16</u>	<u>Running SAIDI Circuit 17</u>	<u>Running SAIDI Circuit 18</u>	<u>SAIDI Circuit EA4 & Royal Crest</u>	<u>Running SAIDI Circuit WR1</u>	<u>Running SAIDI Circuit WR2</u>	<u>Monthly SAIDI</u>	<u>Monthly Customer Minutes out of service</u>	<u>WEATHER SAIDI</u>
0:00:17	0:01:10								FEBRUARY	0:00:07	
		0:00:12						0:00:39		18:30:00	
		0:00:13									
								0:00:43			
0:02:23							0:00:11				
							0:00:16		MARCH	0:00:10	0:00:03
			0:00:12								
			0:01:40				0:00:56		APRIL	0:00:32	
0:09:19									MAY	0:00:24	
							0:01:43			61:00:00	
							0:04:50				
							0:07:47				
							0:11:24				
									JUNE	0:02:19	
	0:20:02		0:01:46							349:15:00	
0:18:22								0:01:00	JULY	0:01:18	
								0:07:00	AUGUST	0:02:18	
								0:11:35			
							0:02:38				0:00:10
							0:03:35				
							0:03:50				
0:34:56								0:14:12	SEPTEMBER	0:01:17	
0:35:57								0:15:44	OCTOBER	0:00:10	
0:38:40				0:00:30							
									NOVEMBER	0:03:43	
										561:30:00	
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	0:12:19	0:00:13

Twelve Month History	January 2019	
Total # Accounts	9045	
Total # Interruptions	31	
Sum Customer Interruption Durations	1855:49:00	hours:min:sec
# Customers Interrupted	556	
SAIFI(APPA AVG. = 1.0)	.06	int./cust.
SAIDI (APPA AVG. = 1:00)	00:12	hours:min
CAIDI	3:20	hours:min/INT
ASAI	99.9999%	% 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

