

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities



Electric Distribution Reliability

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Electric Distribution Reliability Study Twelve Month Outage History

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[illegible]

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 E44 & Royal Crest	Running SAIDI Circuit WR1	Running SAIDI Circuit WR2	Monthly SAIDI	Monthly Customer Minutes out of service	WEATHER SAIDI	
0:01:49									DECEMBER	0:00:21	52:37:00	
0:01:54					0:04:00				JANUARY	0:00:06	66:49:00	
0:02:12	0:01:10							0:00:39	FEBRUARY	0:00:07	35:19:00	
		0:00:12										
		0:00:13						0:00:43				
							0:00:11					
							0:00:16		MARCH	0:00:10	25:30:00	0:00:03
0:04:17			0:00:12									
			0:01:40				0:00:56		APRIL	0:00:32	81:04:00	
								0:01:43	MAY	0:00:24	61:00:00	
								0:04:50				
								0:07:47				
								0:11:24				
0:11:13												
	0:20:02		0:01:46						JUNE	0:02:19	349:15:00	
								0:01:00	JUL Y	0:01:18	183:00:00	
0:20:17								0:07:00	AUGUST	0:02:18	346:00:00	
								0:11:35				
							0:02:38					
							0:03:35					0:00:10
							0:03:50					
								0:14:12	SEPTEMBER	0:01:17	49:00:00	
0:36:50								0:15:44	OCTOBER	0:00:10	66:30:00	
0:37:51				0:00:30								
0:40:34									NOVEMBER	0:03:43	561:30:00	
Circ 13	Circ 14	Circ 15	Circ 16	Circ 17	Circ 18	Circ E44	Circ WR1	Circ WR2	Total	0:12:45		0:00:13

Twelve Month History	November 2018	
Total # Accounts	9045	
Total # Interruptions	35	
Sum Customer Interruption Durations	1922:38:00	hours:min:sec
# Customers Interrupted	785	
SAIFI(APPA AVG. = 1.0)	.09	int./cust.
SAIDI (APPA AVG. = 1:00)	00:12	hours:min
CAIDI	2:26	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

