

Los Alamos County
Department of Public Utilities

Electric Distribution Reliability

November & December 2024

Stephen Marez
Deputy Utility Manager -
Electric Distribution

Twelve Month History	NOVEMBER 24	
Total # Accounts	9045	-
Total # Interruptions	37	-
Sum Customer Interruption Durations	4596:08	hours:min
# Customers Interrupted	2583	
SAIFI (APPA AVG. = 1.0)	.29	int./cust.
SAIDI (APPA AVG. = 1:00)	00:30:28	hours:min
CAIDI	1.46	hours:min/INT
ASAI	99.9998%	% 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)

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

CIRCUIT SAIDI IS CALCULATED ACCORDING TO THE NUMBER OF CUSTOMERS IN EACH CIRCUIT RESPECTIVELY

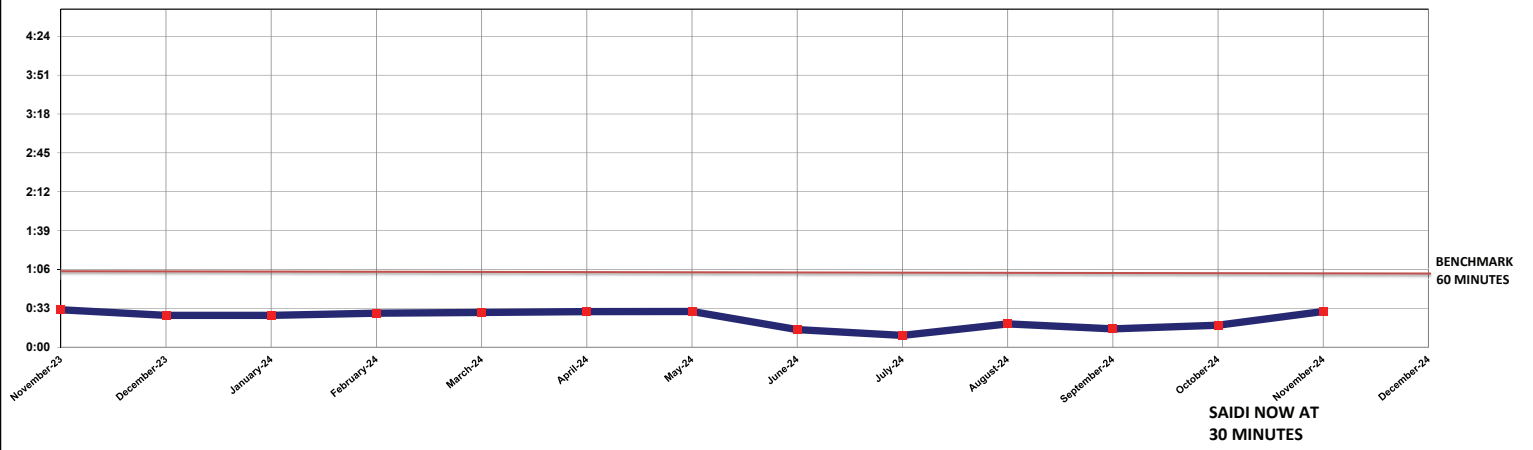
Running SAIDI Circuit 13	Running SAIDI Circuit 14	Running SAIDI Circuit 15	Running SAIDI Circuit 16	Running SAIDI Circuit 17	Running SAIDI Circuit 18	Running SAIDI Circuit EA4 & ELK RIDGE	Running SAIDI Circuit WR1	Running SAIDI Circuit WR2	Monthly SAIDI	Monthly Customer Minutes out of service	WEATHER SAIDI
						0:07:16			DEC	0:00:08	0:00:08
0:00:36										0:00:07	
0:03:29									FEBRUARY	0:00:38	0:00:45
	0:15:35									0:00:56	
	0:02:20									0:00:08	
	0:03:00									0:00:11	
0:00:15						0:15:38				0:00:03	
		0:00:19								0:00:17	
		0:00:46							MARCH	0:00:04	
							0:03:56			0:00:10	0:01:48
										0:00:41	0:00:33
						0:02:55				0:00:03	
			0:00:15						APRIL	0:00:03	
			0:00:13							0:00:03	
			0:00:29						MAY	0:00:06	
		0:00:19							JUNE	0:00:04	0:01:10
0:00:11										0:00:02	
0:00:17										0:00:03	0:00:05
		0:01:26	0:00:26							0:00:05	
		0:02:15							JULY	0:00:18	0:00:28
										0:00:27	
		0:02:24						0:00:37		0:00:04	
		0:01:32								0:00:30	0:00:34
0:45:58										0:00:19	
										0:08:25	
								0:10:46	AUGUST	0:01:09	0:10:54
	0:08:21									0:00:30	0:01:09
	0:20:16									0:01:12	
0:01:03						0:06:25				0:00:07	
0:03:57										0:00:12	
			0:04:28							0:00:43	
			0:00:28							0:00:55	
0:21:54									OCTOBER	0:00:06	0:03:44
0:39:58										0:04:00	
										0:07:19	
0:00:53								0:01:47		0:00:11	0:00:11
									NOVEMBER	0:00:10	0:11:40
0:55:46	0:20:56	0:06:47	0:08:34	0:00:00	0:00:00	0:32:14	0:03:56	0:11:24	Total	0:30:28	0:02:32
1655	539	1875	1842	209	213	165	1586	961	9045		

NUMBER OF CUSTOMERS BY CIRCUIT

EACH POINT IS A MONTHLY SAIDI HISTORY
60 MINUTES = LACDPU SAIDI BENCHMARK

SAIDI = STANDARD AVERAGE INTERUPTION DURATION

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



Twelve Month History	DECEMBER 2024	
Total # Accounts	9045	-
Total # Interruptions	37	-
Sum Customer Interruption Durations	4596:08	hours:min
# Customers Interrupted	2588	
SAIFI (APPA AVG. = 1.0)	.29	int./cust.
SAIDI (APPA AVG. = 1:00)	00:30:25	hours:min
CAIDI	1.43	hours:min/INT
ASAI	99.9998%	% Available

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0:00:17			0:00:26							0:00:03	0:00:05
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