

STATUS REPORTS

ELECTRIC RELIABILITY

Los Alamos County Utilities



Electric Distribution Reliability

March 18, 2020

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Date	Call Rcd.	Circuit	Cause	Start Time	End Time	Duration	Customers Affected (Meters)	Combined Customer Outage Durations	Total Outage H:M:S	Running SAIDI
3/3/2019	Utilities	EA4	OH Failure	14:41	17:45	3:04	15	46:00:00	46:00:00	0:00:18
3/12/2019	Utilities	WR2	OH Failure	14:30	14:58	0:28	13	6:04:00	52:04:00	0:00:21
3/12/2019	Utilities	13	TREE	3:00	9:40	6:40	104	693:20:00	745:24:00	0:04:57
3/12/2019	Utilities	13	TREE	3:00	0:00	21:00	12	252:00:00	997:24:00	0:06:37
3/12/2019	Utilities	13	TREE	14:30	17:10	2:40	1541	4109:20:00	5106:44:00	0:33:53
3/12/2019	Utilities	13	TREE	14:30	17:30	3:00	114	342:00:00	5448:44:00	0:36:09
3/12/2019	Utilities	13	TREE	16:30	20:30	4:00	2	8:00:00	5456:44:00	0:36:12
3/12/2019	Utilities	15	TREE	15:00	17:10	2:10	10	21:40:00	5478:24:00	0:36:20
4/15/2019	Utilities	16	OH Failure	7:00	9:30	2:30	7	17:30:00	5495:54:00	0:36:27
5/22/2019	Utilities	14	URD Failure	15:00	18:15	3:15	5	16:15:00	5512:09:00	0:36:34
5/22/2019	Utilities	16	OH Failure	22:00	23:30	1:30	120	180:00:00	5692:09:00	0:37:46
5/27/2019	Utilities	WR1	URD Failure	17:00	23:30	6:30	10	65:00:00	5757:09:00	0:38:11
6/14/2019	Utilities	16	OH Failure	21:30	2:30	5:00	6	30:00:00	5787:09:00	0:38:23
8/15/2019	Utilities	18	URD Failure	11:35	12:00	0:25	189	78:45:00	5865:54:00	0:38:55
8/15/2019	Utilities	18	URD Failure	11:35	13:00	1:25	24	34:00:00	5899:54:00	0:39:08
8/16/2019	Utilities	16	Weather	16:45	19:00	2:15	40	90:00:00	5989:54:00	0:39:44
8/21/2019	Utilities	16	URD Failure	10:00	12:25	2:25	24	58:00:00	6047:54:00	0:40:07
8/21/2019	Utilities	16	URD Failure	10:00	15:00	5:00	14	70:00:00	6117:54:00	0:40:35
8/21/2019	Utilities	13	TREE	18:00	19:00	1:00	7	7:00:00	6124:54:00	0:40:38
8/30/2019	Utilities	13	URD Failure	3:15	9:30	6:15	36	225:00:00	6349:54:00	0:42:07
9/7/2019	Utilities	15	TREE	7:00	9:00	2:00	8	16:00:00	6365:54:00	0:42:14
9/9/2019	Utilities	WR1	HUMAN	17:30	19:38	2:08	200	426:40:00	6792:34:00	0:45:04
9/28/2019	Utilities	WR1	OH Failure	10:00	14:30	4:30	7	31:30:00	6824:04:00	0:45:16
10/2/2019	Utilities	WR1	ANIMAL	17:30	18:30	1:00	6	6:00:00	6830:04:00	0:45:18
10/15/2019	Utilities	WR2	URD Failure	20:30	21:15	0:45	3	2:15:00	6832:19:00	0:45:19
10/17/2019	Utilities	13	OH Failure	16:45	18:00	1:15	5	6:15:00	6836:34:00	0:45:22
10/18/2019	Utilities	WR2	URD Failure	0:30	1:45	1:15	8	10:00:00	6848:34:00	0:45:26
10/19/2019	Utilities	17	URD Failure	12:00	18:15	6:15	5	31:15:00	6879:49:00	0:45:38
10/29/2019	Utilities	13	UNKNOWN	21:00	22:00	1:00	28	28:00:00	6907:49:00	0:45:49
10/29/2019	Utilities	13	UNKNOWN	2:30	3:00	0:30	32	14:00:00	6921:49:00	0:45:55
11/17/2019	Utilities	13	LOAD	4:20	5:15	0:55	32	29:20:00	6951:09:00	0:46:07
11/18/2019	Utilities	14	URD Failure	12:25	13:45	1:20	24	32:00:00	6983:09:00	0:46:19
12/29/2019	Utilities	WR1	UNKNOWN	10:45	15:30	4:45	44	209:00:00	7192:09:00	0:47:43
1/11/2020	Utilities	WR1	TREE	14:15	15:15	1:00	11	11:00:00	7203:09:00	0:47:47
1/11/2020	Utilities	16	ANIMAL	19:15	20:00	0:45	8	6:00:00	7209:09:00	0:47:49

Twelve Month History	FEB. 2020	
Total # Accounts	9045	
Total # Interruptions	36	
Sum Customer Interruption Durations	7282:49:00	hours:min:sec
# Customers Interrupted	2723	
SAIFI (APPA AVG. = 1.0)	.30	int./cust.
SAIDI (APPA AVG. = 1:00)	00:48	hours:min
CAIDI	2.40	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 = APPA BENCHMARK SAIDI

