



Department of Public Utilities

Electric, Gas, Water, and Wastewater Services

Monthly Status Report

Electric Reliability

Dennis Astley

Acting Deputy Utility Manager -

Electric Distribution

Total # Accounts	9045	
Total Interruptions	24	
Sum Customer Interruption Durations	13471:56:00	
#Customers Interrupted	7223.0	
SAIFI	0.80	
SAIDI	1:29	
CAIFI	0.332%	
CAIDI	1:51	
ASAI	99.3487%	

- 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)

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

**Electric Distribution Reliability Study
Twelve Month Outage History**

**Prepared by Dennis G Astley
Deputy Utility Manager**

<u>Date</u>	<u>Call Rcd.</u>	<u>Circuit</u>	<u>Cause</u>	<u>Start Time</u>	<u>End Time</u>	<u>Duration</u>	<u>Minutes</u>	<u>Customers Affected (Meters)</u>	<u>Combined Customer Outage Durations</u>	<u>Total Outage H:M:S</u>	<u>Running Consumer Pain Index</u>	<u>Running SAIDI</u>
3/1/2025	Utilities	13	Unknown	12:45	15:00	2:15	135	25	56:15:00	56:15:00	0:00:22	0:00:22
3/14/2025	Utilities	ELK RIDGE	WEATHER	10:30	11:08	0:38	38	20	12:40:00	68:55:00	0:00:27	0:00:27
3/18/2025	Utilities	13	TREE	15:30	16:30	1:00	60	25	25:00:00	93:55:00	0:00:37	0:00:37
3/19/2025	Utilities	WR2	URD Failure	21:30	4:20	6:50	410	22	150:20:00	244:15:00	0:01:37	0:01:37
3/25/2025	Utilities	WR2	URD Failure	20:00	1:45	5:45	345	79	454:15:00	698:30:00	0:04:38	0:04:38
3/31/2025	Utilities	16	URD Failure	18:00	21:00	3:00	180	692	2076:00:00	2774:30:00	0:18:24	0:18:24
5/5/2025	Utilities	15	WEATHER	3:26	7:15	3:49	229	16	61:04:00	2835:34:00	0:18:49	0:18:49
5/8/2025	Utilities	14	URD Failure	9:07	10:00	0:53	53	20	17:40:00	2853:14:00	0:18:56	0:18:56
6/8/2025	Utilities	WR2	URD Failure	5:00	8:00	3:00	180	15	45:00:00	2898:14:00	0:19:14	0:19:14
6/8/2025	Utilities	WR2	URD Failure	5:00	10:00	5:00	300	20	100:00:00	2998:14:00	0:19:53	0:19:53
6/8/2025	Utilities	WR2	URD Failure	5:00	13:00	8:00	480	5	40:00:00	3038:14:00	0:20:09	0:20:09
6/19/2025	Utilities	WR1	OH Failure	16:00	17:30	1:30	90	10	15:00:00	3053:14:00	0:20:15	0:20:15
7/16/2025	Utilities	16	Weather	9:25	10:15	0:50	50	10	8:20:00	3061:34:00	0:20:19	0:20:19
7/22/2025	Utilities	13	OH Failure	12:25	13:20	0:55	55	1675	1535:25:00	4596:59:00	0:30:30	0:30:30
7/22/2025	Utilities	13	Transformer Failure	17:30	18:45	1:15	75	10	12:30:00	4609:29:00	0:30:35	0:30:35
7/28/2025	Utilities	15	Weather	16:05	18:00	1:55	115	1	1:55:00	4611:24:00	0:30:35	0:30:35
8/8/2025	Utilities	WR1	Transformer Failure	3:20	6:00	2:40	160	2612	6965:20:00	11576:44:00	1:16:48	1:16:48
8/12/2025	Utilities	WR2	Vehicle	10:00	11:00	1:00	60	961	961:00:00	12537:44:00	1:23:10	1:23:10
8/25/2025	Utilities	WR1	weather	19:22	20:10	0:48	48	949	759:12:00	13296:56:00	1:28:12	1:28:12
11/4/2025	Utilities	13	Contractor	15:30	16:30	1:00	60	21	0:00:00	13296:56:00	1:28:21	1:28:12
11/4/2025	Utilities	16	URD Failure	22:30	3:30	5:00	300	35	175:00:00	13471:56:00	1:29:30	1:29:22
12/11/2025	Utilities	ELK RIDGE	Unknown	7:29	9:20	1:51	111	175	323:45:00	13795:41:00	1:31:39	1:31:31
12/12/2025	Utilities	WR1	URD Failure	4:30	7:30	3:00	180	50	150:00:00	13945:41:00	1:32:39	1:32:31
12/16/2025	Utilities	14	Contractor	0:30	2:30	2:00	120	14	0:00:00	13945:41:00	1:32:50	1:32:31
12/18/2025	Utilities	ELK RIDGE	weather	3:45	5:45	2:00	120	20	40:00:00	13985:41:00	1:33:06	1:32:46
12/18/2025	Utilities	13	TREE	5:45	9:30	3:45	225	20	75:00:00	14060:41:00	1:33:36	1:33:16
12/22/2025	Utilities	17	Contractor	10:30	11:00	0:30	30	15	0:00:00	14060:41:00	1:33:39	1:33:16
1/1/2026	Utilities	16	Unknown	15:00	16:15	1:15	75	6	7:30:00	14068:11:00	1:33:42	1:33:19
1/28/2026	Utilities	WR2	URD Failure	9:00	10:00	1:00	60	14	14:00:00	14082:11:00	1:33:47	1:33:25
2/6/2026	Utilities	ELK RIDGE	OH Failure	9:30	10:00:00	0:30:00	30	20	10:00:00	14092:11:00	1:33:51	1:33:29
2/17/2026	Utilities	16	weather	10:30	12:00	1:30	90	7	10:30:00	14102:41:00	1:33:55	1:33:33

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

<u>Running SAIDI</u> <u>Circuit 13</u>	<u>Running SAIDI Circuit</u> <u>14</u>	<u>Running SAIDI Circuit</u> <u>15</u>	<u>Running SAIDI</u> <u>Circuit 16</u>	<u>Running SAIDI Circuit</u> <u>17</u>	<u>Running SAIDI Circuit</u> <u>18</u>	<u>Running SAIDI Circuit</u> <u>EA4 & ELK</u> <u>RIDGE</u>	<u>Running SAIDI Circuit</u> <u>WR1</u>	<u>Running SAIDI</u> <u>Circuit WR2</u>	<u>Monthly SAIDI</u>	
0:02:02										
						0:04:36				
0:00:54								0:09:23		
								0:28:22		
			1:07:37						MARCH	0:18:02
		0:01:57								
	0:01:58								MAY	0:00:31
								0:02:49		
								0:06:15		
								0:02:30		
							0:00:56		JUNE	0:01:20
			0:00:16							
0:55:40										
0:00:27										
		0:00:04							JULY	0:10:20
							7:14:53			
								1:00:00		
							0:47:24		AUGUST	0:11:25
0:00:00										
			0:05:42						NOVEMBER	0:01:10
						1:57:44				
0:02:43						0:14:33				
									DECEMBER	0:03:54
			0:00:15							
								0:00:52	JANUARY	0:00:35
						0:03:38				
			0:00:21						FEBRUARY	0:00:08
0:02:57	0:01:58	0:00:00	1:07:37	#REF!	#REF!	0:04:36	8:03:13	1:50:10	Total	0:19:53
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 INTERRUPTION DURATION

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

