

STATUS REPORTS

ELECTRIC RELIABILITY

PREPARED BY

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Associate Engineer

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							Customers	Combined		
Date	Call Rcd.	Circuit	Cause	Start Time	End Time	Duration	Affected (Meters)	Customer Outage Durations	Total Outage H:M:S	Running SAIDI
6/7/2020	Utilities	WR1	UNKNOWN	2:40	4:10	1:30	66	99:00:00	99:00:00	0:00:39
6/8/2020	Utilities	WR2	UNKNOWN	13:20	15:20	2:00	18	36:00:00	135:00:00	0:00:54
6/11/2020	Utilities	WR2	URD Failure	6:50	7:35	0:45	13	9:45:00	144:45:00	0:00:58
6/11/2020	Utilities	EA-4	OH Failure	16:30	17:20	0:50	100	83:20:00	228:05:00	0:01:31
6/14/2020	Utilities	EA-4	UNKNOWN	11:00	13:00	2:00	30	60:00:00	288:05:00	0:01:55
6/17/2020	Utilities	WR2	UNKNOWN	21:00	23:30	2:30	80	200:00:00	488:05:00	0:03:14
6/28/2020	Utilities	17	UNKNOWN	11:25	13:00	1:35	2	3:10:00	491:15:00	0:03:16
7/5/2020	Utilities	WR2	URD Failure	13:00	14:00	1:00	20	20:00:00	511:15:00	0:03:23
7/11/2020	Utilities	WR1	URD Failure	12:30	13:50	1:20	15	20:00:00	531:15:00	0:03:31
7/11/2020	Utilities	13	OH Failure	20:30	21:30	1:00	13	13:00:00	544:15:00	0:03:37
7/12/2020	Utilities	17	UNKNOWN	21:30	23:00	1:30	17	25:30:00	569:45:00	0:03:47
7/18/2020	Utilities	13	ANIMAL	21:50	22:30	0:40	25	16:40:00	586:25:00	0:03:53
7/25/2020	Utilities	WR1	ANIMAL	18:30	19:30	1:00	75	75:00:00	661:25:00	0:04:23
7/27/2020	Utilities	WR2	URD Failure	11:45	18:30	6:45	44	297:00:00	958:25:00	0:06:21
8/7/2020	Utilities	14	URD Failure	6:20	7:25	1:05	4	4:20:00	962:45:00	0:06:23
8/9/2020	Utilities	WR2	URD Failure	13:00	13:30	0:30	25	12:30:00	975:15:00	0:06:28
8/17/2020	Utilities	WR1	URD Failure	0:35	2:00	1:25	59	83:35:00	1058:50:00	0:07:01
8/19/2020	Utilities	13	URD Failure	4:00	4:30	0:30	25	12:30:00	1071:20:00	0:07:06
9/4/2020	Utilities	16	UNKNOWN	16:00	17:00	1:00	11	11:00:00	1082:20:00	0:07:11
9/4/2020	Utilities	WR1	UNKNOWN	17:00	18:00	1:00	2	2:00:00	1084:20:00	0:07:12
9/5/2020	Utilities	13	UNKNOWN	18:00	19:00	1:00	1	1:00:00	1085:20:00	0:07:12
10/2/2020	Utilities	15	ANIMAL	1:00	3:30	2:30	50	125:00:00	1210:20:00	0:08:02
10/9/2020	Utilities	15	ANIMAL	22:15	23:15	1:00	25	25:00:00	1235:20:00	0:08:12
10/12/2020	Utilities	15	URD Failure	7:00	8:15	1:15	25	31:15:00	1266:35:00	0:08:24
10/27/2020	Utilities	17	Weather	5:00	6:30	1:30	70	105:00:00	1371:35:00	0:09:06
10/27/2020	Utilities	17	URD Failure	9:00	19:00	10:00	10	100:00:00	1471:35:00	0:09:46
11/8/2020	Utilities	WR1	OH Failure	9:35	13:40	4:05	1	4:05:00	1475:40:00	0:09:47
11/23/2020	Utilities	WR1	Weather	18:30	20:00	1:30	528	792:00:00	2267:40:00	0:15:03
11/23/2020	Utilities	WR1	Weather	20:00	20:50	0:50	1586	1321:40:00	3589:20:00	0:23:49
11/23/2020	Utilities	13	Weather	18:30	21:30	3:00	4	12:00:00	3601:20:00	0:23:53
11/27/2020	Utilities	WR1	URD Failure	1:29	4:15	2:46	20	55:20:00	3656:40:00	0:24:15
12/19/2020	Utilities	14	URD Failure	17:00	18:10	1:10	1	1:10:00	3657:50:00	0:24:16
12/27/2020	Utilities	15	UNKNOWN	1:00	2:30	1:30	20	30:00:00	3687:50:00	0:24:28
1/15/2021	Utilities	13	UNKNOWN	13:20	14:15	0:55	36	33:00:00	3720:50:00	0:24:41
2/2/2021	Utilities	15	ANIMAL	6:30	7:15	0:45	200	150:00:00	3870:50:00	0:25:41
2/4/2021	Utilities	16	URD Failure	0:00	5:00	5:00	69	345:00:00	4215:50:00	0:27:58
2/5/2021	Utilities	EA-4	OH Failure	21:45	22:30	0:45	10	7:30:00	4223:20:00	0:28:01
2/25/2021	Utilities	14	URD Failure	8:30	11:30	3:00	1	3:00:00	4226:20:00	0:28:02
4/21/2021	Utilities	14	ANIMAL	21:23	22:38	1:15	539	673:45:00	4900:05:00	0:32:30
5/16/2021	Utilities	WR1	UNKNOWN	10:30	12:00	1:30	5	7:30:00	4907:35:00	0:32:33
5/18/2021	Utilities	14	URD Failure	16:00	19:00	3:00	2	6:00:00	4913:35:00	0:32:36
5/22/2021	Utilities	EA-4	Weather	19:30	20:30	1:00	30	30:00:00	4943:35:00	0:32:48
5/26/2021	Utilities	16	URD Failure	16:45	22:20	5:35	100	558:20:00	5501:55:00	0:36:30

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 & Royal Crest	Running SAIDI Circuit WR1	Running SAIDI Circuit WR2	Monthly SAIDI		Monthly Customer Minutes out of service	WEATHER SAIDI
							0:03:45					
								0:02:15 0:02:51				
						0:00:03 0:00:11						
				0:00:55				0:15:21	JUNE	0:03:16	491:15:00	
								0:16:36				
0:00:28							0:04:30					
0:01:05				0:08:14								
							0:07:20					
	0:00:29							0:35:08	JULY	0:03:06	467:10:00	
								0:35:55				
0:01:32			#REF!				0:10:11		AUG	0:00:45	112:55:00	
							0:10:15					
0:01:34									SEP	0:00:06	14:00:00	
		0:04:00 0:04:48 0:05:46										
				0:38:22 1:07:05								
							0:10:20		OCT	0:02:34	386:15:00	0:00:42
												0:05:15 0:08:46 0:00:05
	4:20:00						0:10:24		NOV	0:14:30	2185:05:00	
		0:06:43							DEC	0:00:12	31:10:00	
									JAN	0:00:13	33:00:00	
									FEB	0:03:21	505:30:00	
									APR	0:04:28	673:45:00	
									MAY	0:04:00	601:50:00	0:00:12
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	0:36:30		0:15:00

Twelve Month History	May 2021	
Total # Accounts	9045	
Total # Interruptions	43	
Sum Customer Interruption Durations	4900:05:00	hours:min:sec
# Customers Interrupted	3977.0	
SAIFI (APPA AVG. = 1.0)	0.44	int./cust.
SAIDI (APPA AVG. = 1:00)	0.32	hours:min
CAIDI	1.13	hours:min/INT
ASAI	99.9997%	% 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)

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

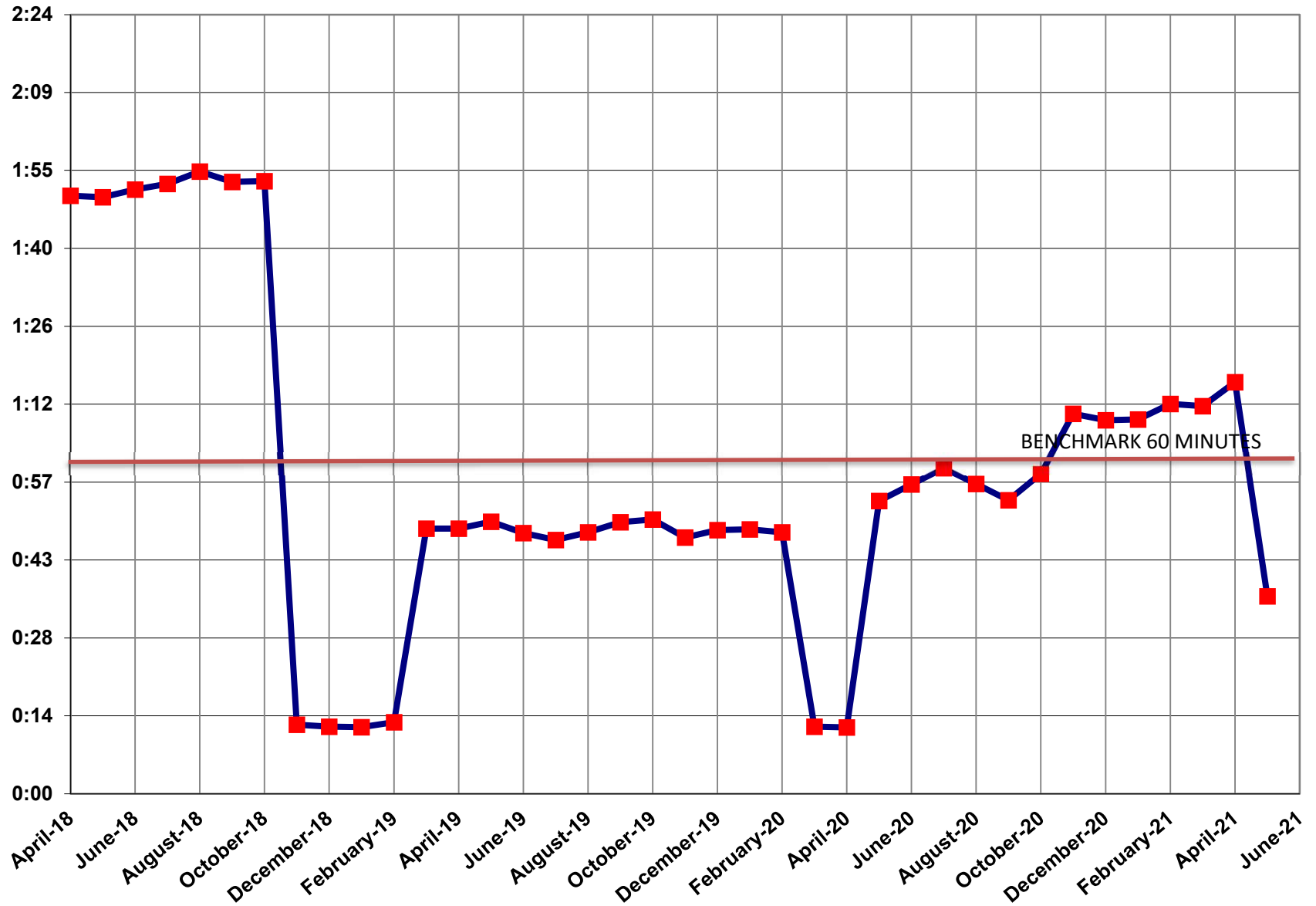
- **CAIDI – Customer Average Interruption Duration Index**
A measure of the average outage duration per customer (hours per interruption)

$$\text{CAIDI} = \frac{(\text{Sum of all customer outage durations})}{(\text{Total number of customer interruptions})} = \frac{\text{SAIDI}}{\text{SAIFI}}$$

- **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



1:50:31 1:50:16 1:51:40 1:52:43 1:55:00 1:53:05 1:53:14 0:12:45
0:12:24 0:12:19 0:13:14 0:49:01 0:48:59 0:50:18 0:48:11 0:46:53...