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May 28, 2021

VIA ELECTRONIC MAIL

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board.secretary@bpu.nj.gov

Aida Camacho-Welch
Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625-0350

RE: Atlantic City Electric Company's Annual System Performance Report for 2020

Dear Secretary Camacho-Welch:

The undersigned is Assistant General Counsel for Atlantic City Electric Company ("ACE" or the "Company"). Attached for filing with the New Jersey Board of Public Utilities (the "Board" or "BPU") in accordance with N.J.A.C. 14:5-8.8 and BPU Docket Nos. ER09080664 and EM14060581 is the Company's 2020 Annual System Performance Report (the "Annual Report").

Along with the Annual Report, ACE has also included a document titled "Atlantic City Electric Company Vegetation Management Program." This document is contemplated by, and provided pursuant to, N.J.A.C. 14:5-8.8 (c) and N.J.A.C. 14:5-9.7.

Consistent with the Order issued by the Board in connection with *In the Matter of the New Jersey Board of Public Utilities' Response to the COVID-19 Pandemic for a Temporary Waiver of Requirements for Certain Non-Essential Obligations*, BPU Docket No. EO20030254, Order dated March 19, 2020, these documents are being electronically filed with the Secretary of the Board and the New Jersey Division of Rate Counsel. No paper copies will follow.

Aida Camacho-Welch

May 28, 2021

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Thank you for your cooperation and courtesies. Feel free to contact the undersigned with any questions.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Passanante", written over a horizontal line.

Philip J. Passanante
An Attorney at Law of the
State of New Jersey

Enclosure (all by electronic mail)

cc: Stacy Peterson, Director, Division of Energy, BPU
Robert Brabston, Deputy Executive Director, BPU
John Zarzycki, Research Scientist II, BPU
Stefanie A. Brand, Esquire, Director, Division of Rate Counsel
Brian O. Lipman, Esquire, Litigation Manager, Division of Rate Counsel
T. David Wand, Deputy Rate Counsel, Division of Rate Counsel
William Sullivan
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Gregory Brubaker
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Matthew Heffner



An Exelon Company

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May 28, 2021

VIA ELECTRONIC MAIL

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Aida Camacho-Welch
Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625-0350

RE: In the Matter of N.J.A.C. 14:5-8.7 Electric Distribution Service Reliability and
Quality Standards
BPU Docket No. EX07070511

Atlantic City Electric Company's Annual System Performance Report for 2020

Dear Secretary Camacho-Welch:

In compliance with requirements of the New Jersey Electric Distribution Service Reliability and Quality Standards, enclosed for filing with the New Jersey Board of Public Utilities (the "Board" or "BPU") is Atlantic City Electric Company's Annual System Performance Report (the "Report") for the year 2020. Electronic copies of the Report are also being forwarded to the New Jersey Division of Rate Counsel.

The Report is prepared in accordance with N.J.A.C. 14:5-8.7 of the Electric Distribution Service Reliability and Quality Standards. Required supplemental reporting metrics and ACE's 2020 Reliability Improvement Plan progress report are provided in Appendices 1 and 2, respectively. These requirements are in accordance with the Stipulations of Settlement entered in connection with BPU Docket Nos. ER09080664 and EM14060581.

Consistent with the Order issued by the Board in connection with *In the Matter of the New Jersey Board of Public Utilities' Response to the COVID-19 Pandemic for a Temporary Waiver of Requirements for Certain Non-Essential Obligations*, BPU Docket No. EO20030254, Order dated March 19, 2020, the Report is being electronically filed with the Secretary of the Board and the New Jersey Division of Rate Counsel. No paper copies will follow.

Aida Camacho-Welch

May 28, 2021

Page 2

If you have any questions regarding to the report, please do not hesitate to contact me.
I can be reached at (202) 872-3055.

Respectfully submitted,

A handwritten signature in black ink that reads "Will Sull". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

William Sullivan

Vice President, Technical Services

Enclosure

cc: Stacy Peterson, Director, Division of Energy, BPU
Robert Brabston, Deputy Executive Director, BPU
Stefanie A. Brand, Esquire, Director, Division of Rate Counsel
Brian O. Lipman, Esquire, Litigation Manager, Division of Rate Counsel
T. David Wand, Esquire, Division of Rate Counsel
Marissa Humphrey
Philip J. Passanante, Esquire
Heather Hall
Matthew Mansfield
Amanda Lawson
Gregory Brubaker
William M. Ruggeri
Mark Musser
Matthew Heffner

ANNUAL SYSTEM PERFORMANCE REPORT

(YEAR 2020)

The report is consistent in all material respects with previous filings of Atlantic City Electric Company's Annual System Performance Report and the tab labeling convention is consistent with the recodifications and amendments for N.J.A.C. 14:5-8.8 (Annual System Performance Report), effective July 22, 2015.

Prepared for the New Jersey Board of Public Utilities
by Atlantic City Electric Company

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CERTIFICATION LETTER

William Sullivan, an officer of Atlantic City Electric Company ("ACE" or "the Company"), does hereby certify to the Board of Public Utilities ("BPU") that the data and analysis set forth in the attached Annual System Performance Report of the Atlantic City Electric Company is true and correct based upon the collection and analysis of the data by authorized employees and representatives of the Company. I further certify that the necessary maintenance programs and actions, including inspections, data collection and analysis, are being performed and adequately funded by the Company and addressed in the capital and operations and maintenance budgets and plans to help achieve benchmark reliability levels and, at a minimum, to maintain the minimum reliability levels, as those terms are defined in the Electric Service Rules, N.J.A.C. 14:5, for each operating district of the Atlantic City Electric Company. This certification is based upon my review of the data and analysis contained herein and my overall knowledge of the operations and practices of Atlantic City Electric Company.

A handwritten signature in black ink that reads "Will Sull". The signature is written in a cursive, flowing style.

William Sullivan
Vice President, Technical Services

B1. – B2. Minimum Reliability Level

The minimum reliability levels for the Company's New Jersey Districts are listed below. Calculations of Minimum Reliability Levels are included in Section B6 of this Report. The following are the minimum performance levels for Atlantic City Electric ("ACE" or the "Company") and its four operating areas based on their 2016 - 2020 performance plus the allowable 1.5 standard deviations. In addition, the actual 2020 performances at the four operating areas as well as ACE are also shown.

SAIFI Components

<u>Areas</u>	<u>Minimum Performance Level</u>	<u>2020 Actual Performance</u>	<u>Status</u>
Atlantic Overall	1.15	0.81	Met
Cape May	1.24	0.32	Met
Glassboro	1.53	1.10	Met
Pleasantville	0.78	0.69	Met
Winslow	1.15	1.09	Met

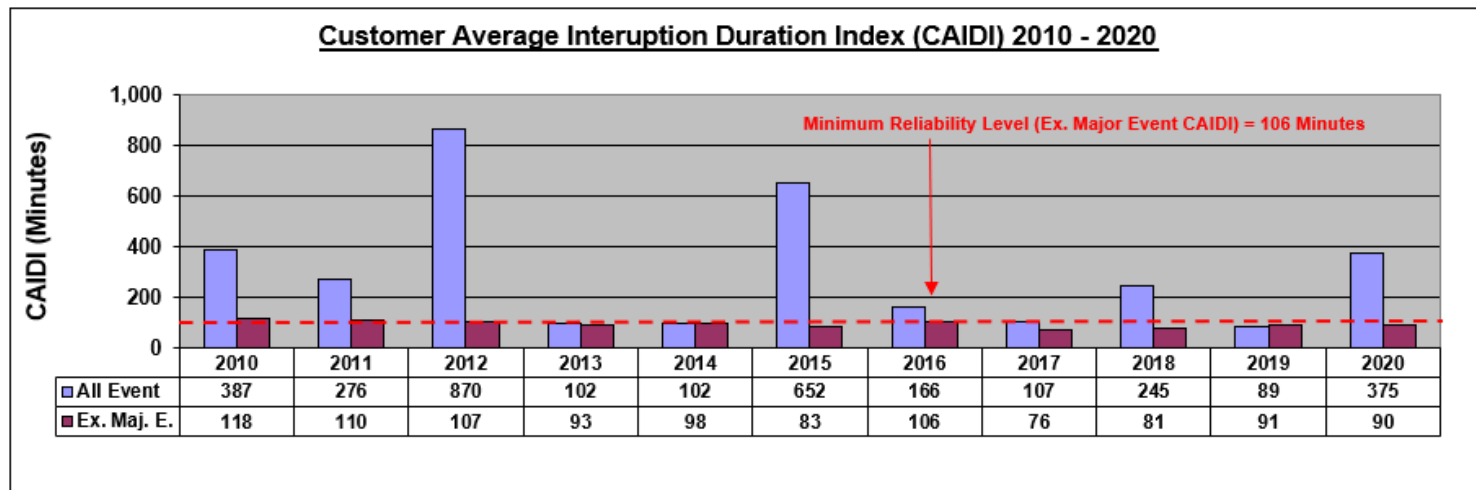
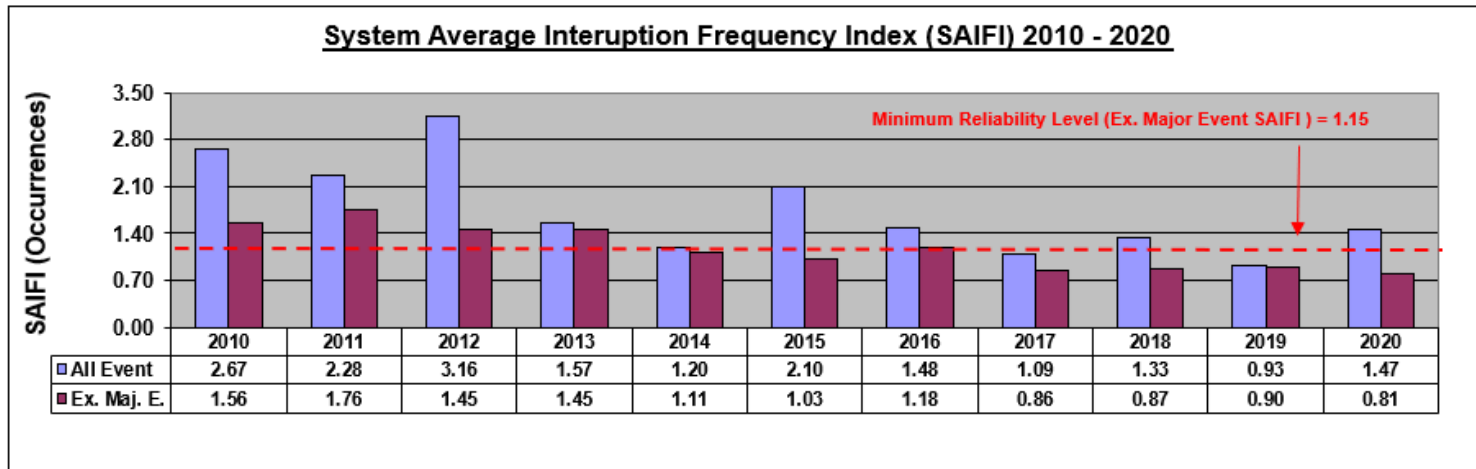
CAIDI Components

<u>Areas</u>	<u>Minimum Performance Level</u>	<u>2020 Actual Performance</u>	<u>Status</u>
Atlantic Overall	106 minutes	90 minutes	Met
Cape May	101 minutes	102 minutes	Not Met
Glassboro	119 minutes	101 minutes	Met
Pleasantville	109 minutes	78 minutes	Met
Winslow	101 minutes	79 minutes	Met

B3. – B6. System Performance and Ten Years of Trends of CAIDI and SAIFI

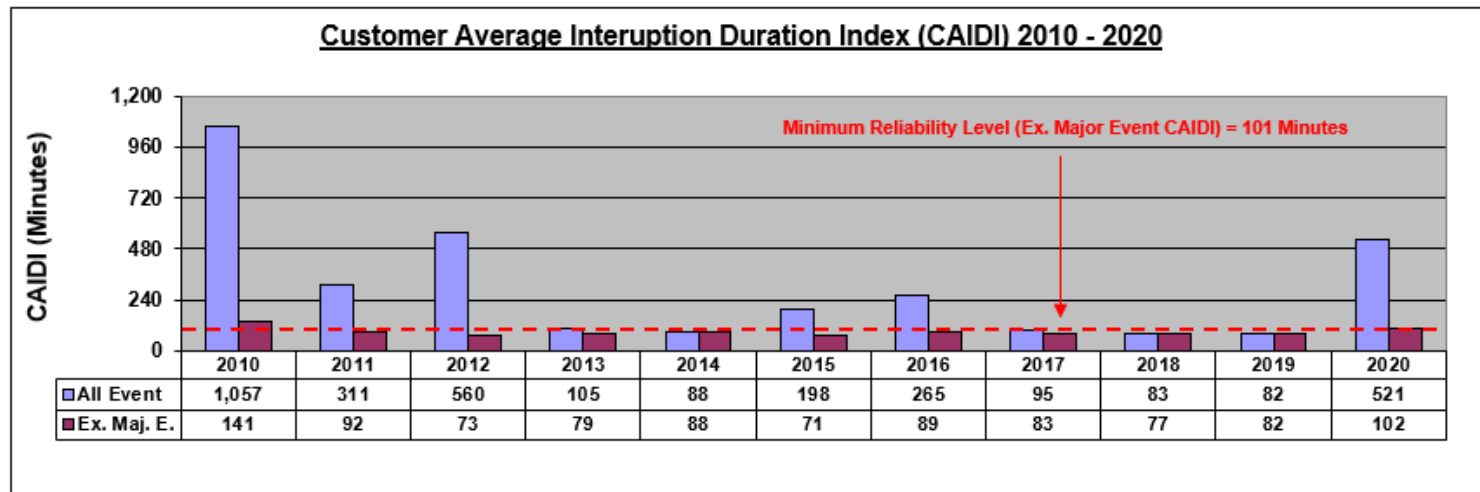
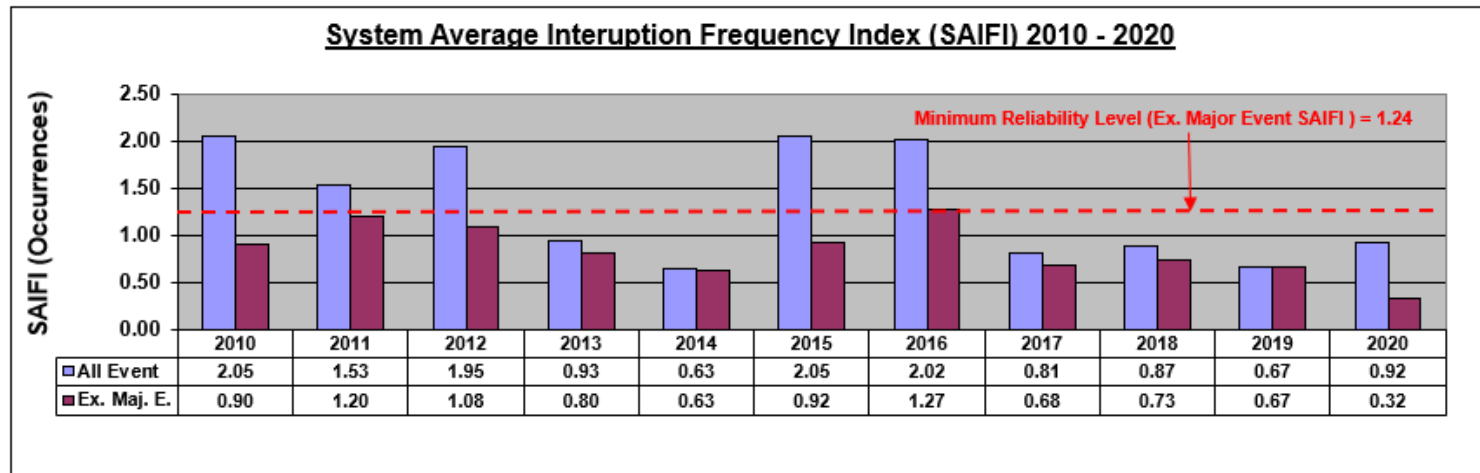
ATLANTIC CITY ELECTRIC - ALL DISTRICTS

Major Reliability Indices (All Event and Major Event Exclusive)



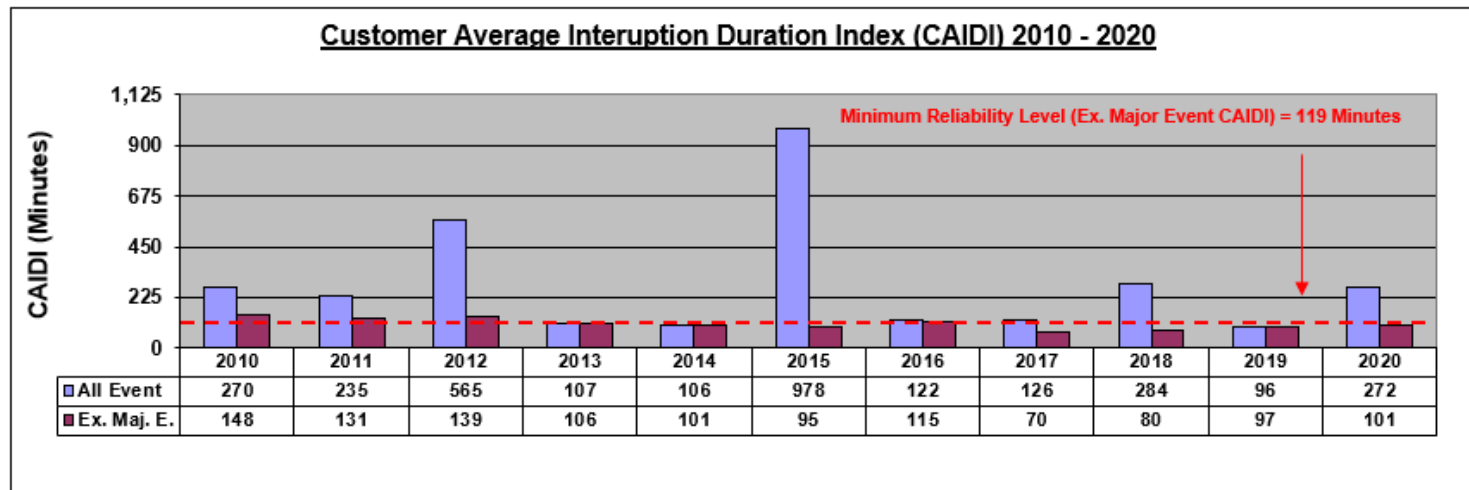
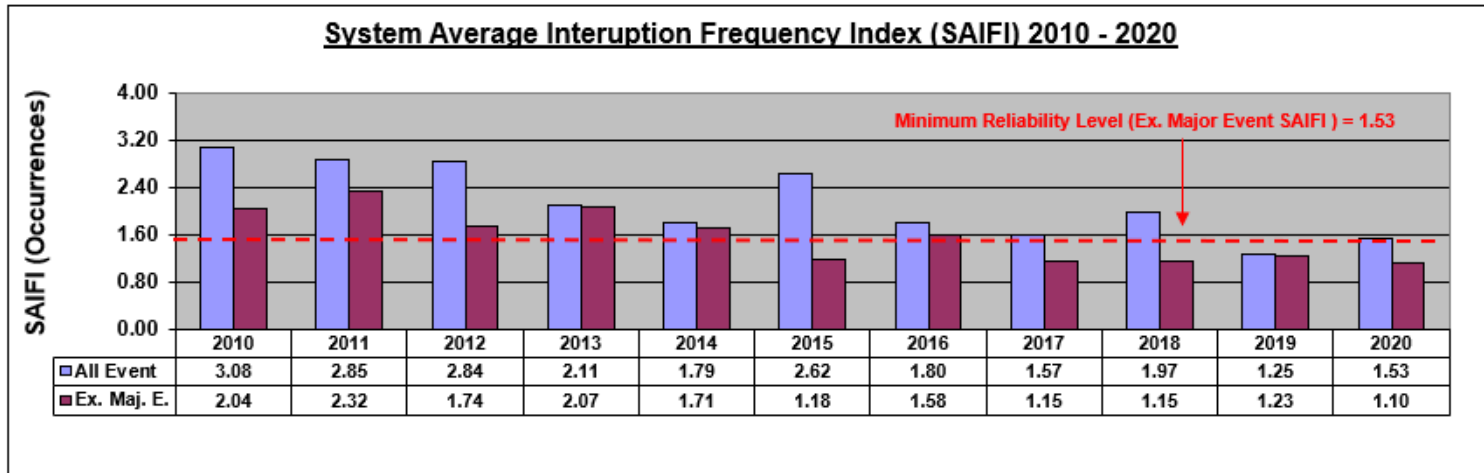
CAPE MAY DISTRICT

Major Reliability Indices (All Event and Major Event Exclusive)



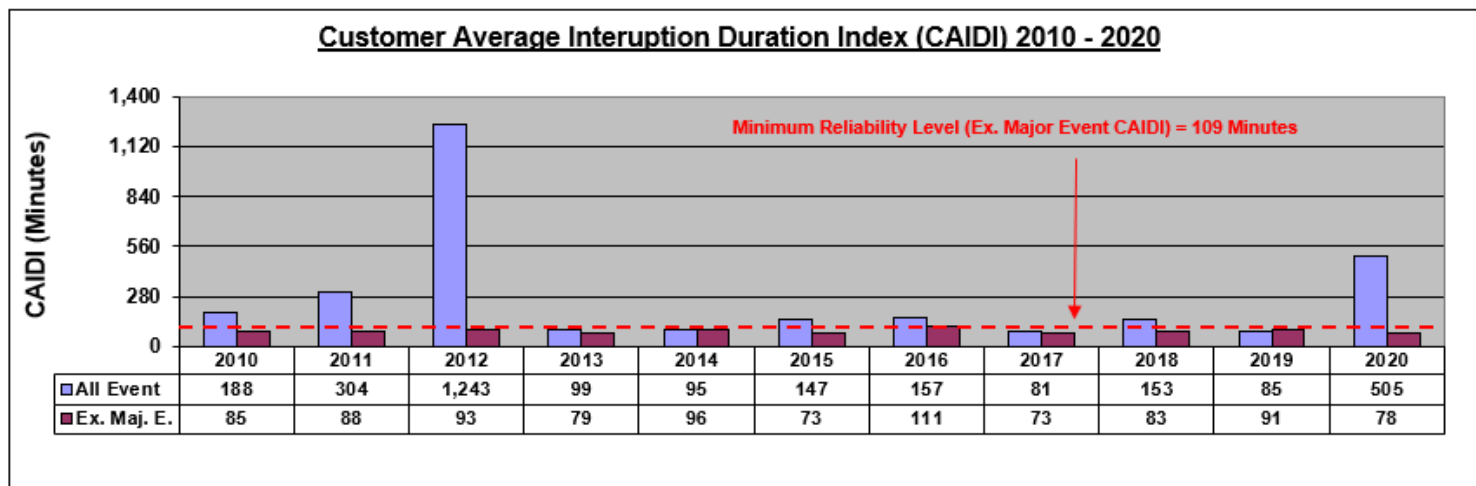
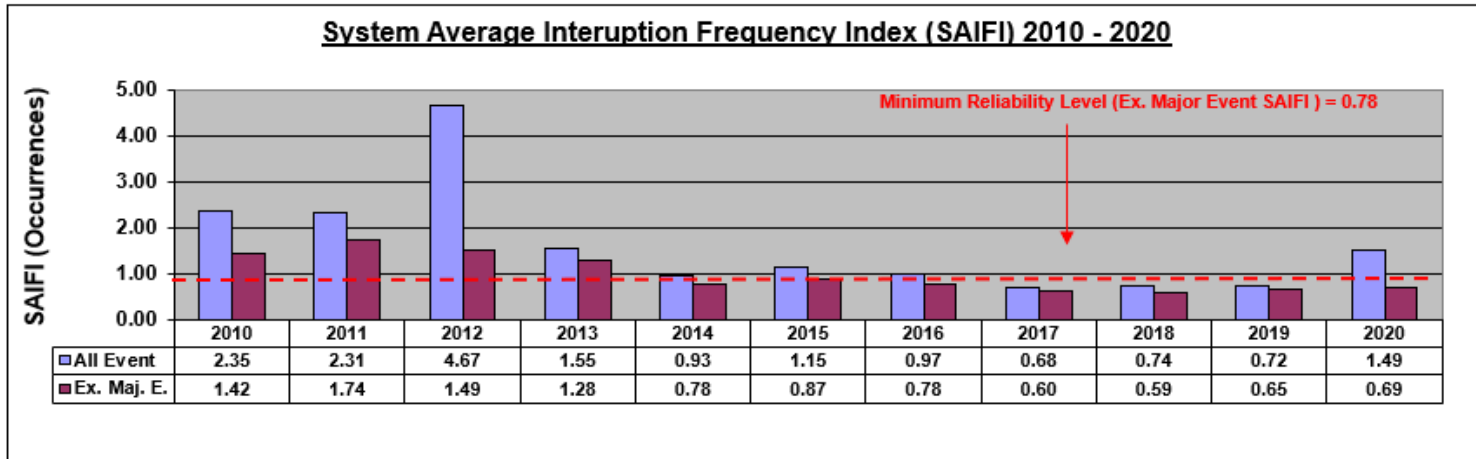
GLASSBORO DISTRICT

Major Reliability Indices (All Event and Major Event Exclusive)



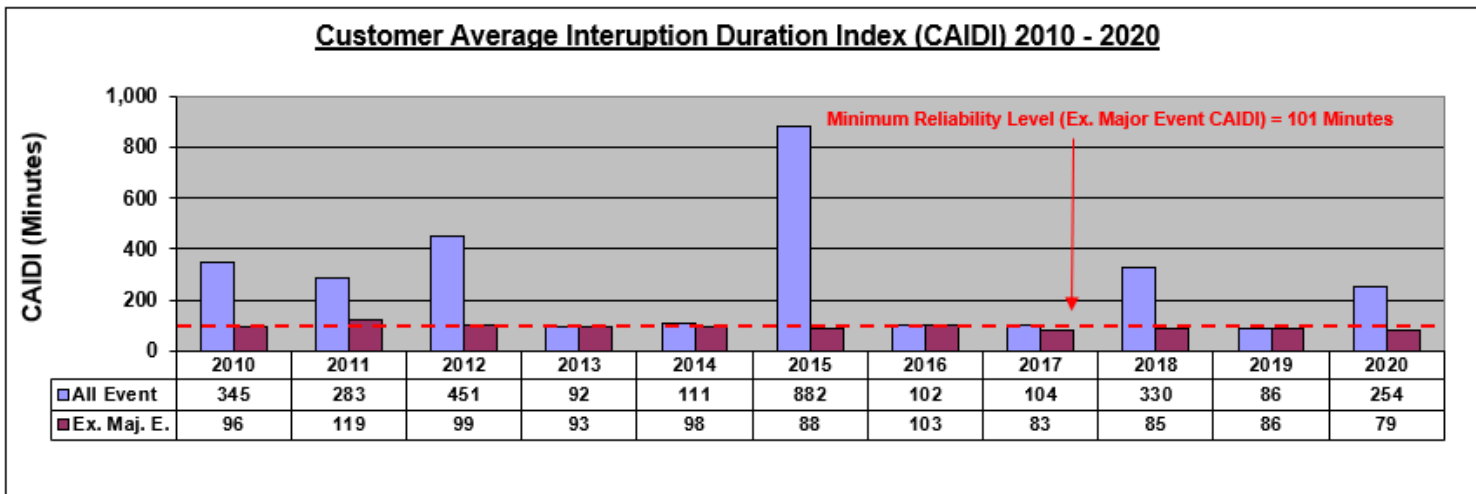
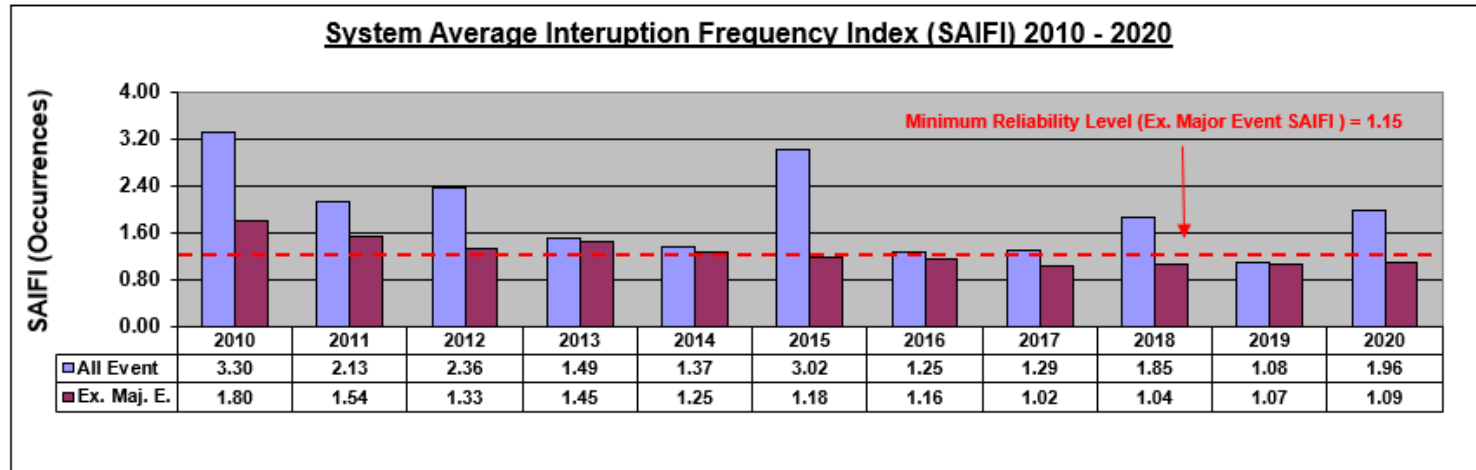
PLEASANTVILLE DISTRICT

Major Reliability Indices (All Event and Major Event Exclusive)



WINSLOW DISTRICT

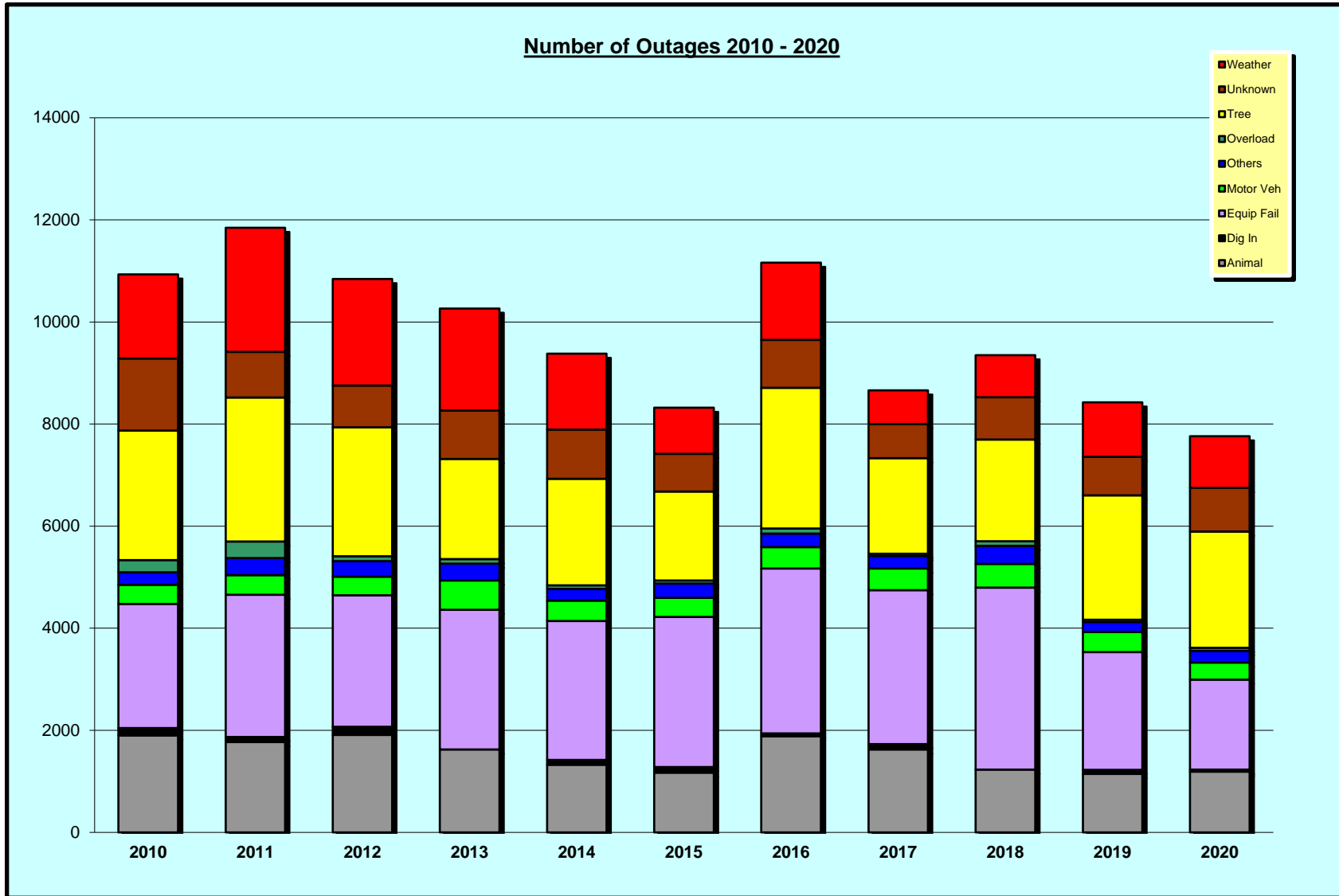
Major Reliability Indices (All Event and Major Event Exclusive)



B7.Ten Years of Trends for Major Causes of Interruptions

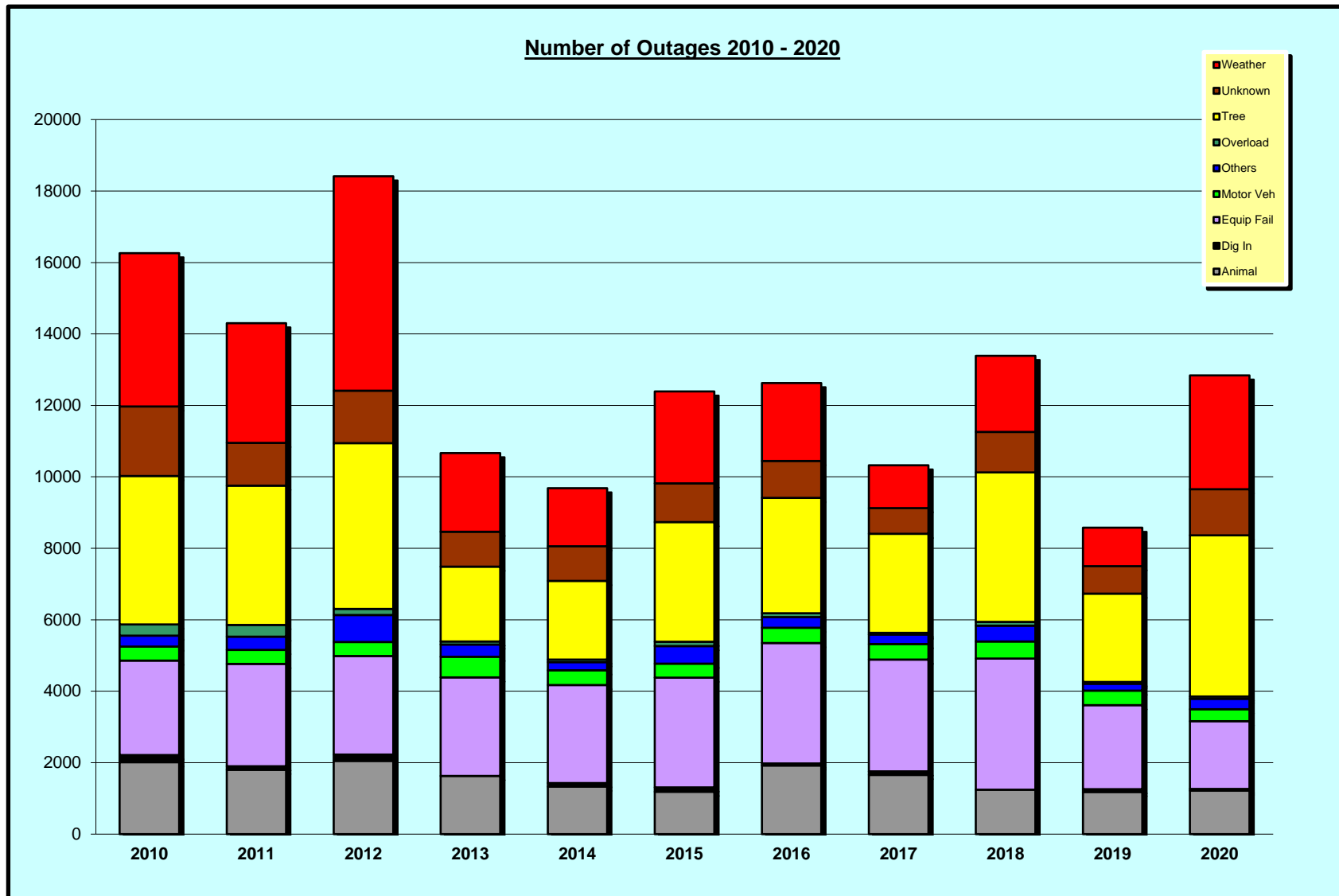
ATLANTIC CITY ELECTRIC COMPANY - ALL DISTRICTS

Major Outage Causes (Major Events Excluded)

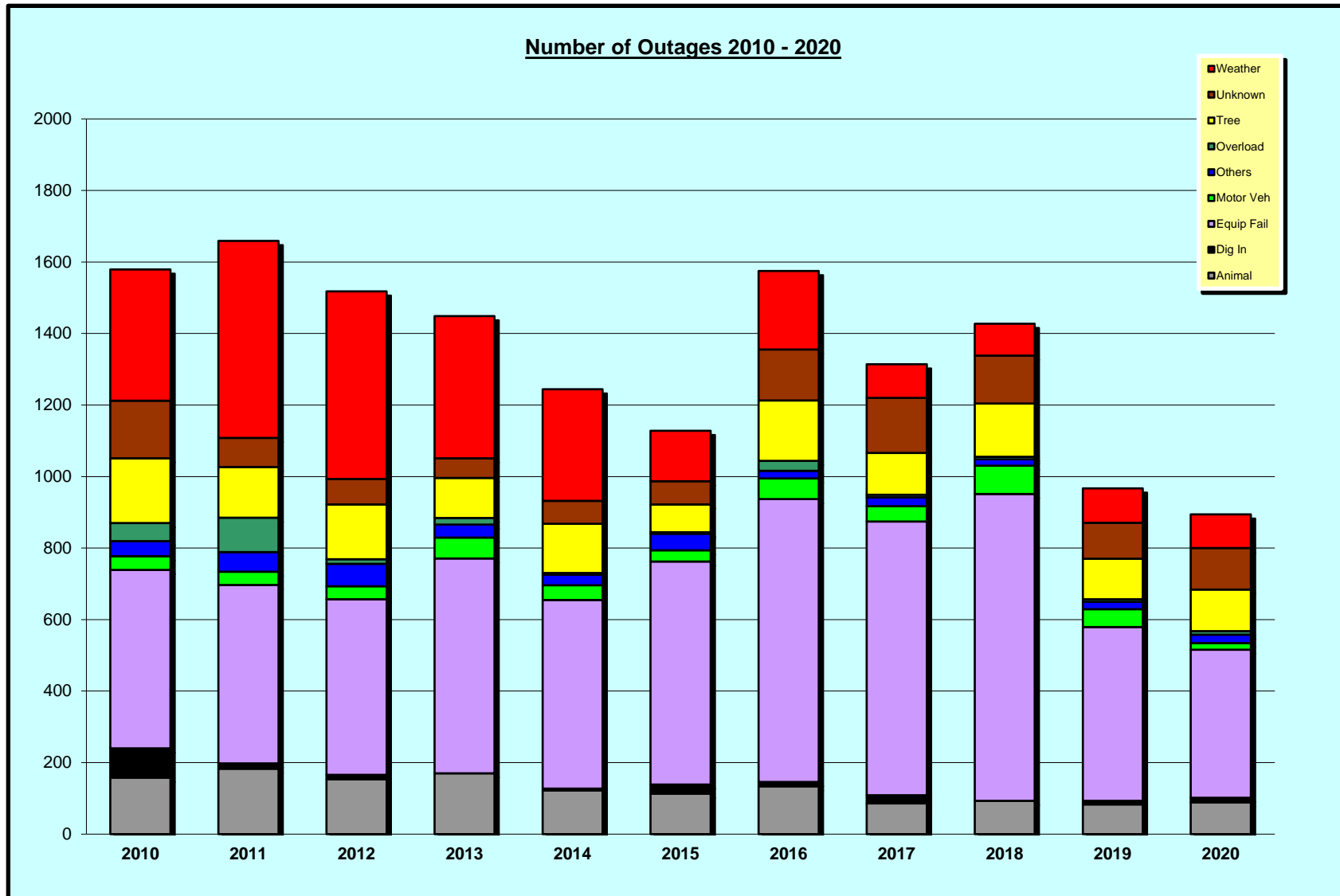


ATLANTIC CITY ELECTRIC COMPANY - ALL DISTRICTS

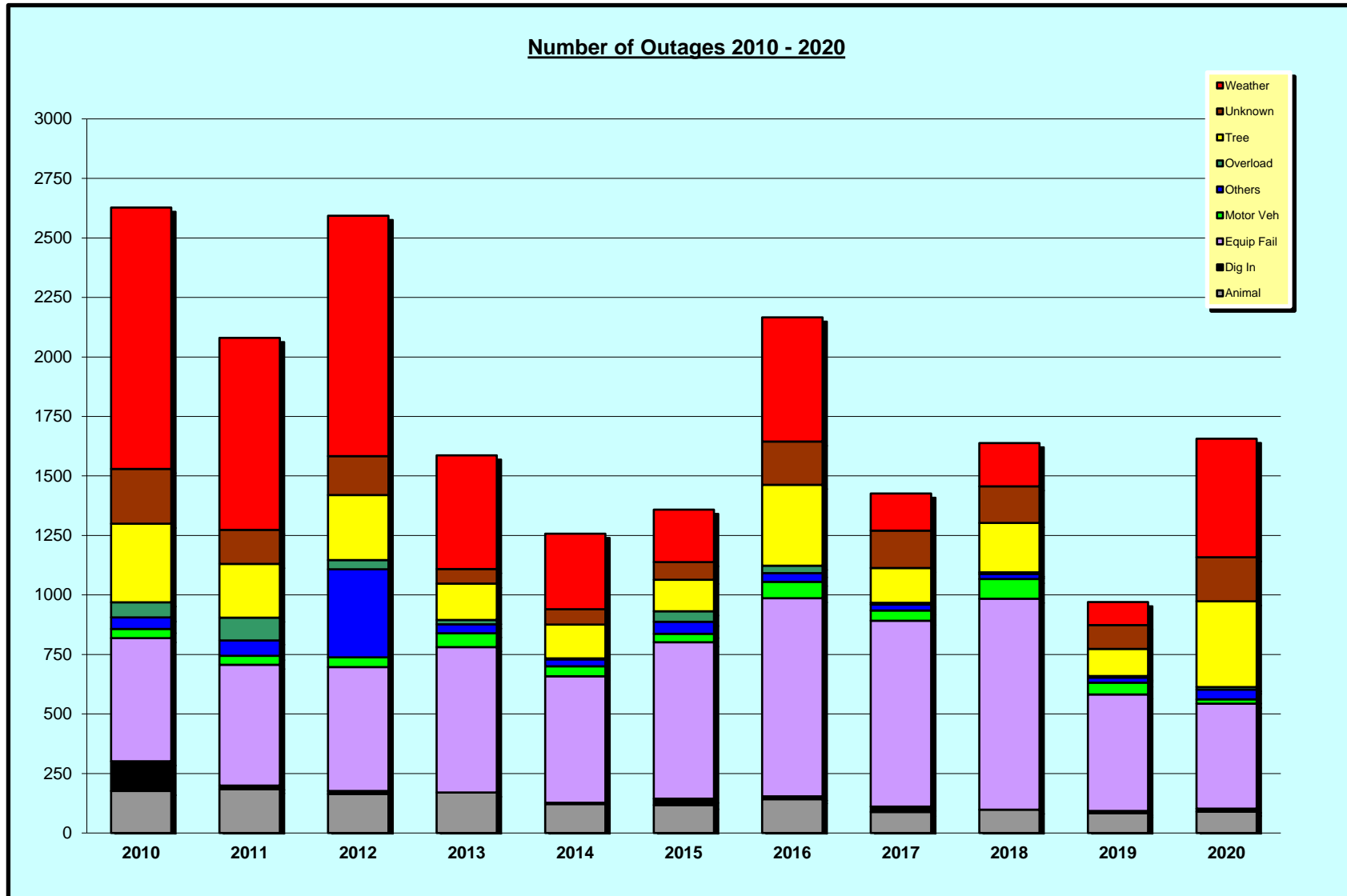
Major Outage Causes (Major Events Included)



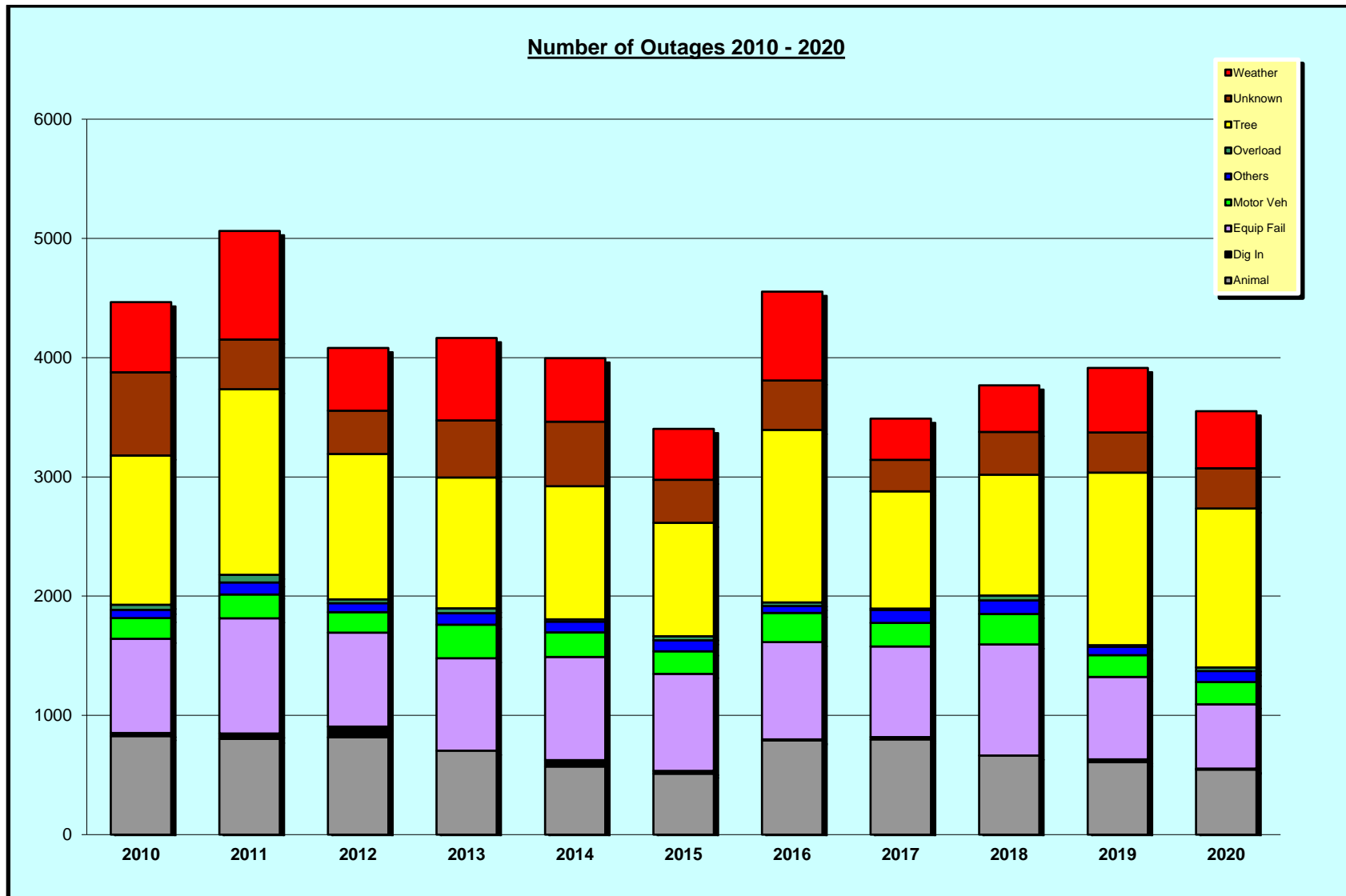
ATLANTIC CITY ELECTRIC COMPANY - CAPE MAY DISTRICT
Major Outage Causes (Major Events Excluded)



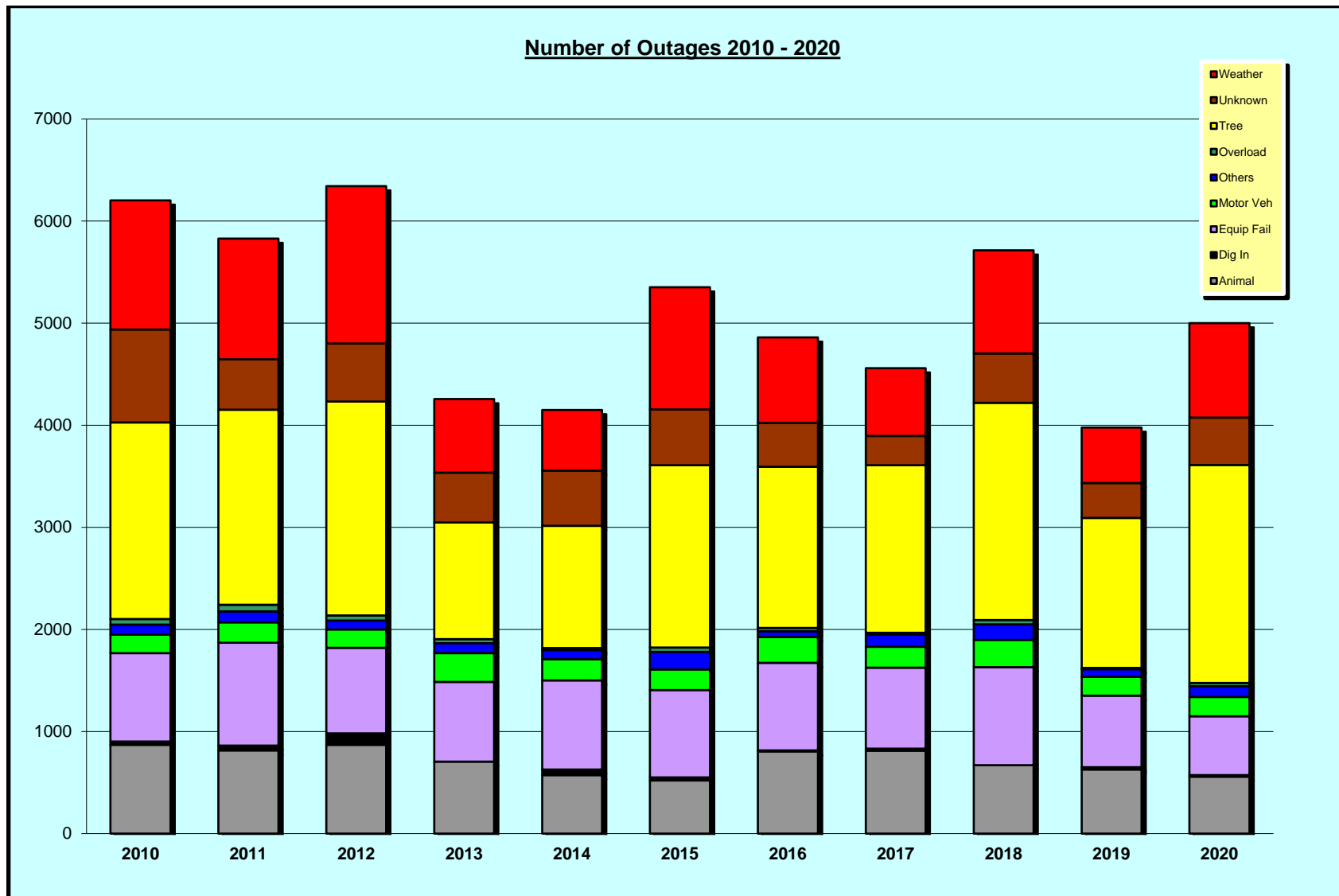
ATLANTIC CITY ELECTRIC COMPANY - CAPE MAY DISTRICT
Major Outage Causes (Major Events Included)



ATLANTIC CITY ELECTRIC COMPANY - GLASSBORO DISTRICT
Major Outage Causes (Major Events Excluded)

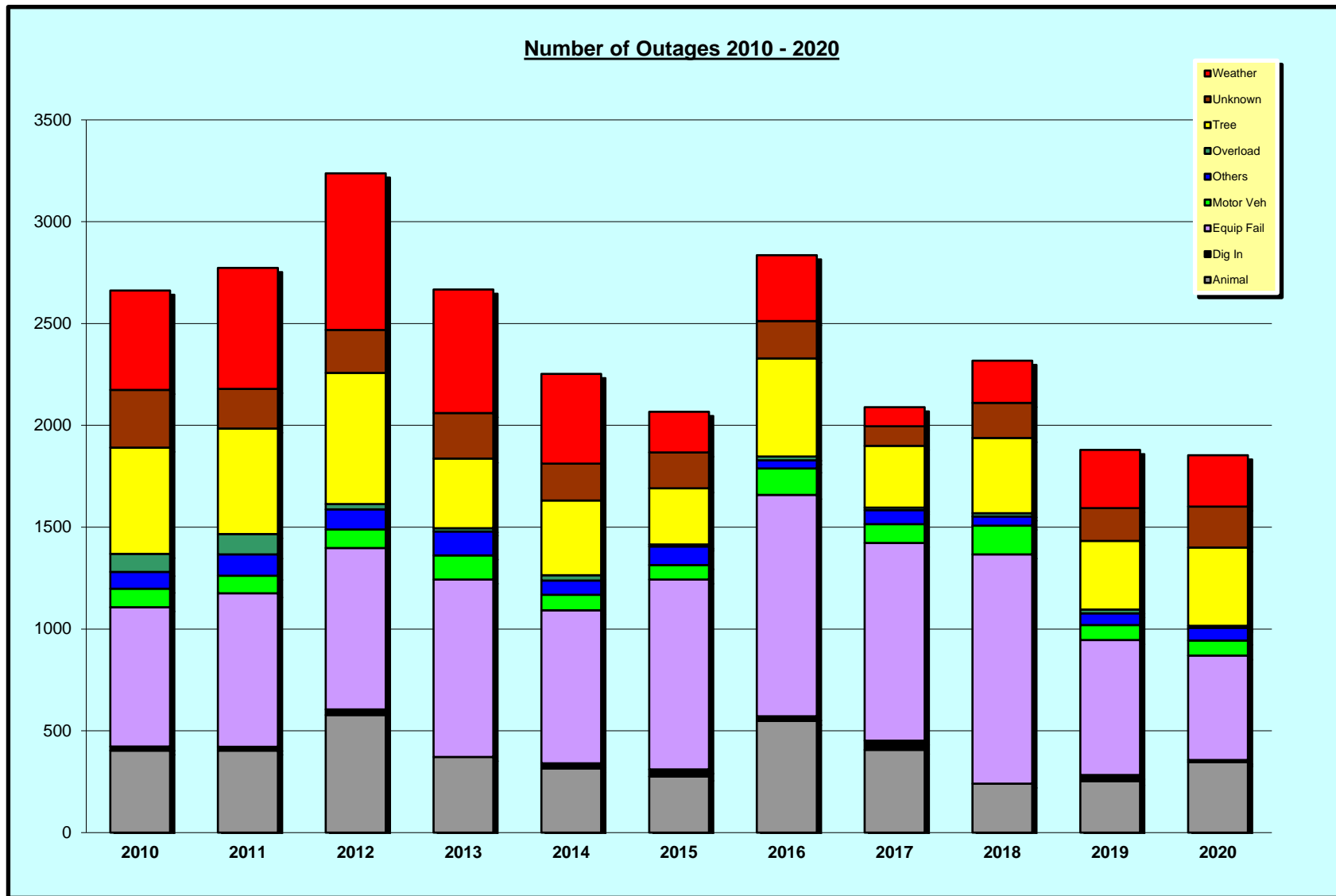


ATLANTIC CITY ELECTRIC COMPANY - GLASSBORO DISTRICT
Major Outage Causes (Major Events Included)



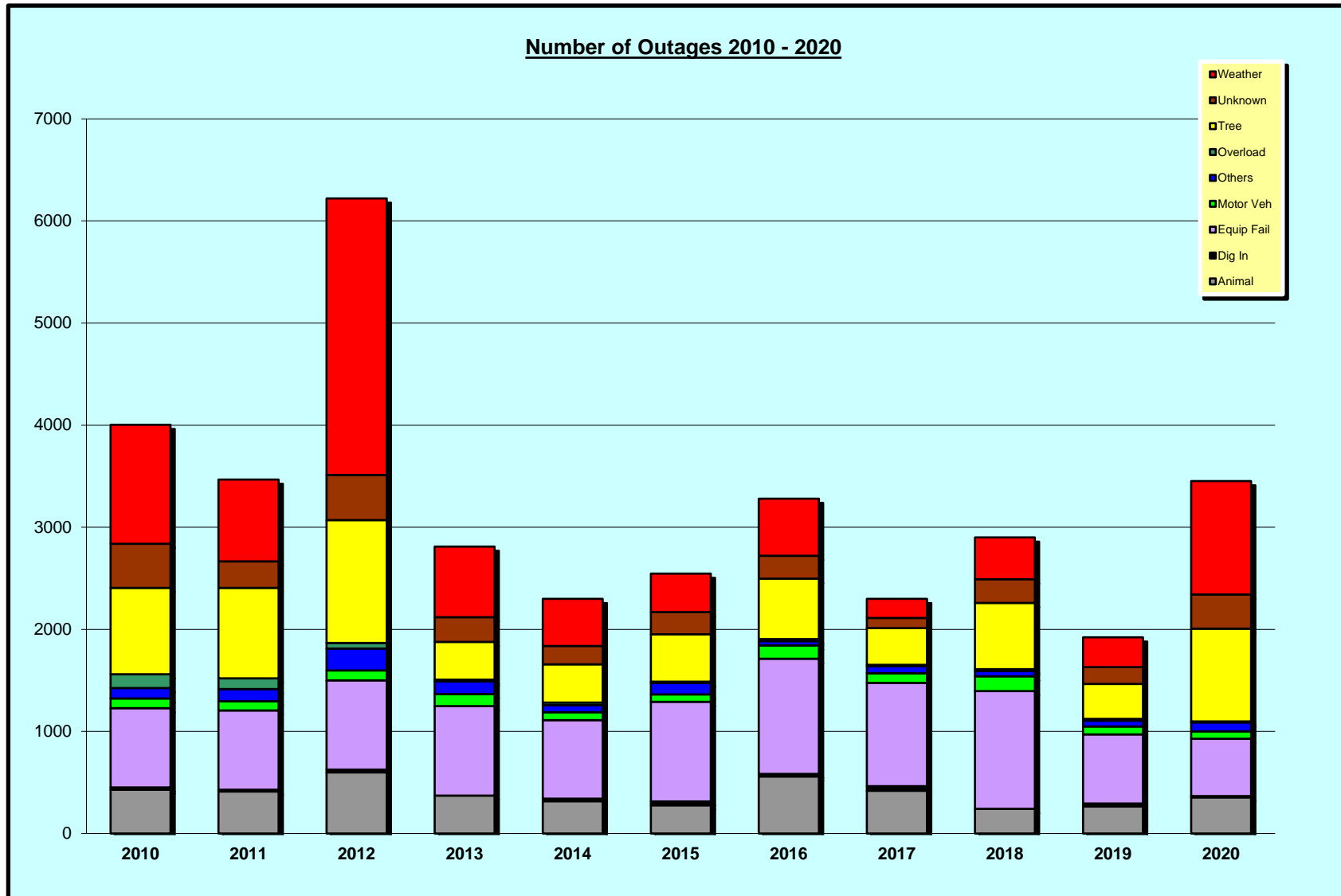
ATLANTIC CITY ELECTRIC COMPANY - PLEASANTVILLE DISTRICT

Major Outage Causes (Major Events Excluded)

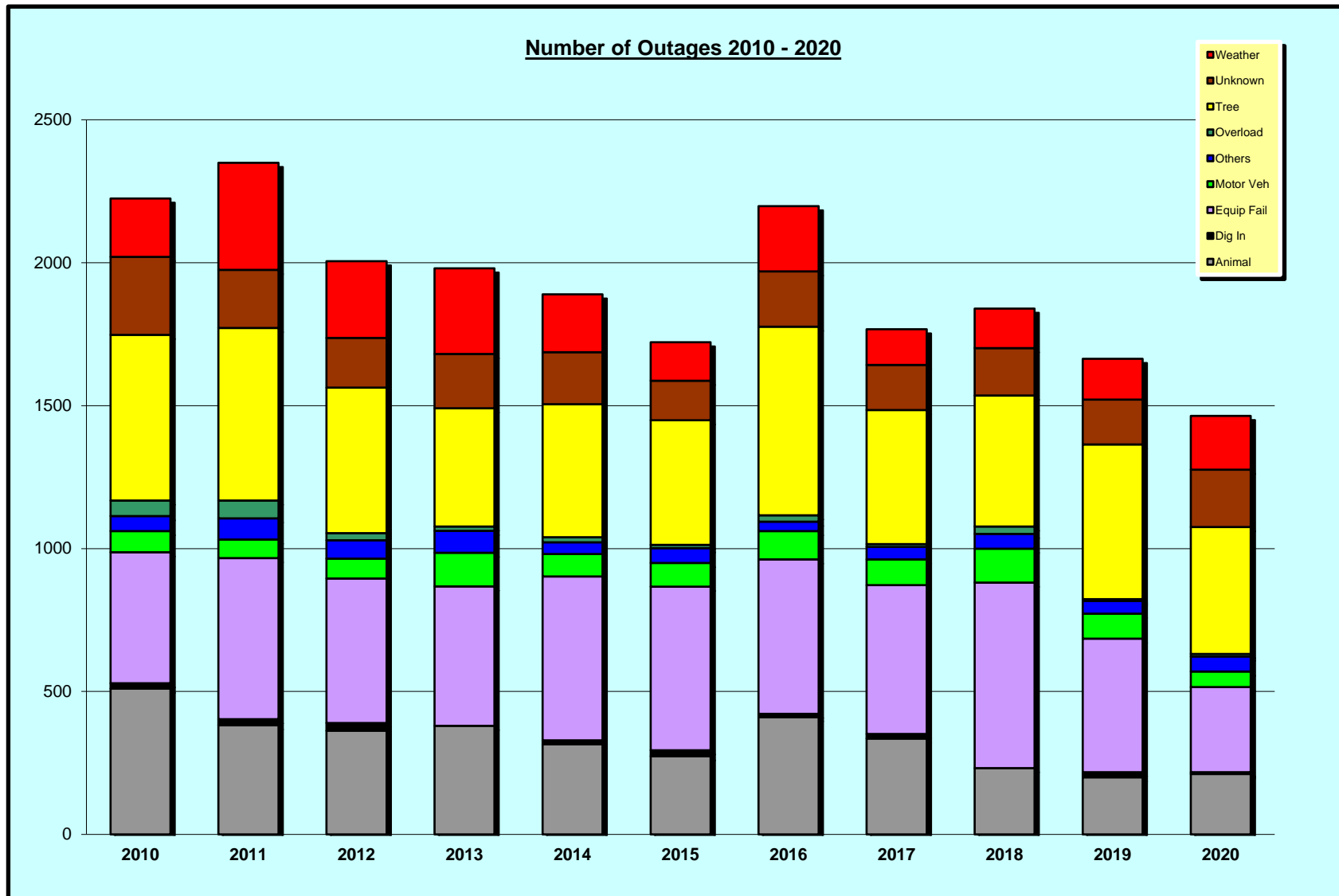


ATLANTIC CITY ELECTRIC COMPANY - PLEASANTVILLE DISTRICT

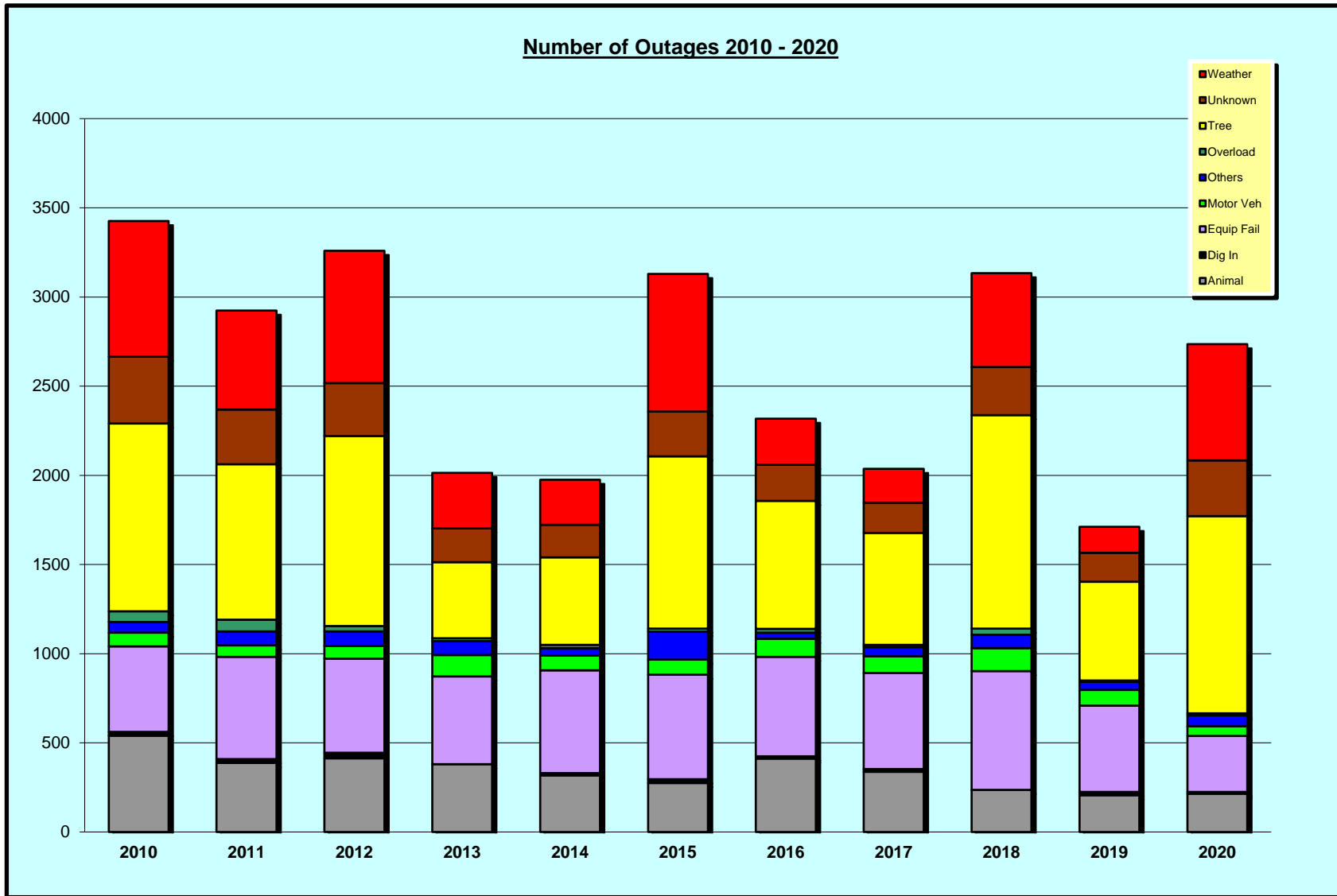
Major Outage Causes (Major Events Included)



ATLANTIC CITY ELECTRIC COMPANY - WINSLOW DISTRICT
Major Outage Causes (Major Events Excluded)



ATLANTIC CITY ELECTRIC COMPANY - WINSLOW DISTRICT
Major Outage Causes (Major Events Included)



New Jersey (Atlantic Region)

Customer Count: 559,755

Major Outage Cause Summary - 2020

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
A L L E V E N T S	Animal	1,213	9.4%	5	39,196	4.8%	6	2,519,913	0.8%	7	0.07	64	5
	Dig In	52	0.4%	9	525	0.1%	9	432,513	0.1%	9	0.00	824	1
	Equipment Failure	1,893	14.7%	3	101,726	12.4%	3	11,618,571	3.8%	4	0.18	114	21
	Equipment Hit	337	2.6%	6	70,112	8.5%	4	4,066,356	1.3%	5	0.13	58	7
	Other*	293	2.3%	7	28,540	3.5%	7	3,405,721	1.1%	6	0.05	119	6
	Overload	65	0.5%	8	3,678	0.4%	8	462,693	0.1%	8	0.01	126	1
	Tree	4,509	35.1%	1	280,035	34.0%	1	104,752,854	33.9%	2	0.50	374	187
	Unknown	1,295	10.1%	4	54,529	6.6%	5	19,055,637	6.2%	3	0.10	349	34
	Weather	3,186	24.8%	2	245,232	29.8%	2	162,391,899	52.6%	1	0.44	662	290
	Sum	12,843	100.0%		823,573	100.0%		308,706,156	100.0%		1.47	375	552

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J O R E V E N T S	Animal	1,191	15.3%	3	38,946	8.6%	5	2,452,953	6.1%	6	0.07	63	4
	Dig In	40	0.5%	9	382	0.1%	9	42,563	0.1%	9	0.00	111	0
	Equipment Failure	1,763	22.7%	2	90,318	20.0%	2	7,854,561	19.4%	3	0.16	87	14
	Equipment Hit	333	4.3%	6	70,066	15.5%	3	4,062,786	10.0%	4	0.13	58	7
	Other*	232	3.0%	7	18,191	4.0%	7	1,042,236	2.6%	7	0.03	57	2
	Overload	59	0.8%	8	3,500	0.8%	8	133,598	0.3%	8	0.01	38	0
	Tree	2,277	29.3%	1	136,632	30.2%	1	14,378,821	35.5%	1	0.24	105	26
	Unknown	855	11.0%	5	29,158	6.4%	6	2,547,653	6.3%	5	0.05	87	5
	Weather	1,013	13.0%	4	64,955	14.4%	4	7,984,372	19.7%	2	0.12	123	14
	Sum	7,763	100.0%		452,148	100.0%		40,499,544	100.0%		0.81	90	72

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J O R E V E N T S	Animal	22	0.4%	6	250	0.1%	6	66,960	0.0%	8	0.00	268	0
	Dig In	12	0.2%	7	143	0.0%	8	389,950	0.1%	6	0.00	2727	1
	Equipment Failure	130	2.6%	4	11,408	3.1%	4	3,764,009	1.4%	4	0.02	330	7
	Equipment Hit	4	0.1%	9	46	0.0%	9	3,570	0.0%	9	0.00	78	0
	Other*	61	1.2%	5	10,349	2.8%	5	2,363,485	0.9%	5	0.02	228	4
	Overload	6	0.1%	8	178	0.0%	7	329,095	0.1%	7	0.00	1849	1
	Tree	2,232	43.9%	1	143,403	38.6%	2	90,374,033	33.7%	2	0.26	630	161
	Unknown	440	8.7%	3	25,371	6.8%	3	16,507,984	6.2%	3	0.05	651	29
	Weather	2,173	42.8%	2	180,277	48.5%	1	154,407,526	57.6%	1	0.32	857	276
	Sum	5,080	100.0%		371,425	100.0%		268,206,612	100.0%		0.66	722	479

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District

Customer Count: 114,360

Major Outage Cause Summary - 2020

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
A L L E V E N T S	Animal	89	5.4%	5	556	0.5%	7	41,439	0.1%	7	0.00	75	0
	Dig In	13	0.8%	8	43	0.0%	9	8,649	0.0%	8	0.00	201	0
	Equipment Failure	441	26.6%	2	15,478	14.7%	3	2,546,114	4.6%	4	0.14	164	22
	Equipment Hit	19	1.1%	7	1,361	1.3%	6	122,899	0.2%	6	0.01	90	1
	Other*	41	2.5%	6	8,962	8.5%	5	984,123	1.8%	5	0.08	110	9
	Overload	10	0.6%	9	76	0.1%	8	4,367	0.0%	9	0.00	57	0
	Tree	360	21.7%	3	22,433	21.2%	2	16,748,648	30.5%	2	0.20	747	146
	Unknown	185	11.2%	4	12,993	12.3%	4	4,943,024	9.0%	3	0.11	380	43
	Weather	498	30.1%	1	43,700	41.4%	1	29,584,599	53.8%	1	0.38	677	259
	Sum	1,656	100.0%		105,602	100.0%		54,983,861	100.0%		0.92	521	481

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J E V E N T S	Animal	89	10.0%	4	556	1.5%	7	41,439	1.1%	7	0.00	75	0
	Dig In	13	1.5%	7	43	0.1%	9	8,649	0.2%	8	0.00	201	0
	Equipment Failure	414	46.3%	1	12,268	33.5%	1	1,129,085	30.1%	1	0.11	92	10
	Equipment Hit	18	2.0%	6	1,344	3.7%	6	121,897	3.3%	6	0.01	91	1
	Other*	24	2.7%	5	6,112	16.7%	3	300,197	8.0%	5	0.05	49	3
	Overload	10	1.1%	8	76	0.2%	8	4,367	0.1%	9	0.00	57	0
	Tree	116	13.0%	2	5,338	14.6%	4	648,604	17.3%	3	0.05	122	6
	Unknown	116	13.0%	2	4,498	12.3%	5	472,489	12.6%	4	0.04	105	4
	Weather	94	10.5%	3	6,421	17.5%	2	1,022,049	27.3%	2	0.06	159	9
	Sum	894	100.0%		36,656	100.0%		3,748,777	100.0%		0.32	102	33

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J E V E N T S	Animal	-	0.0%		-	0.0%		-	0.0%		0.00	-	-
	Dig In	-	0.0%		-	0.0%		-	0.0%		0.00	-	-
	Equipment Failure	27	3.5%	4	3,210	4.7%	4	1,417,029	2.8%	4	0.03	441	12
	Equipment Hit	1	0.1%	6	17	0.0%	6	1,001	0.0%	6	0.00	59	0
	Other*	17	2.2%	5	2,850	4.1%	5	683,926	1.3%	5	0.02	240	6
	Overload	-	0.0%		-	0.0%		-	0.0%		0.00	-	-
	Tree	244	32.0%	2	17,095	24.8%	2	16,100,044	31.4%	2	0.15	942	141
	Unknown	69	9.1%	3	8,495	12.3%	3	4,470,535	8.7%	3	0.07	526	39
	Weather	404	53.0%	1	37,279	54.1%	1	28,562,550	55.7%	1	0.33	766	250
	Sum	762	100.0%		68,946	100.0%		51,235,084	100.0%		0.60	743	448

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 165,805

Major Outage Cause Summary - 2020

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	557	11.1%	4	23,306	9.2%	5	1,647,900	2.4%	6	0.14	71	10
	Dig In	16	0.3%	9	105	0.0%	9	14,354	0.0%	9	0.00	137	0
	Equipment Failure	576	11.5%	3	29,300	11.5%	4	3,437,659	5.0%	3	0.18	117	21
E V E N T S	Equipment Hit	190	3.8%	6	31,908	12.5%	3	1,740,891	2.5%	5	0.19	55	10
	Other*	105	2.1%	7	5,773	2.3%	7	575,345	0.8%	7	0.03	100	3
	Overload	32	0.6%	8	1,303	0.5%	8	53,553	0.1%	8	0.01	41	0
	Tree	2,136	42.7%	1	106,307	41.8%	1	37,543,003	54.2%	1	0.64	353	226
	Unknown	462	9.2%	5	11,501	4.5%	6	1,972,976	2.8%	4	0.07	172	12
	Weather	927	18.5%	2	44,987	17.7%	2	22,244,757	32.1%	2	0.27	494	134
S	Sum	5,001	100.0%		254,490	100.0%		69,230,437	100.0%		1.53	272	418

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	545	15.3%	2	23,162	12.7%	5	1,613,145	8.7%	5	0.14	70	10
	Dig In	10	0.3%	9	97	0.1%	9	7,407	0.0%	9	0.00	76	0
	Equipment Failure	538	15.1%	3	28,310	15.5%	3	2,607,639	14.1%	3	0.17	92	16
E V E N T S	Equipment Hit	187	5.3%	6	31,879	17.5%	2	1,738,322	9.4%	4	0.19	55	10
	Other*	93	2.6%	7	5,682	3.1%	7	362,716	2.0%	7	0.03	64	2
	Overload	30	0.8%	8	1,293	0.7%	8	47,738	0.3%	8	0.01	37	0
	Tree	1,333	37.5%	1	58,445	32.0%	1	7,858,531	42.5%	1	0.35	134	47
	Unknown	337	9.5%	5	9,418	5.2%	6	1,078,969	5.8%	6	0.06	115	7
	Weather	479	13.5%	4	24,138	13.2%	4	3,167,769	17.1%	2	0.15	131	19
C	Sum	3,552	100.0%		182,424	100.0%		18,482,235	100.0%		1.10	101	111

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	12	0.8%	5	144	0.2%	5	34,755	0.1%	6	0.00	241	0
	Dig In	6	0.4%	6	8	0.0%	9	6,947	0.0%	7	0.00	868	0
	Equipment Failure	38	2.6%	4	990	1.4%	4	830,020	1.6%	4	0.01	838	5
E V E N T S	Equipment Hit	3	0.2%	7	29	0.0%	7	2,569	0.0%	9	0.00	89	0
	Other*	12	0.8%	5	91	0.1%	6	212,629	0.4%	5	0.00	2,337	1
	Overload	2	0.1%	8	10	0.0%	8	5,816	0.0%	8	0.00	582	0
O N L Y	Tree	803	55.4%	1	47,862	66.4%	1	29,684,472	58.5%	1	0.29	620	179
	Unknown	125	8.6%	3	2,083	2.9%	3	894,007	1.8%	3	0.01	429.19	5
	Weather	448	30.9%	2	20,849	28.9%	2	19,076,988	37.6%	2	0.13	915.01	115
	Sum	1,449	100.0%		72,066	100.0%		50,748,202	100.0%		0.43	704.19	306

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 179,043

Major Outage Cause Summary - 2020

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
A L L E V E N T S	Animal	353	10.2%	4	9,026	3.4%	7	451,017	0.3%	7	0.05	50	3
	Dig In	13	0.4%	8	84	0.0%	9	330,141	0.2%	8	0.00	3,930	2
	Equipment Failure	562	16.3%	3	29,744	11.2%	3	3,420,723	2.5%	4	0.17	115	19
	Equipment Hit	73	2.1%	7	22,444	8.4%	4	1,464,524	1.1%	5	0.13	65	8
	Other*	86	2.5%	6	10,029	3.8%	6	1,303,058	1.0%	6	0.06	130	7
	Overload	11	0.3%	9	1,047	0.4%	8	30,727	0.0%	9	0.01	29	0
	Tree	908	26.3%	2	58,000	21.8%	2	24,389,452	18.2%	2	0.32	421	136
	Unknown	336	9.7%	5	22,099	8.3%	5	9,823,168	7.3%	3	0.12	445	55
	Weather	1,109	32.1%	1	113,459	42.7%	1	93,143,478	69.3%	1	0.63	821	520
	Sum	3,451	100.0%		265,932	100.0%		134,356,289	100.0%		1.49	505	750

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J O R E V E N T S	Animal	346	18.7%	3	8,936	7.2%	6	424,085	4.4%	6	0.05	47	2
	Dig In	10	0.5%	8	10	0.0%	9	3,027	0.0%	9	0.00	303	0
	Equipment Failure	514	27.7%	1	26,521	21.4%	2	2,288,867	23.7%	2	0.15	86	13
	Equipment Hit	73	3.9%	6	22,444	18.1%	3	1,464,524	15.2%	4	0.13	65	8
	Other*	63	3.4%	7	4,768	3.8%	7	284,099	2.9%	7	0.03	60	2
	Overload	10	0.5%	8	1,046	0.8%	8	30,618	0.3%	8	0.01	29	0
	Tree	384	20.7%	2	30,801	24.9%	1	2,566,273	26.6%	1	0.17	83	14
	Unknown	201	10.8%	5	11,744	9.5%	5	669,366	6.9%	5	0.07	57	4
	Weather	252	13.6%	4	17,587	14.2%	4	1,909,526	19.8%	3	0.10	109	11
	Sum	1,853	100.0%		123,857	100.0%		9,640,385	100.0%		0.69	78	54

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J O R E V E N T S	Animal	7	0.4%	6	90	0.1%	6	26,932	0.0%	7	0.00	299	0
	Dig In	3	0.2%	7	74	0.1%	7	327,114	0.3%	6	0.00	4,420	2
	Equipment Failure	48	3.0%	4	3,223	2.3%	5	1,131,856	0.9%	4	0.02	351	6
	Equipment Hit	-	0.0%		-	0.0%		-	0.0%		0.00	-	-
	Other*	23	1.4%	5	5,261	3.7%	4	1,018,959	0.8%	5	0.03	194	6
	Overload	1	0.1%	8	1	0.0%	8	109	0.0%	8	0.00	109	0
	Tree	524	32.8%	2	27,199	19.1%	2	21,823,179	17.5%	2	0.15	802	122
	Unknown	135	8.4%	3	10,355	7.3%	3	9,153,801	7.3%	3	0.06	884	51
	Weather	857	53.6%	1	95,872	67.5%	1	91,233,952	73.2%	1	0.54	951.62	510
	Sum	1,598	100.0%		142,075	100.0%		124,715,904	100.0%		0.79	877.82	697

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 100,548

Major Outage Cause Summary - 2020

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
A L L E V E N T S	Animal	214	7.8%	5	6,308	3.2%	6	379,557	0.8%	7	0.06	60	4
	Dig In	10	0.4%	9	293	0.1%	9	79,370	0.2%	9	0.00	271	1
	Equipment Failure	314	11.5%	3	27,204	13.8%	3	2,214,075	4.4%	4	0.27	81	22
	Equipment Hit	55	2.0%	7	14,399	7.3%	4	738,042	1.5%	5	0.14	51	7
	Other*	61	2.2%	6	3,776	1.9%	7	543,195	1.1%	6	0.04	144	5
	Overload	12	0.4%	8	1,252	0.6%	8	374,046	0.7%	8	0.01	299	4
	Tree	1,105	40.4%	1	93,295	47.2%	1	26,071,751	52.0%	1	0.93	279	259
	Unknown	312	11.4%	4	7,936	4.0%	5	2,316,470	4.6%	3	0.08	292	23
	Weather	652	23.8%	2	43,086	21.8%	2	17,419,064	34.7%	2	0.43	404	173
	Sum	2,735	100.0%		197,549	100.0%		50,135,569	100.0%		1.96	254	499

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J O R E V E N T S	Animal	211	14.4%	3	6,292	5.8%	5	374,284	4.3%	5	0.06	59	4
	Dig In	7	0.5%	9	232	0.2%	9	23,481	0.3%	9	0.00	101	0
	Equipment Failure	297	20.3%	2	23,219	21.3%	2	1,828,971	21.2%	3	0.23	79	18
	Equipment Hit	55	3.8%	6	14,399	13.2%	4	738,042	8.6%	4	0.14	51	7
	Other*	52	3.6%	7	1,629	1.5%	7	95,224	1.1%	7	0.02	58	1
	Overload	9	0.6%	8	1,085	1.0%	8	50,876	0.6%	8	0.01	47	1
	Tree	444	30.3%	1	42,048	38.5%	1	3,305,412	38.3%	1	0.42	79	33
	Unknown	201	13.7%	4	3,498	3.2%	6	326,829	3.8%	6	0.03	93	3
	Weather	188	12.8%	5	16,809	15.4%	3	1,885,028	21.8%	2	0.17	112	19
	Sum	1,464	100.0%		109,211	100.0%		8,628,147	100.0%		1.09	79	86

	Cause	Events	Pct	Ran k	Cust Out	Pct	Ran k	Minutes	Pct	Ran k	SAIF I	CAIDI	SAIDI
M A J O R E V E N T S	Animal	3	0.2%	6	16	0.0%	8	5,273	0.0%	8	0.00	330	0
	Dig In	3	0.2%	6	61	0.1%	7	55,889	0.1%	7	0.00	916	1
	Equipment Failure	17	1.3%	4	3,985	4.5%	4	385,104	0.9%	5	0.04	97	4
	Equipment Hit	-	0.0%		-	0.0%		-	0.0%		0.00	-	-
	Other*	9	0.7%	5	2,147	2.4%	5	447,971	1.1%	4	0.02	209	4
	Overload	3	0.2%	6	167	0.2%	6	323,169	0.8%	6	0.00	1,935	3
	Tree	661	52.0%	1	51,247	58.0%	1	22,766,339	54.8%	1	0.51	444	226
	Unknown	111	8.7%	3	4,438	5.0%	3	1,989,641	4.8%	3	0.04	448	20
	Weather	464	36.5%	2	26,277	29.7%	2	15,534,037	37.4%	2	0.26	591	154
	Sum	1,271	100.0%		88,338	100.0%		41,507,422	100.0%		0.88	470	413

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Customer Count: 556,532

Major Outage Cause Summary - 2019

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	1,179	13.7%	3	39,756	7.7%	6	2,333,328	5.1%	6	0.07	59	4
	Dig In	81	0.9%	8	1,928	0.4%	9	156,850	0.3%	9	0.00	81	0
L	Equipment Failure	2,353	27.4%	2	126,985	24.6%	2	10,463,853	22.7%	2	0.23	82	19
	Equipment Hit	400	4.7%	6	51,246	9.9%	4	5,037,042	10.9%	4	0.09	98	9
E	Other*	198	2.3%	7	35,722	6.9%	7	1,368,825	3.0%	7	0.06	38	2
V	Overload	45	0.5%	9	3,783	0.7%	8	217,258	0.5%	8	0.01	57	0
E	Tree	2,476	28.9%	1	146,031	28.2%	1	15,953,599	34.6%	1	0.26	109	29
N	Unknown	771	9.0%	5	44,243	8.6%	5	3,658,950	7.9%	5	0.08	83	7
T	Weather	1,077	12.6%	4	67,309	13.0%	3	6,937,710	15.0%	3	0.12	103	12
S	Sum	8,580	100.0%		517,003	100.0%		46,127,415	100.0%		0.93	89	83

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	1,144	13.6%	3	33,277	6.6%	7	2,177,862	4.8%	6	0.06	65	4
	Dig In	81	1.0%	8	1,928	0.4%	9	156,850	0.3%	9	0.00	81	0
J	Equipment Failure	2,307	27.4%	2	122,008	24.4%	2	10,260,173	22.6%	2	0.22	84	18
	Equipment Hit	393	4.7%	6	51,238	10.2%	4	5,035,371	11.1%	4	0.09	98	9
E	Other*	195	2.3%	7	35,648	7.1%	6	1,365,395	3.0%	7	0.06	38	2
V	Overload	45	0.5%	9	3,783	0.8%	8	217,258	0.5%	8	0.01	57	0
	Tree	2,437	28.9%	1	143,033	28.6%	1	15,775,731	34.7%	1	0.26	110	28
E	Unknown	756	9.0%	5	42,831	8.6%	5	3,578,373	7.9%	5	0.08	84	6
X	Weather	1,065	12.6%	4	67,060	13.4%	3	6,906,742	15.2%	3	0.12	103	12
C	Sum	8,423	100.0%		500,806	100.0%		45,473,754	100.0%		0.90	91	82

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	35	22.3%	3	6,479	40.0%	1	155,466	23.8%	3	0.01	24	0
	Dig In	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
J	Equipment Failure	46	29.3%	1	4,977	30.7%	2	203,680	31.2%	1	0.01	41	0
	Equipment Hit	7	4.5%	6	8	0.0%	7	1,672	0.3%	7	0.00	209	0
V	Other*	3	1.9%	7	74	0.5%	6	3,430	0.5%	6	0.00	46	0
	Overload	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
O	Tree	39	24.8%	2	2,998	18.5%	3	177,868	27.2%	2	0.01	59	0
N	Unknown	15	9.6%	4	1,412	8.7%	4	80,577	12.3%	4	0.00	57	0
L	Weather	12	7.6%	5	249	1.5%	5	30,968	4.7%	5	0.00	124	0
Y	Sum	157	100.0%		16,197	100.0%		653,661	100.0%		0.03	40	1

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District

Customer Count: 114,276

Major Outage Cause Summary - 2019

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	83	8.6%	5	9,843	12.9%	3	649,702	10.4%	6	0.09	66	6
	Dig In	10	1.0%	8	130	0.2%	8	22,117	0.4%	8	0.00	170	0
L	Equipment Failure	489	50.4%	1	24,532	32.3%	1	2,093,571	33.5%	1	0.21	85	18
	Equipment Hit	50	5.2%	6	9,451	12.4%	4	1,099,012	17.6%	2	0.08	116	10
E	Other*	21	2.2%	7	12,915	17.0%	2	650,264	10.4%	5	0.11	50	6
V	Overload	7	0.7%	9	93	0.1%	9	9,103	0.1%	9	0.00	98	0
E	Tree	113	11.6%	2	7,407	9.7%	6	747,164	11.9%	4	0.06	101	7
N	Unknown	101	10.4%	3	2,451	3.2%	7	173,562	2.8%	7	0.02	71	2
T	Weather	96	9.9%	4	9,188	12.1%	5	811,199	13.0%	3	0.08	88	7
S	Sum	970	100.0%		76,010	100.0%		6,255,694	100.0%		0.67	82	55

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	83	8.6%	5	9,843	13.0%	3	649,702	10.4%	6	0.09	66	6
	Dig In	10	1.0%	8	130	0.2%	8	22,117	0.4%	8	0.00	170	0
J	Equipment Failure	486	50.3%	1	24,529	32.3%	1	2,093,154	33.5%	1	0.21	85	18
	Equipment Hit	50	5.2%	6	9,451	12.4%	4	1,099,012	17.6%	2	0.08	116	10
E	Other*	21	2.2%	7	12,915	17.0%	2	650,264	10.4%	5	0.11	50	6
V	Overload	7	0.7%	9	93	0.1%	9	9,103	0.1%	9	0.00	98	0
	Tree	113	11.7%	2	7,407	9.7%	6	747,164	11.9%	4	0.06	101	7
E	Unknown	101	10.4%	3	2,451	3.2%	7	173,562	2.8%	7	0.02	71	2
X	Weather	96	9.9%	4	9,188	12.1%	5	811,199	13.0%	3	0.08	88	7
C	Sum	967	100.0%		76,007	100.0%		6,255,277	100.0%		0.67	82	55

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
	Dig In	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
J	Equipment Failure	3	100.0%	1	3	100.0%	1	417	100.0%	1	0.00	139	0
	Equipment Hit	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
V	Other*	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
	Overload	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
O	Tree	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
N	Unknown	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
L	Weather	-	0.0%	2	-	0.0%	2	-	0.0%	2	0.00	-	-
Y	Sum	3	100.0%		3	100.0%		417	100.0%		0.00	138.94	0

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 164,829

Major Outage Cause Summary - 2019

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	627	15.8%	3	11,106	5.4%	6	667,008	3.4%	6	0.07	60	4
	Dig In	23	0.6%	8	1,212	0.6%	9	76,205	0.4%	9	0.01	63	0
L	Equipment Failure	701	17.6%	2	41,176	20.0%	2	3,066,963	15.5%	2	0.25	74	19
	Equipment Hit	186	4.7%	6	25,311	12.3%	3	2,060,406	10.4%	4	0.15	81	13
E	Other*	73	1.8%	7	8,896	4.3%	7	336,212	1.7%	7	0.05	38	2
V	Overload	13	0.3%	9	3,199	1.6%	8	137,582	0.7%	8	0.02	43	1
E	Tree	1,469	36.9%	1	82,610	40.1%	1	9,889,304	50.1%	1	0.50	120	60
N	Unknown	341	8.6%	5	13,857	6.7%	5	1,375,593	7.0%	5	0.08	99	8
T	Weather	545	13.7%	4	18,631	9.0%	4	2,115,567	10.7%	3	0.11	114	13
S	Sum	3,978	100.0%		205,998	100.0%		19,724,841	100.0%		1.25	96	120

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	608	15.5%	3	11,019	5.4%	6	661,029	3.4%	6	0.07	60	4
	Dig In	23	0.6%	8	1,212	0.6%	9	76,205	0.4%	9	0.01	63	0
J	Equipment Failure	691	17.7%	2	41,165	20.3%	2	3,064,584	15.7%	2	0.25	74	19
	Equipment Hit	182	4.7%	6	25,307	12.5%	3	2,059,914	10.5%	4	0.15	81	12
E	Other*	72	1.8%	7	8,835	4.4%	7	334,207	1.7%	7	0.05	38	2
V	Overload	13	0.3%	9	3,199	1.6%	8	137,582	0.7%	8	0.02	43	1
	Tree	1,446	37.0%	1	79,732	39.4%	1	9,722,807	49.8%	1	0.48	122	59
E	Unknown	337	8.6%	5	13,332	6.6%	5	1,370,982	7.0%	5	0.08	103	8
X	Weather	541	13.8%	4	18,614	9.2%	4	2,114,115	10.8%	3	0.11	114	13
C	Sum	3,913	100.0%		202,415	100.0%		19,541,425	100.0%		1.23	97	119

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	19	29.2%	2	87	2.4%	3	5,979	3.3%	2	0.00	69	0
	Dig In	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
J	Equipment Failure	10	15.4%	3	11	0.3%	6	2,379	1.3%	4	0.00	216	0
	Equipment Hit	4	6.2%	4	4	0.1%	7	493	0.3%	7	0.00	123	0
V	Other*	1	1.5%	7	61	1.7%	4	2,005	1.1%	5	0.00	33	0
	Overload	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
O	Tree	23	35.4%	1	2,878	80.3%	1	166,497	90.8%	1	0.02	58	1
N	Unknown	4	6.2%	4	525	14.7%	2	4,611	2.5%	3	0.00	8.78	0
L	Weather	4	6.2%	4	17	0.5%	5	1,452	0.8%	6	0.00	85.41	0
Y	Sum	65	100.0%		3,583	100.0%		183,415	100.0%		0.02	51.19	1

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 177,685

Major Outage Cause Summary - 2019

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	263	13.7%	4	11,009	8.6%	5	502,817	4.6%	6	0.06	46	3
	Dig In	30	1.6%	8	366	0.3%	8	31,037	0.3%	9	0.00	85	0
	Equipment Failure	678	35.3%	1	33,586	26.3%	2	3,366,194	30.9%	2	0.19	100	19
	Equipment Hit	76	4.0%	6	9,886	7.7%	6	938,142	8.6%	5	0.06	95	5
	Other*	58	3.0%	7	6,332	5.0%	7	129,407	1.2%	7	0.04	20	1
	Overload	19	1.0%	9	345	0.3%	9	55,792	0.5%	8	0.00	162	0
	Tree	340	17.7%	2	14,749	11.5%	4	1,335,066	12.3%	3	0.08	91	8
	Unknown	166	8.6%	5	17,506	13.7%	3	1,114,883	10.2%	4	0.10	64	6
	Weather	291	15.1%	3	33,953	26.6%	1	3,404,152	31.3%	1	0.19	100	19
	Sum	1,921	100.0%		127,732	100.0%		10,877,491	100.0%		0.72	85	61

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J O R C A U S E S	Animal	253	13.5%	4	4,861	4.2%	7	370,611	3.5%	6	0.03	76	2
	Dig In	30	1.6%	8	366	0.3%	8	31,037	0.3%	9	0.00	85	0
	Equipment Failure	663	35.3%	1	28,879	24.9%	2	3,204,713	30.6%	2	0.16	111	18
	Equipment Hit	74	3.9%	6	9,883	8.5%	5	937,280	8.9%	5	0.06	95	5
	Other*	57	3.0%	7	6,331	5.5%	6	129,386	1.2%	7	0.04	20	1
	Overload	19	1.0%	9	345	0.3%	9	55,792	0.5%	8	0.00	162	0
	Tree	337	17.9%	2	14,746	12.7%	4	1,334,722	12.7%	3	0.08	91	8
	Unknown	161	8.6%	5	16,777	14.5%	3	1,048,532	10.0%	4	0.09	62	6
	Weather	285	15.2%	3	33,746	29.1%	1	3,377,354	32.2%	1	0.19	100	19
	Sum	1,879	100.0%		115,934	100.0%		10,489,426	100.0%		0.65	90	59

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M I N O R C A U S E S	Animal	10	23.8%	2	6,148	52.1%	1	132,206	34.1%	2	0.03	22	1
	Dig In	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
	Equipment Failure	15	35.7%	1	4,707	39.9%	2	161,481	41.6%	1	0.03	34	1
	Equipment Hit	2	4.8%	6	3	0.0%	5	862	0.2%	5	0.00	287	0
	Other*	1	2.4%	7	1	0.0%	7	21	0.0%	7	0.00	21	0
	Overload	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
	Tree	3	7.1%	5	3	0.0%	5	345	0.1%	6	0.00	115	0
	Unknown	5	11.9%	4	729	6.2%	3	66,351	17.1%	3	0.00	91	0
	Weather	6	14.3%	3	207	1.8%	4	26,799	6.9%	4	0.00	129.46	0
	Sum	42	100.0%		11,798	100.0%		388,065	100.0%		0.07	32.89	2

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 99,742

Major Outage Cause Summary - 2019

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	206	12.0%	3	7,798	7.3%	4	513,802	5.5%	6	0.08	66	5
	Dig In	18	1.1%	8	220	0.2%	8	27,491	0.3%	8	0.00	125	0
L	Equipment Failure	485	28.3%	2	27,691	25.8%	2	1,937,125	20.9%	2	0.28	70	19
	Equipment Hit	88	5.1%	6	6,598	6.2%	6	939,482	10.1%	4	0.07	142	9
E	Other*	46	2.7%	7	7,579	7.1%	5	252,942	2.7%	7	0.08	33	3
V	Overload	6	0.4%	9	146	0.1%	9	14,781	0.2%	9	0.00	101	0
E	Tree	554	32.4%	1	41,265	38.5%	1	3,982,064	43.0%	1	0.41	96	40
N	Unknown	163	9.5%	4	10,429	9.7%	3	994,912	10.7%	3	0.10	95	10
T	Weather	145	8.5%	5	5,537	5.2%	7	606,791	6.5%	5	0.06	110	6
S	Sum	1,711	100.0%		107,263	100.0%		9,269,389	100.0%		1.08	86	93

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	200	12.0%	3	7,554	7.1%	5	496,521	5.4%	6	0.08	66	5
	Dig In	18	1.1%	8	220	0.2%	8	27,491	0.3%	8	0.00	125	0
J	Equipment Failure	467	28.1%	2	27,435	25.8%	2	1,897,722	20.7%	2	0.28	69	19
	Equipment Hit	87	5.2%	6	6,597	6.2%	6	939,165	10.2%	4	0.07	142	9
E	Other*	45	2.7%	7	7,567	7.1%	4	251,538	2.7%	7	0.08	33	3
V	Overload	6	0.4%	9	146	0.1%	9	14,781	0.2%	9	0.00	101	0
	Tree	541	32.5%	1	41,148	38.7%	1	3,971,038	43.2%	1	0.41	97	40
E	Unknown	157	9.4%	4	10,271	9.6%	3	985,297	10.7%	3	0.10	96	10
X	Weather	143	8.6%	5	5,512	5.2%	7	604,074	6.6%	5	0.06	110	6
C	Sum	1,664	100.0%		106,450	100.0%		9,187,626	100.0%		1.07	86	92

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	6	12.8%	3	244	30.0%	2	17,281	21.1%	2	0.00	71	0
	Dig In	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
J	Equipment Failure	18	38.3%	1	256	31.5%	1	39,403	48.2%	1	0.00	154	0
	Equipment Hit	1	2.1%	6	1	0.1%	7	317	0.4%	7	0.00	317	0
V	Other*	1	2.1%	6	12	1.5%	6	1,404	1.7%	6	0.00	117	0
	Overload	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
O	Tree	13	27.7%	2	117	14.4%	4	11,026	13.5%	3	0.00	94	0
N	Unknown	6	12.8%	3	158	19.4%	3	9,615	11.8%	4	0.00	61	0
L	Weather	2	4.3%	5	25	3.1%	5	2,718	3.3%	5	0.00	109	0
Y	Sum	47	100.0%		813	100.0%		81,763	100.0%		0.01	101	1

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)
Customer Count: 533,138 **Major Outage Cause Summary - 2018**

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	1,246	9.3%	4	59,130	8.3%	5	4,156,834	2.4%	6	0.11	70	8
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	3,667	27.4%	2	164,017	23.0%	2	14,803,691	8.5%	3	0.31	90	28
	Equipment Hit	480	3.6%	6	59,136	8.3%	4	5,442,984	3.1%	5	0.11	92	10
	Other*	443	3.3%	7	19,849	2.8%	7	2,528,073	1.5%	7	0.04	127	5
	Overload	102	0.8%	8	7,159	1.0%	8	507,206	0.3%	8	0.01	71	1
	Tree	4,183	31.2%	1	257,160	36.1%	1	95,282,779	54.7%	1	0.48	371	178
	Unknown	1,138	8.5%	5	55,608	7.8%	6	10,548,394	6.1%	4	0.10	190	20
	Weather	2,127	15.9%	3	89,573	12.6%	3	40,949,174	23.5%	2	0.17	457	76
	Sum	13,386	100.0%		711,632	100.0%		174,219,136	100.0%		1.33	245	325

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	1,228	13.1%	3	52,482	11.3%	4	2,969,987	7.9%	5	0.10	57	6
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	3,566	38.1%	1	153,698	33.1%	1	13,256,707	35.1%	1	0.29	86	25
	Equipment Hit	464	5.0%	6	57,556	12.4%	3	4,941,182	13.1%	3	0.11	86	9
	Other*	357	3.8%	7	16,791	3.6%	7	1,220,549	3.2%	7	0.03	73	2
	Overload	90	1.0%	8	7,102	1.5%	8	445,567	1.2%	8	0.01	63	1
	Tree	1,991	21.3%	2	94,658	20.4%	2	8,377,497	22.2%	2	0.18	89	16
	Unknown	830	8.9%	4	41,889	9.0%	5	2,816,551	7.5%	6	0.08	67	5
	Weather	824	8.8%	5	39,696	8.6%	6	3,707,939	9.8%	4	0.07	93	7
	Sum	9,350	100.0%		463,872	100.0%		37,735,978	100.0%		0.87	81	70

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	18	0.4%	6	6,648	2.7%	5	1,186,847	0.9%	6	0.01	179	2
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	101	2.5%	4	10,319	4.2%	4	1,546,984	1.1%	4	0.02	150	3
	Equipment Hit	16	0.4%	7	1,580	0.6%	7	501,802	0.4%	7	0.00	318	1
	Other*	86	2.1%	5	3,058	1.2%	6	1,307,524	1.0%	5	0.01	428	2
	Overload	12	0.3%	8	57	0.0%	8	61,639	0.0%	8	0.00	1,081	0
	Tree	2,192	54.3%	1	162,502	65.6%	1	86,905,282	63.7%	1	0.30	535	162
	Unknown	308	7.6%	3	13,719	5.5%	3	7,731,844	5.7%	3	0.03	564	14
	Weather	1,303	32.3%	2	49,877	20.1%	2	37,241,235	27.3%	2	0.09	747	70
	Sum	4,036	100.0%		247,760	100.0%		136,483,158	100.0%		0.46	551	255

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District
Customer Count: 110,485 **Major Outage Cause Summary - 2018**

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	98	6.0%	5	1,793	1.9%	7	128,524	1.6%	7	0.02	72	1
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	886	54.1%	1	39,124	40.7%	1	3,062,273	38.5%	1	0.36	78	28
	Equipment Hit	83	5.1%	6	4,456	4.6%	5	316,086	4.0%	6	0.04	71	3
	Other*	21	1.3%	7	4,295	4.5%	6	338,973	4.3%	5	0.04	79	3
	Overload	7	0.4%	8	31	0.0%	8	3,233	0.0%	8	0.00	104	0
	Tree	208	12.7%	2	27,531	28.6%	2	2,174,402	27.4%	2	0.25	79	20
	Unknown	153	9.3%	4	10,293	10.7%	3	774,005	9.7%	4	0.09	75	7
	Weather	182	11.1%	3	8,692	9.0%	4	1,150,781	14.5%	3	0.08	132	10
	Sum	1,638	100.0%		96,215	100.0%		7,948,277	100.0%		0.87	83	72

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	93	6.5%	4	1,788	2.2%	7	127,967	2.0%	7	0.02	72	1
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	858	60.1%	1	35,805	44.3%	1	2,772,238	44.4%	1	0.32	77	25
	Equipment Hit	79	5.5%	6	3,510	4.3%	5	262,106	4.2%	6	0.03	75	2
	Other*	18	1.3%	7	2,914	3.6%	6	283,794	4.5%	5	0.03	97	3
	Overload	7	0.5%	8	31	0.0%	8	3,233	0.1%	8	0.00	104	0
	Tree	149	10.4%	2	18,777	23.3%	2	1,410,291	22.6%	2	0.17	75	13
	Unknown	134	9.4%	3	10,224	12.7%	3	742,736	11.9%	3	0.09	73	7
	Weather	89	6.2%	5	7,706	9.5%	4	645,590	10.3%	4	0.07	84	6
	Sum	1,427	100.0%		80,755	100.0%		6,247,956	100.0%		0.73	77	57

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	5	2.4%	5	5	0.0%	7	557	0.0%	7	0.00	111	0
	Dig In	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
	Equipment Failure	28	13.3%	3	3,319	21.5%	2	290,035	17.1%	3	0.03	87	3
	Equipment Hit	4	1.9%	6	946	6.1%	5	53,979	3.2%	5	0.01	57	0
	Other*	3	1.4%	7	1,381	8.9%	3	55,179	3.2%	4	0.01	40	1
	Overload	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
	Tree	59	28.0%	2	8,754	56.6%	1	764,111	44.9%	1	0.08	87	7
	Unknown	19	9.0%	4	69	0.4%	6	31,268	1.8%	6	0.00	453.17	0
	Weather	93	44.1%	1	986	6.4%	4	505,191	29.7%	2	0.01	512.36	5
	Sum	211	100.0%		15,460	100.0%		1,700,320	100.0%		0.14	109.98	15

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 157,507

Major Outage Cause Summary - 2018

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	671	11.7%	4	31,981	10.3%	4	2,313,015	2.6%	6	0.20	72	15
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	960	16.8%	3	48,163	15.5%	2	4,619,523	5.2%	4	0.31	96	29
	Equipment Hit	266	4.7%	6	26,989	8.7%	5	2,843,535	3.2%	5	0.17	105	18
	Other*	152	2.7%	7	4,218	1.4%	8	730,087	0.8%	7	0.03	173	5
	Overload	43	0.8%	8	6,596	2.1%	7	364,589	0.4%	8	0.04	55	2
	Tree	2,129	37.3%	1	127,445	40.9%	1	47,553,221	53.9%	1	0.81	373	301
	Unknown	484	8.5%	5	23,702	7.6%	6	6,368,441	7.2%	3	0.15	269	40
	Weather	1,009	17.7%	2	42,263	13.6%	3	23,503,119	26.6%	2	0.27	556	149
	Sum	5,714	100.0%		311,357	100.0%		88,295,530	100.0%		1.97	284	559

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	663	17.6%	3	25,393	14.0%	4	1,146,064	7.9%	5	0.16	45	7
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	933	24.8%	2	44,720	24.6%	1	3,887,105	26.7%	1	0.28	87	25
	Equipment Hit	254	6.7%	6	25,566	14.1%	3	2,297,891	15.8%	3	0.16	90	15
	Other*	114	3.0%	7	3,899	2.1%	8	275,655	1.9%	8	0.02	71	2
	Overload	41	1.1%	8	6,570	3.6%	7	350,834	2.4%	7	0.04	53	2
	Tree	1,014	26.9%	1	43,012	23.7%	2	3,874,583	26.6%	2	0.27	90	25
	Unknown	358	9.5%	5	14,997	8.2%	6	870,527	6.0%	6	0.09	58	6
	Weather	390	10.4%	4	17,662	9.7%	5	1,874,181	12.9%	4	0.11	106	12
	Sum	3,767	100.0%		181,819	100.0%		14,576,841	100.0%		1.15	80	92

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	8	0.4%	7	6,588	5.1%	4	1,166,951	1.6%	4	0.04	177	7
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	27	1.4%	5	3,443	2.7%	5	732,418	1.0%	5	0.02	213	5
	Equipment Hit	12	0.6%	6	1,423	1.1%	6	545,644	0.7%	6	0.01	383	3
	Other*	38	2.0%	4	319	0.2%	7	454,432	0.6%	7	0.00	1,425	3
	Overload	2	0.1%	8	26	0.0%	8	13,755	0.0%	8	0.00	529	0
	Tree	1,115	57.3%	1	84,433	65.2%	1	43,678,638	59.3%	1	0.53	517	277
	Unknown	126	6.5%	3	8,705	6.7%	3	5,497,914	7.5%	3	0.06	631.58	35
	Weather	619	31.8%	2	24,601	19.0%	2	21,628,938	29.3%	2	0.16	879.19	137
	Sum	1,947	100.0%		129,538	100.0%		73,718,689	100.0%		0.82	569.09	467

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 169,711

Major Outage Cause Summary - 2018

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	241	8.3%	4	13,782	10.9%	5	795,554	4.1%	6	0.08	58	5
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	1,154	39.8%	1	44,864	35.6%	1	3,876,305	20.1%	3	0.26	86	23
	Equipment Hit	146	5.0%	6	14,880	11.8%	4	1,234,860	6.4%	4	0.09	83	7
	Other*	52	1.8%	7	302	0.2%	7	46,907	0.2%	7	0.00	155	0
	Overload	18	0.6%	8	159	0.1%	8	16,898	0.1%	8	0.00	106	0
	Tree	648	22.3%	2	25,542	20.2%	2	8,248,674	42.7%	1	0.15	323	48
	Unknown	232	8.0%	5	7,497	5.9%	6	1,180,193	6.1%	5	0.04	157	7
	Weather	409	14.1%	3	19,123	15.2%	3	3,902,637	20.2%	2	0.11	204	23
	Sum	2,900	100.0%		126,149	100.0%		19,302,027	100.0%		0.74	153	113

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	240	10.4%	3	13,742	13.6%	3	794,200	9.5%	5	0.08	58	5
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	1,126	48.6%	1	42,417	41.9%	1	3,498,297	41.8%	1	0.25	82	20
	Equipment Hit	142	6.1%	6	14,846	14.7%	2	1,219,185	14.6%	3	0.09	82	7
	Other*	44	1.9%	7	281	0.3%	7	35,909	0.4%	7	0.00	128	0
	Overload	16	0.7%	8	157	0.2%	8	16,308	0.2%	8	0.00	104	0
	Tree	370	16.0%	2	12,803	12.6%	4	1,314,132	15.7%	2	0.07	103	8
	Unknown	172	7.4%	5	5,252	5.2%	6	559,677	6.7%	6	0.03	107	3
	Weather	207	8.9%	4	11,761	11.6%	5	922,010	11.0%	4	0.07	78	5
	Sum	2,317	100.0%		101,259	100.0%		8,359,718	100.0%		0.59	83	49

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	1	0.2%	8	40	0.2%	5	1,353	0.0%	7	0.00	34	0
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	28	4.8%	4	2,447	9.8%	3	378,008	3.5%	4	0.01	154	2
	Equipment Hit	4	0.7%	6	34	0.1%	6	15,675	0.1%	5	0.00	461	0
	Other*	8	1.4%	5	21	0.1%	7	10,998	0.1%	6	0.00	524	0
	Overload	2	0.3%	7	2	0.0%	8	590	0.0%	8	0.00	295	0
	Tree	278	47.7%	1	12,739	51.2%	1	6,934,542	63.4%	1	0.07	544	40
	Unknown	60	10.3%	3	2,245	9.0%	4	620,516	5.7%	3	0.01	276	4
	Weather	202	34.6%	2	7,362	29.6%	2	2,980,627	27.2%	2	0.04	404.87	17
	Sum	583	100.0%		24,890	100.0%		10,942,309	100.0%		0.15	439.63	64

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 95,435

Major Outage Cause Summary - 2018

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	236	7.5%	5	11,574	6.5%	6	919,741	1.6%	6	0.12	79	10
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	667	21.3%	2	31,866	17.9%	2	3,245,590	5.5%	3	0.33	102	34
	Equipment Hit	127	4.1%	6	23,002	12.9%	3	2,276,560	3.9%	4	0.24	99	24
E V E	Other*	76	2.4%	7	843	0.5%	7	184,050	0.3%	7	0.01	218	2
	Overload	34	1.1%	8	373	0.2%	8	122,486	0.2%	8	0.00	328	1
	Tree	1,198	38.2%	1	76,642	43.1%	1	37,306,482	63.6%	1	0.80	487	388
N T	Unknown	269	8.6%	4	14,116	7.9%	5	2,225,755	3.8%	5	0.15	158	23
	Weather	527	16.8%	3	19,495	11.0%	4	12,392,637	21.1%	2	0.20	636	129
S	Sum	3,134	100.0%		177,911	100.0%		58,673,302	100.0%		1.85	330	611

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	232	12.6%	3	11,559	11.6%	4	901,755	10.5%	4	0.12	78	9
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	649	35.3%	1	30,756	30.7%	1	3,099,066	36.2%	1	0.32	101	32
	Equipment Hit	119	6.5%	6	22,593	22.6%	2	1,749,088	20.5%	3	0.24	77	18
E V E	Other*	51	2.8%	7	738	0.7%	7	38,102	0.4%	8	0.01	52	0
	Overload	26	1.4%	8	344	0.3%	8	75,192	0.9%	7	0.00	219	1
	Tree	458	24.9%	2	20,066	20.1%	3	1,778,491	20.8%	2	0.21	89	19
E X C	Unknown	166	9.0%	4	11,416	11.4%	5	643,610	7.5%	5	0.12	56	7
	Weather	138	7.5%	5	2,567	2.6%	6	266,158	3.1%	6	0.03	104	3
C	Sum	1,839	100.0%		100,039	100.0%		8,551,463	100.0%		1.04	85	89

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	4	0.3%	8	15	0.0%	8	17,986	0.0%	8	0.00	1,199	0
	Dig In	-	0.0%	9	-	0.0%	9	-	0.0%	9	0.00	-	-
	Equipment Failure	18	1.4%	5	1,110	1.4%	4	146,524	0.3%	5	0.01	132	2
	Equipment Hit	8	0.6%	6	409	0.5%	5	527,472	1.1%	4	0.00	1,290	5
E V E	Other*	25	1.9%	4	105	0.1%	6	145,948	0.3%	6	0.00	1,390	2
	Overload	8	0.6%	6	29	0.0%	7	47,294	0.1%	7	0.00	1,631	0
	Tree	740	57.1%	1	56,576	72.7%	1	35,527,991	70.9%	1	0.59	628	370
N L Y	Unknown	103	8.0%	3	2,700	3.5%	3	1,582,145	3.2%	3	0.03	586	16
	Weather	389	30.0%	2	16,928	21.7%	2	12,126,479	24.2%	2	0.18	716	126
	Sum	1,295	100.0%		77,872	100.0%		50,121,839	100.0%		0.81	644	522

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2017

Customer Count: 532,881

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
ALL	Animal	1,656	16.0%	3	60,643	10.5%	5	3,715,586	6.0%	5	0.11	61	7
	Dig In	103	1.0%	8	940	0.2%	9	151,946	0.2%	9	0.00	162	0
	Equipment Failure	3,127	30.3%	1	135,775	23.5%	2	10,570,125	17.0%	3	0.25	78	20
	Equipment Hit	434	4.2%	6	74,934	12.9%	3	5,725,538	9.2%	4	0.14	76	11
EVS	Other*	266	2.6%	7	43,139	7.5%	6	2,891,441	4.6%	6	0.08	67	5
	Overload	50	0.5%	9	4,441	0.8%	8	251,303	0.4%	8	0.01	57	0
ENT	Tree	2,774	26.9%	2	162,119	28.0%	1	24,178,901	38.9%	1	0.30	149	45
	Unknown	714	6.9%	5	22,773	3.9%	7	1,913,965	3.1%	7	0.04	84	4
	Weather	1,198	11.6%	4	74,013	12.8%	4	12,784,111	20.6%	2	0.14	173	24
S	Sum	10,322	100.0%		578,777	100.0%		62,182,916	100.0%		1.09	107	117

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJ	Animal	1,627	18.8%	3	60,326	13.2%	4	3,697,184	10.7%	5	0.11	61	7
	Dig In	101	1.2%	8	924	0.2%	9	150,048	0.4%	9	0.00	162	0
	Equipment Failure	3,017	34.8%	1	129,658	28.3%	1	9,646,496	27.8%	1	0.24	74	18
	Equipment Hit	424	4.9%	6	73,777	16.1%	3	5,611,700	16.2%	3	0.14	76	11
EVS	Other*	244	2.8%	7	34,195	7.5%	6	2,294,008	6.6%	6	0.06	67	4
	Overload	44	0.5%	9	4,423	1.0%	8	242,594	0.7%	8	0.01	55	0
ENT	Tree	1,873	21.6%	2	90,257	19.7%	2	7,641,247	22.0%	2	0.17	85	14
	Unknown	670	7.7%	4	18,272	4.0%	7	1,291,241	3.7%	7	0.03	71	2
	Weather	658	7.6%	5	46,001	10.0%	5	4,079,898	11.8%	4	0.09	89	8
C	Sum	8,658	100.0%		457,833	100.0%		34,654,415	100.0%		0.86	76	65

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJ	Animal	29	1.7%	5	317	0.3%	7	18,403	0.1%	7	0.00	58	0
	Dig In	2	0.1%	9	16	0.0%	9	1,898	0.0%	9	0.00	119	0
	Equipment Failure	110	6.6%	3	6,117	5.1%	4	923,628	3.4%	3	0.01	151	2
	Equipment Hit	10	0.6%	7	1,157	1.0%	6	113,838	0.4%	6	0.00	98	0
EVS	Other*	22	1.3%	6	8,944	7.4%	3	597,433	2.2%	5	0.02	67	1
	Overload	6	0.4%	8	18	0.0%	8	8,709	0.0%	8	0.00	484	0
ENT	Tree	901	54.1%	1	71,862	59.4%	1	16,537,654	60.1%	1	0.13	230	31
	Unknown	44	2.6%	4	4,501	3.7%	5	622,724	2.3%	4	0.01	138	1
	Weather	540	32.5%	2	28,012	23.2%	2	8,704,213	31.6%	2	0.05	311	16
Y	Sum	1,664	100.0%		120,944	100.0%		27,528,501	100.0%		0.23	228	52

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District

Customer Count: 110,061

Major Outage Cause Summary - 2017

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	88	6.2%	5	9,363	10.5%	5	1,239,459	14.7%	3	0.09	132	11
	Dig In	23	1.6%	8	109	0.1%	8	21,446	0.3%	8	0.00	197	0
	Equipment Failure	781	54.8%	1	32,215	36.2%	1	2,292,355	27.2%	2	0.29	71	21
	Equipment Hit	43	3.0%	6	13,402	15.1%	4	947,358	11.2%	5	0.12	71	9
	Other*	25	1.8%	7	2,813	3.2%	6	207,167	2.5%	6	0.03	74	2
	Overload	7	0.5%	9	33	0.0%	9	5,870	0.1%	9	0.00	178	0
	Tree	146	10.2%	4	13,706	15.4%	3	1,236,769	14.7%	4	0.12	90	11
	Unknown	157	11.0%	2	2,048	2.3%	7	145,776	1.7%	7	0.02	71	1
	Weather	156	10.9%	3	15,218	17.1%	2	2,325,305	27.6%	1	0.14	153	21
	Sum	1,426	100.0%		88,907	100.0%		8,421,505	100.0%		0.81	95	77
	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	86	6.5%	5	9,361	12.5%	3	1,239,272	20.0%	2	0.09	132	11
	Dig In	23	1.8%	8	109	0.1%	8	21,446	0.3%	8	0.00	197	0
	Equipment Failure	765	58.2%	1	30,350	40.6%	1	2,054,459	33.2%	1	0.28	68	19
	Equipment Hit	43	3.3%	6	13,402	17.9%	2	947,358	15.3%	3	0.12	71	9
	Other*	25	1.9%	7	2,813	3.8%	6	207,167	3.3%	6	0.03	74	2
	Overload	7	0.5%	9	33	0.0%	9	5,870	0.1%	9	0.00	178	0
	Tree	117	8.9%	3	8,878	11.9%	4	836,672	13.5%	4	0.08	94	8
	Unknown	154	11.7%	2	1,831	2.4%	7	126,014	2.0%	7	0.02	69	1
	Weather	94	7.2%	4	8,035	10.7%	5	747,422	12.1%	5	0.07	93	7
	Sum	1,314	100.0%		74,812	100.0%		6,185,678	100.0%		0.68	83	56
	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	2	1.8%	5	2	0.0%	5	188	0.0%	5	0.00	94	0
	Dig In	N/A	0.0%	6	N/A	0.0%	6	N/A	0.0%	6	0.00	N/A	N/A
	Equipment Failure	16	14.3%	3	1,865	13.2%	3	237,896	10.6%	3	0.02	128	2
	Equipment Hit	N/A	0.0%	6	N/A	0.0%	6	N/A	0.0%	6	0.00	N/A	N/A
	Other*	N/A	0.0%	6	N/A	0.0%	6	N/A	0.0%	6	0.00	N/A	N/A
	Overload	N/A	0.0%	6	N/A	0.0%	6	N/A	0.0%	6	0.00	N/A	N/A
	Tree	29	25.9%	2	4,828	34.3%	2	400,097	17.9%	2	0.04	83	4
	Unknown	3	2.7%	4	217	1.5%	4	19,763	0.9%	4	0.00	91.07	0
	Weather	62	55.4%	1	7,183	51.0%	1	1,577,883	70.6%	1	0.07	219.67	14
	Sum	112	100.0%		14,095	100.0%		2,235,827	100.0%		0.13	158.63	20

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 157,305

Major Outage Cause Summary – 2017

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	813	17.8%	2	27,338	11.0%	4	1,314,988	4.2%	5	0.17	48	8
	Dig In	19	0.4%	8	129	0.1%	9	17,233	0.1%	9	0.00	134	0
	Equipment Failure	794	17.4%	3	43,104	17.3%	2	3,160,460	10.1%	3	0.27	73	20
	Equipment Hit	205	4.5%	6	23,112	9.3%	5	1,889,298	6.0%	4	0.15	82	12
	Other*	120	2.6%	7	10,350	4.2%	7	911,625	2.9%	7	0.07	88	6
	Overload	17	0.4%	9	3,362	1.4%	8	178,218	0.6%	8	0.02	53	1
	Tree	1,640	36.0%	1	96,404	38.7%	1	16,346,484	52.1%	1	0.61	170	104
	Unknown	288	6.3%	5	14,935	6.0%	6	1,270,518	4.0%	6	0.09	85	8
	Weather	663	14.5%	4	30,158	12.1%	3	6,309,189	20.1%	2	0.19	209	40
	Sum	4,559	100.0%		248,892	100.0%		31,398,012	100.0%		1.58	126	200

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	799	22.9%	2	27,115	14.9%	3	1,302,912	10.2%	5	0.17	48	8
	Dig In	18	0.5%	8	121	0.1%	9	15,782	0.1%	9	0.00	130	0
	Equipment Failure	760	21.8%	3	41,938	23.0%	2	2,681,554	20.9%	2	0.27	64	17
	Equipment Hit	198	5.7%	6	21,994	12.1%	4	1,787,487	14.0%	3	0.14	81	11
	Other*	107	3.1%	7	9,981	5.5%	7	746,734	5.8%	6	0.06	75	5
	Overload	14	0.4%	9	3,347	1.8%	8	170,552	1.3%	8	0.02	51	1
	Tree	983	28.2%	1	48,855	26.8%	1	3,963,019	30.9%	1	0.31	81	25
	Unknown	264	7.6%	5	10,713	5.9%	6	682,099	5.3%	7	0.07	64	4
	Weather	345	9.9%	4	18,184	10.0%	5	1,459,449	11.4%	4	0.12	80	9
	Sum	3,488	100.0%		182,248	100.0%		12,809,587	100.0%		1.16	70	81

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	14	1.3%	5	223	0.3%	7	12,076	0.1%	7	0.00	54	0
	Dig In	1	0.1%	9	8	0.0%	9	1,451	0.0%	9	0.00	181	0
	Equipment Failure	34	3.2%	3	1,166	1.7%	4	478,907	2.6%	4	0.01	411	3
	Equipment Hit	7	0.7%	7	1,118	1.7%	5	101,811	0.5%	6	0.01	91	1
	Other*	13	1.2%	6	369	0.6%	6	164,891	0.9%	5	0.00	447	1
	Overload	3	0.3%	8	15	0.0%	8	7,666	0.0%	8	0.00	511	0
	Tree	657	61.3%	1	47,549	71.3%	1	12,383,465	66.6%	1	0.30	260	79
	Unknown	24	2.2%	4	4,222	6.3%	3	588,419	3.2%	3	0.03	139.37	4
	Weather	318	29.7%	2	11,974	18.0%	2	4,849,740	26.1%	2	0.08	405.02	31
	Sum	1,071	100.0%		66,644	100.0%		18,588,425	100.0%		0.42	278.92	118

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 169,916

Major Outage Cause Summary - 2017

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	418	18.2%	2	18,888	16.3%	2	886,648	9.4%	5	0.11	47	5
	Dig In	45	2.0%	8	527	0.5%	8	84,499	0.9%	8	0.00	160	0
L	Equipment Failure	1,012	44.0%	1	37,564	32.4%	1	3,095,992	32.9%	1	0.22	82	18
	Equipment Hit	94	4.1%	6	18,753	16.2%	3	1,419,314	15.1%	4	0.11	76	8
E	Other*	70	3.0%	7	10,096	8.7%	6	818,908	8.7%	6	0.06	81	5
V	Overload	13	0.6%	9	215	0.2%	9	18,588	0.2%	9	0.00	86	0
E	Tree	360	15.7%	3	12,812	11.1%	5	1,419,457	15.1%	3	0.08	111	8
N	Unknown	100	4.3%	5	2,513	2.2%	7	194,221	2.1%	7	0.01	77	1
T	Weather	188	8.2%	4	14,446	12.5%	4	1,466,242	15.6%	2	0.09	101	9
S	Sum	2,300	100.0%		115,814	100.0%		9,403,869	100.0%		0.68	81	55

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	407	19.5%	2	18,850	18.4%	2	883,016	11.8%	3	0.11	47	5
	Dig In	44	2.1%	8	519	0.5%	8	84,052	1.1%	8	0.00	162	0
J	Equipment Failure	971	46.5%	1	34,536	33.7%	1	2,907,744	39.0%	1	0.20	84	17
	Equipment Hit	93	4.5%	6	18,742	18.3%	3	1,414,243	19.0%	2	0.11	75	8
E	Other*	68	3.3%	7	10,067	9.8%	4	817,391	11.0%	4	0.06	81	5
V	Overload	13	0.6%	9	215	0.2%	9	18,588	0.2%	9	0.00	86	0
	Tree	304	14.6%	3	7,852	7.7%	6	706,106	9.5%	5	0.05	90	4
E	Unknown	95	4.5%	4	2,481	2.4%	7	189,516	2.5%	7	0.01	76	1
X	Weather	94	4.5%	5	9,121	8.9%	5	437,797	5.9%	6	0.05	48	3
C	Sum	2,089	100.0%		102,383	100.0%		7,458,452	100.0%		0.60	73	44

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	11	5.2%	4	38	0.3%	4	3,632	0.2%	6	0.00	96	0
J	Dig In	1	0.5%	7	8	0.1%	8	448	0.0%	8	0.00	56	0
	Equipment Failure	41	19.4%	3	3,028	22.5%	3	188,249	9.7%	3	0.02	62	1
E	Equipment Hit	1	0.5%	7	11	0.1%	7	5,071	0.3%	4	0.00	461	0
V	Other*	2	0.9%	6	29	0.2%	6	1,517	0.1%	7	0.00	52	0
	Overload	N/A	0.0%	9	N/A	0.0%	9	N/A	0.0%	9	0.00	N/A	N/A
	Tree	56	26.5%	2	4,960	36.9%	2	713,351	36.7%	2	0.03	144	4
N	Unknown	5	2.4%	5	32	0.2%	5	4,706	0.2%	5	0.00	147	0
L	Weather	94	44.5%	1	5,325	39.6%	1	1,028,445	52.9%	1	0.03	193.14	6
Y	Sum	211	100.0%		13,431	100.0%		1,945,418	100.0%		0.08	144.85	11

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 95,599

Major Outage Cause Summary - 2017

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	337	16.5%	3	5,054	4.0%	6	274,491	2.1%	7	0.05	54	3
	Dig In	16	0.8%	8	175	0.1%	9	28,768	0.2%	9	0.00	164	0
	Equipment Failure	540	26.5%	2	22,892	18.3%	2	2,021,317	15.6%	3	0.24	88	21
	Equipment Hit	92	4.5%	6	19,667	15.7%	4	1,469,568	11.3%	4	0.21	75	15
	Other*	51	2.5%	7	19,880	15.9%	3	953,742	7.4%	5	0.21	48	10
	Overload	13	0.6%	9	831	0.7%	8	48,627	0.4%	8	0.01	59	1
	Tree	628	30.8%	1	39,197	31.3%	1	5,176,192	39.9%	1	0.41	132	54
	Unknown	169	8.3%	5	3,277	2.6%	7	303,449	2.3%	6	0.03	93	3
	Weather	191	9.4%	4	14,191	11.3%	5	2,683,375	20.7%	2	0.15	189	28
	Sum	2,037	100.0%		125,164	100.0%		12,959,530	100.0%		1.31	104	136
	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	335	19.0%	3	5,000	5.1%	6	271,984	3.3%	7	0.05	54	3
	Dig In	16	0.9%	8	175	0.2%	9	28,768	0.4%	9	0.00	164	0
	Equipment Failure	521	29.5%	1	22,834	23.2%	2	2,002,740	24.4%	2	0.24	88	21
	Equipment Hit	90	5.1%	6	19,639	20.0%	3	1,462,612	17.8%	3	0.21	74	15
	Other*	44	2.5%	7	11,334	11.5%	4	522,717	6.4%	5	0.12	46	5
	Overload	10	0.6%	9	828	0.8%	8	47,584	0.6%	8	0.01	57	0
	Tree	469	26.5%	2	24,672	25.1%	1	2,135,450	26.0%	1	0.26	87	22
	Unknown	157	8.9%	4	3,247	3.3%	7	293,612	3.6%	6	0.03	90	3
	Weather	125	7.1%	5	10,661	10.8%	5	1,435,230	17.5%	4	0.11	135	15
	Sum	1,767	100.0%		98,390	100.0%		8,200,698	100.0%		1.03	83	86
	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V O N L Y	Animal	2	0.7%	7	54	0.2%	5	2,507	0.1%	7	0.00	46	0
	Dig In	N/A	0.0%	9	N/A	0.0%	9	N/A	0.0%	9	0.00	N/A	N/A
	Equipment Failure	19	7.0%	3	58	0.2%	4	18,576	0.4%	4	0.00	320	0
	Equipment Hit	2	0.7%	7	28	0.1%	7	6,957	0.1%	6	0.00	248	0
	Other*	7	2.6%	5	8,546	31.9%	2	431,025	9.1%	3	0.09	50	5
	Overload	3	1.1%	6	3	0.0%	8	1,043	0.0%	8	0.00	348	0
	Tree	159	58.9%	1	14,525	54.3%	1	3,040,742	63.9%	1	0.15	209	32
	Unknown	12	4.4%	4	30	0.1%	6	9,837	0.2%	5	0.00	328	0
	Weather	66	24.4%	2	3,530	13.2%	3	1,248,145	26.2%	2	0.04	354	13
	Sum	270	100.0%		26,774	100.0%		4,758,832	100.0%		0.28	178	50

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2016

Customer Count: 539,432

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
ALL EVENTS	Animal	1,920	15.2%	4	71,490	9.0%	5	4,414,744	3.3%	6	0.13	62	8
	Dig In	55	0.4%	9	3,029	0.4%	9	253,539	0.2%	9	0.01	84	0
	Equipment Failure	3,376	26.7%	1	179,711	22.6%	2	18,781,810	14.2%	3	0.33	105	35
	Equipment Hit	172	1.4%	7	33,842	4.3%	7	1,756,299	1.3%	7	0.06	52	3
	Other*	1,037	8.2%	5	50,917	6.4%	6	5,794,934	4.4%	5	0.09	114	11
	Overload	2,177	17.2%	3	185,231	23.3%	1	62,999,620	47.4%	1	0.34	340	117
	Tree	554	4.4%	6	93,717	11.8%	4	9,467,189	7.2%	4	0.17	101	18
	Unknown	105	0.8%	8	3,477	0.4%	8	502,169	0.4%	8	0.01	144	1
	Weather	3,228	25.6%	2	173,706	21.8%	3	28,098,157	21.3%	2	0.32	162	52
	Sum	12,624	100%		795,120	100%		132,068,459	100%		1.48	166	246

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJOR CAUSES	Animal	1,884	16.9%	3	69,157	10.9%	5	4,314,691	6.4%	5	0.13	62	8
	Dig In	54	0.5%	9	3,028	0.5%	8	251,424	0.4%	8	0.01	83	0
	Equipment Failure	3,234	29.0%	1	134,356	21.1%	2	14,685,203	21.7%	3	0.25	109	27
	Equipment Hit	152	1.4%	7	30,842	4.9%	7	1,487,309	2.2%	7	0.06	48	3
	Other*	934	8.4%	5	46,625	7.3%	6	3,832,828	5.7%	6	0.09	82	7
	Overload	1,515	13.6%	4	110,187	17.3%	3	16,945,776	25.1%	2	0.21	154	32
	Tree	531	4.8%	6	87,937	13.8%	4	7,607,416	11.2%	4	0.16	87	14
	Unknown	100	0.9%	8	2,589	0.4%	9	203,695	0.3%	9	0.00	79	0
	Weather	2,757	24.7%	2	151,130	23.8%	1	18,294,878	27.1%	1	0.28	121	34
	Sum	11,161	100%		635,311	100%		67,623,218	100%		1.18	106	126

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MINOR CAUSES	Animal	36	2.5%	5	2,333	1.5%	7	100,053	0.2%	8	0.00	43	0
	Dig In	1	0.1%	9	1	0.0%	9	2,115	0.0%	9	0.00	2,115	0
	Equipment Failure	142	9.7%	3	45,355	28.4%	2	4,096,607	6.4%	3	0.08	90	8
	Equipment Hit	20	1.4%	7	3,000	1.9%	6	268,990	0.4%	7	0.01	90	1
	Other*	103	7.0%	4	4,292	2.7%	5	1,962,106	3.0%	4	0.01	457	4
	Overload	662	45.2%	1	75,044	47.0%	1	46,053,844	71.5%	1	0.14	614	86
	Tree	23	1.6%	6	6,320	4.0%	4	1,859,773	2.9%	5	0.01	294	3
	Unknown	5	0.3%	8	888	0.6%	8	289,474	0.5%	6	0.00	336	1
	Weather	471	32.2%	2	22,576	14.1%	3	9,803,279	15.2%	2	0.04	434	18
	Sum	1,463	100%		159,809	100%		64,445,241	100%		0.30	403	120

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District
Customer Count: 109,751 Major Outage Cause Summary - 2016

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	142	6.6%	5	11,259	5.1%	7	1,040,549	1.8%	6	0.10	92	9
	Dig In	12	0.6%	9	2,674	1.2%	8	210,338	0.4%	8	0.02	79	2
	Equipment Failure	832	38.4%	1	64,881	29.3%	1	6,453,259	11.0%	3	0.59	99	59
	Equipment Hit	37	1.7%	7	17,909	8.1%	6	895,709	1.5%	7	0.16	50	8
	Other*	182	8.4%	4	21,754	9.8%	4	2,888,385	4.9%	5	0.20	134	26
E	Overload	521	24.1%	2	55,022	24.9%	2	36,821,376	62.8%	1	0.50	669	335
V	Tree	69	3.2%	6	29,495	13.3%	3	3,794,042	6.5%	4	0.27	129	35
E	Unknown	31	1.4%	8	253	0.1%	9	40,727	0.1%	9	0.00	161	0
N	Weather	340	15.7%	3	18,036	8.2%	5	6,469,560	11.0%	2	0.16	359	59
S	Sum	2,166	100%		221,103	100%		58,613,946	100%		2.01	265	534

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	134	8.5%	5	11,169	8.0%	6	1,031,604	8.3%	6	0.10	92	9
	Dig In	12	0.8%	9	2,674	1.9%	8	210,338	1.7%	8	0.02	79	2
	Equipment Failure	791	50.2%	1	38,832	27.9%	1	3,609,761	29.1%	1	0.35	93	33
	Equipment Hit	21	1.3%	8	14,922	10.7%	5	631,774	5.1%	7	0.14	42	6
	Other*	142	9.0%	4	20,654	14.8%	3	1,652,125	13.3%	4	0.19	80	15
E	Overload	220	14.0%	2	17,958	12.9%	4	2,155,862	17.4%	2	0.16	120	20
V	Tree	58	3.7%	6	23,660	17.0%	2	2,004,226	16.2%	3	0.22	85	18
	Unknown	28	1.8%	7	247	0.2%	9	38,449	0.3%	9	0.00	156	0
E	Weather	169	10.7%	3	9,028	6.5%	7	1,062,674	8.6%	5	0.08	118	10
C	Sum	1,575	100%		139,144	100%		12,396,812	100%		1.27	89	113

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	8	1.4%	7	90	0.1%	7	8,946	0.0%	7	0.00	99	0
A	Dig In	0	0.0%	9	0	0.0%	9	0	0.0%	9	0.00	0	0
J	Equipment Failure	41	6.9%	3	26,049	31.8%	2	2,843,498	6.2%	3	0.24	109	26
E	Equipment Hit	16	2.7%	5	2,987	3.6%	5	263,936	0.6%	6	0.03	88	2
	Other*	40	6.8%	4	920	1.1%	6	1,236,260	2.7%	5	0.01	1,344	11
V	Overload	301	50.9%	1	37,064	45.2%	1	34,665,514	75.0%	1	0.34	935	316
	Tree	11	1.9%	6	5,835	7.1%	4	1,789,817	3.9%	4	0.05	307	16
O	Unknown	3	0.5%	8	6	0.0%	8	2,278	0.0%	8	0.00	380	0
N	Weather	171	28.9%	2	9,008	11.0%	3	5,406,885	11.7%	2	0.08	600	49
Y	Sum	591	100%		81,959	100%		46,217,134	100%		0.75	564	421

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District
Customer Count: 160,303 **Major Outage Cause Summary - 2016**

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	806	16.6%	4	36,357	12.7%	4	1,934,317	5.5%	5	0.23	53	12
	Dig In	8	0.2%	9	218	0.1%	9	17,311	0.0%	9	0.00	79	0
	Equipment Failure	858	17.6%	2	48,661	17.0%	3	3,807,874	10.9%	3	0.31	78	24
	Equipment Hit	58	1.2%	7	6,913	2.4%	7	312,208	0.9%	8	0.04	45	2
	Other*	428	8.8%	5	14,939	5.2%	6	1,138,032	3.3%	6	0.09	76	7
E V E	Overload	839	17.3%	3	68,410	23.8%	2	13,126,307	37.5%	1	0.43	192	82
	Tree	253	5.2%	6	28,561	10.0%	5	2,261,073	6.5%	4	0.18	79	14
	Unknown	33	0.7%	8	2,582	0.9%	8	397,743	1.1%	7	0.02	154	2
N	Weather	1,579	32.5%	1	80,235	28.0%	1	12,005,724	34.3%	2	0.50	150	75
S	Sum	4,862	100%		286,876	100%		35,000,589	100%		1.80	122	220

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	791	17.4%	3	34,240	13.6%	4	1,851,649	6.4%	5	0.21	54	12
	Dig In	8	0.2%	9	218	0.1%	9	17,311	0.1%	9	0.00	79	0
	Equipment Failure	815	17.9%	2	35,217	14.0%	3	3,018,541	10.4%	3	0.22	86	19
	Equipment Hit	58	1.3%	7	6,913	2.8%	7	312,208	1.1%	7	0.04	45	2
	Other*	415	9.1%	5	13,870	5.5%	6	1,045,601	3.6%	6	0.09	75	7
E V E	Overload	744	16.3%	4	56,206	22.4%	2	10,087,508	34.9%	2	0.35	179	63
	Tree	245	5.4%	6	28,164	11.2%	5	2,223,424	7.7%	4	0.18	79	14
	Unknown	31	0.7%	8	1,700	0.7%	8	101,546	0.4%	8	0.01	60	1
E	Weather	1,446	31.8%	1	74,670	29.7%	1	10,265,605	35.5%	1	0.47	137	64
C	Sum	4,553	100%		251,198	100%		28,923,393	100%		1.58	115	182

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	15	4.9%	4	2,117	5.9%	4	82,668	1.4%	6	0.01	39	1
	Dig In	0	0.0%	8	0	0.0%	8	0	0.0%	8	0.00	0	0
	Equipment Failure	43	13.9%	3	13,444	37.7%	1	789,333	13.0%	3	0.08	59	5
E	Equipment Hit	0	0.0%	8	0	0.0%	8	0	0.0%	8	0.00	0	0
	Other*	13	4.2%	5	1,069	3.0%	5	92,431	1.5%	5	0.01	86	1
V	Overload	95	30.7%	2	12,204	34.2%	2	3,038,800	50.0%	1	0.08	249	19
	Tree	8	2.6%	6	397	1.1%	7	37,649	0.6%	7	0.00	95	0
	Unknown	2	0.6%	7	882	2.5%	6	296,196	4.9%	4	0.01	336	2
O N	Weather	133	43.0%	1	5,565	15.6%	3	1,740,118	28.6%	2	0.03	313	11
Y	Sum	309	100.0%		35,678	100.0%		6,077,196	100.0%		0.22	170	38

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 173,118

Major Outage Cause Summary - 2016

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	560	17.1%	3	16,708	10.0%	5	994,679	3.8%	6	0.10	60	6
	Dig In	23	0.7%	8	88	0.1%	9	16,722	0.1%	9	0.00	190	0
L	Equipment Failure	1,128	34.4%	1	43,460	25.9%	2	6,303,405	24.0%	2	0.25	145	37
	Equipment Hit	43	1.3%	7	7,298	4.4%	6	418,982	1.6%	7	0.04	57	2
E	Other*	224	6.8%	5	5,980	3.6%	7	1,079,402	4.1%	5	0.03	181	6
	Overload	559	17.0%	4	48,019	28.6%	1	11,076,435	42.2%	1	0.28	231	64
V	Tree	131	4.0%	6	19,011	11.3%	4	1,863,917	7.1%	4	0.11	98	11
E	Unknown	19	0.6%	9	528	0.3%	8	39,567	0.2%	8	0.00	75	0
N	Weather	592	18.1%	2	26,579	15.9%	3	4,458,273	17.0%	3	0.15	168	26
S	Sum	3,279	100%		167,671	100%		26,251,382	100%		0.97	157	152

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	549	19.4%	2	16,584	12.3%	5	986,357	6.6%	5	0.10	59	6
	Dig In	22	0.8%	8	87	0.1%	9	14,607	0.1%	9	0.00	168	0
J	Equipment Failure	1,088	38.4%	1	42,945	31.9%	1	6,081,323	40.7%	1	0.25	142	35
	Equipment Hit	40	1.4%	7	7,286	5.4%	6	413,986	2.8%	7	0.04	57	2
E	Other*	183	6.5%	5	4,877	3.6%	7	535,013	3.6%	6	0.03	110	3
	Overload	323	11.4%	4	23,575	17.5%	2	2,910,006	19.5%	2	0.14	123	17
V	Tree	129	4.6%	6	18,961	14.1%	4	1,837,830	12.3%	4	0.11	97	11
	Unknown	19	0.7%	9	528	0.4%	8	39,567	0.3%	8	0.00	75	0
E	Weather	482	17.0%	3	19,821	14.7%	3	2,127,509	14.2%	3	0.11	107	12
C	Sum	2,835	100%		134,664	100%		14,946,198	100%		0.78	111	87

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	11	2.5%	5	124	0.4%	5	8,322	0.1%	6	0.00	67	0
	Dig In	1	0.2%	8	1	0.0%	8	2,115	0.0%	8	0.00	2,115	0
J	Equipment Failure	40	9.0%	4	515	1.6%	4	222,081	2.0%	4	0.00	431	1
	Equipment Hit	3	0.7%	6	12	0.0%	7	4,997	0.0%	7	0.00	416	0
E	Other*	41	9.2%	3	1,103	3.3%	3	544,389	4.8%	3	0.01	494	3
	Overload	236	53.2%	1	24,444	74.1%	1	8,166,429	72.2%	1	0.14	334	47
V	Tree	2	0.5%	7	50	0.2%	6	26,087	0.2%	5	0.00	522	0
	Unknown	0	0.0%	9	0	0.0%	9	0	0.0%	9	0.00	0	0
O	Weather	110	24.8%	2	6,758	20.5%	2	2,330,764	20.6%	2	0.04	345	13
N	Sum	444	100%		33,007	100%		11,305,184	100%		0.19	343	65

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 96,260

Major Outage Cause Summary - 2016

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	412	17.8%	3	7,166	6.0%	6	445,199	3.6%	6	0.08	62	5
	Dig In	12	0.5%	9	49	0.0%	9	9,168	0.1%	9	0.00	187	0
	Equipment Failure	558	24.1%	2	22,709	19.0%	2	2,217,272	18.2%	2	0.24	98	23
	Equipment Hit	34	1.5%	7	1,722	1.4%	7	129,399	1.1%	7	0.02	75	1
	Other*	203	8.8%	5	8,424	7.1%	5	689,115	5.6%	5	0.09	82	7
E	Overload	258	11.1%	4	13,780	11.5%	4	1,975,501	16.2%	3	0.14	143	21
V	Tree	101	4.4%	6	16,650	13.9%	3	1,548,156	12.7%	4	0.17	93	16
E	Unknown	22	0.9%	8	114	0.1%	8	24,132	0.2%	8	0.00	212	0
N	Weather	717	30.9%	1	48,856	40.9%	1	5,164,601	42.3%	1	0.51	106	54
S	Sum	2,317	100%		119,470	100%		12,202,543	100%		1.25	102	128

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	410	18.7%	3	7,164	6.5%	6	445,082	3.9%	6	0.08	62	5
	Dig In	12	0.5%	9	49	0.0%	9	9,168	0.1%	9	0.00	187	0
	Equipment Failure	540	24.6%	2	17,362	15.7%	2	1,975,577	17.4%	2	0.18	114	21
	Equipment Hit	33	1.5%	7	1,721	1.6%	7	129,341	1.1%	7	0.02	75	1
	Other*	194	8.8%	5	7,224	6.5%	5	600,090	5.3%	5	0.08	83	6
E	Overload	228	10.4%	4	12,448	11.3%	4	1,792,400	15.8%	3	0.13	144	19
V	Tree	99	4.5%	6	16,612	15.1%	3	1,541,936	13.6%	4	0.17	93	16
	Unknown	22	1.0%	8	114	0.1%	8	24,132	0.2%	8	0.00	212	0
E	Weather	660	30.0%	1	47,611	43.2%	1	4,839,089	42.6%	1	0.50	102	51
C	Sum	2,198	100%		110,305	100%		11,356,815	100%		1.16	103	119

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	2	1.7%	5	2	0.0%	6	117	0.0%	6	0.00	0	0
	Dig In	0	0.0%	8	0	0.0%	8	0	0.0%	8	0.00	0	0
	Equipment Failure	18	15.1%	3	5,437	58.3%	1	241,695	28.6%	2	0.06	45	3
	Equipment Hit	1	0.8%	7	1	0.0%	7	58	0.0%	7	0.00	0	0
	Other*	9	7.6%	4	1,200	13.1%	4	89,025	10.5%	4	0.01	74	1
E	Overload	30	25.2%	2	1,332	14.5%	2	183,101	21.7%	3	0.01	137	2
V	Tree	2	1.7%	5	38	0.4%	5	6,220	0.7%	5	0.00	164	0
O	Unknown	0	0.0%	8	0	0.0%	8	0	0.0%	8	0.00	0	0
N	Weather	57	47.9%	1	1,245	13.6%	3	325,511	38.5%	1	0.01	261	3
Y	Sum	119	100%		9,165	100%		845,727	100%		0.10	92	9

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2015

Customer Count: 537,010

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
ALL EVENTS	Animal	1,189	9.6%	4	55,341	4.9%	7	4,220,728	0.6%	8	0.10	76	8
	Dig In	116	0.9%	9	1,858	0.2%	9	584,230	0.1%	9	0.00	314	1
	Equipment Failure	3,077	24.8%	2	187,357	16.6%	3	41,407,549	5.6%	3	0.35	221	77
	Equipment Hit	391	3.2%	7	88,138	7.8%	5	31,624,788	4.3%	4	0.16	359	59
	Other*	493	4.0%	6	79,372	7.0%	6	16,116,946	2.2%	6	0.15	203	30
	Overload	118	1.0%	8	99,221	8.8%	4	14,476,994	2.0%	7	0.18	146	27
	Tree	3,347	27.0%	1	246,411	21.8%	2	197,735,018	26.9%	2	0.46	802	368
	Unknown	1,087	8.8%	5	47,194	4.2%	8	18,675,054	2.5%	5	0.09	396	35
	Weather	2,570	20.7%	3	323,140	28.6%	1	410,676,313	55.8%	1	0.60	1,271	765
	Sum	12,388	100%		1,128,032	100%		735,517,619	100%		2.10	652	1,370

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJOR CAUSES	Animal	1,173	14.1%	3	54,481	9.9%	5	4,139,590	9.0%	5	0.10	76	8
	Dig In	106	1.3%	8	1,678	0.3%	8	307,559	0.7%	8	0.00	183	1
	Equipment Failure	2,941	35.3%	1	175,133	31.7%	1	14,345,421	31.2%	1	0.33	82	27
	Equipment Hit	375	4.5%	6	77,988	14.1%	3	7,045,389	15.3%	3	0.15	90	13
	Other*	280	3.4%	7	73,551	13.3%	4	2,512,112	5.5%	6	0.14	34	5
	Overload	60	0.7%	9	1,280	0.2%	9	137,821	0.3%	9	0.00	108	0
	Tree	1,743	20.9%	2	92,839	16.8%	2	10,143,096	22.1%	2	0.17	109	19
	Unknown	739	8.9%	5	33,190	6.0%	7	2,144,012	4.7%	7	0.06	65	4
	Sum	8,320	100%		552,578	100%		45,943,748	100%		1.03	83	86

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MINOR CAUSES	Animal	16	0.4%	7	860	0.1%	8	81,138	0.0%	9	0.00	94	0
	Dig In	10	0.2%	9	180	0.0%	9	276,671	0.0%	8	0.00	1,537	1
	Equipment Failure	136	3.3%	5	12,224	2.1%	5	27,062,127	3.9%	3	0.02	2,214	50
	Equipment Hit	16	0.4%	7	10,150	1.8%	6	24,579,398	3.6%	4	0.02	2,422	46
	Other*	213	5.2%	4	5,821	1.0%	7	13,604,834	2.0%	7	0.01	2,337	25
	Overload	58	1.4%	6	97,941	17.0%	3	14,339,173	2.1%	6	0.18	146	27
	Tree	1,604	39.4%	2	153,572	26.7%	2	187,591,921	27.2%	2	0.29	1,222	349
	Unknown	348	8.6%	3	14,004	2.4%	4	16,531,041	2.4%	5	0.03	1,180	31
	Sum	4,068	100%		575,454	100%		689,573,871	100%		1.07	1,198	1,284

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District
Customer Count: 109,752 Major Outage Cause Summary - 2015

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	117	8.6%	4	12,810	5.7%	6	753,960	1.7%	7	0.12	59	7
	Dig In	27	2.0%	9	464	0.2%	9	119,338	0.3%	9	0.00	257	1
	Equipment Failure	657	48.3%	1	29,098	13.0%	3	27,085,618	61.0%	1	0.27	931	247
E V E N T S	Equipment Hit	36	2.6%	8	14,543	6.5%	5	1,346,447	3.0%	4	0.13	93	12
	Other*	50	3.7%	6	27,534	12.3%	4	627,067	1.4%	8	0.25	23	6
	Overload	45	3.3%	7	88,670	39.5%	1	8,187,445	18.4%	2	0.81	92	75
	Tree	132	9.7%	3	8,259	3.7%	8	1,233,488	2.8%	5	0.08	149	11
	Unknown	74	5.4%	5	12,416	5.5%	7	1,010,137	2.3%	6	0.11	81	9
	Weather	221	16.3%	2	30,758	13.7%	2	4,068,085	9.2%	3	0.28	132	37
	Sum	1,359	100%		224,552	100%		44,431,583	100%		2.05	198	405

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	113	10.0%	3	12,061	12.0%	4	691,800	9.7%	4	0.11	57	6
	Dig In	26	2.3%	8	463	0.5%	8	119,034	1.7%	8	0.00	257	1
	Equipment Failure	623	55.2%	1	25,198	25.0%	2	2,375,705	33.4%	1	0.23	94	22
E V E N T S	Equipment Hit	32	2.8%	7	14,252	14.1%	3	1,308,336	18.4%	2	0.13	92	12
	Other*	46	4.1%	6	27,516	27.3%	1	625,513	8.8%	6	0.25	23	6
	Overload	4	0.4%	9	19	0.0%	9	3,683	0.1%	9	0.00	194	0
	Tree	78	6.9%	4	1,060	1.1%	7	167,361	2.4%	7	0.01	158	2
	Unknown	65	5.8%	5	11,011	10.9%	5	685,369	9.6%	5	0.10	62	6
	Weather	141	12.5%	2	9,189	9.1%	6	1,132,489	15.9%	3	0.08	123	10
	Sum	1,128	100%		100,769	100%		7,109,289	100%		0.92	71	65

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	4	1.7%	6	749	0.6%	6	62,160	0.2%	6	0.01	83	1
	Dig In	1	0.4%	9	1	0.0%	9	304	0.0%	9	0.00	304	0
	Equipment Failure	34	14.7%	4	3,900	3.2%	4	24,709,913	66.2%	1	0.04	6,336	225
E V E N T S	Equipment Hit	4	1.7%	6	291	0.2%	7	38,111	0.1%	7	0.00	131	0
	Other*	4	1.7%	6	18	0.0%	8	1,554	0.0%	8	0.00	86	0
	Overload	41	17.7%	3	88,651	71.6%	1	8,183,762	21.9%	2	0.81	92	75
	Tree	54	23.4%	2	7,199	5.8%	3	1,066,126	2.9%	4	0.07	148	10
	Unknown	9	3.9%	5	1,405	1.1%	5	324,769	0.9%	5	0.01	231.15	3
	Weather	80	34.6%	1	21,569	17.4%	2	2,935,596	7.9%	3	0.20	136.10	27
	Sum	231	100%		123,783	100%		37,322,294	100%		1.13	301.51	340

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 159,291

Major Outage Cause Summary - 2015

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	521	9.7%	5	31,509	7.6%	5	2,810,915	0.7%	7	0.20	89	18
	Dig In	30	0.6%	9	118	0.0%	9	246,395	0.1%	9	0.00	2,088	2
L	Equipment Failure	856	16.0%	3	42,568	10.2%	3	4,779,299	1.2%	5	0.27	112	30
	Equipment Hit	200	3.7%	6	39,320	9.4%	4	27,188,169	6.7%	3	0.25	691	171
E	Other*	174	3.3%	7	10,664	2.6%	7	2,411,191	0.6%	8	0.07	226	15
V	Overload	42	0.8%	8	6,106	1.5%	8	4,115,358	1.0%	6	0.04	674	26
E	Tree	1,785	33.3%	1	121,438	29.1%	2	121,720,064	29.8%	2	0.76	1,002	764
N	Unknown	547	10.2%	4	20,559	4.9%	6	12,214,221	3.0%	4	0.13	594	77
T	Weather	1,198	22.4%	2	144,929	34.7%	1	232,526,032	57.0%	1	0.91	1,604	1,460
S	Sum	5,353	100%		417,211	100%		408,011,646	100%		2.62	978	2,561

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	511	15.0%	3	31,431	16.7%	3	2,795,147	15.6%	3	0.20	89	18
	Dig In	24	0.7%	9	49	0.0%	9	6,530	0.0%	9	0.00	133	0
J	Equipment Failure	813	23.9%	2	41,579	22.1%	2	3,180,156	17.7%	2	0.26	76	20
	Equipment Hit	189	5.6%	6	29,502	15.6%	4	2,648,972	14.8%	4	0.19	90	17
E	Other*	92	2.7%	7	9,469	5.0%	7	446,616	2.5%	7	0.06	47	3
V	Overload	34	1.0%	8	978	0.5%	8	90,447	0.5%	8	0.01	92	1
	Tree	953	28.0%	1	46,682	24.8%	1	5,667,828	31.6%	1	0.29	121	36
E	Unknown	360	10.6%	5	12,511	6.6%	6	810,211	4.5%	6	0.08	65	5
X	Weather	427	12.5%	4	16,351	8.7%	5	2,299,574	12.8%	5	0.10	141	14
C	Sum	3,403	100%		188,552	100%		17,945,481	100%		1.18	95	113

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	10	0.5%	7	78	0.0%	8	15,769	0.0%	9	0.00	202	0
A	Dig In	6	0.3%	9	69	0.0%	9	239,865	0.1%	8	0.00	3,476	2
	Equipment Failure	43	2.2%	5	989	0.4%	7	1,599,143	0.4%	7	0.01	1,617	10
E	Equipment Hit	11	0.6%	6	9,818	4.3%	3	24,539,197	6.3%	3	0.06	2,499	154
V	Other*	82	4.2%	4	1,195	0.5%	6	1,964,575	0.5%	6	0.01	1,644	12
	Overload	8	0.4%	8	5,128	2.2%	5	4,024,911	1.0%	5	0.03	785	25
O	Tree	832	42.7%	1	74,756	32.7%	2	116,052,236	29.8%	2	0.47	1,552	729
N	Unknown	187	9.6%	3	8,048	3.5%	4	11,404,011	2.9%	4	0.05	1,417.00	72
L	Weather	771	39.5%	2	128,578	56.2%	1	230,226,458	59.0%	1	0.81	1,790.56	1,445
Y	Sum	1,950	100.0%		228,659	100.0%		390,066,165	100.0%		1.44	1,705.89	2,449

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 172,666

Major Outage Cause Summary - 2015

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	277	10.9%	4	5,232	2.6%	7	320,814	1.1%	7	0.03	61	2
L	Dig In	37	1.5%	8	749	0.4%	8	145,002	0.5%	8	0.00	194	1
L	Equipment Failure	977	38.4%	1	66,801	33.7%	1	5,418,213	18.5%	3	0.39	81	31
	Equipment Hit	72	2.8%	7	21,570	10.9%	5	1,654,739	5.7%	4	0.12	77	10
E	Other*	111	4.4%	6	27,855	14.0%	4	903,089	3.1%	5	0.16	32	5
V	Overload	14	0.5%	9	267	0.1%	9	64,790	0.2%	9	0.00	243	0
E	Tree	465	18.3%	2	36,178	18.2%	2	5,607,200	19.2%	2	0.21	155	32
N	Unknown	215	8.4%	5	6,593	3.3%	6	762,878	2.6%	6	0.04	116	4
T	Weather	379	14.9%	3	33,251	16.8%	3	14,374,229	49.1%	1	0.19	432	83
S	Sum	2,547	100%		198,496	100%		29,250,955	100%		1.15	147	169

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	275	13.3%	3	5,199	3.4%	6	317,605	2.9%	7	0.03	61	2
A	Dig In	36	1.7%	8	644	0.4%	8	120,512	1.1%	8	0.00	187	1
J	Equipment Failure	932	45.1%	1	60,845	40.4%	1	5,101,252	46.3%	1	0.35	84	30
	Equipment Hit	71	3.4%	7	21,529	14.3%	3	1,652,648	15.0%	2	0.12	77	10
E	Other*	91	4.4%	6	27,725	18.4%	2	749,457	6.8%	5	0.16	27	4
V	Overload	10	0.5%	9	199	0.1%	9	36,283	0.3%	9	0.00	182	0
	Tree	276	13.4%	2	15,565	10.3%	4	1,344,785	12.2%	4	0.09	86	8
E	Unknown	176	8.5%	5	5,008	3.3%	7	319,284	2.9%	6	0.03	64	2
X	Weather	200	9.7%	4	14,036	9.3%	5	1,366,765	12.4%	3	0.08	97	8
C	Sum	2,067	100%		150,750	100%		11,008,590	100%		0.87	73	64

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	2	0.4%	7	33	0.1%	9	3,209	0.0%	8	0.00	97	0
A	Dig In	1	0.2%	8	105	0.2%	6	24,490	0.1%	7	0.00	233	0
J	Equipment Failure	45	9.4%	3	5,956	12.5%	3	316,962	1.7%	4	0.03	53	2
	Equipment Hit	1	0.2%	8	41	0.1%	8	2,091	0.0%	9	0.00	51	0
E	Other*	20	4.2%	5	130	0.3%	5	153,633	0.8%	5	0.00	1,182	1
V	Overload	4	0.8%	6	68	0.1%	7	28,507	0.2%	6	0.00	419	0
	Tree	189	39.4%	1	20,613	43.2%	1	4,262,415	23.4%	2	0.12	207	25
O	Unknown	39	8.1%	4	1,585	3.3%	4	443,594	2.4%	3	0.01	280	3
N	Weather	179	37.3%	2	19,215	40.2%	2	13,007,464	71.3%	1	0.11	676.94	75
L													
Y	Sum	480	100%		47,746	100%		18,242,365	100%		0.28	382.07	106

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 95,301

Major Outage Cause Summary - 2015

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	274	8.8%	4	5,790	2.0%	7	335,039	0.1%	8	0.06	58	4
	Dig In	22	0.7%	8	527	0.2%	9	73,496	0.0%	9	0.01	139	1
L	Equipment Failure	587	18.8%	3	48,890	17.0%	3	4,124,419	1.6%	5	0.51	84	43
	Equipment Hit	83	2.7%	7	12,705	4.4%	5	1,435,433	0.6%	7	0.13	113	15
E	Other*	158	5.0%	6	13,319	4.6%	4	12,175,599	4.8%	3	0.14	914	128
V	Overload	17	0.5%	9	4,178	1.5%	8	2,109,400	0.8%	6	0.04	505	22
E	Tree	965	30.8%	1	80,536	28.0%	2	69,174,266	27.3%	2	0.85	859	726
N	Unknown	251	8.0%	5	7,626	2.7%	6	4,687,817	1.8%	4	0.08	615	49
T	Weather	772	24.7%	2	114,202	39.7%	1	159,707,967	62.9%	1	1.20	1,398	1,676
S	Sum	3,129	100%		287,773	100%		253,823,435	100%		3.02	882	2,663

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	274	15.9%	3	5,790	5.1%	5	335,039	3.4%	6	0.06	58	4
	Dig In	20	1.2%	8	522	0.5%	8	61,483	0.6%	8	0.01	118	1
J	Equipment Failure	573	33.3%	1	47,511	42.2%	1	3,688,309	37.3%	1	0.50	78	39
	Equipment Hit	83	4.8%	6	12,705	11.3%	3	1,435,433	14.5%	3	0.13	113	15
E	Other*	51	3.0%	7	8,841	7.9%	4	690,527	7.0%	4	0.09	78	7
V	Overload	12	0.7%	9	84	0.1%	9	7,407	0.1%	9	0.00	88	0
	Tree	436	25.3%	2	29,532	26.2%	2	2,963,122	30.0%	2	0.31	100	31
E	Unknown	138	8.0%	4	4,660	4.1%	6	329,149	3.3%	7	0.05	71	3
X	Weather	135	7.8%	5	2,862	2.5%	7	369,919	3.7%	5	0.03	129	4
C	Sum	1,722	100%		112,507	100%		9,880,389	100%		1.18	88	104

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
A	Dig In	2	0.1%	7	5	0.0%	7	12,013	0.0%	7	0.00	2,403	0
J	Equipment Failure	14	1.0%	5	1,379	0.8%	6	436,110	0.2%	6	0.01	316	5
E	Equipment Hit	-	0.0%	8	-	0.0%	8	-	0.0%	8	0.00	-	-
V	Other*	107	7.6%	4	4,478	2.6%	3	11,485,072	4.7%	3	0.05	2,565	121
	Overload	5	0.4%	6	4,094	2.3%	4	2,101,993	0.9%	5	0.04	513	22
O	Tree	529	37.6%	2	51,004	29.1%	2	66,211,144	27.1%	2	0.54	1,298	695
N	Unknown	113	8.0%	3	2,966	1.7%	5	4,358,668	1.8%	4	0.03	1,470	46
L	Weather	637	45.3%	1	111,340	63.5%	1	159,338,048	65.3%	1	1.17	1,431	1,672
Y	Sum	1,407	100%		175,266	100%		243,943,047	100%		1.84	1,392	2,560

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2014

Customer Count: 539,432

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A	Animal	1,329	14%	4	47,027	7%	5	3,334,651	5%	5	0.09	71	6
	Dig In	98	1%	8	969	0%	9	220,754	0%	8	0.00	-	0
L	Equipment Failure	2,749	28%	1	160,790	25%	2	14,142,122	21%	2	0.30	88	26
	Equipment Hit	408	4%	6	98,644	15%	4	9,505,877	14%	4	0.18	96	18
E	Other*	230	2%	7	37,183	6%	6	2,057,233	3%	7	0.07	55	4
V	Overload	71	1%	9	3,045	0%	8	192,690	0%	9	0.01	63	0
E	Tree	2,204	23%	2	169,726	26%	1	21,025,153	32%	1	0.31	124	39
N	Unknown	969	10%	5	31,584	5%	7	2,872,382	4%	6	0.06	91	5
T	Weather	1,622	17%	3	99,729	15%	3	12,916,651	19%	3	0.18	130	24
S	Sum	9,680	100%		648,697	100%		66,267,512	100%		1.20	102	123

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	1,324	14%	4	46,908	8%	5	3,308,474	6%	5	0.09	71	6
	Dig In	97	1%	8	743	0%	9	177,588	0%	9	0.00	-	0
J	Equipment Failure	2,718	29%	1	134,585	22%	2	11,827,525	20%	2	0.25	88	22
	Equipment Hit	402	4%	6	98,459	16%	3	9,493,730	16%	4	0.18	96	18
E	Other*	230	2%	7	37,183	6%	6	2,057,233	4%	7	0.07	55	4
V	Overload	69	1%	9	3,043	1%	8	192,476	0%	8	0.01	63	0
	Tree	2,086	22%	2	160,691	27%	1	18,711,308	32%	1	0.30	116	35
	Unknown	967	10%	5	31,572	5%	7	2,865,242	5%	6	0.06	91	5
X	Weather	1,488	16%	3	85,008	14%	4	9,944,438	17%	3	0.16	117	18
C	Sum	9,381	100%		598,192	100%		58,578,013	100%		1.11	98	109

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M	Animal	5	2%	5	119	0%	6	26,177	0%	5	0.00	220	0
J	Dig In	1	0%	8	226	0%	4	43,166	1%	4	0.00	191	0
	Equipment Failure	31	10%	3	26,205	52%	1	2,314,597	30%	2	0.05	88	4
E	Equipment Hit	6	2%	4	185	0%	5	12,148	0%	6	0.00	66	0
V	Other*	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Overload	2	1%	6	2	0%	8	214	0%	8	0.00	107	0
O	Tree	118	39%	2	9,035	18%	3	2,313,844	30%	3	0.02	256	4
N	Unknown	2	1%	6	12	0%	7	7,140	0%	7	0.00	595	0
L	Weather	134	45%	1	14,721	29%	2	2,972,213	39%	1	0.03	202	6
Y	Sum	299	100%		50,505	100%		7,689,499	100%		0.09	152	14

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District

Customer Count: 109,751

Major Outage Cause Summary - 2014

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
ALL	Animal	122	10%	4	8,641	12%	4	726,673	12%	5	0.08	84	7
	Dig In	5	0%	8	97	0%	8	6,028	0%	9	0.00	-	0
	Equipment Failure	531	42%	1	18,504	27%	1	1,461,968	24%	1	0.17	79	13
	Equipment Hit	42	3%	6	8,593	12%	5	1,075,305	18%	2	0.08	125	10
	Other*	29	2%	7	3,237	5%	7	159,877	3%	7	0.03	49	1
EV	Overload	5	0%	8	89	0%	9	8,834	0%	8	0.00	99	0
EN	Tree	142	11%	3	12,679	18%	2	894,646	15%	4	0.12	71	8
NT	Unknown	64	5%	5	5,843	8%	6	710,677	12%	6	0.05	122	6
TS	Weather	317	25%	2	11,764	17%	3	1,068,111	17%	3	0.11	91	10
S	Sum	1,257	100%		69,447	100%		6,112,120	100%		0.63	88	56

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJ	Animal	122	10%	4	8,641	12%	4	726,673	12%	5	0.08	84	7
	Dig In	5	0%	8	97	0%	8	6,028	0%	9	0.00	-	0
	Equipment Failure	528	42%	1	18,496	27%	1	1,459,260	24%	1	0.17	79	13
	Equipment Hit	41	3%	6	8,529	12%	5	1,069,161	18%	2	0.08	125	10
	Other*	29	2%	7	3,237	5%	7	159,877	3%	7	0.03	49	1
EV	Overload	5	0%	8	89	0%	9	8,834	0%	8	0.00	99	0
EN	Tree	138	11%	3	12,669	18%	2	893,915	15%	4	0.12	71	8
EX	Unknown	64	5%	5	5,843	8%	6	710,677	12%	6	0.05	122	6
XC	Weather	312	25%	2	11,623	17%	3	1,048,210	17%	3	0.11	90	10
C	Sum	1,244	100%		69,224	100%		6,082,636	100%		0.63	88	55

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJ	Animal	-	0%	5	-	0%	5	-	0%	5	0.00	-	-
	Dig In	-	0%	5	-	0%	5	-	0%	5	0.00	-	-
	Equipment Failure	3	23%	3	8	4%	4	2,708	9%	3	0.00	339	0
	Equipment Hit	1	8%	4	64	29%	2	6,144	21%	2	0.00	96	0
	Other*	-	0%	5	-	0%	5	-	0%	5	0.00	-	-
EV	Overload	-	0%	5	-	0%	5	-	0%	5	0.00	-	-
ON	Tree	4	31%	2	10	4%	3	731	2%	4	0.00	73	0
NL	Unknown	-	0%	5	-	0%	5	-	0%	5	0.00	-	-
LY	Weather	5	38%	1	141	63%	1	19,901	67%	1	0.00	141	0
Y	Sum	13	100%		223	100%		29,484	100%		0.00	132	0

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 160,303

Major Outage Cause Summary - 2014

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	574	14%	4	18,883	7%	5	1,199,750	4%	5	0.12	64	7
	Dig In	55	1%	8	630	0%	9	162,455	1%	8	0.00	-	1
	Equipment Failure	871	21%	2	54,504	19%	2	5,240,051	17%	3	0.34	96	33
	Equipment Hit	207	5%	6	52,758	18%	3	4,359,172	14%	4	0.33	83	27
	Other*	90	2%	7	12,195	4%	6	609,313	2%	7	0.08	50	4
	Overload	21	1%	9	2,784	1%	8	151,458	1%	9	0.02	54	1
	Tree	1,198	29%	1	87,429	30%	1	11,706,844	39%	1	0.55	134	73
	Unknown	541	13%	5	11,328	4%	7	935,163	3%	6	0.07	83	6
	Weather	592	14%	3	46,424	16%	4	5,912,586	20%	2	0.29	127	37
	Sum	4,149	100%		286,935	100%		30,276,790	100%		1.79	106	189

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	571	14%	3	18,869	7%	5	1,197,813	4%	5	0.12	63	7
	Dig In	54	1%	8	404	0%	9	119,289	0%	9	0.00	-	1
	Equipment Failure	865	22%	2	54,463	20%	2	5,226,038	19%	2	0.34	96	33
	Equipment Hit	206	5%	6	52,734	19%	3	4,356,994	16%	4	0.33	83	27
	Other*	90	2%	7	12,195	4%	6	609,313	2%	7	0.08	50	4
	Overload	20	1%	9	2,783	1%	8	151,373	1%	8	0.02	54	1
	Tree	1,116	28%	1	82,196	30%	1	10,340,988	37%	1	0.51	126	65
	Unknown	540	14%	4	11,322	4%	7	931,275	3%	6	0.07	82	6
	Weather	533	13%	5	39,099	14%	4	4,838,156	17%	3	0.24	124	30
	Sum	3,995	100%		274,065	100%		27,771,238	100%		1.71	101	173

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	3	2%	4	14	0%	6	1,937	0%	7	0.00	138	0
	Dig In	1	1%	5	226	2%	3	43,166	2%	3	0.00	191	0
	Equipment Failure	6	4%	3	41	0%	4	14,013	1%	4	0.00	342	0
	Equipment Hit	1	1%	5	24	0%	5	2,178	0%	6	0.00	91	0
	Other*	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Overload	1	1%	5	1	0%	8	85	0%	8	0.00	85	0
	Tree	82	53%	1	5,233	41%	2	1,365,856	55%	1	0.03	261	9
	Unknown	1	1%	5	6	0%	7	3,888	0%	5	0.00	648	0
	Weather	59	38%	2	7,325	57%	1	1,074,429	43%	2	0.05	147	7
	Sum	154	100%		12,870	100%		2,505,552	100%		0.08	195	16

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 173,118

Major Outage Cause Summary - 2014

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	316	14%	4	7,314	5%	7	627,538	4%	7	0.04	86	4
	Dig In	25	1%	9	147	0%	8	32,060	0%	8	0.00	-	0
	Equipment Failure	770	33%	1	66,518	41%	1	5,426,338	36%	1	0.38	82	31
E V E	Equipment Hit	76	3%	6	22,465	14%	2	3,021,461	20%	2	0.13	134	17
	Other*	70	3%	7	17,066	11%	4	1,043,730	7%	5	0.10	61	6
	Overload	27	1%	8	63	0%	9	14,184	0%	9	0.00	225	0
E N T	Tree	373	16%	3	20,907	13%	3	2,328,518	15%	3	0.12	111	13
	Unknown	181	8%	5	9,465	6%	6	779,355	5%	6	0.05	82	5
	Weather	461	20%	2	16,969	11%	5	1,983,388	13%	4	0.10	117	11
S	Sum	2,299	100%		160,914	100%		15,256,574	100%		0.93	95	88

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	315	14%	4	7,309	5%	7	626,598	5%	7	0.04	86	4
	Dig In	25	1%	9	147	0%	8	32,060	0%	8	0.00	-	0
	Equipment Failure	752	33%	1	40,385	30%	1	3,150,938	24%	1	0.23	78	18
E V E	Equipment Hit	76	3%	6	22,465	17%	2	3,021,461	23%	2	0.13	134	17
	Other*	70	3%	7	17,066	13%	4	1,043,730	8%	5	0.10	61	6
	Overload	26	1%	8	62	0%	9	14,055	0%	9	0.00	227	0
E X C	Tree	367	16%	3	20,866	16%	3	2,318,337	18%	3	0.12	111	13
	Unknown	181	8%	5	9,465	7%	6	779,355	6%	6	0.05	82	5
	Weather	441	20%	2	16,771	12%	5	1,950,381	15%	4	0.10	116	11
C	Sum	2,253	100%		134,536	100%		12,936,916	100%		0.78	96	75

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	1	2%	4	5	0%	4	940	0%	4	0.00	188	0
	Dig In	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Equipment Failure	18	39%	2	26,133	99%	1	2,275,401	98%	1	0.15	87	13
E V E	Equipment Hit	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Other*	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Overload	1	2%	4	1	0%	5	129	0%	5	0.00	129	0
O N L	Tree	6	13%	3	41	0%	3	10,181	0%	3	0.00	248	0
	Unknown	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Weather	20	43%	1	198	1%	2	33,007	1%	2	0.00	167	0
Y	Sum	46	100%		26,378	100%		2,319,658	100%		0.15	88	13

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 96,260

Major Outage Cause Summary - 2014

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	317	16%	3	12,189	9%	5	780,690	5%	5	0.13	64	8
	Dig In	13	1%	9	95	0%	9	20,210	0%	8	0.00	-	0
	Equipment Failure	577	29%	1	21,264	16%	3	2,013,764	14%	3	0.22	95	21
	Equipment Hit	83	4%	6	14,828	11%	4	1,049,940	7%	4	0.15	71	11
	Other*	41	2%	7	4,685	4%	7	244,313	2%	7	0.05	52	3
E V	Overload	18	1%	8	109	0%	8	18,215	0%	9	0.00	167	0
E	Tree	491	25%	2	48,711	37%	1	6,095,145	42%	1	0.51	125	63
N	Unknown	183	9%	5	4,948	4%	6	447,186	3%	6	0.05	90	5
T	Weather	252	13%	4	24,572	19%	2	3,952,566	27%	2	0.26	161	41
S	Sum	1,975	100%		131,401	100%		14,622,029	100%		1.37	111	152

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	316	17%	3	12,089	10%	5	757,390	6%	5	0.13	63	8
	Dig In	13	1%	9	95	0%	9	20,210	0%	8	0.00	-	0
	Equipment Failure	573	30%	1	21,241	18%	2	1,991,289	17%	3	0.22	94	21
	Equipment Hit	79	4%	6	14,731	12%	4	1,046,114	9%	4	0.15	71	11
	Other*	41	2%	7	4,685	4%	7	244,313	2%	7	0.05	52	3
E V	Overload	18	1%	8	109	0%	8	18,215	0%	9	0.00	167	0
	Tree	465	25%	2	44,960	37%	1	5,158,068	44%	1	0.47	115	54
E	Unknown	182	10%	5	4,942	4%	6	443,934	4%	6	0.05	90	5
X	Weather	202	11%	4	17,515	15%	3	2,107,690	18%	2	0.18	120	22
C	Sum	1,889	100%		120,367	100%		11,787,223	100%		1.25	98	122

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	1	1%	5	100	1%	3	23,300	1%	3	0.00	233	0
	Dig In	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
E V	Equipment Failure	4	5%	3	23	0%	5	22,475	1%	4	0.00	977	0
	Equipment Hit	4	5%	3	97	1%	4	3,826	0%	5	0.00	39	0
	Other*	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
O N	Overload	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Tree	26	30%	2	3,751	34%	2	937,077	33%	2	0.04	250	10
L	Unknown	1	1%	5	6	0%	6	3,252	0%	6	0.00	542	0
Y	Weather	50	58%	1	7,057	64%	1	1,844,876	65%	1	0.07	261	19
	Sum	86	100%		11,034	100%		2,834,806	100%		0.11	257	29

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2013

Customer Count: 537,622

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	1,628	15%	4	65,432	8%	7	4,994,110	6%	7	0.12	76	9
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	2,761	26%	1	187,368	22%	1	15,920,687	18%	3	0.35	85	30
	Equipment Hit	576	5%	6	120,680	14%	4	11,170,416	13%	4	0.23	93	21
	Other*	339	3%	7	76,036	9%	6	6,417,992	7%	6	0.14	84	12
	Overload	89	1%	8	10,058	1%	8	502,656	1%	8	0.02	50	1
	Tree	2,093	20%	3	155,295	18%	2	18,209,996	21%	2	0.29	117	34
	Unknown	981	9%	5	92,605	11%	5	9,707,121	11%	5	0.17	105	18
	Weather	2,202	21%	2	139,269	16%	3	19,415,989	22%	1	0.26	139	36
	Sum	10,669	100%		846,743	100%		86,338,968	100%		1.57	102	161

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	1,627	16%	4	65,428	8%	6	4,993,978	7%	6	0.12	76	9
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	2,735	27%	1	182,444	23%	1	15,755,918	22%	2	0.34	86	30
	Equipment Hit	574	6%	6	120,678	16%	3	11,170,249	15%	4	0.23	93	21
	Other*	328	3%	7	64,412	8%	7	2,926,658	4%	7	0.12	45	5
	Overload	89	1%	8	10,058	1%	8	502,656	1%	8	0.02	50	1
	Tree	1,965	19%	3	145,409	19%	2	16,383,560	23%	1	0.27	113	31
	Unknown	949	9%	5	71,420	9%	5	5,211,749	7%	5	0.13	73	10
	Weather	1,995	19%	2	117,001	15%	4	15,303,306	21%	3	0.22	131	29
	Sum	10,262	100%		776,850	100%		72,248,074	100%		1.45	93	134

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	1	0%	7	4	0%	6	132	0%	7	0.00	33	0
	Dig In	-	0%	8	-	0%	8	-	0%	8	0.00	-	-
	Equipment Failure	26	6%	4	4,924	7%	5	164,769	1%	5	0.01	33	0
	Equipment Hit	2	0%	6	2	0%	7	167	0%	6	0.00	84	0
	Other*	11	3%	5	11,624	17%	3	3,491,334	25%	3	0.02	300	7
	Overload	-	0%	8	-	0%	8	-	0%	8	0.00	-	-
	Tree	128	31%	2	9,886	14%	4	1,826,436	13%	4	0.02	185	3
	Unknown	32	8%	3	21,185	30%	2	4,495,373	32%	1	0.04	212	8
	Weather	207	51%	1	22,268	32%	1	4,112,683	29%	2	0.04	185	8
	Sum	407	100%		69,893	100%		14,090,894	100%		0.13	202	26

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District

Customer Count: 110,880

Major Outage Cause Summary - 2013

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	170	11%	3	4,778	5%	7	217,705	2%	7	0.04	46	2
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	611	39%	1	42,186	41%	1	3,138,516	29%	2	0.38	74	29
	Equipment Hit	58	4%	6	11,657	11%	4	761,463	7%	5	0.11	65	7
	Other*	38	2%	7	6,672	6%	6	264,974	2%	6	0.06	40	2
E V	Overload	18	1%	8	1,001	1%	8	95,385	1%	8	0.01	95	1
E	Tree	153	10%	4	9,505	9%	5	1,741,696	16%	3	0.09	183	16
N	Unknown	61	4%	5	13,216	13%	3	1,118,739	10%	4	0.12	85	10
T	Weather	478	30%	2	13,970	14%	2	3,504,678	32%	1	0.13	251	32
S	Sum	1,587	100%		102,985	100%		10,843,156	100%		0.93	105	98

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	170	12%	3	4,778	5%	6	217,705	3%	7	0.04	46	2
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	601	41%	1	40,161	45%	1	3,073,314	44%	1	0.37	77	28
	Equipment Hit	58	4%	5	11,657	13%	3	761,463	11%	4	0.11	65	7
	Other*	37	3%	7	6,671	8%	5	264,925	4%	6	0.06	40	2
E V	Overload	18	1%	8	1,001	1%	8	95,385	1%	8	0.01	95	1
	Tree	112	8%	4	4,576	5%	7	549,830	8%	5	0.04	120	5
E	Unknown	55	4%	6	13,208	15%	2	1,112,930	16%	2	0.12	84	10
X	Weather	398	27%	2	6,891	8%	4	886,821	13%	3	0.06	129	8
C	Sum	1,449	100%		88,943	100%		6,962,373	100%		0.80	78	63

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Dig In	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
E V	Equipment Failure	10	7%	3	2,025	14%	3	65,202	2%	3	0.02	32	1
	Equipment Hit	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Other*	1	1%	5	1	0%	5	49	0%	5	0.00	49	0
	Overload	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Tree	41	30%	2	4,929	35%	2	1,191,866	31%	2	0.04	242	11
O N	Unknown	6	4%	4	8	0%	4	5,809	0%	4	0.00	726	0
L	Weather	80	58%	1	7,079	50%	1	2,617,857	67%	1	0.06	370	24
Y	Sum	138	100%		14,042	100%		3,880,783	100%		0.13	276	35

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 158,237

Major Outage Cause Summary - 2013

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	706	17%	4	24,299	7%	7	1,654,578	5%	6	0.15	68	11
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	781	18%	2	58,361	18%	2	6,587,280	18%	3	0.37	113	42
	Equipment Hit	281	7%	6	46,987	14%	4	4,626,987	13%	4	0.30	98	29
	Other*	97	2%	7	27,962	8%	6	1,034,650	3%	7	0.18	37	7
E V	Overload	40	1%	8	8,437	3%	8	353,019	1%	8	0.05	42	2
E	Tree	1,143	27%	1	84,897	25%	1	11,142,692	31%	1	0.54	131	71
N	Unknown	488	11%	5	33,020	10%	5	2,704,188	8%	5	0.21	82	17
T	Weather	722	17%	3	49,062	15%	3	7,670,610	21%	2	0.31	156	49
S	Sum	4,258	100%		333,025	100%		35,774,003	100%		2.10	107	226

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	705	17%	3	24,295	7%	7	1,654,446	5%	6	0.15	68	11
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	775	19%	2	58,309	18%	2	6,577,386	19%	3	0.37	113	42
	Equipment Hit	281	7%	6	46,987	14%	4	4,626,987	13%	4	0.30	98	29
	Other*	96	2%	7	27,961	9%	6	1,034,568	3%	7	0.18	37	7
E V	Overload	40	1%	8	8,437	3%	8	353,019	1%	8	0.05	42	2
	Tree	1,097	26%	1	81,012	25%	1	10,720,731	31%	1	0.52	132	68
E	Unknown	480	12%	5	32,455	10%	5	2,441,657	7%	5	0.21	75	16
X	Weather	692	17%	4	48,591	15%	3	7,445,454	21%	2	0.31	153	47
C	Sum	4,166	100%		328,047	100%		34,854,248	100%		2.07	106	220

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	1	1%	5	4	0%	5	132	0%	5	0.00	33	0
	Dig In	-	0%	7	-	0%	7	-	0%	8	0.00	-	-
E V	Equipment Failure	6	7%	4	52	1%	4	9,894	1%	4	0.00	190	0
	Equipment Hit	-	0%	7	-	0%	7	0	0%	7	0.00	-	0
V	Other*	1	1%	5	1	0%	6	82	0%	6	0.00	82	0
	Overload	-	0%	7	-	0%	7	-	0%	8	0.00	-	-
O N	Tree	46	50%	1	3,885	78%	1	421,960	46%	1	0.02	109	3
	Unknown	8	9%	3	565	11%	2	262,531	29%	2	0.00	465	2
L	Weather	30	33%	2	471	9%	3	225,156	24%	3	0.00	478	1
Y	Sum	92	100%		4,978	100%		919,755	100%		0.03	185	6

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 172,389

Major Outage Cause Summary - 2013

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	372	13%	3	12,920	5%	7	575,688	2%	7	0.08	45	3
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	876	31%	1	66,413	25%	1	4,481,274	17%	3	0.39	67	26
	Equipment Hit	118	4%	7	39,170	15%	3	3,810,838	14%	5	0.23	97	22
	Other*	125	4%	6	30,063	11%	5	4,204,008	16%	4	0.18	140	25
	Overload	16	1%	8	290	0%	8	18,314	0%	8	0.00	63	0
	Tree	370	13%	4	24,680	9%	6	2,219,806	8%	6	0.14	90	13
	Unknown	242	9%	5	38,992	15%	4	5,433,290	20%	2	0.23	139	32
	Weather	692	25%	2	55,252	21%	2	5,767,409	22%	1	0.32	104	34
	Sum	2,811	100%		267,780	100%		26,510,626	100%		1.55	99	154

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E X C	Animal	372	14%	3	12,920	6%	7	575,688	3%	7	0.08	45	3
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	871	33%	1	66,408	30%	1	4,480,481	26%	2	0.39	67	26
	Equipment Hit	118	4%	6	39,170	18%	3	3,810,838	22%	3	0.23	97	22
	Other*	118	4%	6	18,446	8%	5	713,338	4%	6	0.11	39	4
	Overload	16	1%	8	290	0%	8	18,314	0%	8	0.00	63	0
	Tree	342	13%	4	24,196	11%	4	2,105,733	12%	4	0.14	87	12
	Unknown	224	8%	5	18,380	8%	6	1,206,257	7%	5	0.11	66	7
	Weather	606	23%	2	40,941	19%	2	4,553,318	26%	1	0.24	111	27
	Sum	2,667	100%		220,751	100%		17,463,967	100%		1.28	79	101

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V O N L Y	Animal	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Dig In	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Equipment Failure	5	3%	5	5	0%	5	793	0%	5	0.00	159	0
	Equipment Hit	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Other*	7	5%	4	11,617	25%	3	3,490,669	39%	2	0.07	300	20
	Overload	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Tree	28	19%	2	484	1%	4	114,073	1%	4	0.00	236	1
	Unknown	18	13%	3	20,612	44%	1	4,227,033	47%	1	0.12	205	25
	Weather	86	60%	1	14,311	30%	2	1,214,091	13%	3	0.08	85	7
	Sum	144	100%		47,029	100%		9,046,659	100%		0.27	192	52

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 96,116

Major Outage Cause Summary - 2013

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	380	19%	3	23,435	16%	2	2,546,139	19%	2	0.24	109	27
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	493	24%	1	20,408	14%	5	1,713,618	13%	5	0.21	84	18
	Equipment Hit	119	6%	6	22,866	16%	3	1,971,128	15%	4	0.24	86	21
	Other*	79	4%	7	11,339	8%	6	914,360	7%	6	0.12	81	10
E V E N T S	Overload	15	1%	8	330	0%	8	35,938	0%	8	0.00	109	0
	Tree	427	21%	2	36,213	25%	1	3,105,803	24%	1	0.38	86	32
	Unknown	190	9%	5	7,377	5%	7	450,904	3%	7	0.08	61	5
	Weather	310	15%	4	20,985	15%	4	2,473,293	19%	3	0.22	118	26
S	Sum	2,013	100%		142,953	100%		13,211,183	100%		1.49	92	137

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	380	19%	3	23,435	17%	2	2,546,139	20%	2	0.24	109	27
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	488	25%	1	17,566	13%	5	1,624,738	13%	5	0.18	92	17
	Equipment Hit	117	6%	6	22,864	16%	3	1,970,961	15%	4	0.24	86	21
	Other*	77	4%	7	11,334	8%	6	913,826	7%	6	0.12	81	10
E V E N T S	Overload	15	1%	8	330	0%	8	35,938	0%	8	0.00	109	0
	Tree	414	21%	2	35,625	26%	1	3,007,266	23%	1	0.37	84	31
E X C	Unknown	190	10%	5	7,377	5%	7	450,904	3%	7	0.08	61	5
	Weather	299	15%	4	20,578	15%	4	2,417,713	19%	3	0.22	117	25
C	Sum	1,980	100%		139,109	100%		12,967,486	100%		1.45	93	135

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Dig In	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
E V E N T S	Equipment Failure	5	15%	3	2,842	74%	1	88,880	36%	2	0.03	31	1
	Equipment Hit	2	6%	4	2	0%	5	167	0%	5	0.00	84	0
	Other*	2	6%	4	5	0%	4	534	0%	4	0.00	107	0
	Overload	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Tree	13	39%	1	588	15%	2	98,537	40%	1	0.01	168	1
O N L Y	Unknown	-	0%	6	-	0%	6	-	0%	6	0.00	-	-
	Weather	11	33%	2	407	11%	3	55,579	23%	3	0.00	137	1
	Sum	33	100%		3,844	100%		243,697	100%		0.04	63	3

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2012

Customer Count: 533,496

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	2,046	11%	4	69,899	4%	7	12,141,173	1%	7	0.13	174	23
	Dig In	183	1%	8	6,989	0%	9	20,548,080	1%	6	0.01	2,940	39
	Equipment Failure	2,760	15%	3	180,489	11%	3	48,170,441	3%	4	0.34	267	90
	Equipment Hit	390	2%	7	92,412	5%	6	8,314,919	1%	8	0.17	90	16
	Other*	755	4%	6	119,443	7%	4	60,683,300	4%	3	0.22	508	114
V	Overload	173	1%	9	11,987	1%	8	3,561,051	0%	9	0.02	297	7
E	Tree	4,638	25%	2	401,738	24%	2	220,799,114	15%	2	0.75	550	414
N	Unknown	1,466	8%	5	109,025	6%	5	44,793,164	3%	5	0.20	411	84
T	Weather	6,004	33%	1	691,641	41%	1	1,046,282,512	71%	1	1.30	1,513	1,961
S	Sum	18,415	100%		1,683,623	100%		1,465,293,755	100%		3.16	870	2,747

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A	Animal	1,910	18%	4	65,183	8%	6	4,179,520	5%	7	0.12	64	8
	Dig In	157	1%	8	2,185	0%	9	360,050	0%	9	0.00	165	1
J	Equipment Failure	2,577	24%	1	152,661	20%	2	14,605,884	18%	3	0.29	96	27
	Equipment Hit	368	3%	6	88,610	11%	4	7,184,927	9%	4	0.17	81	13
E	Other*	301	3%	7	76,846	10%	5	5,113,572	6%	5	0.14	67	10
V	Overload	96	1%	9	6,263	1%	8	716,175	1%	8	0.01	114	1
	Tree	2,526	23%	2	193,533	25%	1	22,018,185	27%	2	0.36	114	41
E	Unknown	819	8%	5	51,849	7%	7	4,987,327	6%	6	0.10	96	9
X	Weather	2,089	19%	3	136,199	18%	3	23,760,710	29%	1	0.26	174	45
C	Sum	10,843	100%		773,329	100%		82,926,350	100%		1.45	107	155

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A	Animal	136	2%	6	4,716	1%	8	7,961,654	1%	7	0.01	1,688	15
J	Dig In	26	0%	8	4,804	1%	7	20,188,030	1%	6	0.01	4,202	38
	Equipment Failure	183	2%	5	27,828	3%	5	33,564,557	2%	5	0.05	1,206	63
E	Equipment Hit	22	0%	9	3,802	0%	9	1,129,991	0%	9	0.01	297	2
V	Other*	454	6%	4	42,597	5%	4	55,569,728	4%	3	0.08	1,305	104
	Overload	77	1%	7	5,724	1%	6	2,844,876	0%	8	0.01	497	5
O	Tree	2,112	28%	2	208,205	23%	2	198,780,929	14%	2	0.39	955	373
N	Unknown	647	9%	3	57,176	6%	3	39,805,837	3%	4	0.11	696	75
L	Weather	3,915	52%	1	555,442	61%	1	1,022,521,802	74%	1	1.04	1,841	1,917
Y	Sum	7,572	100%		910,294	100%		1,382,367,405	100%		1.71	1,519	2,591

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District
Customer Count: 109,832
Major Outage Cause Summary - 2012

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	164	6%	5	2,579	1%	7	167,853	0%	8	0.02	65	2
	Dig In	13	1%	9	46	0%	9	8,645	0%	9	0.00	188	0
	Equipment Failure	520	20%	2	53,332	25%	2	21,283,034	18%	2	0.49	399	194
	Equipment Hit	41	2%	7	12,941	6%	5	1,465,625	1%	6	0.12	113	13
	Other*	370	14%	3	28,454	13%	4	8,403,292	7%	4	0.26	295	77
	Overload	39	2%	8	1,389	1%	8	322,282	0%	7	0.01	232	3
	Tree	273	11%	4	29,447	14%	3	12,494,922	10%	3	0.27	424	114
	Unknown	163	6%	6	11,959	6%	6	3,399,483	3%	5	0.11	284	31
	Weather	1,010	39%	1	73,540	34%	1	72,025,986	60%	1	0.67	979	656
	Sum	2,593	100%		213,687	100%		119,571,123	100%		1.95	560	1,089

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E X C	Animal	154	10%	3	2,515	2%	7	160,619	2%	7	0.02	64	1
	Dig In	12	1%	9	45	0%	9	8,563	0%	9	0.00	190	0
	Equipment Failure	491	32%	2	43,950	37%	1	3,471,601	40%	1	0.40	79	32
	Equipment Hit	36	2%	7	10,535	9%	5	694,489	8%	5	0.10	66	6
	Other*	63	4%	6	23,279	20%	2	839,019	10%	4	0.21	36	8
	Overload	13	1%	8	445	0%	8	88,978	1%	8	0.00	200	1
	Tree	153	10%	4	15,434	13%	4	1,327,271	15%	3	0.14	86	12
	Unknown	71	5%	5	5,503	5%	6	370,670	4%	6	0.05	67	3
	Weather	525	35%	1	16,763	14%	3	1,705,592	20%	2	0.15	102	16
	Sum	1,518	100%		118,469	100%		8,666,802	100%		1.08	73	79

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V O N L Y	Animal	10	1%	7	64	0%	8	7,234	0%	8	0.00	113	0
	Dig In	1	0%	9	1	0%	9	82	0%	9	0.00	82	0
	Equipment Failure	29	3%	5	9,382	10%	3	17,811,432	16%	2	0.09	1,898	162
	Equipment Hit	5	0%	8	2,406	3%	6	771,136	1%	6	0.02	321	7
	Other*	307	29%	2	5,175	5%	5	7,564,274	7%	4	0.05	1,462	69
	Overload	26	2%	6	944	1%	7	233,303	0%	7	0.01	247	2
	Tree	120	11%	3	14,013	15%	2	11,167,651	10%	3	0.13	797	102
	Unknown	92	9%	4	6,456	7%	4	3,028,813	3%	5	0.06	469	28
	Weather	485	45%	1	56,777	60%	1	70,320,394	63%	1	0.52	1,239	640
	Sum	1,075	100%		95,218	100%		110,904,320	100%		0.87	1,165	1,010

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 157,142

Major Outage Cause Summary - 2012

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	871	14%	3	34,058	8%	5	2,452,642	1%	7	0.22	72	16
	Dig In	110	2%	7	3,044	1%	9	1,079,842	0%	9	0.02	355	7
	Equipment Failure	839	13%	4	41,362	9%	3	10,984,682	4%	4	0.26	266	70
	Equipment Hit	179	3%	6	36,858	8%	4	3,077,539	1%	5	0.23	83	20
	Other*	89	1%	8	17,328	4%	7	1,206,388	0%	8	0.11	70	8
E V	Overload	50	1%	9	9,368	2%	8	2,772,598	1%	6	0.06	296	18
E	Tree	2,095	33%	1	150,167	34%	1	80,424,097	32%	2	0.96	536	512
N	Unknown	567	9%	5	31,350	7%	6	12,386,822	5%	3	0.20	395	79
T	Weather	1,542	24%	2	122,457	27%	2	137,749,390	55%	1	0.78	1,125	877
S	Sum	6,342	100%		445,992	100%		252,134,001	100%		2.84	565	1,604

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	815	20%	2	32,812	12%	5	2,240,260	6%	5	0.21	68	14
	Dig In	91	2%	7	1,251	0%	9	164,921	0%	9	0.01	132	1
	Equipment Failure	789	19%	3	34,120	12%	4	3,736,710	10%	3	0.22	110	24
	Equipment Hit	170	4%	6	36,550	13%	3	3,000,950	8%	4	0.23	82	19
	Other*	76	2%	8	16,823	6%	7	1,114,954	3%	7	0.11	66	7
E V	Overload	32	1%	9	5,297	2%	8	552,669	1%	8	0.03	104	4
	Tree	1,219	30%	1	90,999	33%	1	12,331,424	32%	2	0.58	136	78
E	Unknown	363	9%	5	19,401	7%	6	2,027,376	5%	6	0.12	104	13
X	Weather	527	13%	4	36,776	13%	2	12,806,471	34%	1	0.23	348	81
C	Sum	4,082	100%		274,029	100%		37,975,735	100%		1.74	139	242

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	56	2%	4	1,246	1%	7	212,382	0%	7	0.01	170	1
	Dig In	19	1%	6	1,793	1%	6	914,922	0%	6	0.01	510	6
E V	Equipment Failure	50	2%	5	7,242	4%	4	7,247,972	3%	4	0.05	1,001	46
	Equipment Hit	9	0%	9	308	0%	9	76,589	0%	9	0.00	249	0
E V	Other*	13	1%	8	505	0%	8	91,434	0%	8	0.00	181	1
	Overload	18	1%	7	4,071	2%	5	2,219,929	1%	5	0.03	545	14
O N	Tree	876	39%	2	59,168	34%	2	68,092,673	32%	2	0.38	1,151	433
	Unknown	204	9%	3	11,949	7%	3	10,359,446	5%	3	0.08	867	66
L	Weather	1,015	45%	1	85,681	50%	1	124,942,919	58%	1	0.55	1,458	795
Y	Sum	2,260	100%		171,963	100%		214,158,266	100%		1.09	1,245	1,363

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District
Customer Count: 170,834 **Major Outage Cause Summary - 2012**

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	598	10%	4	25,400	3%	6	8,595,159	1%	7	0.15	338	50
	Dig In	29	0%	9	3,263	0%	8	19,297,962	2%	5	0.02	5,914	113
	Equipment Failure	873	14%	3	52,365	7%	5	11,563,998	1%	6	0.31	221	68
	Equipment Hit	98	2%	7	20,901	3%	7	1,617,235	0%	8	0.12	77	9
	Other*	215	3%	6	60,664	8%	3	44,319,121	4%	3	0.36	731	259
	Overload	54	1%	8	688	0%	9	411,703	0%	9	0.00	598	2
	Tree	1,204	19%	2	150,601	19%	2	103,169,553	10%	2	0.88	685	604
	Unknown	440	7%	5	54,540	7%	4	24,763,012	2%	4	0.32	454	145
	Weather	2,710	44%	1	429,565	54%	1	778,037,513	78%	1	2.51	1,811	4,554
	Sum	6,221	100%		797,987	100%		991,775,256	100%		4.67	1,243	5,805

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	578	18%	4	23,429	9%	5	1,357,028	6%	7	0.14	58	8
	Dig In	27	1%	8	278	0%	8	76,863	0%	8	0.00	276	0
	Equipment Failure	792	24%	1	45,031	18%	3	4,001,219	17%	3	0.26	89	23
	Equipment Hit	92	3%	7	20,064	8%	7	1,399,235	6%	6	0.12	70	8
	Other*	98	3%	6	25,750	10%	4	2,362,848	10%	4	0.15	92	14
	Overload	26	1%	9	227	0%	9	32,706	0%	9	0.00	144	0
	Tree	645	20%	3	53,891	21%	2	4,999,566	21%	2	0.32	93	29
	Unknown	211	7%	5	22,779	9%	6	2,171,919	9%	5	0.13	95	13
	Weather	769	24%	2	62,331	25%	1	7,310,608	31%	1	0.36	117	43
	Sum	3,238	100%		253,780	100%		23,711,992	100%		1.49	93	139

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	20	1%	7	1,971	0%	7	7,238,131	1%	7	0.01	3,672	42
	Dig In	2	0%	9	2,985	1%	6	19,221,100	2%	5	0.02	6,439	113
	Equipment Failure	81	3%	5	7,334	1%	5	7,562,778	1%	6	0.04	1,031	44
	Equipment Hit	6	0%	8	837	0%	8	218,000	0%	9	0.00	260	1
	Other*	117	4%	4	34,914	6%	3	41,956,273	4%	3	0.20	1,202	246
	Overload	28	1%	6	461	0%	9	378,997	0%	8	0.00	822	2
	Tree	559	19%	2	96,710	18%	2	98,169,987	10%	2	0.57	1,015	575
	Unknown	229	8%	3	31,761	6%	4	22,591,093	2%	4	0.19	711	132
	Weather	1,941	65%	1	367,234	67%	1	770,726,904	80%	1	2.15	2,099	4,512
	Sum	2,983	100%		544,207	100%		968,063,264	100%		3.19	1,779	5,667

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 95,688

Major Outage Cause Summary - 2012

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L	Animal	413	13%	4	7,862	3%	7	925,519	1%	7	0.08	118	10
	Dig In	31	1%	8	636	0%	8	161,630	0%	8	0.01	254	2
	Equipment Failure	528	16%	3	33,430	15%	3	4,338,727	4%	4	0.35	130	45
	Equipment Hit	72	2%	7	21,712	10%	4	2,154,519	2%	6	0.23	99	23
	Other*	81	2%	6	12,997	6%	5	6,754,498	7%	3	0.14	520	71
V	Overload	30	1%	9	542	0%	9	54,469	0%	9	0.01	100	1
E	Tree	1,066	33%	1	71,523	32%	1	24,710,542	24%	2	0.75	345	258
N	Unknown	296	9%	5	11,176	5%	6	4,243,847	4%	5	0.12	380	44
T	Weather	742	23%	2	66,079	29%	2	58,469,624	57%	1	0.69	885	611
S	Sum	3,259	100%		225,957	100%		101,813,376	100%		2.36	451	1,064

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	363	18%	3	6,427	5%	6	421,613	3%	6	0.07	66	4
	Dig In	27	1%	8	611	0%	8	109,703	1%	8	0.01	180	1
	Equipment Failure	505	25%	2	29,560	23%	2	3,396,353	27%	1	0.31	115	35
	Equipment Hit	70	3%	6	21,461	17%	3	2,090,253	17%	3	0.22	97	22
	Other*	64	3%	7	10,994	9%	5	796,752	6%	5	0.11	72	8
V	Overload	25	1%	9	294	0%	9	41,822	0%	9	0.00	142	0
	Tree	509	25%	1	33,209	26%	1	3,359,924	27%	2	0.35	101	35
E	Unknown	174	9%	5	4,166	3%	7	417,362	3%	7	0.04	100	4
X	Weather	268	13%	4	20,329	16%	4	1,938,038	15%	4	0.21	95	20
C	Sum	2,005	100%		127,051	100%		12,571,821	100%		1.33	99	131

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J	Animal	50	4%	4	1,435	1%	6	503,906	1%	6	0.01	351	5
	Dig In	4	0%	8	25	0%	9	51,927	0%	8	0.00	2,077	1
	Equipment Failure	23	2%	5	3,870	4%	4	942,374	1%	5	0.04	244	10
E	Equipment Hit	2	0%	9	251	0%	7	64,266	0%	7	0.00	256	1
V	Other*	17	1%	6	2,003	2%	5	5,957,747	7%	3	0.02	2,974	62
	Overload	5	0%	7	248	0%	8	12,647	0%	9	0.00	51	0
O	Tree	557	44%	1	38,314	39%	2	21,350,619	24%	2	0.40	557	223
N	Unknown	122	10%	3	7,010	7%	3	3,826,485	4%	4	0.07	546	40
L	Weather	474	38%	2	45,750	46%	1	56,531,585	63%	1	0.48	1,236	591
Y	Sum	1,254	100%		98,906	100%		89,241,555	100%		1.03	902	933

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

New Jersey (Atlantic Region)

Major Outage Cause Summary - 2011

Customer Count: 534,335

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	1,800	13%	4	66,897	5%	7	15,583,767	5%	5	0.13	233	29
	Dig In	100	1%	9	2,352	0%	9	325,273	0%	9	0.00	138	1
	Equipment Failure	2,865	20%	3	241,030	20%	3	25,672,125	8%	3	0.45	107	48
	Equipment Hit	391	3%	6	98,622	8%	5	7,937,864	2%	6	0.18	80	15
	Other*	370	3%	7	100,360	8%	4	7,412,267	2%	7	0.19	74	14
	Overload	330	2%	8	29,017	2%	8	3,509,275	1%	8	0.05	121	7
	Tree	3,895	27%	1	316,032	26%	1	117,974,947	35%	2	0.59	373	221
	Unknown	1,203	8%	5	71,964	6%	6	23,066,250	7%	4	0.13	321	43
	Weather	3,346	23%	2	290,880	24%	2	134,729,260	40%	1	0.54	463	252
	Sum	14,300	100%		1,217,154	100%		336,211,029	100%		2.28	276	629

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J O R E V E N T S	Animal	1,770	15%	4	58,785	6%	6	4,419,738	4%	7	0.11	75	8
	Dig In	100	1%	9	2,352	0%	9	325,273	0%	9	0.00	138	1
	Equipment Failure	2,784	24%	2	230,320	24%	1	20,178,745	19%	3	0.43	88	38
	Equipment Hit	387	3%	6	97,366	10%	5	7,859,929	8%	4	0.18	81	15
	Other*	334	3%	7	97,441	10%	4	7,148,911	7%	5	0.18	73	13
	Overload	323	3%	8	28,996	3%	8	3,497,755	3%	8	0.05	121	7
	Tree	2,820	24%	1	203,396	22%	2	29,206,343	28%	1	0.38	144	55
	Unknown	897	8%	5	49,823	5%	7	4,506,924	4%	6	0.09	90	8
	Weather	2,428		3	173,697	18%	3	26,564,795	26%	2	0.33	153	50
	Sum	11,843	100%		942,176	100%		103,708,411	100%		1.76	110	194

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J O R E V E N T S	Animal	30	1%	6	8,112	3%	5	11,164,030	5%	4	0.02	1,376	21
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
	Equipment Failure	81	3%	4	10,710	4%	4	5,493,381	2%	5	0.02	513	10
	Equipment Hit	4	0%	8	1,256	0%	7	77,935	0%	7	0.00	62	0
	Other*	36	1%	5	2,919	1%	6	263,356	0%	6	0.01	90	0
	Overload	7	0%	7	21	0%	8	11,521	0%	8	0.00	549	0
	Tree	1,075	44%	1	112,636	41%	2	88,768,605	38%	2	0.21	788	166
	Unknown	306	12%	3	22,141	8%	3	18,559,326	8%	3	0.04	838	35
	Weather	918	37%	2	117,183	43%	1	108,164,466	47%	1	0.22	923	202
	Sum	2,457	100%		274,978	100%		232,502,618	100%		0.51	846	435

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Cape May District
Customer Count: 109,535
Major Outage Cause Summary - 2011

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	184	9%	4	13,496	8%	4	1,003,960	2%	5	0.12	74	9
	Dig In	15	1%	9	690	0%	9	75,886	0%	9	0.01	110	1
	Equipment Failure	508	24%	2	37,929	23%	2	3,001,335	6%	4	0.35	79	27
	Equipment Hit	37	2%	8	12,499	7%	6	869,239	2%	6	0.11	70	8
	Other*	65	3%	7	11,480	7%	7	701,493	1%	8	0.10	61	6
	Overload	96	5%	6	7,632	5%	8	833,517	2%	7	0.07	109	8
	Tree	226	11%	3	12,991	8%	5	7,965,572	15%	3	0.12	613	73
	Unknown	143	7%	5	13,796	8%	3	10,288,051	20%	2	0.13	746	94
	Weather	806	39%	1	57,481	34%	1	27,561,902	53%	1	0.52	479	252
S	Sum	2,080	100%		167,994	100%		52,300,955	100%		1.53	311	477

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	183	11%	3	13,495	10%	3	1,002,476	8%	3	0.12	74	9
	Dig In	15	1%	9	690	1%	9	75,886	1%	9	0.01	110	1
	Equipment Failure	499	30%	2	37,884	29%	1	2,963,707	24%	2	0.35	78	27
	Equipment Hit	37	2%	8	12,499	9%	4	869,239	7%	4	0.11	70	8
	Other*	55	3%	7	11,376	9%	5	592,036	5%	6	0.10	52	5
	Overload	96	6%	5	7,632	6%	6	833,517	7%	5	0.07	109	8
	Tree	142	9%	4	6,647	5%	7	581,846	5%	7	0.06	88	5
	Unknown	81	5%	6	5,506	4%	8	516,586	4%	8	0.05	94	5
	Weather	551		1	36,088	27%	2	4,662,766	39%	1	0.33	129	43
C	Sum	1,659	100%		131,817	100%		12,098,058	100%		1.20	92	110

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J E V E N T S	Animal	1	0%	6	1	0%	6	1,484	0%	6	0.00	1,484	0
	Dig In	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Equipment Failure	9	2%	5	45	0%	5	37,628	0%	5	0.00	836	0
	Equipment Hit	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Other*	10	2%	4	104	0%	4	109,458	0%	4	0.00	1,052	1
	Overload	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Tree	84	20%	2	6,344	18%	3	7,383,726	18%	3	0.06	1,164	67
	Unknown	62	15%	3	8,290	23%	2	9,771,465	24%	2	0.08	1,179	89
	Weather	255	61%	1	21,393	59%	1	22,899,136	57%	1	0.20	1,070	209
Y	Sum	421	100%		36,177	100%		40,202,898	100%		0.33	1,111	367

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Glassboro District

Customer Count: 157,521

Major Outage Cause Summary - 2011

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
ALL EVENTS	Animal	816	14%	4	31,086	7%	5	7,024,857	7%	4	0.20	226	45
	Dig In	46	1%	9	899	0%	9	129,441	0%	9	0.01	144	1
	Equipment Failure	1,009	17%	3	72,746	16%	3	10,858,747	10%	3	0.46	149	69
	Equipment Hit	198	3%	6	44,759	10%	4	3,676,515	3%	6	0.28	82	23
	Other*	107	2%	7	28,156	6%	6	3,129,722	3%	7	0.18	111	20
	Overload	65	1%	8	5,935	1%	8	695,700	1%	8	0.04	117	4
	Tree	1,912	33%	1	134,467	30%	1	42,533,637	40%	1	0.85	316	270
	Unknown	493	8%	5	25,602	6%	7	4,147,684	4%	5	0.16	162	26
	Weather	1,184	20%	2	105,244	23%	2	33,456,243	32%	2	0.67	318	212
	Sum	5,830	100%		448,894	100%		105,652,544	100%		2.85	235	671

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJOR EVENTS	Animal	802	16%	4	25,984	7%	5	2,102,559	4%	7	0.16	81	13
	Dig In	46	1%	9	899	0%	9	129,441	0%	9	0.01	144	1
	Equipment Failure	967	19%	2	65,423	18%	3	6,656,505	14%	3	0.42	102	42
	Equipment Hit	198	4%	6	44,759	12%	4	3,676,515	8%	4	0.28	82	23
	Other*	101	2%	7	25,807	7%	6	3,086,204	6%	5	0.16	120	20
	Overload	65	1%	8	5,935	2%	8	695,700	1%	8	0.04	117	4
	Tree	1,556	31%	1	96,444	26%	1	15,614,506	33%	1	0.61	162	99
	Unknown	418	8%	5	23,033	6%	7	2,234,330	5%	6	0.15	97	14
	Weather	909	18%	3	76,820	21%	2	13,571,723	28%	2	0.49	177	86
	Sum	5,062	100%		365,104	100%		47,767,483	100%		2.32	131	303

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MINOR EVENTS	Animal	14	2%	5	5,102	6%	4	4,922,298	9%	3	0.03	965	31
	Dig In	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Equipment Failure	42	5%	4	7,323	9%	3	4,202,241	7%	4	0.05	574	27
	Equipment Hit	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Other*	6	1%	6	2,349	3%	6	43,518	0%	6	0.01	19	0
	Overload	-	0%	7	-	0%	7	-	0%	7	0.00	-	-
	Tree	356	46%	1	38,023	45%	1	26,919,131	47%	1	0.24	708	171
	Unknown	75	10%	3	2,569	3%	5	1,913,354	3%	5	0.02	745	12
	Weather	275	36%	2	28,424	34%	2	19,884,519	34%	2	0.18	700	126
	Sum	768	100%		83,790	100%		57,885,061	100%		0.53	691	367

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Pleasantville District

Customer Count: 172,083

Major Outage Cause Summary - 2011

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
ALL	Animal	412	12%	4	13,616	3%	8	6,921,093	6%	4	0.08	508	40
	Dig In	18	1%	9	140	0%	9	12,395	0%	9	0.00	89	0
	Equipment Failure	775	22%	3	96,645	24%	1	8,291,150	7%	3	0.56	86	48
	Equipment Hit	91	3%	8	20,978	5%	5	1,290,920	1%	8	0.12	62	8
	Other*	120	3%	6	51,046	13%	4	2,738,464	2%	6	0.30	54	16
EV	Overload	103	3%	7	14,376	4%	7	1,799,167	1%	7	0.08	125	10
EN	Tree	886	26%	1	93,251	23%	2	43,121,508	36%	2	0.54	462	251
NT	Unknown	260	7%	5	19,745	5%	6	3,877,367	3%	5	0.11	196	23
TS	Weather	802	23%	2	88,012	22%	3	52,991,092	44%	1	0.51	602	308
S	Sum	3,467	100%		397,809	100%		121,043,156	100%		2.31	304	703

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJ	Animal	403	15%	4	10,723	4%	8	696,368	3%	8	0.06	65	4
	Dig In	18	1%	9	140	0%	9	12,395	0%	9	0.00	89	0
	Equipment Failure	754	27%	1	95,530	32%	1	7,667,983	29%	1	0.56	80	45
	Equipment Hit	87	3%	8	19,722	7%	5	1,212,985	5%	6	0.11	62	7
	Other*	104	4%	6	50,606	17%	2	2,647,989	10%	4	0.29	52	15
EV	Overload	100	4%	7	14,373	5%	7	1,796,660	7%	5	0.08	125	10
	Tree	518	19%	3	46,764	16%	3	5,425,219	21%	3	0.27	116	32
EN	Unknown	195	7%	5	15,578	5%	6	966,308	4%	7	0.09	62	6
XX	Weather	594		2	45,553	15%	4	5,980,514	23%	2	0.26	131	35
C	Sum	2,773	100%		298,989	100%		26,406,422	100%		1.74	88	153

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
MAJ	Animal	9	1%	6	2,893	3%	4	6,224,725	7%	3	0.02	2,152	36
	Dig In	-	0%	9	-	0%	9	-	0%	9	0.00	-	-
EJ	Equipment Failure	21	3%	4	1,115	1%	6	623,167	1%	5	0.01	559	4
	Equipment Hit	4	1%	7	1,256	1%	5	77,935	0%	7	0.01	62	0
V	Other*	16	2%	5	440	0%	7	90,475	0%	6	0.00	206	1
	Overload	3	0%	8	3	0%	8	2,507	0%	8	0.00	836	0
O	Tree	368	53%	1	46,487	47%	1	37,696,288	40%	2	0.27	811	219
NT	Unknown	65	9%	3	4,167	4%	3	2,911,060	3%	4	0.02	699	17
L	Weather	208	30%	2	42,459	43%	2	47,010,578	50%	1	0.25	1,107	273
Y	Sum	694	100%		98,820	100%		94,636,734	100%		0.57	958	550

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

Winslow District

Customer Count: 95,196

Major Outage Cause Summary - 2011

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
A L L E V E N T S	Animal	388	13%	4	8,699	4%	7	633,858	1%	7	0.09	73	7
	Dig In	21	1%	9	623	0%	9	107,551	0%	9	0.01	173	1
	Equipment Failure	573	20%	2	33,710	17%	3	3,520,894	6%	4	0.35	104	37
	Equipment Hit	65	2%	8	20,386	10%	4	2,101,190	4%	5	0.21	103	22
	Other*	78	3%	6	9,678	5%	6	842,588	1%	6	0.10	87	9
	Overload	66	2%	7	1,074	1%	8	180,891	0%	8	0.01	168	2
	Tree	871	30%	1	75,323	37%	1	24,354,231	43%	1	0.79	323	256
	Unknown	307	11%	5	12,821	6%	5	4,753,148	8%	3	0.13	371	50
	Weather	554	19%	3	40,143	20%	2	20,720,023	36%	2	0.42	516	218
	Sum	2,923	100%		202,457	100%		57,214,374	100%		2.13	283	601

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J O R E V E N T S	Animal	382	16%	3	8,583	6%	6	618,335	4%	7	0.09	72	6
	Dig In	21	1%	9	623	0%	9	107,551	1%	9	0.01	173	1
	Equipment Failure	564	24%	2	31,483	22%	2	2,890,549	17%	2	0.33	92	30
	Equipment Hit	65	3%	7	20,386	14%	3	2,101,190	12%	4	0.21	103	22
	Other*	74	3%	6	9,652	7%	5	822,683	5%	5	0.10	85	9
	Overload	62	3%	8	1,056	1%	8	171,877	1%	8	0.01	163	2
	Tree	604	26%	1	53,541	37%	1	7,584,772	43%	1	0.56	142	80
	Unknown	203	9%	5	5,706	4%	7	789,701	5%	6	0.06	138	8
	Weather	374	16%	4	15,236	10%	4	2,349,791	13%	3	0.16	154	25
	Sum	2,349	100%		146,266	100%		17,436,449	100%		1.54	119	183

	Cause	Events	Pct	Rank	Cust Out	Pct	Rank	Minutes	Pct	Rank	SAIFI	CAIDI	SAIDI
M A J O R E V E N T S	Animal	6	1%	5	116	0%	5	15,523	0%	6	0.00	134	0
	Dig In	-	0%	8	-	0%	8	-	0%	8	0.00	-	-
	Equipment Failure	9	2%	4	2,227	4%	4	630,344	2%	4	0.02	283	7
	Equipment Hit	-	0%	8	-	0%	8	-	0%	8	0.00	-	-
	Other*	4	1%	6	26	0%	6	19,905	0%	5	0.00	766	0
	Overload	4	1%	6	18	0%	7	9,014	0%	7	0.00	501	0
	Tree	267	47%	1	21,782	39%	2	16,769,459	42%	2	0.23	770	176
	Unknown	104	18%	3	7,115	13%	3	3,963,447	10%	3	0.07	557	42
	Weather	180	31%	2	24,907	44%	1	18,370,232	46%	1	0.26	738	193
	Sum	574	100%		56,191	100%		39,777,925	100%		0.59	708	418

* Other Category Includes: Load Shed, Salt, Fire, Scheduled, Customer Equipment, Vandalism and Others; etc.

C1.Summary of Distribution Reliability Programs for ACE Including Inspection and Maintenance Programs

A detailed description of the reliability programs was filed originally with the BPU on January 31, 2001. In addition, ACE's Inspection and Maintenance Programs for the Transmission and Distribution Electric System document was submitted to BPU Staff on February 2, 2009, pursuant to N.J.A.C. 14:5-8.6, and is incorporated by reference. That filing replaced the Inspection and Maintenance document originally filed January 31, 2001 pursuant to N.J.A.C. 14:5-7.7, and subsequent changes submitted with the yearly reliability reports.

C2.Changes and Exceptions to the Current Program(s)

The following update relates to programs originally submitted under Section C1:

Inspection Programs – Updated 5/20/2020

<u>Equipment</u>	<u>Inspection</u>	<u>ACE (NJBP)</u>
Substation	General Inspection	Every 1-2 months
Substation Power Transformers	Predictive Maintenance Routine	Annually
	Oil Collection and Analysis of Transformer Main Tank and Load Tap Changer (LTC)	Annually or more frequently if triggered by Transformer Oil Analyst (TOA) Program Rating
	External(Routine) Inspection and Test	Every 4-8 Years or more frequent as recommended by Equipment Condition Assessment (ECA) Process
	LTC External Inspection and Test	Every 4-8 Years or more frequent as recommended by ECA Process
	LTC Filter Inspection/Change	N/A
	Routine Cooler Inspection	N/A
Substation Power Transformers	Mulsifyre System (Fire Protection)	N/A
Substation Capacitor Banks - Metal Enclosed	Routine Inspection	N/A
Substation Capacitor Banks - Open Rack	Routine Inspection	Quarterly visual inspection Semi-annual seasonal inspection
Substation Capacitor Banks - Open Rack with Circuit Switcher	Routine Inspection	Quarterly visual inspection Semi-annual seasonal inspection
Substation Circuit Breakers – Air Magnetic	Predictive Maintenance (PDM) Tasks (Infrared)	Annually
	Routine Test	6 years
Substation Circuit Breakers – Oil	Oil Collection and Analysis Of OCB	1 to 3 years
	PDM Tasks (Infrared)	Annually
	Internal Inspection and test (<34kV)	3 years or as recommended by Equipment Condition Assessment (ECA) Process
	Internal Inspection and Test (34kv and above)	4 years or as recommended based on the ECA Process.
	Diagnostic (Routine)Testing	3 to 4 years

	Compressor Inspection/Pre-Charge Inspection (as applicable)	N/A
Substation Circuit Breakers – SF6	Predictive Maintenance (PDM) Tasks (Infrared)	Annually
	Routine Inspection – Intrusive	N/A
	Diagnostic Testing	8 years
Substation Circuit Breakers – Vacuum	PDM Tasks (Infrared)	Annually
	Routine Inspection	6 years
Substation – 69 to 230kV High-Pressure Pipe-Type Potheads	Periodic Inspection with DGA	N/A
		N/A
		N/A
Substation – Battery & Charger Systems	Visual & On-line Test/Inspection	Annual or based on condition assessment
Substation Regulators	Routine Inspection/Test	N/A
Substation – Building Heating, Ventilation and Air Conditioning (HVAC) System	Annual Inspection	N/A
Substation – Emergency Generators	Start and Run Test	Generator test run up to 2 times per year including routine inspections. Standby generator inspection 12 months and black start every 12 months
Substation – Fire Protection Pump	Routine Inspection	N/A
Right-of-Way Integrated VM (Transmission)	Routine Inspection	Annually
Scheduled Tree Trimming - Overhead Distribution Feeders	Routine and Condition Based Tree Trimming	4 years
Protective Relays and Automatic Reclosing Relays	Preventive Maintenance	4 to 8 years, based on system voltage class
Under-Frequency Relays	Preventive Maintenance	4 years (Electromechanical Relays) 8 years (Microprocessor Relays)
RTUs - SCADA	Predictive Maintenance	Failure to operate properly based on condition monitoring – self diagnostics, EMS trouble logs, real time data analysis, and remote communications
SCADA (Supervisory Control and Data Acquisition) Metering	Preventive Maintenance	In response to referrals
Digital Fault Recorder	Preventive Maintenance	Failure to operate properly based on condition monitoring – self diagnostics, fault records, real time data analysis and remote communications
Power Line Carrier (PLC)	Preventive Maintenance	Every 12 to 18 months
Microwave Equipment	Preventive Maintenance	Annually
Fiber Optic Equipment	Preventive Maintenance	Based on condition
Leased Line	Preventive Maintenance	N/A

Pole-Type Recloser	Routine Inspection	1-2 years visual 3 to 6 years operational check
Pole-Type Regulators	Routine Inspection/Test	Every 24 months
Critical (Hospital/Nursing Home) Network Transformers/Protectors	Routine Inspection	Every 3 years
Distribution and Subway Network Transformers/Protectors	Routine Inspection	
Underground Network Transformers/Protectors	Routine Long Inspection	
Underground Network Transformers/Protectors	Routine Short Inspection	N/A
Underground Distribution Radial Transformers	Routine Inspection	N/A
Capacitor Banks – Pole Mounted	Routine Inspection	Annually for coastal locations 2 years for all inland locations
Distribution Padmounted Transformers / Switchgear	Routine Inspection	5 years
Distribution Streetlights	Predictive Maintenance (PDM) Inspections	Condition based
Pipe-Type Cable Joint Sleeves in Manholes	Periodic Inspection	N/A
Wood Poles	Wood Pole Inspection, Remedial Treatment and Restoration	10 years
Power Line Over Navigable Waterway – Overhead Clearance	Routine Inspection	N/A
Overhead Distribution Inspection – First Protective Device (OHMI)	Periodic Inspection	2 years
Overhead Distribution Comprehensive Inspection w/poles	Periodic Inspection	10 years or condition based
Underground Distribution Manhole and Cable Comprehensive Inspection	Routine Inspection	12 years
High Voltage Transmission Structure Aviation Warning Lighting	Periodic Inspection	Per FAA requirement
High Voltage Transmission Structure Grounding (230kv & above)	Periodic Inspection	10 years
Microwave Tower and Aviation Warning Lighting	Periodic Inspection	Per FAA requirements, tower inspections 3 years
High Voltage Transmission Line Comprehensive Inspection	Aerial Inspection	5 years
Cathodic Protection	Substation Inspection and Manhole Survey	N/A
Cable Oil and Gas Alarms	Annual Inspection	N/A
Fluid Pressurizing Plants for High-Pressure Pipe-Type Cables	Operational Test and Inspection	N/A

C3.Reliability Initiatives for ACE

A. Reliability Improvement Plan (“RIP”)

The Company continued the RIP by advancing work on existing programs as well as initiating new activities. The RIP programs are intended to reduce the likelihood of system faults and minimize their impact by reducing both the frequency and duration of customer outages. Improving the reliability of ACE’s electric system is critically important. The Company continues in its efforts to improve its performance and works closely with customers to address their concerns.

The “Appendix 2. Reliability Improvement Plan Progress Report” supplementing this report provides an overview of that plan and an update of the progress ACE has made since implementing the RIP in 2011.

B. Overhead Feeder Inspection Program

Beginning in 2011 and continuing into 2020, ACE performs overhead distribution system inspections. The program is focused primarily upon:

- Reliability Performance
- Public Safety
- National Electric Safety Code (NESC) Compliance

Expected Benefits:

- Improved System Reliability
- Improved Public Safety / NESC Compliance
- Improved Management of Aging Assets
- Reduced Customer Outages
- Increased Customer Satisfaction

C. Oil Circuit Breaker Replacement Program

The Company continues with its replacement program for substation Oil Circuit Breakers (“OCBs”). Poor performing distribution OCBs are replaced with more reliable vacuum breakers that employ newer technology and require less maintenance.

D. Multiple Operations of Major Protective Devices (“MDOs”) and Customers Experiencing Multiple Interruptions (“CEMI”)

An important strategy for improving customer reliability performance is minimizing the number of interruptions to major protective devices, such as feeder breakers, line reclosers, and fuses. Mitigating the root causes that operate major protective devices can prevent outage events that affect hundreds and even thousands of customers.

In addition to managing the MDO program, high outage counts for individual customers are also performed in order to identify and remediate local reliability issues affecting smaller groups of customers.

CEMI data is analyzed to identify high customer outage rates and recurring outage causes. The CEMI indices are calculated pursuant to IEEE Standard 1366 (2012).

E. Load Studies and Proactive Actions

The Company performs load studies to ensure circuits can perform satisfactorily under peak loading conditions. In addition, studies are performed to analyze outage contingencies and to ensure sufficient load transferring capacity is available for circuits. In response to these studies, system improvement initiatives are developed and implemented.

F. Outage Follow-Up Investigations

The Company performs formal outage investigations on major device lockouts affecting more than 2,000 customers or when there are concerns regarding protective device coordination, operational errors, etc. The outage investigation includes identification of the root outage cause, generally a system fault related to equipment failure, tree or animal contacts, vehicle accident, etc. It also includes a determination if protective devices operated as expected. The investigation includes looking into the effectiveness and efficiency of the restoration activities. For example, if switching before repairing was performed where applicable in order to more quickly restore customers. Finally, recommendations for remedial actions are made to help prevent reoccurrences (fault prevention) and/or to improve restoration practices.

G. Daily/Weekly Outage Calls

The Company performs a daily operational call that includes a discussion of the previous day's major outage events, identification of transmission line outages that may affect customer reliability, and identification of contingency switching orders to help mitigate the risk of such line outages. The daily call also includes a discussion of distribution system lines and devices that may need to be placed in abnormal conditions or circuit configuration to performance maintenance or improvement works, along with switching contingencies to mitigate reliability risk.

ACE also performs twice weekly outage calls that focus specifically on customer outage events that occurred during the previous week. While all outages events are reviewed, there is added emphasis on outage events that meet certain criteria, such as the number of customers affected, event duration, outage cause, repeat operations of protective devices over some specified time period, etc. The general objective of the call is to ensure all outage events are properly documented and that corrective actions are taken where necessary and practicable.

H. Other Initiatives

The Company also has the following programs/projects that are performed periodically in support of maintaining a reliable system.

- Infrared thermo-graphic scans of overhead circuit equipment;
- Radio frequency emission monitoring;
- Wood pole inspections and treatment;
- Visual inspections and remediation of overhead circuits and equipment;
- Visual inspections and remediation of pad-mounted equipment; and
- Transformer dissolved gas analysis online monitoring.

C4.Methodology for Identifying Poor Performing Circuits

A. Number of Feeders Required to be Identified

According to N.J.A.C. 14:5-8.8(g), the greater of eight percent or a quantity of five of its worst-performing circuits identified in each of its operating areas need to be identified. As a result, the numbers of feeders to be identified in the Company's service territory are as follows:

District	Number of Feeders	Percent Required	No. of Feeders by Percentage	Number of Feeders Selected (5 minimum)
Cape May	56	8%	4	5
Glassboro	113	8%	9	9
Pleasantville	86	8%	7	7
Winslow	53	8%	4	5
Total	308	---	---	26

B. Tools and Data Used System Performance Contribution

- 1) Beginning 2013, the Company began using the System Performance Contribution (SPC), a method that provides greater system performance improvement potential. The SPC value for each feeder is calculated using the following equation:

$$\text{SPC} = 75\% \times (\text{Feeder CI} / \text{System CI}) + 25\% \times (\text{Feeder CMI} / \text{System CMI})$$

Feeder CI = Customer Interruptions of the feeder

System CI = Customer Interruptions of the total system

Feeder CMI = Customer Minutes of Interruption of the feeder

System CMI = Customer Minutes of Interruption of the total system

C. Process and Methodology

- 1) Storm exclusive data was used (based on IEEE Standard 1366-2003).
- 2) Please refer to Section (B) - (1) above for Methodology used.
- 3) The top eight percent or five feeders (whichever is greater) in each district with highest SPC value are identified.
- 4) Feeders with a minimum SAIFI value of 2.50.
- 5) Feeders experienced at least 10 outage occurrences in the evaluation period.
- 6) Additional analysis at the feeder level is conducted to ensure the proper feeders are selected and corrective actions are reasonable (e.g., excluding feeders with abnormal configuration at the time of the outage occurrence, etc.).

D. Corrective Actions

- 1) Detailed outage records for feeders identified in the past year are assembled and evaluated.
- 2) Actions, recommendations and/or comments are made in accordance with problems found. Please refer to section G for detailed action(s) taken and/or planned on the worst performing feeder identified.

C5.Summary of the Company's Power Quality Program

The Company's Power Quality Program was filed with the Board, pursuant to N.J.A.C. 14:5-8.4, on January 31, 2001. Additional copies are available from the Company upon request. The 41-page program is highlighted by the following:

In New Jersey, the Company has a requirement to maintain its steady state voltage at plus or minus 5% of the nominal voltage. The Company follows voltage standards as stipulated in the NEMA C84.1-2011 Electric Power Systems and Equipment standard. The Company designs to minimum voltages specified in the Power Quality Program ("Program").

The Company has determined that it shall design and operate the system to limit the maximum steady state voltage imbalance to 3% at the delivery point under no load conditions. The Company will review load balancing and if loads are unbalanced, the Company will require correction by customers.

The Company has determined that it should respond promptly to all customer concerns about transients and voltage variation on its system. The Company works with the customer using discussion, outage records, direct observation and instrumentation to identify any distribution problems and possible solutions to voltage issues.

ACE has also determined definitions and reasonable levels of flickers. The Company is using IEEE Standard 519-1992 "Recommended Practices and Requirements for Harmonic Control for Electric Power Systems" as a guide for controlling harmonics and as a reference for solving harmonics-related problems. If certain recommended limits or harmonic problems arise, the Company performs measures to identify and correct such occurrences. Follow-up actions can include harmonic measurements to determine sources of harmonic current injections, modifying the source impedance and isolating the harmonic load.

The Company has determined that it shall design and operate the

system to limit the maximum steady state voltage imbalance to 3% at the delivery point under no-load conditions. The Company will review load balancing and if loads are unbalanced, the Company will require correction by customers.

The Company has power quality complaint procedures, which also cover stray voltage complaints that establish a process which identifies problems, if any, sets up an investigation process and sets up a resolution process. The process includes an investigation procedure and recommended procedures. A process for problem resolution is included.

Additional details for the Program appear in the complete version of the Program, which is on file with the Board.

C6.Stray Voltage

Stray voltage inquiries are covered under the Company's Power Quality Program. See Section C5.

C7.Technology Initiative to Improve Reliability

Advanced Functionality Inverters

For large size solar, 250 kW to 3,000 kW, ACE requires Inverter-connected DERs to have Category B capability and initially set to unity fixed power factor. Depending on PCC, DERs >250 kVA will be reviewed to determine final control mode and settings.

For even larger size systems (over 3,000 kW), there are additional requirements, including requiring an express feeder, that contribute further to reducing voltage fluctuation, ensuring proper steady state voltages and supporting system stability.

Photovoltaic Monitoring

ACE continues to collect data samples at solar sites to better understand the impact of solar on the grid and also to understand how operations of automatic line equipment and substation voltage regulation equipment can affect the operation of solar systems. The data will also help the Company find ways to better accommodate the needs of solar generators while maintaining acceptable levels of power quality for all customers.

Solar Generator Telemetry – ACE continues to explore methods to lower costs and to achieve secure communications for solar generators, which includes remote trip capability for the larger sites. The ability to get real time data benefits Operations and Planning and will support both present and future needs. For example, distribution automation schemes will benefit from real time solar generator output data as an input to the D/A master controller to help ensure post-fault system reconfiguration is optimized.

C8.Staffing and Training

The following lists the number of personnel in each operating District and provides information on ACE's training program.

2020 ACE Staffing					
EmployeeTypeDescr	Location	ACE Construction	ACE Engineering	ACE Maintenance	Grand Total
Union	Atlantic Regional Office	0	0	72	72
	Bridgeton Operations	31	0	0	31
	Cape May Court House Operation	30	5	0	35
	Glassboro Operations	30	8	0	38
	Pleasantville Operations	54	5	0	59
	West Creek Operations	22	4	0	26
	Winslow Operations	27	5	0	32
Union Total		194	27	72	293
Management	Atlantic Regional Office	17	5	15	37
	Bridgeton Operations	3	0	0	3
	Cape May Court House Operation	7	1	0	8
	Glassboro Operations	13	4	0	17
	Pleasantville Operations	12	4	0	16
	West Creek Operations	6	1	0	7
	Winslow Operations	10	1	0	11
Management Total		68	16	15	99
Grand Total		262	43	87	392
<u>2020 Participants - Apprentice Training Program</u>					
Overhead	26	3-4 Year Training Program - 160 hours of formal training per year			
Underground	8	3-4 Year Training Program - 160 hours of formal training per year			
Substation Technician	4	3-4 Year Training Program - 160 hours of formal training per year			
Comm Tech Apprentice	6	3-4 Year Training Program - 160 hours of formal training per year			
		44			

C9.Vegetation Management Work and Planned Activities

The following identifies distribution circuits on which vegetation management work was performed during 2020.

2020 ACE Vegetation Management Work Completed

Substation	Circuit	District	Work Completed
SEA ISLE	NJ0024	CAPE	11/19/2020
SEA ISLE	NJ0025	CAPE	11/19/2020
CORSON	NJ0851	CAPE	12/31/2020
CORSON	NJ0852	CAPE	12/31/2020
CORSON	NJ0853	CAPE	12/31/2020
CORSON	NJ0854	CAPE	12/31/2020
CORSON	NJ0855	CAPE	12/20/2020
WOODSTOWN	NJ0203	GLASSBORO	10/21/2020
WOODSTOWN	NJ0205	GLASSBORO	5/6/2020
WOODSTOWN	NJ0206	GLASSBORO	9/29/2020
GLASSBORO	NJ0741	GLASSBORO	12/16/2020
GLASSBORO	NJ0744	GLASSBORO	12/31/2020
GLASSBORO	NJ0745	GLASSBORO	11/16/2020
GLASSBORO	NJ0746	GLASSBORO	11/4/2020
GLASSBORO	NJ0747	GLASSBORO	12/31/2020
GLASSBORO	NJ0748	GLASSBORO	12/31/2020
ROADSTOWN	NJ0831	GLASSBORO	12/31/2020
ROADSTOWN	NJ0832	GLASSBORO	9/28/2020
MICKELTON	NJ1161	GLASSBORO	12/31/2020
MICKELTON	NJ1162	GLASSBORO	12/31/2020
MICKELTON	NJ1163	GLASSBORO	12/31/2020
MICKELTON	NJ1164	GLASSBORO	12/31/2020
LAMB	NJ1213	GLASSBORO	11/10/2020
LAMB	NJ1215	GLASSBORO	11/10/2020
LAMB	NJ1216	GLASSBORO	7/29/2020
BECKETT	NJ1781	GLASSBORO	4/28/2020
BECKETT	NJ1782	GLASSBORO	5/8/2020
BECKETT	NJ1783	GLASSBORO	4/22/2020
BECKETT	NJ1784	GLASSBORO	4/22/2020
BECKETT	NJ1785	GLASSBORO	4/16/2020
BECKETT	NJ1786	GLASSBORO	4/16/2020
BECKETT	NJ1787	GLASSBORO	4/16/2020

2020 ACE Vegetation Management Work Completed
Continued

Substation	Circuit	District	Work Completed
EGG HARBOR	NJ0146	PLEASANTVILLE	12/31/2020
MOTTS FARM	NJ0152	PLEASANTVILLE	5/22/2020
MOTTS FARM	NJ0153	PLEASANTVILLE	12/2/2020
MOTTS FARM	NJ0154	PLEASANTVILLE	7/16/2020
DOROTHY	NJ1191	PLEASANTVILLE	10/26/2020
DOROTHY	NJ1192	PLEASANTVILLE	12/31/2020
SCULL	NJ1631	PLEASANTVILLE	4/9/2020
SCULL	NJ1632	PLEASANTVILLE	8/3/2020
SCULL	NJ1633	PLEASANTVILLE	8/3/2020
SCULL	NJ1634	PLEASANTVILLE	4/21/2020
HARBOR BEACH	NJ2031	PLEASANTVILLE	11/18/2020
HARBOR	NJ2032	PLEASANTVILLE	11/18/2020
DACOSTA	NJ0061	WINSLOW	7/28/2020
DACOSTA	NJ0063	WINSLOW	12/31/2020
MINOTOLA	NJ0811	WINSLOW	12/31/2020
TABERNACLE	NJ1602	WINSLOW	12/31/2020
TABERNACLE	NJ1603	WINSLOW	10/26/2020
TABERNACLE	NJ1604	WINSLOW	9/16/2020
TABERNACLE	NJ1606	WINSLOW	12/31/2020
TABERNACLE	NJ1607	WINSLOW	12/31/2020

The 2021 ACE Vegetation Management Plan (distribution system) is shown below and is subject to change based on priorities as dictated by the RIP.

2021 ACE Vegetation Management Schedule

Substation	Circuit	District
Cape May	NJ0262	CAPE
Cape May	NJ0263	CAPE
Cape May	NJ0264	CAPE
Court	NJ0381	CAPE
Court	NJ0382	CAPE
Court	NJ0383	CAPE
Court	NJ0384	CAPE
Ocean City	NJ0478	CAPE
Ocean City	NJ0479	CAPE
Beesley's Point	NJ0611	CAPE
Peermont	NJ2603	CAPE
Peermont	NJ2604	CAPE
Peermont	NJ2605	CAPE
Peermont	NJ2606	CAPE
Peermont	NJ2607	CAPE
Peermont	NJ2608	CAPE
England	213	CAPE
England	214	CAPE
Second Street	NJ0211	GLASSBORO
Second Street	NJ0213	GLASSBORO
Second Street	NJ0214	GLASSBORO
Second Street	NJ0215	GLASSBORO
Second Street	NJ0216	GLASSBORO
Second Street	NJ0217	GLASSBORO
Fairton	NJ0671	GLASSBORO
Fairton	NJ0672	GLASSBORO
Fairton	NJ0673	GLASSBORO
Fairton	NJ0674	GLASSBORO
Fairton	NJ0675	GLASSBORO
Fairton	NJ0676	GLASSBORO
Landis	NJ1101	GLASSBORO
Landis	NJ1102	GLASSBORO
Landis	NJ1103	GLASSBORO

**2021 ACE Vegetation Management Schedule
Continued**

Substation	Circuit	District
Carlls Corner	NJ1461	GLASSBORO
Carlls Corner	NJ1462	GLASSBORO
Carlls Corner	NJ1463	GLASSBORO
Carlls Corner	NJ1464	GLASSBORO
Carlls Corner	NJ1465	GLASSBORO
Carlls Corner	NJ1466	GLASSBORO
Upper Pittsgrove	NJ2351	GLASSBORO
Upper Pittsgrove	NJ2352	GLASSBORO
Upper Pittsgrove	NJ2353	GLASSBORO
Paulsboro	303	GLASSBORO
Glassboro	304	GLASSBORO
Glassboro	305	GLASSBORO
River	310	GLASSBORO
Paulsboro	312	GLASSBORO
Motts Farm	NJ0151	PLEASANTVILLE
Ship Bottom	NJ0551	PLEASANTVILLE
Ship Bottom	NJ0554	PLEASANTVILLE
Ship Bottom	NJ0555	PLEASANTVILLE
Ship Bottom	NJ0559	PLEASANTVILLE
Chestnut Neck	NJ0861	PLEASANTVILLE
Lenox	NJ0931	PLEASANTVILLE
Lenox	NJ0932	PLEASANTVILLE
Lenox	NJ0933	PLEASANTVILLE
Lenox	NJ0934	PLEASANTVILLE
Searstown	NJ0982	PLEASANTVILLE
Searstown	NJ0983	PLEASANTVILLE
Searstown	NJ0984	PLEASANTVILLE
Searstown	NJ0985	PLEASANTVILLE
Searstown	NJ0986	PLEASANTVILLE
Searstown	NJ0987	PLEASANTVILLE
Searstown	NJ0988	PLEASANTVILLE
Dorothy	NJ1193	PLEASANTVILLE
Dorothy	NJ1194	PLEASANTVILLE
Ontario	NJ9201	PLEASANTVILLE
Ontario	NJ9205	PLEASANTVILLE

Substation	Circuit	District
Huron	NJ9217	PLEASANTVILLE
Ontario	NJ9230	PLEASANTVILLE
Ontario	NJ9236	PLEASANTVILLE
Higbee	NJ9254	PLEASANTVILLE
Missouri	NJ9258	PLEASANTVILLE
Stratford	NJ0306	WINSLOW
Stratford	NJ0307	WINSLOW
Stratford	NJ0308	WINSLOW
Lindenwold	NJ0634	WINSLOW
Minotola	NJ0815	WINSLOW
Minotola	NJ0816	WINSLOW
Silver Lake	NJ1071	WINSLOW
Silver Lake	NJ1072	WINSLOW
Silver Lake	NJ1073	WINSLOW
Silver Lake	NJ1074	WINSLOW
Silver Lake	NJ1075	WINSLOW
Silver Lake	NJ1076	WINSLOW
Silver Lake	NJ1077	WINSLOW
Berlin	NJ1092	WINSLOW
Berlin	NJ1093	WINSLOW
Berlin	NJ1094	WINSLOW
Pine Hill	NJ1142	WINSLOW
Pine Hill	NJ1143	WINSLOW
Pine Hill	NJ1144	WINSLOW
Pine Hill	NJ1145	WINSLOW
Pine Hill	NJ1146	WINSLOW
Pine Hill	NJ1147	WINSLOW
Sickler	NJ1731	WINSLOW
Sickler	NJ1732	WINSLOW
Sickler	NJ1733	WINSLOW
Sickler	NJ1734	WINSLOW
Sickler	NJ1735	WINSLOW

The following table identifies transmission system vegetation management work planned for 2021 through 2024.

Atlantic City Electric Company
Transmission System Vegetation Management
Planned Work Areas by NJ Municipality

2021	2022	2023	2024
Pennsville	Greenwich	Winslow	Millville
Upper Pittsgrove	East Greenwich	Egg Harbor	Upper
Carney's Point	Monroe	Stafford	Maurice River
Pittsgrove	Winslow	Atlantic City	Monroe
Vineland	Logan	Galloway	Vineland
Millville	Oldmans	Monroe	Dennis
Monroe	Carney's Point	Pleasantville	Egg Harbor
Greenwich	West Deptford	Little Egg Harbor	Middle
Quinton	West Deptford	Mullica	Lower
Fairfield	Berlinboro	Barnegat	Vineland
Bridgeton	Waterford	Egg Harbor City	Ocean City
Downe	Pennsville	Port Republic	Dennis
Upper Deerfield	Woodstown	Hammonton	Egg Harbor
Pilesgrove	Elk	Galloway	Franklin
Salem	Clayton	Barnegat	Middle
Woolwich	Pine Hill	Ventnor	Hamilton
Alloway	Oldman's	Egg Harbor	Sea Isle City
Pittsgrove	Clementon	Absecon	Stone Harbor
Pennsville	Mantua	Pleasantville	Lower
Vineland	Glassboro	Winslow	West Cape May
Franklin	Washington	Atlantic City	Estelle Manor
Carney's Point	Paulsboro	Linwood	Avalon
Millville	Tabernacle	Ship Bottom	City of Wildwood
Maurice River	Logan	Eagleswood	Maurice River
East Greenwich	Paulsboro	Egg Harbor City	Woodbine
Bridgeton	East Greenwich	Stafford	Buena Boro
Upper Deerfield	Monroe	Hamilton	Wildwood City
Newfield	Oldmans	Port Republic	Cape May
Mannington	Carney's Point	Ocean	Corbin City
Pilesgrove	Mannington	Margate	Boro of West Wildwood
Lawrence	Greenwich	Little Egg Harbor	Estell Manor
Farfield	Evesham	Bass River	Pittsgrove
Commercial	Winslow	Lacey	Buena Vista
South Harrison	Upper Pittsgrove	Tuckerton	Weymouth
Stowe Creek	Franklin		Upper
Upper Pittsgrove	Oldman's		City of North Wildwood
Buena Boro	Gloucester		Upper Pittsgrove
Hopewell	Clayton		Buena Vista Twp
Monroe	Washington		Buena Boro
Woodstown	Shamong		
Buena Vista Twp.	Pitman		
Quinton	Stratford		
Hamilton	Lindenwold		
Weymouth	Harrison		
Estelle Manor	Pennsville		
Egg Harbor	Clementon		
Deerfield	Elk		
Stow Creek	Laurel Springs		
	Pennsgrove		
	Woolwich		
	Glassboro		
	Medford		

The following tables identify transmission system vegetation management work planned for specific municipalities for 2021 through 2024.

Atlantic City Electric Company
Transmission System Vegetation Management
2021 Cycle

Circuit	Substations	NJ Municipalities
2309	Churchtown-Orchard	Pennsville, Carney's Point, Pilesgrove, Mannington, Woodstown, Upper Pittsgrove
2314	Orchard-Cumberland	Pennsville, Alloway, Mannington, Upper Pittsgrove, Pittsgrove, Vineland, Millville, Maurice River
2321	Orchard - Cardiff	Upper Pittsgrove, Pittsgrove, Vineland, Buena Boro, Buena Vista Twp., Hamilton, Estelle Manor, Weymouth, Egg Harbor
1405	Churchtown-Upper Pittsgrove	Carney's Point, Pennsville, Mannington, Pilesgrove, Woodstown, Upper Pittsgrove
1406	Upper Pittsgrove-Landis	Pittsgrove, Vineland
1410	Landis-Franklin	Vineland, Franklin
1414	Sherman Ave-Lincoln	Vineland
1415	Sherman Ave-Cumberland	Vineland, Millville
1416	Cumberland-Union	Millville, Maurice River
1419	Union-Lincoln	Vineland, Millville
1420	Monroe-Franklin	Monroe, Franklin
603	South Millville-Lincoln	Vineland, Millville
605	Paulsboro-High Street	Greenwich, East Greenwich, Woolwich
606	Quinton-Roadstown	Quinton, Alloway, Stow Creek
708	Laurel-Fairton	Fairfield, Bridgeton, Upper Deerfield
709	Carlls Corner-Laurel	Bridgeton, Upper Deerfield
711	Monroe-Central	Vineland, Newfield, Franklin, Monroe
723	Churchtown-Quinton	Carney's Point, Pennsville, Mannington, Alloway, Quinton, Stowe Creek, Hopewell, Upper Deerfield, Bridgeton
724	Churchtown-Salem	Carney's Point, Pennsville, Mannington, Salem, Alloway, Pittsgrove, Woodstown
725	Deepwater-Woodstown #1	Carney's Point, Pennsville, Woodstown, Mannington
726	Deepwater-Woodstown #2	Carney's Point, Pennsville, Woodstown, Mannington
727	Fairton-Newport	Downe, Lawrence, Fairfield
733	Second St-South Millville	Millville, Vineland
739	Carlls Corner-Sherman Ave	Upper Deerfield, Fairfield, Deerfield, Millville, Vineland
740	Woodstown-Laurel	Pilesgrove, Alloway, Hopewell, Upper Deerfield, Bridgeton
745	Salem-Woodstown	Salem, Mannington, Alloway, Pilesgrove, Woodstown
757	#1 Sherman Ave-Second St	Vineland, Millville
758	#2 Sherman Ave-Second St	Vineland, Millville
759	#1 Second St-Wheaton	Millville
760	#2 Second St-Wheaton	Millville
762	Newport-South Millville	Downe, Commercial, Millville
764	Butler-Lincoln	Vineland
765	High Street-Woodstown	Woolwich, South Harrison, Pilesgrove
799	Laurel-Roadstown	Quinton, Stowe Creek, Alloway, Hopewell, Upper Deerfield, Bridgeton

Atlantic City Electric Company
Transmission System Vegetation Management
2022 Cycle

Circuit	Substations	NJ Municipalities
2301	Mickleton-Trainer	Greenwich, Logan
2303	Deptford-Mickleton	East Greenwich, Paulsboro
2304	#2 Mickleton-Monroe	Monroe, East Greenwich, Clayton, Elk, Harrison
2305	New Freedom-Monroe	Winslow, Monroe
2308	New Freedom-Sickler	Winslow, Monroe
2311	Pedricktown-Bridgeport	Logan, Oldmans, Carney's Point, Mannington, Pennsville
2312	Pedricktown-Chambers	Oldmans, Carney's Point
2313	Chambers-Churchtown	Carney's Point, Mannington, Pennsville
2315	Mickleton-Bridgeport	East Greenwich, Greenwich, Logan
2316	#1 Mickleton-Monroe	Monroe, East Greenwich, Clayton, Elk, Harrison
2319	Mickleton-Crown Point	West Deptford, East Greenwich
2320	Mickleton-Thorofare-Deptford	West Deptford, East Greenwich
704	Pennsgrove-Oldmans	Oldmans
705	Monsanto-Oldmans	Logan, Oldmans
706	Silver Lake-Atco	Berlinboro, Evesham
707	Atco-Tansboro	Waterford, Winslow
710	Churchtown-Carney's Point	Pennsville, Carney's Point, Pennsgrove
714	Woodstown-Clayton	Woodstown, Upper Pittsgrove, Elk, Clayton
715	Clayton-Ekco	Elk
716	Clayton-Monroe	Clayton, Franklin, Monroe
722	Churchtown – Paulsboro	Carney's Point, Oldman's, Woolwich, Logan, East Greenwich, Paulsboro
728	Sickler-Pine Hill-Lindenwold	Pine Hill, Gloucester, Stratford, Laurel Springs, Clementon, Stratford, Lindenwold
729	Rowan-Glassboro-Monroe	Elk, Clayton, Glassboro
730	Oldmans-BF Goodrich	Oldman's
732	Monroe-Sickler	Winslow, Monroe
738	Mickleton-Valero	Greenwich, East Greenwich
744	Lindenwold-Silver Lake	Clementon
746	Mickleton-Paulsboro-Valero	Greenwich, East Greenwich
747	Mickleton-River	Greenwich, East Greenwich
748	Mickleton-Mantua	Mantua, East Greenwich
752	Pine Hill-Monroe	Pine Hill, Gloucester, Winslow
753	Pitman-Washington	Glassboro, Washington, Monroe
754	Monroe-Tansboro	Winslow, Monroe
756	Pitman-Pine Hill	Washington
763	Monsanto-River	Greenwich, Logan
769	Tansboro-John Mansville	Winslow
774	Paulsboro-Valero	Paulsboro, Greenwich
776	Sickler-Tansboro	Winslow
783	Atco-Tabernacle	Tabernacle, Shamong, Medford, Evesham
784	Tabernacle-Medford	Tabernacle
785	Mantua-Lamb	Mantua, Pitman
786	Monroe-Washington	Monroe, Washington
787	Pitman-Lamb	Washington, Pitman
788	Deepwater-Churchtown	Pennsville
793	Pitman-Rowan	Glassboro

Atlantic City Electric Company
Transmission System Vegetation Management
2023 Cycle

Circuit	Substations	NJ Municipalities
2310	New Freedom-Cardiff	Winslow, Hammonton, Hamilton, Egg Harbor
2317	Cardiff-Cedar	Egg Harbor, Galloway, Port Republic, Bass River, Little Egg Harbor, Eagleswood, Staff
2318	Cedar-Oyster Creek	Stafford, Barnegat, Ocean, Lacey
1418	Cardiff-Lewis	Egg Harbor
601	Higbee-Marven	Atlantic City, Ventnor, Margate
602	Ontario-Searstown	Atlantic City, Egg Harbor, Pleasantville
701	Lewis-Moss Mill	Egg Harbor, Galloway, Absecon
702	Lewis-Absecon	Egg Harbor, Absecon, Galloway, Port Republic,
703	Lewis-Huron	Egg Harbor, Pleasantville, Atlantic City
719	#1 Lewis-FAATC	Egg Harbor
721	Lenox-Lewis	Galloway, Egg Harbor
731	Monroe-DaCosta	Monroe, Winslow, Hammonton
734	Ontario-Huron	Atlantic City
741	Lewis-Higbee #1	Pleasantville, Atlantic City, Egg Harbor
742	Lewis-Ontario #2	Pleasantville, Atlantic City, Egg Harbor
743	Lewis-Pleasantville #1	Egg Harbor, Pleasantville
749	Mill-Marven	Egg Harbor, Linwood, Pleasantville, Atlantic City, Ventnor, Margate
751	Lewis-Higbee #2	Egg Harbor, Pleasantville, Atlantic City
755	Monroe-Williamstown	Monroe, Winslow
766	Cedar-Ship Bottom #1	Stafford, Ship Bottom
767	Cedar-Ship Bottom #2	Stafford, Ship Bottom
770	#1 Cedar-Motts Farm	Little Egg Harbor, Eagleswood, Stafford
771	Lewis-Pleasantville #2	Egg Harbor, Pleasantville
772	Ontario-Higbee	Atlantic City
773	Missouri-Higbee	Atlantic City
775	Mill-Searstown	Egg Harbor
777	Cedar-Barnegat #1	Stafford, Barnegat
779	DaCosta-Lenox	Mullica, Egg Harbor City, Galloway
781	Cardiff-Lewis	Egg Harbor
791	#2 Cedar-Barnegat	Barnegat, Stafford
794	Lenox-Egg Harbor	Egg Harbor City, Galloway
795	#2 Cedar-Motts Farm	Stafford, Eagleswood, Little Egg Harbor, Bass River, Tuckerton
796	Motts Farm-Moss Mill	Port Republic, Galloway, Bass River, Little Egg Harbor, Tuckerton
1422	Dorothy	Estelle Manor, Hamilton, Weymouth and Egg Harbor

Atlantic City Electric Company
Transmission System Vegetation Management
2024 Cycle

Circuit	Substations	NJ Municipalities
2307	Cumberland-Dennis	Millville, Vineland, Maurice River, Estell Manor, Upper, Woodbine, Dennis
1401	BL England-Merion	Upper, Ocean City
1402	Corson-Union	Maurice River, Dennis, Woodbine
1403	Corson-England	Upper, Dennis
1404	Monroe-Dorothy	Monroe, Vineland, Franklin, Pittsgrove, Upper Pittsgrove, Buena Boro, Buena Vista, Hamilton, Weymouth, Estelle Manor
1407	England-Mill #1	Upper, Egg Harbor
1408	England-Mill #2	Upper, Egg Harbor
1409	Landis-Minotola	Vineland, Franklin, Buena Boro, Buena Vista
1411	Corson-Merion	Upper, Dennis
1412	Corson-Middle #1	Dennis, Middle
1413	Corson-Middle #2	Dennis, Middle
1417	Dennis-Corson	Dennis
1421	Lewis-Minotola	Egg Harbor, Hamilton, Estelle Manor, Weymouth, Buena Vista Twp, Buena Boro
1423	#1 Mill-Lewis	Egg Harbor
1424	#2 Mill-Lewis	Egg Harbor
604	Dennis-Corson	Dennis
717	Corson-Sea Isle-Swainton	Dennis, Sea Isle City, Middle
718	Middle-Peermont	Middle, Stone Harbor, Avalon
720	Corson-Court	Dennis, Middle
735	Middle-Rio Grande-Cape May	Middle, Lower, West Cape May, Cape May
736	#1 Middle-Lake	Middle, Lower, Wildwood City
737	Middle-Rio Grande-Cape May	Lower, West Cape May, Cape May
750	Dennis-Mill	Egg Harbor, Estelle Manor, Corbin City, Upper, Dennis
780	Corson-Sea Isle	Dennis, Sea Isle City
782	Cardiff-Mill	Egg Harbor
797	Swainton-Peermont	Middle, Avalon
798	Middle-Court-Lake	Middle, City of Wildwood, Boro of West Wildwood, City of North Wildwood

The following table identifies hazard trees that were not mitigated due to customer refusals in 2020 consistent with the Board's February 20, 2013 order in BPU Docket No. EO12070650:

2020 Refusals

Feeder	Municipality
NJ1607	Tabernacle, NJ
NJ0851	Dennis Township, NJ

The following table identifies the transmission and distribution system miles that the Company has inspected since 2015 pursuant to N.J.A.C. 14:5-9.9(e):¹

2015 - 2020 Transmission and Distribution Miles Inspected

Year	Distribution Miles	Distribution % of System	Transmission Miles	Transmisison % of System
2015	1782	24.30%	281	25.40%
2016	1902	26.10%	282	25.40%
2017	1844	25.20%	272	24.30%
2018	1711	24.30%	270	24.30%
2019	1858	25.40%	291	26.10%
2020	1862	25.59%	301	26.54%

The following table identifies the transmission and distribution system miles that the Company plans to inspect from 2021 through 2024 pursuant to N.J.A.C. 14:5-9.9(e):²

Planned Transmission and Distribution Inspection Miles

Year	Distribution Miles	Distribution % of System	Transmission Miles	Transmisison % of System
2021	1836	25.10%	310	27.80%
2022	1711	23.39%	272	24.39%
2023	1858	34.38%	291	33.33%
2024	1862	25.62%	301	25.64%

¹ Tables provided in accordance with N.J.A.C. 14:5-9.9.

² *Id.*

D. Certification

A copy of the signed Certification is contained in this report following the cover page.

E. Summary of Major Events³

There were five major events in 2020 that impacted ACE's service territory. The Major Event Reports were submitted to the Board within the required timeframe. Information on the major events is as follows:

2020 Major Events		
Date(s)	Event Type	Customers Impacted (Peak)
Apr 13-15	Wind Storm	67,875
Jun 3-6	Derecho	50,791
Jul 6-7	Thunderstorm	19,081
Aug 4-10	Isaias	210,852

Copies of the reports on these events are included in this report beginning on the following page.

³ Major Event as defined in N.J.A.C. 14:5-1.2, Definitions

**State of New Jersey
Major Event Report
April 13 - 15, 2020**

Wind Event

Prepared By: Atlantic City Electric Company
5100 Harding Highway
Mays Landing, New Jersey 08330

May 5, 2020

Major Event Report – Wind Event

Foreword

A major event is defined in the New Jersey Administrative Code (“N.J.A.C.”) 14:5-1.2 (in part) as “a sustained interruption of electric service resulting from conditions beyond the control of the [electric distribution company], which may include, but is not limited to, thunderstorms, tornadoes, hurricanes, heat waves or snow and ice storms, which affect at least 10 percent of the customers in an operating area.” A major event occurred in Atlantic City Electric Company’s (“ACE” or “the Company”) service territory as a result of the wind event affecting the ACE region, in particular, the Cape May and Pleasantville Districts.

Pursuant to N.J.A.C. 14:5-8.8 (a), ACE is required to file with the New Jersey Board of Public Utilities (the “Board” or “BPU”) a written report within 15 business days following the end of a major event detailing the event’s impact on the Company’s electric system and the associated system restoration efforts.

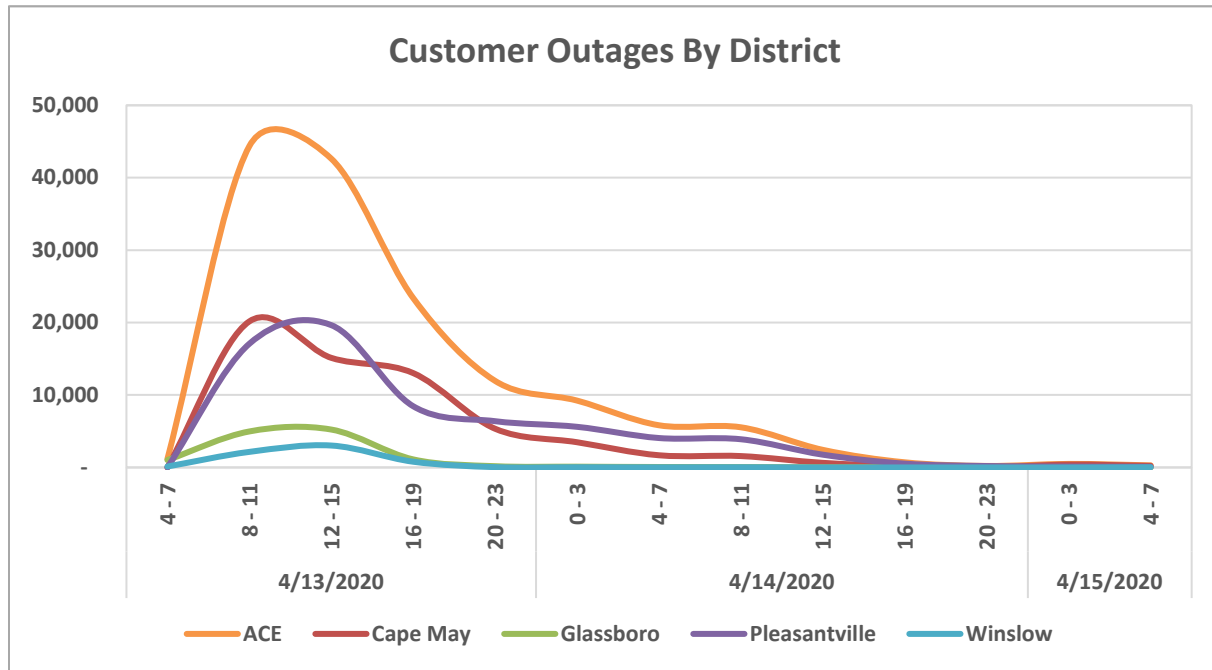
Overview

On Monday, April 13, 2020, beginning at approximately 6:00 a.m., a storm struck the ACE region. The storm created wind gusts of up to 60 to 70 miles per hour along with heavy rain, causing widespread outages in the area. ACE experienced a total of 67,875 customer outages for this event. The 10 percent threshold for declaring a Major Event was met in the ACE region. The chart below indicates the total number of sustained customer interruptions (“CI”) for the peak 24-hour period during the storm event and indicates the percentage of customers affected.

District	Total CI for highest 24-hour period	Percent of Customer Base
Cape May	26,156	24%
Glassboro	11,715	7%
Pleasantville	21,837	13%
Winslow	7,135	7%

At its peak on Monday, April 13, 11:00 a.m., the storm interrupted power to 44,361 of ACE’s customers. In total, there were 67,875 sustained interruptions in the ACE region, or 12% of the Company’s customers, triggering a major event report. ACE’s storm response included both internal resources and external resources. All crews were released by Wednesday, April 15 at 11:00 a.m. The distribution system was fully restored within 57 hours. The following graph shows the progress of customer restoration accomplished by ACE’s internal and external resources.

Major Event Report – Wind Event



The following are the Company's responses to specific requirements set forth in N.J.A.C. 14:5-8.8 (a).

1. The date and time when ACE's Storm Centers opened and closed.

Storm Room Operations		
Location	Opened	Closed
Atlantic Regional	Apr. 13 at 12 p.m.	Apr. 15 at 4 a.m.
Cape May	Apr. 13 at 12 p.m.	Apr. 15 at 4 a.m.
Glassboro	Apr. 13 at 12 p.m.	Apr. 15 at 4 a.m.
Pleasantville	Apr. 13 at 12 p.m.	Apr. 15 at 4 a.m.
Winslow	Apr. 13 at 12 p.m.	Apr. 15 at 4 a.m.

2. The total number of customers out of service over the course of the major event over four-hour intervals, identified by operating area or circuit area. For purposes of this count, the starting time shall be when the storm center opens and the ending time shall be when the storm center closes. Regardless of when the storm center is closed, the EDC shall report the date and time when the last customer affected by a major event is restored.

a. See **Appendix A** for the 4-hour outage report.

b. The date and time when the last customer affected by the major event is restored:

The last customer affected by the storm was restored on Wednesday, April 15, 2020 at 4:05 p.m. After the last customer was restored, the Company continued repairing storm damaged distribution equipment as identified during the storm and

Major Event Report – Wind Event

post-storm assessment process.

3. *The number of trouble locations and classifications:*

See **Appendix B**.

4. *The time at which the mutual aid and non-company contractor crews were requested, arrived for duty, were released and the mutual aid and non-contractor response(s) for assistance (number of crews):*

See **Appendix C**.

5. *A timeline profile of the number of company line crews, mutual aid crews, non-company contractor line and tree crews working on restoration activities during the duration of the major event.*

See **Appendix D**.

6. *The timeline profile of the number of company crews sent to an affected operating area to assist in the restoration:*

See **Appendix E**.

Major Event Report – Wind Event

Appendix A

The total number of customers out of service over the course of the major event.

Date	Time Period	ACE	Cape May	Glassboro	Pleasantville	Winslow
4/13/2020	4-7	1,162	3	1,028	1	131
	8-11	44,361	20,163	4,971	17,077	2,150
	12-15	42,628	15,131	5,233	19,648	3,027
	16-19	23,384	13,028	1,113	8,451	792
	20-23	11,948	5,341	176	6,387	44
4/14/2020	0 - 3	9,230	3,481	110	5,610	29
	4-7	5,823	1,682	63	4,061	17
	8-11	5,542	1,571	52	3,892	27
	12-15	2,427	636	26	1,761	4
	16-19	708	168	13	525	2
	20-23	211	11	4	196	-
4/15/2020	0 - 3	489	396	2	122	-

Major Event Report – Wind Event

Appendix B

The number of trouble locations and classifications.

Order Report (Trouble Locations)		Atlantic Region		Cape May		Glassboro		Pleasantville		Winslow	
Date	4-hour Time Period	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders
4/13/2020	4-7	23	17	4	1	13	10	2	1	4	5
	8-11	390	173	141	63	52	40	160	53	37	17
	12-15	704	464	226	125	105	84	307	200	66	55
	16-19	726	522	259	160	98	77	313	231	56	54
	20-23	662	512	283	172	63	65	283	233	33	42
4/14/2020	0 - 3	609	509	283	170	61	65	244	236	21	38
	4-7	572	500	274	167	51	61	232	237	15	35
	8-11	551	470	260	164	47	67	230	205	14	34
	12-15	420	358	176	122	27	62	211	149	6	25
	16-19	228	271	65	69	15	62	145	124	3	16
	20-23	74	167	17	41	5	44	51	72	1	10
4/15/2020	0 - 3	44	142	11	32	3	41	29	61	1	8

Major Event Report – Wind Event

Appendix C

The time at which the mutual aid and non-Company contractor crews were requested, arrived for duty, were released, and their response for assistance (number of resources).

Summary of Mutual Aid - Foreign Utility & Contractor Crews					
Requested	Arrival	Type	Name	Number of Crews	Released
4/12/2020	4/14/2020	Contractor	Edison Power MA	20	4/14/2020
4/12/2020	4/13/2020	Contractor	Sparks MA	5	4/14/2020
4/13/2020	4/14/2020	Utility	DPL Internal	15	4/14/2020
4/13/2020	4/14/2020	Contractor	Riggs Pepco	3	4/14/2020
4/13/2020	4/14/2020	Contractor	MBI Pepco	4	4/14/2020
4/13/2020	4/14/2020	Contractor	Semper DPL	3	4/14/2020
4/13/2020	4/14/2020	Utility	Pepco Internal	5	4/14/2020
4/13/2020	4/14/2020	Contractor	MBI BGE	1	4/14/2020
4/13/2020	4/14/2020	Contractor	Riggs BGE	2	4/14/2020
4/13/2020	4/14/2020	Contractor	Intren BGE	2	4/14/2020
4/13/2020	4/14/2020	Contractor	MBI PECO	6	4/14/2020
4/13/2020	4/14/2020	Contractor	Miller Bros PECO	2	4/14/2020
4/13/2020	4/14/2020	Contractor	Valiant PECO	4	4/14/2020
4/13/2020	4/14/2020	Contractor	PMI PECO	4	4/14/2020
4/13/2020	4/14/2020	Contractor	Intren PECO	6	4/14/2020
4/13/2020	4/14/2020	Contractor	Riggs PECO	2	4/14/2020
4/13/2020	4/14/2020	Contractor	Carr & Duff PECO	7	4/14/2020

Major Event Report – Wind Event

Appendix D

A timeline profile of the number of Company line crews, mutual aid crews, non-Company contractor line and tree crews.

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
4/13/2020	0-4	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	4-8	Cape May	3	2	1
		Glassboro	8	5	2
		Pleasantville	7	3	2
		Winslow	4	3	1
	8-12	Cape May	3	2	2
		Glassboro	8	5	2
		Pleasantville	7	3	2
		Winslow	4	3	1
	12-16	Cape May	3	2	3
		Glassboro	8	5	2
		Pleasantville	7	3	2
		Winslow	4	3	1
	16-20	Cape May	3	4	3
		Glassboro	8	10	3
		Pleasantville	7	6	2
		Winslow	4	6	1
	20-24	Cape May	3	4	3
		Glassboro	8	10	3
		Pleasantville	7	6	2
		Winslow	4	6	1

Major Event Report – Wind Event

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
4/14/2020	0-4	Cape May	0	2	2
		Glassboro	0	1	1
		Pleasantville	0	3	0
		Winslow	0	3	0
	4-8	Cape May	3	2	21
		Glassboro	8	1	4
		Pleasantville	7	3	20
		Winslow	4	3	2
	8-12	Cape May	3	39	21
		Glassboro	8	0	4
		Pleasantville	7	35	20
		Winslow	4	0	2
	12-16	Cape May	3	39	23
		Glassboro	8	0	4
		Pleasantville	7	50	20
		Winslow	4	0	2
	16-20	Cape May	3	39	24
		Glassboro	8	0	4
		Pleasantville	7	70	20
		Winslow	4	0	2
	20-24	Cape May	3	39	24
		Glassboro	8	6	4
		Pleasantville	7	70	20
		Winslow	4	0	2

Major Event Report – Wind Event

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
4/15/2020	0-4	Cape May	0	7	4
		Glassboro	0	1	0
		Pleasantville	0	8	0
		Winslow	0	0	0
	4-8	Cape May	8	7	9
		Glassboro	4	1	4
		Pleasantville	7	8	1
		Winslow	3	0	1
	8-12	Cape May	8	3	9
		Glassboro	4	0	4
		Pleasantville	7	6	1
		Winslow	3	0	1
	12-16	Cape May	8	3	6
		Glassboro	4	0	4
		Pleasantville	7	3	1
		Winslow	3	0	1
	16-20	Cape May	8	3	6
		Glassboro	4	0	4
		Pleasantville	7	3	1
		Winslow	3	0	1
	20-24	Cape May	8	3	6
		Glassboro	4	0	4
		Pleasantville	7	3	1
		Winslow	3	0	1

Major Event Report – Wind Event

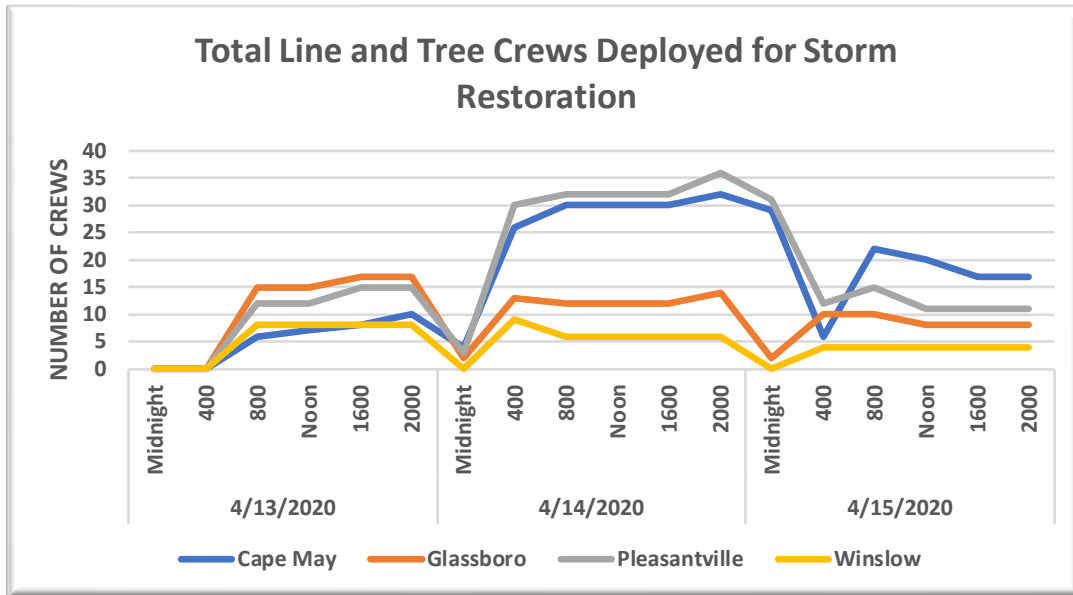
Appendix E

The timeline profile of the number of Company crews sent to an affected operating area to assist in the restoration.

ACE Line and Tree Storm Resource Deployment					
Date	Time Period	Cape May	Glassboro	Pleasantville	Winslow
4/13/2020	Midnight	0	0	0	0
	400	0	0	0	0
	800	6	15	12	8
	Noon	7	15	12	8
	1600	8	17	15	8
	2000	10	17	15	8
4/14/2020	Midnight	4	2	3	0
	400	26	13	30	9
	800	30	12	32	6
	Noon	30	12	32	6
	1600	30	12	32	6
	2000	32	14	36	6
4/15/2020	Midnight	29	2	31	0
	400	6	10	12	4
	800	22	10	15	4
	Noon	20	8	11	4
	1600	17	8	11	4
	2000	17	8	11	4

Major Event Report – Derecho Event

Appendix E (Continued)



Major Event Report – Derecho Event

PowerAhead® Program Feeders

As required in the Stipulation of Settlement approved by the Board in BPU Docket No. EM16030252, following a major event, the Company will provide Customer Minutes Interrupted (“CMI”) and Customer Average Interruption Duration Index (“CAIDI”) reliability data of the storm for all feeders selected for work under a sub-Program in PowerAhead. The following table lists the CMI and CAIDI data that occurred during the Wind Event for the aforementioned feeders.

Major Event Report – Derecho Event

CMI and CAIDI Indices for PowerAhead Feeders During the Wind Event

Feeder	CMI	CAIDI
NJ0146	144,963	128
NJ0151	12,086	198
NJ0152	377,503	166
NJ0153	10,826	252
NJ0154	91,138	181
NJ0213	396,797	286
NJ0232	1,425	35
NJ0241	527	176
NJ0242	1,094	547
NJ0243	559	140
NJ0244	28,727	182
NJ0383	245,454	132
NJ0423	297,233	874
NJ0424	94,014	1,709
NJ0426	3,315	1,658
NJ0488	6,965	1,393
NJ0551	2,455	1,227
NJ0671	101	50
NJ0745	20,778	157
NJ0747	8,545	41
NJ0813	27,515	357
NJ0922	29,557	224
NJ0972	450,340	488
NJ0974	2,742	1,371
NJ0982	633	633
NJ0983	43,543	427
NJ0985	316,165	811
NJ1192	328,113	191
NJ1215	N/A	N/A
NJ1324	N/A	N/A
NJ1325	670	335
NJ1326	N/A	N/A
NJ1327	730	365
NJ1328	7,665	295
NJ1329	2,197	366
NJ1357	420	210
NJ1634	3,198,015	1,434
NJ2061	1,781	594
NJ2062	N/A	N/A
NJ2097	974	974
NJ2352	N/A	N/A
NJ2391	N/A	N/A
NJ2392	861	861
NJ2393	N/A	N/A

State of New Jersey Major Event Report June 3 - 6, 2020

Derecho Event

Prepared By: Atlantic City Electric Company
5100 Harding Highway
Mays Landing, New Jersey 08330

June 26, 2020

Major Event Report – Derecho Event

Foreword

A major event is defined in the New Jersey Administrative Code (“N.J.A.C.”) 14:5-1.2 (in part) as “a sustained interruption of electric service resulting from conditions beyond the control of the [electric distribution company], which may include, but is not limited to, thunderstorms, tornadoes, hurricanes, heat waves or snow and ice storms, which affect at least 10 percent of the customers in an operating area.” A major event occurred in Atlantic City Electric Company’s (“ACE” or “the Company”) service territory as a result of the derecho event affecting the Winslow District.

Pursuant to N.J.A.C. 14:5-8.8 (a), ACE is required to file with the New Jersey Board of Public Utilities (the “Board” or “BPU”) a written report within 15 business days following the end of a major event detailing the event’s impact on the Company’s electric system and the associated system restoration efforts.

Overview

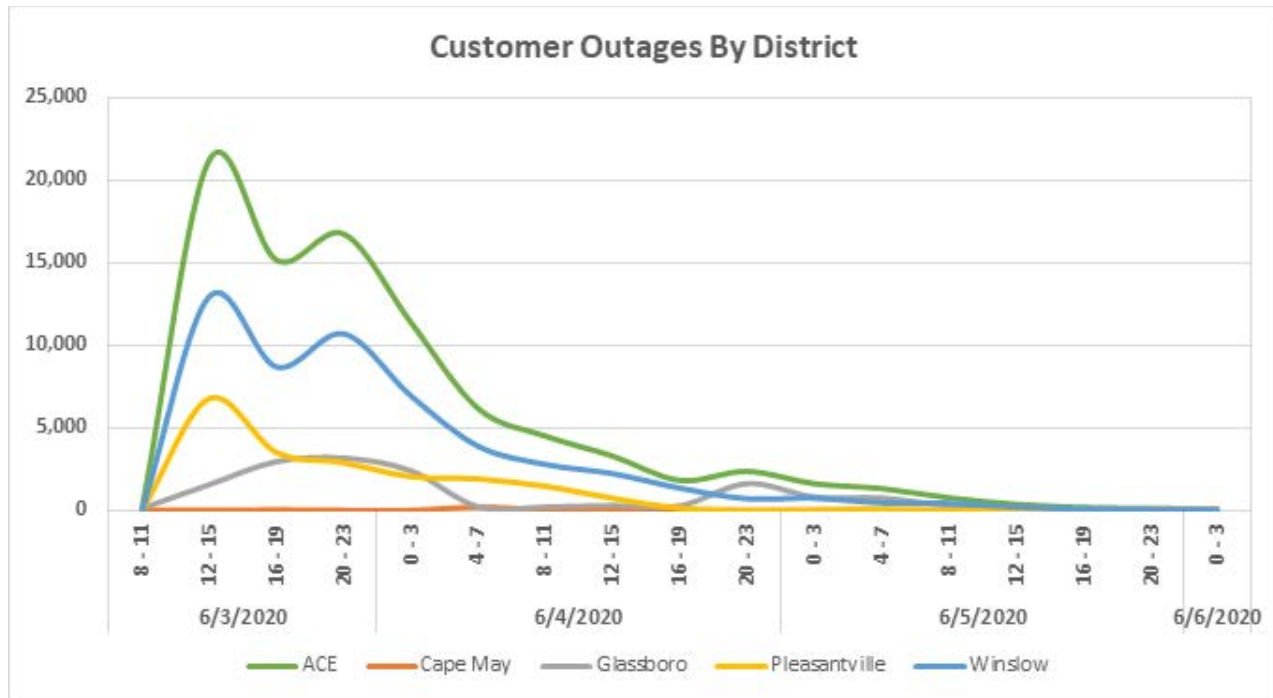
On June 3, 2020, beginning at approximately 12:00 P.M., a derecho storm struck the ACE region with straight-line winds, including gusts of more than 90 mph. The storm toppled trees and brought down tree limbs, which downed power lines and damaged electric equipment, causing widespread outages. ACE experienced a total of 50,791 customer outages for this event. The 10 percent threshold for declaring a Major Event was met in the Winslow District. The chart below provides the total number of sustained customer interruptions (“CI”) for the peak 24-hour period during the storm event and indicates the percentage of customers affected.

District	Total CI for highest 24-hour period	Percent of Customer Base
Cape May	205	<1%
Glassboro	5,845	4%
Pleasantville	10,968	6%
Winslow	26,843	27%

At its peak on Wednesday June 3, 2020, 1 P.M., the storm interrupted power to 20,553 of ACE’s customers. In total, there were 50,971 sustained interruptions in the ACE region, with more than 10 percent of the Company’s customers in the Winslow District, which triggered a major event report. ACE’s storm response included both internal resources and external resources. All crews were released by Friday, June 5 at 11:00 P.M. The distribution system was fully restored within 64 hours. The following graph shows the progress of customer restoration accomplished by ACE’s

Major Event Report – Derecho Event

internal and external resources.



The following are the Company's responses to specific requirements set forth in N.J.A.C. 14:5-8.8 (a).

3. *The date and time when ACE's Storm Centers opened and closed.*

Storm Room Operations		
Location	Opened	Closed
Atlantic Regional	June 3 at 12:45 P.M.	June 6 at 3 A.M.
Cape May	June 3 at 12:45 P.M.	June 6 at 3 A.M.
Glassboro	June 3 at 12:45 P.M.	June 6 at 3 A.M.
Pleasantville	June 3 at 12:45 P.M.	June 6 at 3 A.M.
Winslow	June 3 at 12:45 P.M.	June 6 at 3 A.M.

4. *The total number of customers out of service over the course of the major event over four-hour intervals, identified by operating area or circuit area. For purposes of this count, the starting time shall be when the storm center opens and the ending time shall be when the storm center closes. Regardless of when the storm center is closed, the EDC shall report the date and time when the last customer affected by a major event is restored.*

- c. See **Appendix A** for the 4-hour outage report.
- d. The date and time when the last customer affected by the major event is restored:

The last customer affected by the storm was restored on **Saturday June 6, 2020**

Major Event Report – Derecho Event

at 2:07 A.M. After the last customer was restored, the Company continued repairing storm damaged distribution equipment as identified during the storm and post-storm assessment process.

3. *The number of trouble locations and classifications:*

See **Appendix B**.

4. *The time at which the mutual aid and non-company contractor crews were requested, arrived for duty, were released and the mutual aid and non-contractor response(s) for assistance (number of crews):*

See **Appendix C**.

5. *A timeline profile of the number of company line crews, mutual aid crews, non-company contractor line and tree crews working on restoration activities during the duration of the major event.*

See **Appendix D**.

6. *The timeline profile of the number of company crews sent to an affected operating area to assist in the restoration:*

See **Appendix E**.

Major Event Report – Derecho Event

Appendix A

The total number of customers out of service over the course of the major event.

Date	Time Period	ACE	Cape May	Glassboro	Pleasantville	Winslow
6/3/2020	8 - 11	94	0	77	17	0
	12 - 15	21,238	1	1,511	6,723	13,003
	16 - 19	15,163	29	2,905	3,495	8,734
	20 - 23	16,749	0	3,119	2,882	10,748
6/4/2020	0 - 3	11,378	0	2,346	2,047	6,985
	4 - 7	6,144	142	168	1,908	3,926
	8 - 11	4,473	23	153	1,477	2,820
	12 - 15	3,263	2	241	754	2,266
	16 - 19	1,776	2	223	164	1,387
	20 - 23	2,329	0	1,571	14	744
6/5/2020	0 - 3	1,582	0	758	49	775
	4 - 7	1,283	0	694	99	490
	8 - 11	725	12	239	17	457
	12 - 15	333	13	79	8	233
	16 - 19	133	2	35	2	94
	20 - 23	79	0	20	1	58
6/6/2020	0 - 3	36	0	16	0	20

Major Event Report – Derecho Event

Appendix B

The number of trouble locations and classifications.

Order Report (Trouble Locations)		Atlantic Region		Cape May		Glassboro		Pleasantville		Winslow	
Date	4-hour Time Period	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders
6/3/2020	8 - 11	36	121	4	4	12	63	10	13	10	41
	12 - 15	859	318	10	12	142	112	10	12	697	182
	16 - 19	1894	886	12	19	124	161	580	375	1178	331
	20 - 23	2765	1127	7	9	334	246	627	387	1797	485
6/4/2020	0 - 3	2703	1196	4	4	312	267	561	373	1826	552
	4 - 7	2619	1238	9	6	292	273	528	382	1790	577
	8 - 11	2417	1317	8	4	223	305	466	346	1720	662
	12 - 15	1866	1257	14	12	156	312	304	344	1392	589
	16 - 19	1180	1027	17	8	104	262	156	237	903	520
	20 - 23	914	892	6	5	123	213	73	149	712	525
6/5/2020	0 - 3	1027	968	4	4	219	254	69	140	735	570
	4 - 7	1007	985	4	6	229	263	65	144	709	572
	8 - 11	865	955	11	15	183	263	55	129	616	548
	12 - 15	71	633	4	4	21	227	4	68	42	334
	16 - 19	240	720	9	9	76	260	15	77	140	374
	20 - 23	113	628	5	4	34	233	8	70	66	321
6/6/2020	0 - 3	71	633	4	4	21	227	4	68	42	334

Major Event Report – Derecho Event

Appendix C

The time at which the mutual aid and non-Company contractor crews were requested, arrived for duty, were released, and their response for assistance (number of resources).

Summary of Mutual Aid - Foreign Utility & Contractor Crews					
Requested	Arrival	Type	Name	Number of Crews	Released
6/3/2020	6/3/2020	OH	DPL Internal	9	6/3/2020
6/4/2020	6/4/2020	OH	DPL Internal	20	6/5/2020
6/3/2020	6/4/2020	OH	H&M Pepco	3	6/5/2020
6/3/2020	6/3/2020	OH	Riggs Pepco	3	6/5/2020
6/3/2020	6/3/2020	OH	MBI Pepco	3	6/5/2020
6/3/2020	6/3/2020	OH	Semper DPL	2	6/6/2020

Major Event Report – Derecho Event

Appendix D

A timeline profile of the number of Company line crews, mutual aid crews, non-Company contractor line and tree crews.

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
6/3/2020	0-4	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	4-8	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	8-12	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	12-16	Cape May	1	0	0
		Glassboro	3	2	2
		Pleasantville	6	3	2
		Winslow	3	11	2
	16-20	Cape May	1	0	0
		Glassboro	4	2	2
		Pleasantville	6	3	2
		Winslow	3	11	2
	20-24	Cape May	1	0	0
		Glassboro	4	2	2
		Pleasantville	6	3	2
		Winslow	3	11	2

Major Event Report – Derecho Event

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
6/4/2020	0-4	Cape May	0	0	0
		Glassboro	1	0	0
		Pleasantville	0	0	0
		Winslow	0	2	0
	4-8	Cape May	0	0	0
		Glassboro	7	5	6
		Pleasantville	8	9	12
		Winslow	3	32	6
	8-12	Cape May	0	0	0
		Glassboro	7	5	6
		Pleasantville	8	9	12
		Winslow	3	30	6
	12-16	Cape May	0	0	0
		Glassboro	6	5	6
		Pleasantville	8	9	12
		Winslow	3	30	6
	16-20	Cape May	0	0	0
		Glassboro	7	5	6
		Pleasantville	8	9	12
		Winslow	3	30	6
	20-24	Cape May	0	0	0
		Glassboro	7	5	6
		Pleasantville	8	9	12
		Winslow	3	30	6

Major Event Report – Derecho Event

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
6/5/2020	0-4	Cape May	0	0	0
		Glassboro	1	0	0
		Pleasantville	0	0	0
		Winslow	0	2	0
	4-8	Cape May	0	0	0
		Glassboro	4	2	4
		Pleasantville	8	1	11
		Winslow	6	43	25
	8-12	Cape May	0	0	0
		Glassboro	4	2	4
		Pleasantville	8	1	11
		Winslow	6	41	25
	12-16	Cape May	0	0	0
		Glassboro	3	2	4
		Pleasantville	8	1	11
		Winslow	6	43	25
	16-20	Cape May	0	0	0
		Glassboro	3	2	4
		Pleasantville	8	1	11
		Winslow	6	43	25
	20-24	Cape May	0	0	0
		Glassboro	3	2	4
		Pleasantville	8	1	11
		Winslow	6	43	25

Major Event Report – Derecho Event

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
6/6/2018	0-4	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	2	0
	4-8	Cape May	1	0	0
		Glassboro	4	5	1
		Pleasantville	2	0	1
		Winslow	4	10	2
	8-12	Cape May	1	0	0
		Glassboro	4	5	1
		Pleasantville	2	0	1
		Winslow	4	8	2
	12-16	Cape May	1	0	0
		Glassboro	4	5	1
		Pleasantville	2	0	1
		Winslow	4	8	2
	16-20	Cape May	1	0	0
		Glassboro	4	5	1
		Pleasantville	2	0	1
		Winslow	4	8	2
	20-24	Cape May	1	0	0
		Glassboro	4	5	1
		Pleasantville	2	0	1
		Winslow	4	8	2

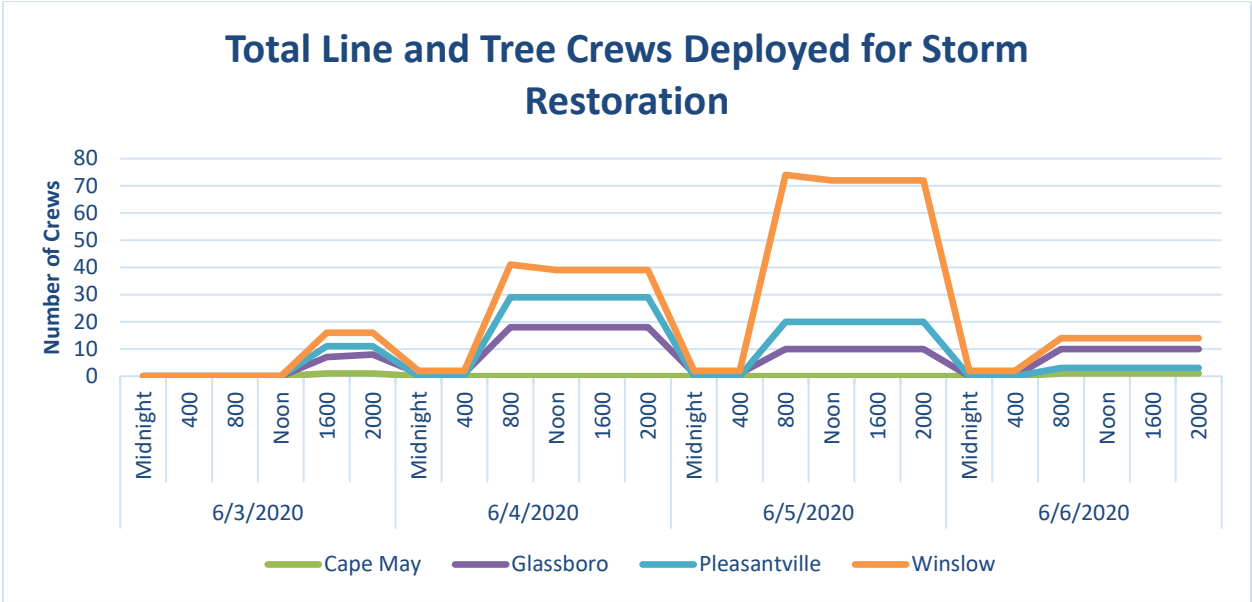
Major Event Report – Derecho Event

Appendix E

The timeline profile of the number of Company crews sent to an affected operating area to assist in the restoration.

ACE Line and Tree Storm Resource Deployment					
Date	Time Period	Cape May	Glassboro	Pleasantville	Winslow
6/3/2020	Midnight	0	0	0	0
	400	0	0	0	0
	800	0	0	0	0
	Noon	0	0	0	0
	1600	1	7	11	16
	2000	1	8	11	16
6/4/2020	Midnight	0	1	0	2
	400	0	1	0	2
	800	0	18	29	41
	Noon	0	18	29	39
	1600	0	18	29	39
	2000	0	18	29	39
6/5/2020	Midnight	0	1	0	2
	400	0	1	0	2
	800	0	10	20	74
	Noon	0	10	20	72
	1600	0	10	20	72
	2000	0	10	20	72
6/6/2020	Midnight	0	0	0	2
	400	0	0	0	2
	800	1	10	3	14
	Noon	1	10	3	14
	1600	1	10	3	14
	2000	1	10	3	14

Appendix E
(Continued)



Major Event Report – Thunderstorm

PowerAhead® Program Feeders

As required in the Stipulation of Settlement approved by the Board in BPU Docket No. EM16030252, following a major event, the Company will provide Customer Minutes Interrupted (“CMI”) and Customer Average Interruption Duration Index (“CAIDI”) reliability data of the storm for all feeders selected for work under a sub-Program in PowerAhead. The following table lists the CMI and CAIDI data that occurred during the derecho event for the aforementioned feeders.

Major Event Report – Thunderstorm

CMI and CAIDI Indices for PowerAhead Feeders During the Derecho Event

Feeder	CMI	CAIDI
NJ0146	676,186	669
NJ0151	28,784	310
NJ0152	10,615	342
NJ0153	146,053	1,328
NJ0154	238,730	272
NJ0213	N/A	N/A
NJ0232	N/A	N/A
NJ0241	92,046	453
NJ0242	284,081	417
NJ0243	173,275	75
NJ0244	147,606	612
NJ0383	204	102
NJ0423	6,162	411
NJ0424	20,714	450
NJ0426	N/A	N/A
NJ0488	1,295	129
NJ0551	42,836	542
NJ0671	5,546	52
NJ0745	24,032	359
NJ0747	1,222	37
NJ0813	25,323	817
NJ0922	91,177	440
NJ0972	N/A	N/A
NJ0974	N/A	N/A
NJ0982	N/A	N/A
NJ0983	3,892	649
NJ0985	4,322	864
NJ1192	1,548	91
NJ1215	47,088	185
NJ1324	N/A	N/A
NJ1325	89,487	1,177
NJ1326	635,870	817
NJ1327	N/A	N/A
NJ1328	57	57
NJ1329	5,405	901
NJ1357	N/A	N/A
NJ1634	N/A	N/A
NJ2061	N/A	N/A
NJ2062	1,804	1,804
NJ2097	3,877	646
NJ2352	28,983	805
NJ2391	105,748	261
NJ2392	235,221	240
NJ2393	136,467	183

State of New Jersey Major Event Report July 6 - 7, 2020

Thunderstorm

Prepared By: Atlantic City Electric Company
5100 Harding Highway
Mays Landing, New Jersey 08330

July 28, 2020

Major Event Report – Thunderstorm

Foreword

A major event is defined in the New Jersey Administrative Code (“N.J.A.C.”) 14:5-1.2 (in part) as “a sustained interruption of electric service resulting from conditions beyond the control of the [electric distribution company], which may include, but is not limited to, thunderstorms, tornadoes, hurricanes, heat waves or snow and ice storms, which affect at least 10 percent of the customers in an operating area.” A major event occurred in Atlantic City Electric Company’s (“ACE” or “the Company”) service territory as a result of the thunderstorm event affecting the Winslow District.

Pursuant to N.J.A.C. 14:5-8.8 (a), ACE is required to file with the New Jersey Board of Public Utilities (the “Board” or “BPU”) a written report within 15 business days following the end of a major event detailing the event’s impact on the Company’s electric system and the associated system restoration efforts.

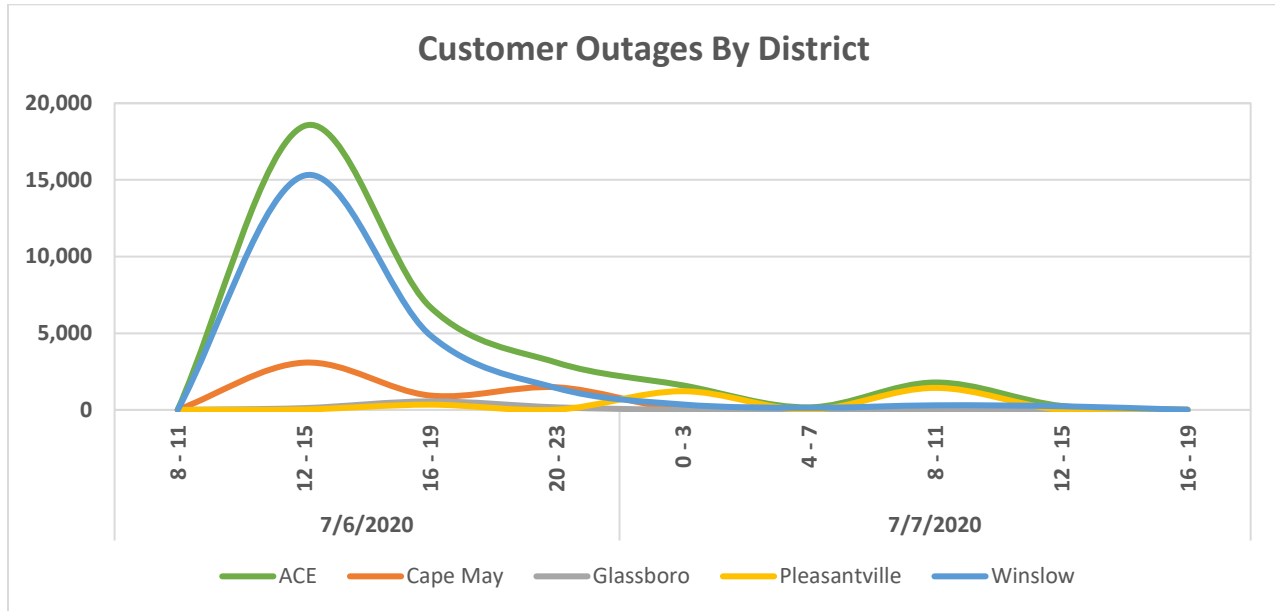
Overview

On July 6, 2020, beginning at approximately 12:00 P.M., a thunderstorm struck the ACE Region. The storm toppled trees and brought down tree limbs, which downed power lines and damaged electric equipment, causing widespread outages. ACE experienced a total of 19,081 customer outages for this event. The 10 percent threshold for declaring a Major Event was met in the Winslow District. The chart below provides the total number of sustained customer interruptions (“CI”) for the peak 24-hour period during the storm event and indicates the percentage of customers affected.

District	Total CI for highest 24-hour period	Percent of Customer Base
Cape May	3,696	3%
Glassboro	578	<1%
Pleasantville	2,640	1%
Winslow	12,169	12%

At its peak on Monday, July 6, 2020, 3:00 P.M., the storm interrupted power to 7,438 of ACE’s customers. In total, there were 19,081 sustained interruptions in the ACE region, with more than 10 percent of the Company’s customers in the Winslow District, which triggered a major event report. ACE’s storm response included internal resources. The distribution system was fully restored within 24 hours. The following graph shows the progress of customer restoration accomplished by ACE’s internal resources.

Major Event Report – Thunderstorm



The following are the Company's responses to specific requirements set forth in N.J.A.C. 14:5-8.8 (a).

5. *The date and time when ACE's Storm Centers opened and closed.*

Storm Room Operations		
Location	Opened	Closed
Atlantic Regional	Jul. 6 at 3:45 p.m.	Jul. 7 at 11:25 a.m.
Cape May	Jul. 6 at 3:45 p.m.	Jul. 7 at 11:25 a.m.
Glassboro	Jul. 6 at 3:45 p.m.	Jul. 7 at 11:25 a.m.
Pleasantville	Jul. 6 at 3:45 p.m.	Jul. 7 at 11:25 a.m.
Winslow	Jul. 6 at 3:45 p.m.	Jul. 7 at 11:25 a.m.

6. *The total number of customers out of service over the course of the major event over four-hour intervals, identified by operating area or circuit area. For purposes of this count, the starting time shall be when the storm center opens and the ending time shall be when the storm center closes. Regardless of when the storm center is closed, the EDC shall report the date and time when the last customer affected by a major event is restored.*

e. See **Appendix A** for the 4-hour outage report.

f. The date and time when the last customer affected by the major event is restored:

The last customer affected by the storm was restored on **Tuesday, July 7, 2020 at**

Major Event Report – Thunderstorm

12:30 P.M. After the last customer was restored, the Company continued repairing storm damaged distribution equipment as identified during the storm and post-storm assessment process.

3. *The number of trouble locations and classifications:*

See **Appendix B**.

4. *The time at which the mutual aid and non-company contractor crews were requested, arrived for duty, were released and the mutual aid and non-contractor response(s) for assistance (number of crews):*

See **Appendix C**.

5. *A timeline profile of the number of company line crews, mutual aid crews, non-company contractor line and tree crews working on restoration activities during the duration of the major event.*

See **Appendix D**.

6. *The timeline profile of the number of company crews sent to an affected operating area to assist in the restoration:*

See **Appendix E**.

Appendix A

The total number of customers out of service over the course of the major event.

Date	Time Period	ACE	Cape May	Glassboro	Pleasantville	Winslow
7/6/2020	8 - 11	8	0	4	3	1
	12 - 15	18,506	3,082	118	29	15,277
	16 - 19	6,713	938	557	344	4,874
	20 - 23	3,089	1,476	168	16	1,429
7/7/2020	0 - 3	1,603	24	5	1,220	354
	4 - 7	166	19	4	7	136
	8 - 11	1,788	22	28	1,437	301
	12 - 15	261	2	19	0	240
	16 - 19	15	0	11	0	4
	20 - 23	33	0	4	0	29

Major Event Report – Thunderstorm

Appendix B

The number of trouble locations and classifications.

Order Report (Trouble Locations)		Atlantic Region		Cape May		Glassboro		Pleasantville		Winslow	
Date	4-hour Time Period	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders	Outage Orders	Non- outage Orders
7/6/2020	8 - 11	46	104	13	14	14	43	12	35	7	12
	12 - 15	139	157	26	27	14	50	6	39	93	41
	16 - 19	395	262	64	51	44	66	29	53	258	92
	20 - 23	266	298	30	51	22	74	13	63	201	110
7/7/2020	0 - 3	138	233	13	45	11	65	24	57	90	66
	4 - 7	104	207	13	28	14	65	13	55	64	59
	8 - 11	132	201	27	23	32	55	19	57	54	66
	12 - 15	95	159	26	24	31	54	8	41	30	40
	16 - 19	47	122	14	20	17	49	5	35	11	18

Appendix C

The time at which the mutual aid and non-Company contractor crews were requested, arrived for duty, were released, and their response for assistance (number of resources).

No mutual aid resources were requested for this event.

Major Event Report – Thunderstorm

Appendix D

A timeline profile of the number of Company line crews, mutual aid crews, non-Company contractor line and tree crews.

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
7/6/2020	0-4	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	4-8	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	8-12	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	12-16	Cape May	3	0	0
		Glassboro	6	0	0
		Pleasantville	4	0	0
		Winslow	1	8	0
	16-20	Cape May	3	0	0
		Glassboro	6	0	0
		Pleasantville	4	0	0
		Winslow	4	8	0
	20-24	Cape May	4	0	0
		Glassboro	6	0	0
		Pleasantville	5	0	0
		Winslow	4	9	0

Major Event Report – Thunderstorm

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
7/7/2020	0-4	Cape May	1	0	0
		Glassboro	2	0	0
		Pleasantville	1	0	0
		Winslow	4	1	0
	4-8	Cape May	3	0	0
		Glassboro	4	0	0
		Pleasantville	3	0	0
		Winslow	6	9	0
	8-12	Cape May	3	0	0
		Glassboro	4	0	0
		Pleasantville	3	0	0
		Winslow	6	9	0
	12-16	Cape May	2	0	0
		Glassboro	3	0	0
		Pleasantville	2	0	0
		Winslow	4	9	0
	16-20	Cape May	2	0	0
		Glassboro	3	0	0
		Pleasantville	2	0	0
		Winslow	4	8	0
	20-24	Cape May	2	0	0
		Glassboro	3	0	0
		Pleasantville	2	0	0
		Winslow	4	8	0

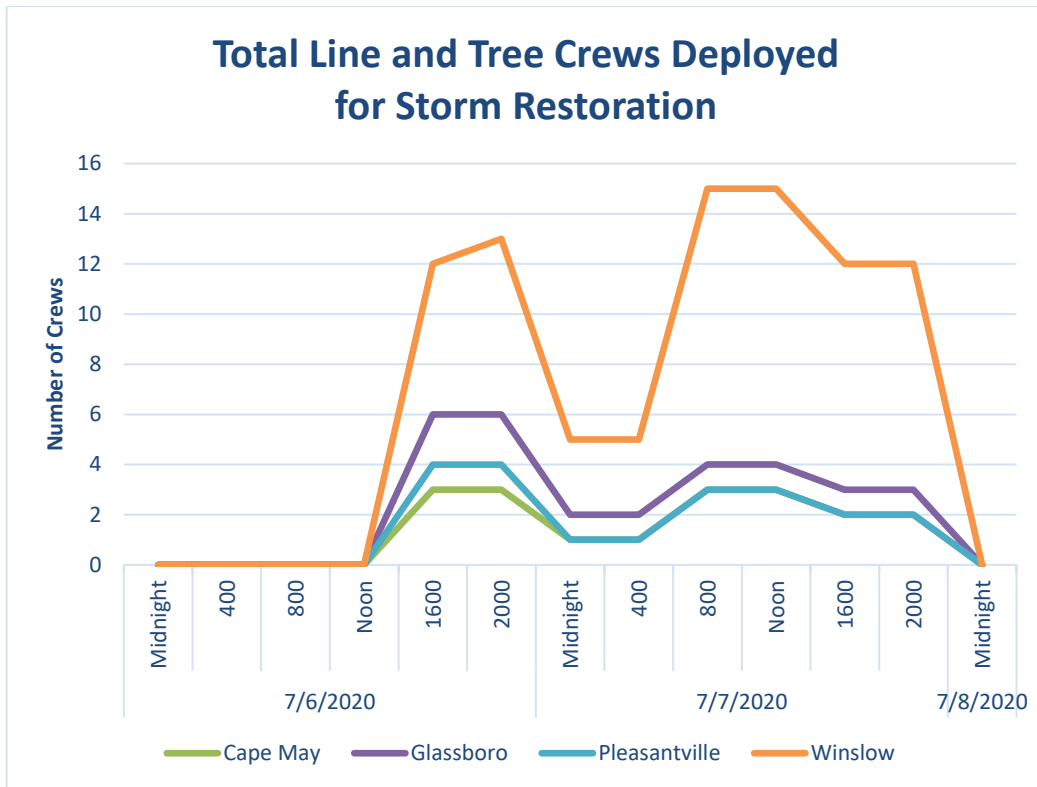
Major Event Report – Thunderstorm

Appendix E

The timeline profile of the number of Company crews sent to an affected operating area to assist in the restoration.

ACE Line and Tree Storm Resource Deployment					
Date	Time Period	Cape May	Glassboro	Pleasantville	Winslow
7/6/2020	Midnight	0	0	0	0
	400	0	0	0	0
	800	0	0	0	0
	Noon	0	0	0	0
	1600	3	6	4	12
	2000	3	6	4	13
7/7/2020	Midnight	1	2	1	5
	400	1	2	1	5
	800	3	4	3	15
	Noon	3	4	3	15
	1600	2	3	2	12
	2000	2	3	2	12
7/8/2020	Midnight	0	0	0	0
	400	0	0	0	0
	800	0	0	0	0
	Noon	0	0	0	0
	1600	0	0	0	0
	2000	0	0	0	0

Appendix E (Cont'd)



Major Event Report – Tropical Storm Isaias

PowerAhead® Program Feeders

As required in the Stipulation of Settlement approved by the Board in BPU Docket No. EM16030252, following a major event, the Company will provide Customer Minutes Interrupted (“CMI”) and Customer Average Interruption Duration Index (“CAIDI”) reliability data of the storm for all feeders selected for work under a sub-Program in PowerAhead. The following table lists the CMI and CAIDI data that occurred during the thunderstorm event for the aforementioned feeders.

Major Event Report – Tropical Storm Isaias

CMI and CAIDI Indices for PowerAhead Feeders During the Thunderstorm Event

Feeder	CMI	CAIDI
NJ0146	N/A	N/A
NJ0151	N/A	N/A
NJ0152	N/A	N/A
NJ0153	N/A	N/A
NJ0154	171	171
NJ0213	N/A	N/A
NJ0232	160	32
NJ0241	4,402	88
NJ0242	92	92
NJ0243	278	278
NJ0244	N/A	N/A
NJ0383	229	229
NJ0423	N/A	N/A
NJ0424	N/A	N/A
NJ0426	N/A	N/A
NJ0488	7,237	99
NJ0551	290	290
NJ0671	N/A	N/A
NJ0745	4,159	97
NJ0747	1,384	692
NJ0813	18,941	526
NJ0922	2,493	623
NJ0972	N/A	N/A
NJ0974	N/A	N/A
NJ0982	N/A	N/A
NJ0983	90	90
NJ0985	N/A	N/A
NJ1192	780	780
NJ1215	68	68
NJ1324	N/A	N/A
NJ1325	N/A	N/A
NJ1326	1,163	129
NJ1327	N/A	N/A
NJ1328	N/A	N/A
NJ1329	N/A	N/A
NJ1357	N/A	N/A
NJ1634	N/A	N/A
NJ2061	21,087	142
NJ2062	N/A	N/A
NJ2097	N/A	N/A
NJ2352	N/A	N/A
NJ2391	N/A	N/A
NJ2392	N/A	N/A
NJ2393	1,318	45

Major Event Report – Tropical Storm Isaias

State of New Jersey Major Event Report August 4 - 10, 2020

Tropical Storm Isaias

Prepared By:Atlantic City Electric Company
5100 Harding Highway
Mays Landing, New Jersey 08330

September 4, 2020

Major Event Report – Tropical Storm Isaias

Foreword

A major event is defined in the New Jersey Administrative Code (“N.J.A.C.”) 14:5-1.2 (in part) as “a sustained interruption of electric service resulting from conditions beyond the control of the [electric distribution company], which may include, but is not limited to, thunderstorms, tornadoes, hurricanes, heat waves or snow and ice storms, which affect at least 10 percent of the customers in an operating area.” A major event occurred in Atlantic City Electric Company’s (“ACE” or “the Company”) service territory as a result of Tropical Storm Isaias (“TS Isaias” or “Isaias”), significantly impacting the ACE Region.

Pursuant to N.J.A.C. 14:5-8.8 (a), ACE is required to file with the New Jersey Board of Public Utilities (the “Board” or “BPU”) a written report within 15 business days following the end of a major event detailing the event’s impact on the Company’s electric system and the associated system restoration efforts. This Report is being filed consistent with the Company’s discussions with Board Staff.

Overview

On August 4th, 2020, beginning at approximately 8:00 A.M., TS Isaias struck the ACE Region. Governor Phil Murphy declared a state of emergency by Executive Order No. 174, at 5:00 A.M., on Monday, August 3rd, 2020, due to the impending severe weather. Winds as high as 100 miles per hour (“mph”) struck the ACE Region, and tornadoes were reported in the service territory. The storm toppled trees and brought down tree limbs, which downed power lines and damaged electric equipment, causing widespread damage and outages. Governor Murphy lifted the state of emergency by Executive Order No. 176, at 3:00 P.M., on Thursday, August 13th, 2020.³ ACE experienced a total of 210,852 customer outages during this event. The 10 percent threshold for declaring a Major Event was met for the ACE Region. The chart below provides the total number of sustained customer interruptions (“CI”) for the peak 24-hour period during the storm event and indicates the percentage of customers affected.

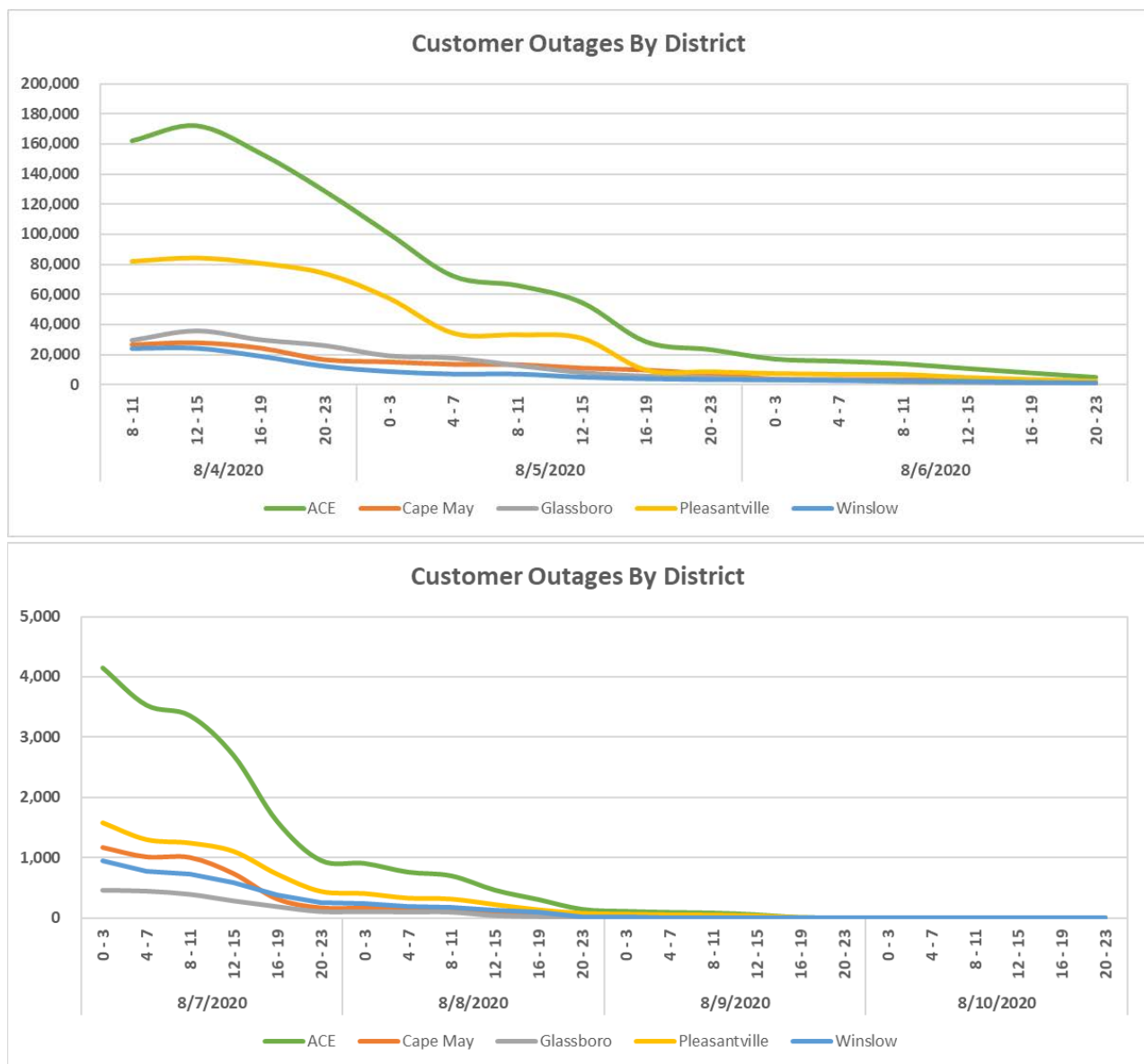
District	Total CI for Highest 24-Hour Period	Percent of Customer Base
Cape May	36,189	32%
Glassboro	45,626	28%

³ A thunderstorm also struck the ACE Region on August 7th, 2020, during the State of Emergency period, but did not meet the 10 percent threshold as required under N.J.A.C. 14:5-1.2. The outages associated with the thunderstorm were not counted toward TS Isaias-related customer outages and, as such, are not included as part of this Major Event Report.

Major Event Report – Tropical Storm Isaias

Pleasantville	97,356	54%
Winslow	32,743	33%

At its peak on Tuesday, August 4th, 2020, 1:00 P.M., the storm interrupted power to 171,937 ACE customers. In total, there were 210,852 sustained interruptions in the ACE Region, impacting more than 10 percent of the Company's customers in the ACE Region, and triggering a major event report. ACE's storm response included internal and mutual assistance ("MA") resources. The distribution system was fully restored within 147 hours. The following graph shows the progress of customer restoration accomplished by ACE's internal resources.



Major Event Report – Tropical Storm Isaias



An Exelon Company

Major Event Report – Tropical Storm Isaias

ACE Preparedness Posture

ACE, along with sister utilities across Pepco Holdings, LLC (“PHI”), began closely monitoring the path of TS Isaias in late July, well before it began to approach the Florida coastline. On the evening of Saturday, August 1st, the forecasted track of Isaias varied significantly, with various models projecting landfalls ranging from southern Florida to as far north as Long Island, New York. Early Sunday, August 2nd, weather forecasts from ACE’s primary weather vendors, StormGeo and Earth Networks, along with forecasts from the National Weather Service and the National Hurricane Center, indicated an increasing probability that the likely path of Isaias would track along the coast or directly over the mid-Atlantic states, including New Jersey. At that time, the storm could have had at least some impacts approaching a “Level 4 Serious Event” on PHI’s 6 level storm scale.

Consequently, PHI Incident Commanders, in coordination with Emergency Preparedness, ACE Incident Managers and Operational Leaders, decided to activate the ACE Incident Management Team (“IMT”) structure starting Sunday afternoon. Team leaders and members were instructed to review their checklists, develop staffing and resource needs, and finalize rosters in preparation for an extended duration storm event. A regimen including twice-daily IMT meetings and associated calls were scheduled, and team members who were needed to physically report to ACE facilities were notified to report for their shift, while the remaining team members would transition into their storm role assignments, continuing to work remotely and maintain proper social distancing and room capacity protocols necessitated by COVID-19.

PHI Emergency Preparedness began participating in Mutual Assistance calls with Regional Mutual Assistance Groups (“RMAGs”) starting Friday at 7:00 P.M., with over a few dozen calls conducted throughout the event. Requests for external and sister company mutual assistance began on Sunday afternoon through Southern and Northern RMAGs and non-affiliate contractors based across the United States and through Exelon-wide MA calls. Initially, PHI requested 500 MA resources and was able to secure more than 560 MA line workers and their additional support personnel, as well as 310 sister utility line workers and their additional support personnel. These MA line workers and their support began mobilizing as early as Sunday evening, with an initial destination just outside New Jersey, which would keep them out of the projected path of Isaias. Projected arrival times of mutual assistance ranged from Tuesday afternoon, August 4th, through Wednesday, August 5th, with second and third waves of resources arriving Wednesday through Friday morning, August 7th. At the peak of the event, ACE had over 860 mutual assistance and sister company line workers and additional support personnel from the following areas: Delaware; Maryland; Illinois; Alabama; Florida; Georgia; Kentucky; Louisiana; Mississippi; Michigan; Ohio; Tennessee; Texas; Washington, D.C.; and Canada. All the non-sister company MA was acquired through unaffiliated contractor firms and the Southeastern Electric Exchange RMAG. No resources were acquired through the North Atlantic Mutual Assistance Group.

Major Event Report – Tropical Storm Isaias

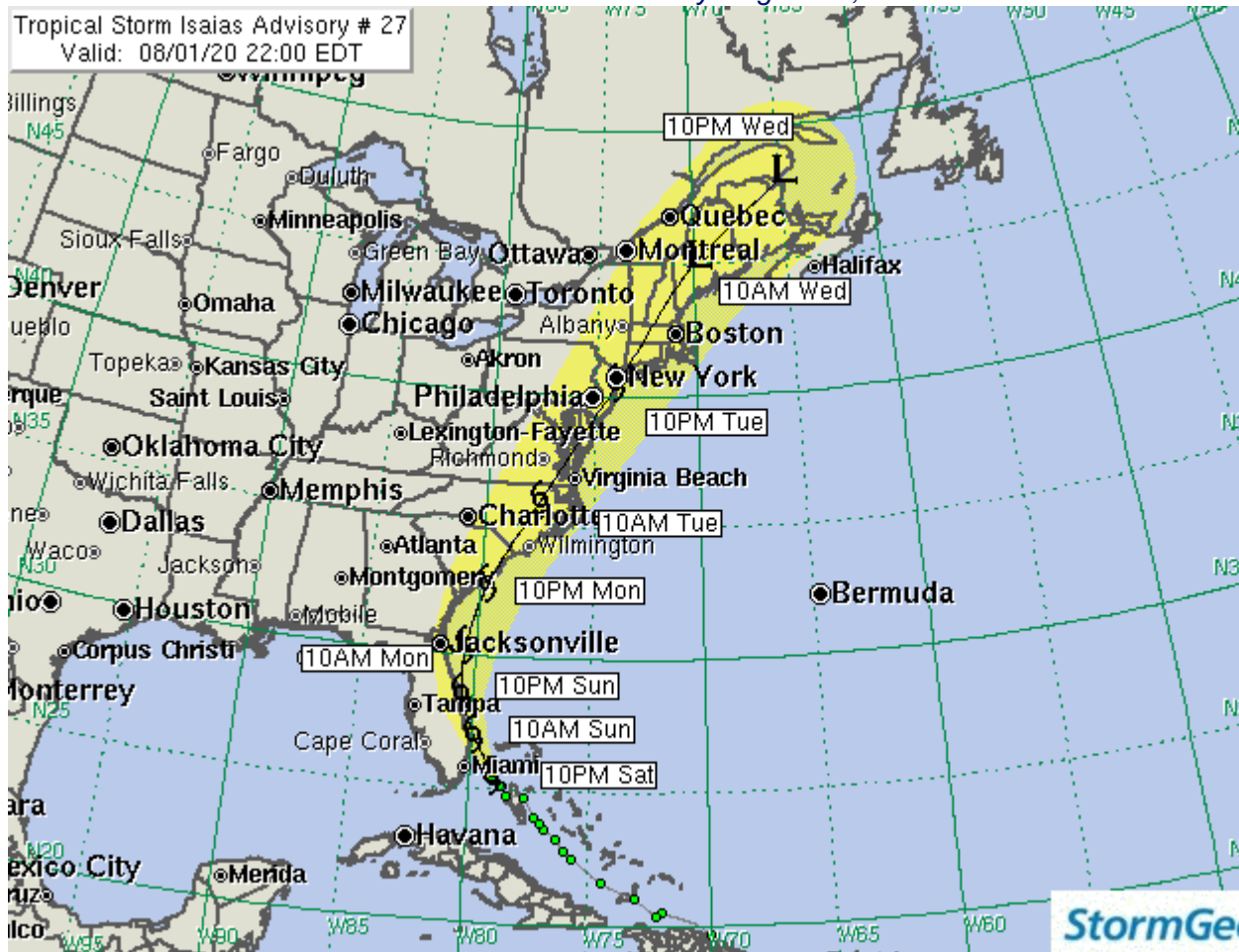
Summary of Weather Event & Sample forecasts

- The first weather impacts that indicated Isaias was on the ACE system were recorded at 9:24 A.M. on Tuesday, August 4th, in Cape May, with sustained winds recorded at 39 mph.
- The last weather impacts that indicated Isaias was beginning to move off the ACE system were recorded at 2:10 P.M. on Tuesday, August 4th, in Burlington, with sustained winds at 39 mph and gusts up to 52 mph.
- Maximum recorded wind gust in the ACE service territory was 109 mph at Long Beach Island.
- Highest recorded sustained wind was 59 mph, recorded in Pleasantville.
- Total rainfall count was approximately 5.5 inches, recorded in Logan Township.
- Two EF1 tornadoes (86-110 mph) were confirmed in Cape May and Ocean County.

Major Event Report – Tropical Storm Isaias

Tropical Storm Isaias Advisory 27

Valid: 10:00 PM EDT Saturday August 01, 2020



Current Location: 25.5N, 79.0W

Geographic Reference: 85 miles SE of Palm Beach, Florida

Movement: North-northwest at 10 mph

Max Winds: 65 mph gusting to 80 mph

Current Hurricane Severity Index: 5 out of a possible 50 points (2 size, 3 intensity)

Max Predicted Hurricane Severity Index: 6 out of a possible 50 points (2 size, 4 intensity)

Current Radius of Tropical Storm-Force Winds: 115 miles

Max Predicted Radius of Tropical Storm-Force Winds: 230 miles

Organizational Trend: Weakening

Forecast Confidence: Average

Estimated Central Pressure: 995 mb

Key Points

1. The strongest winds should remain east of Florida but could affect Grand Bahama Island.
2. The track has been adjusted a little to the west of the previous advisory.
3. Strong winds and heavy rainfall remain a concern for the U.S. East Coast from Florida to New England.

Major Event Report – Tropical Storm Isaias

Key Points

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2. The track has been adjusted a little to the west of the previous advisory.
3. Strong winds and heavy rainfall remain a concern for the U.S. East Coast from Florida to New England.

Our Forecast

Satellite and radar imagery, along with aircraft data, indicate that Isaias remains disorganized. The surface center remains displaced from the mid level center and most of the squalls. The heaviest squalls, as well as the strongest winds, are expected to remain in the northeast part of the storm. This part of the storm could affect Grand Bahama Island, though the strongest winds should remain east of Florida. This is because our track, while adjusted slightly west of the previous, is for Isaias to move along the Florida coast. Winds over Florida should be low end tropical storm force winds, if Isaias takes our forecast track. A deviation to the west would result in stronger winds.

Little overall change in intensity is expected while Isaias moves along the Florida coast. Once the turn to the north-northeast occurs, dynamical models are forecasting some increase in intensity. The forecast allows for a slight increase in the winds before moving into South Carolina Monday evening. Weakening is expected after landfall. Isaias should then move up the Mid Atlantic Coast. Slight weakening should occur as the system may remain inland instead of over the water. Winds are forecast to be 50 mph by the time Isaias reaches Long Island and New England. After impacting New England, Isaias should move into Atlantic Canada and become extratropical. however, it is expected to bring gale force winds to Atlantic Canada.

Expected Impacts on Land

Bahamas: Power outages and wind damage may occur overnight for Grand Bahamas Island. Coastal flooding is also expected. Conditions in the central and southern Bahamas are improving as Isaias moves away.

Eastern Florida Peninsula: There is a risk of widespread power outages along the coast if Isaias moves inland. Otherwise, expect scattered power outages. Minor coastal flooding may also occur.

Carolinas: There is the potential for widespread power outages, along with some damage from the wind and tidal surge, especially on the eastern side of the system. Street flooding is also likely.

Mid Atlantic: Power outages are likely in coastal areas along with localized flash flooding. Areas of street flooding may also occur due to heavy rains.

Long Island and Southern New England: There is the potential for power outages from eastern Long Island through the coast of Massachusetts. Minor coastal flooding is also possible.

Atlantic Canada: Power outages would likely on Wednesday.

An intermediate advisory will be issued by 1 AM EDT. The next full advisory will be issued by 4 AM EDT.

Meteorologist: Derek Ortt

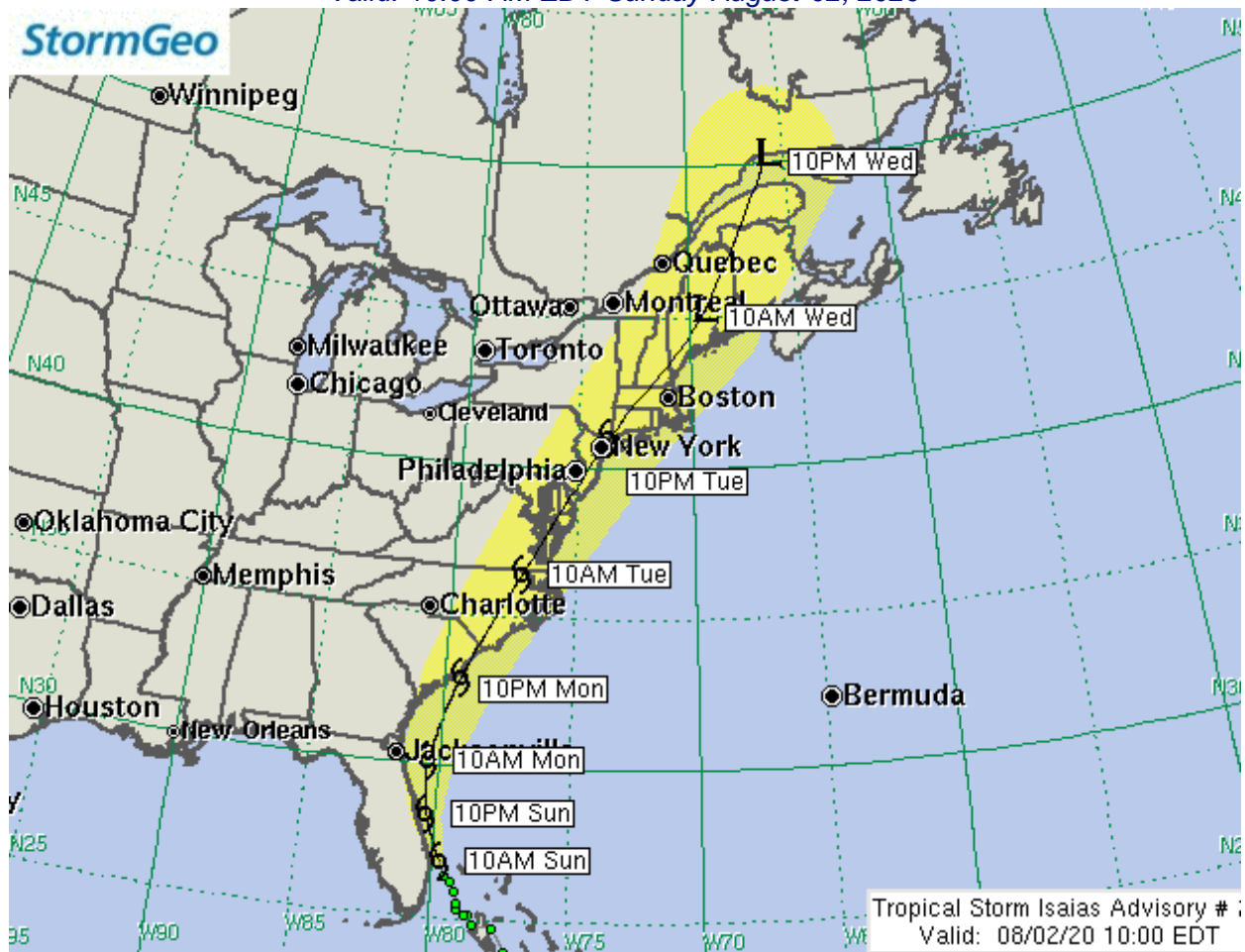
Major Event Report – Tropical Storm Isaias

Forecast Confidence: Average							Hurricane Severity Index		
Fcst Hour	Valid	Lat.	Lon.	Max Sustained Winds	Max Gusts	Category	Size	Intensity	Total
0	10PM EDT Sat Aug 01	25.50N	79.00W	65 mph	80 mph	Tropical Storm	2	3	5
12	10AM EDT Sun Aug 02	27.00N	79.90W	65 mph	80 mph	Tropical Storm	2	3	5
24	10PM EDT Sun Aug 02	28.50N	80.50W	65 mph	80 mph	Tropical Storm	2	3	5
36	10AM EDT Mon Aug 03	30.30N	80.50W	70 mph	85 mph	Tropical Storm	2	4	6
48	10PM EDT Mon Aug 03	32.70N	79.70W	70 mph	85 mph	Tropical Storm	2	4	6
49	11PM EDT Mon Aug 03	33.00N	79.50W	70 mph	85 mph	Tropical Storm	2	4	6
60	10AM EDT Tue Aug 04	36.00N	77.50W	60 mph	75 mph	Tropical Storm	2	3	5
72	10PM EDT Tue Aug 04	40.50N	74.00W	50 mph	65 mph	Tropical Storm	2	2	4
84	10AM EDT Wed Aug 05	45.00N	70.00W	50 mph	65 mph	Extratropical Storm	2	2	4
96	10PM EDT Wed Aug 05	48.00N	65.00W	45 mph	60 mph	Extratropical Storm	2	2	4

Major Event Report – Tropical Storm Isaias

Tropical Storm Isaias Advisory 29

Valid: 10:00 AM EDT Sunday August 02, 2020



Current Location: 26.8N, 79.7W

Geographic Reference: 25 Miles East of Palm Beach, Florida

Movement: North-northwest at 9 mph

Max Winds: 65 mph gusting to 80 mph

Current Hurricane Severity Index: 5 out of a possible 50 points (2 size, 3 intensity)

Max Predicted Hurricane Severity Index: 6 out of a possible 50 points (2 size, 4 intensity)

Current Radius of Tropical Storm-Force Winds: 90 miles

Max Predicted Radius of Tropical Storm-Force Winds: 220 miles

Organizational Trend: Steady

Forecast Confidence: Average

Estimated Central Pressure: 996 mb

Key Points

1. Isaias' strongest winds should remain east of Florida.
2. Stronger winds and heavier rains are expected for the Carolinas than for Florida.
3. No significant changes have been made to the forecast.

Major Event Report – Tropical Storm Isaias

Our Forecast

A reconnaissance plane inside Isaias has found that max sustained winds may be a little below 65 mph, but we are not indicating any weakening in this forecast. Even though the center is only about 25 miles off the coast of Florida, tropical storm-force winds are barely reaching the beach. There is very little wind and almost no rain west of the center.

We have made no significant changes to the track or intensity forecast in this advisory. Isaias should maintain its current intensity today as it tracks just off the Florida coast. As Isaias turns northward on Monday morning, the relative wind shear that has been causing Isaias to struggle will decrease. This should allow Isaias to strengthen prior to moving inland into the Carolinas late Monday evening. We are predicting max winds could reach 70 mph then, but it is quite possible that Isaias could regain hurricane strength prior to landfall. If so, then hurricane-force winds will not cover a very large area.

Once inland, Isaias will slowly weaken as it tracks up the East U.S. Coast on Tuesday and Wednesday. By the time the center reaches Maine on Wednesday morning, it will likely have transitioned into extratropical low pressure system, which means it will lose the stronger winds near its center and its wind field will expand. Heaviest rain may fall west of the track from the Mid Atlantic Coast to New England, which is typical of a storm taking such a track.

Expected Impacts on Land

Eastern Florida Peninsula: There is a risk of scattered power outages along the coast. No heavy rain expected.

Carolinas: There is the potential for widespread power outages, along with some damage from the wind and tidal surge, especially on the eastern side of the system. Street flooding is also likely.

Mid Atlantic: Power outages are likely in coastal areas along with localized flash flooding. Areas of street flooding may also occur due to heavy rains.

Long Island and Southern New England: There is the potential for power outages from eastern Long Island through the coast of Massachusetts. Minor coastal flooding is also possible.

Atlantic Canada: Power outages would likely on Wednesday.

An intermediate advisory will be issued by 1 PM EDT. The next full advisory will be issued by 4 PM EDT.

Meteorologist: Chris Hebert

Major Event Report – Tropical Storm Isaias

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36	10PM EDT Mon Aug 03	32.90N	79.40W	70 mph	85 mph	Tropical Storm	2	4	6
48	10AM EDT Tue Aug 04	36.40N	77.20W	60 mph	75 mph	Tropical Storm	2	3	5
60	10PM EDT Tue Aug 04	41.00N	73.70W	50 mph	65 mph	Tropical Storm	1	2	3
72	10AM EDT Wed Aug 05	45.00N	69.50W	50 mph	65 mph	Extratropical Storm	2	2	4
84	10PM EDT Wed Aug 05	50.00N	66.00W	45 mph	60 mph	Extratropical Storm	2	2	4

Customer Communications

ACE's external communications and engagement processes occur in three distinct categories during emergencies: engagement with government officials; communications with customers; and communications directed to the media and general public. The following provides details of the activities conducted during TS Isaias in each of these categories over three phases: pre-storm, storm response and restoration, and post-storm.

1. Engagement with Government Officials

In advance of and during emergency events, ACE's Government and External Affairs Team actively communicates with State, county and local officials across the Company's service territory. Once activated for an emergency, the "External Liaison Team" operates around-the-clock and is supplemented by second-role staffing resources from across the Company who have been trained for the role.

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The team is responsible for:

- regular, proactive communications to inform government stakeholders of preparation and restoration activities;
- providing dedicated liaisons to each county Office of Emergency Management (“OEM”), upon request, to record, prioritize and track emergency and public safety hazards involving ACE’s equipment;
- identifying, prioritizing, and tracking the status of outages affecting critical customers and facilities, such as hospitals and nursing homes;
- coordinating with State, county and local public safety and emergency management personnel to prioritize and address downed wires and road closures; and
- responding to direct inquiries from government officials about the status of restoration activities.

Pre-Storm Phase Activities Conducted by Government Affairs and External Liaison Team

- On August 1st, the team confirmed staff availability and developed a 24-hour staffing schedule, which commenced August 3rd
- ACE executed 72-, 48-, 24-, 0-hour pre-storm checklists.
- Commencing August 2nd, ACE conducted pre-storm outreach with County OEMs.
- Starting on August 3rd and continuing through the event, the team shared the Communications talking points with External Liaison Team.
- Starting on August 3rd, the team e-mailed all ACE news releases to key stakeholders (State, county and local officials).
- On August 3rd, an External Liaison Team lead call was held to review checklist and remote reporting protocols.

Restoration Phase Activities Conducted by Government Affairs and External Liaison Team

- On August 4th, the team commenced daily government stakeholder briefing calls conducted by the ACE Region President and ACE Director of Operations. More than 290 public officials were invited to join the calls that were held on four consecutive days. Call participants, averaging 50 officials each day, were able to ask questions and identify priority work in their communities.
- Commencing August 4th, ACE provided dedicated liaison support for County OEMs when requested. Upon request, assigned representatives to Atlantic, Cape May, Gloucester, Cumberland and Ocean County OEMs, which all opened on August 4th. Liaisons worked in shifts around the clock until each closed.
- The ACE Liaison leads logged and resolved over 300 unique issues submitted by State, county, and local officials; OEMs; and critical customers. Updates were provided as work was completed;

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- ACE worked with the County OEMs and municipalities to prioritize road closures and wires down. Once they were prioritized, the Liaison Team worked with ACE district wire-down teams to clear roadways and cut wires clear.
- The team worked with County OEMs, municipalities, and ACE district personnel to prioritize and restore over 800 critical customers (water, sewer, police, fire, nursing homes, grocery stores, etc.).
- The team worked with ACE's Manager of State Government Affairs on issues that came in from Legislators and their offices regarding constituent outages and other emergencies.
- On August 6th and 7th, 2020, the team coordinated the delivery and distribution of water and ice to four locations in four counties: Atlantic, Burlington, Cumberland, and Gloucester. The team worked with the County OEMs to identify locations that were centrally located to the outages and would give the greatest number of customers the opportunity to reach the locations,
- The External Liaison Team stayed on-call and worked as needed through August 10th, 2020.

Post-Storm Phase Activities Conducted by Government Affairs and External Liaison Team

- Post Storm Survey – On August 12th, the team developed and e-mailed an after-storm survey to approximately 275 State, county, and local officials.

2. Communications with Customers

Direct communications with the Company's customers are primarily conducted by ACE's Customer Care organization, including its Call Center Representatives. The method of communications varies, depending on the situation, the content of messaging, customer preference, and volume of customers involved. Proactive communications may be conducted by automated phone calls, live phone calls, emails, and texts. A growing number of customers prefer the use of ACE's web-based and mobile applications that enable customers to report outages, check on the status of restoration, and track their Estimated Times of Restoration ("ETRs") without engaging a call center representative.

Pre-Storm Preparations and Communications with Customers

- ACE doubled the number of Customer Care Team representatives to more than 240 employees to better manage an expected high-call volume to address customer emergency and outage calls for assistance.
- On August 3rd, an automated out-bound call was sent to ACE's Medical Needs customers advising of the coming storm, the risk of power outages, and the importance of preparation.

Restoration Phase Activities Conducted by Customer Operations

- During Isaias, the ACE Customer Care Team, along with the interactive voice response system, managed more than 160,000 customer inquiries between August 6th and August 10th, 2020. ACE's Customer Care representatives answered each call within an average of 28 seconds.

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- On August 4th at 7:45 P.M., an automated phone call was sent to more than 165,000 customers affected by the storm, acknowledging the outages, notifying that damage assessment was underway, and that ETRs were being developed for this anticipated multi-day restoration effort.
- On August 5th at 6:20 P.M., an automated phone call was sent to approximately 30,000 customers advising them to check ACE's systems for their specific ETR and notifying customers that all customers were expected to be restored by August 8th.
- Commencing August 5th and concluding on August 8th, Call Center Representatives began a series of five live out-bound call efforts made to customers that were shown on ACE's Outage Management System to be part of a single customer outage order. The purpose of the more than 5,400 calls placed was to assure these customers with the longest expected outage durations that ACE was aware of their outages and to determine if their power had been restored by repairs already made to nearby facilities. Through these calls, Customer Operations was able to confirm that 1,200 customers had their power restored. Customer Operations cancelled the orders in the Outage Management System, saving an equivalent number of costly and time-consuming truck rolls.

3. Communications with Media, Social Media and General Public

ACE's Communications Team provided a steady stream of real-time storm updates to media outlets resulting in nearly 200 articles or mentions in various news publications. The same updates were also shared across all ACE social media channels, including Facebook and Twitter, with posts that resulted in 1.25 million potential impressions. Updates included safety reminders to customers to stay away from downed power lines and information on the restoration process.

Pre-Storm Activities – Media, Customers and General Public

- On August 1st, ACE began sharing storm preparedness tips and messaging on social media channels.
- On August 3rd at 2 P.M., ACE issued a news release about its preparations for the coming storm and provided preparation and safety tips to customers.

Restoration Phase Activities – Media, Customers and General Public

- Over the course of the storm, there were more than 1.4 million views of ACE's outage map, outage tips, and safety pages on ACE's external facing website.
- The ACE mobile app was accessed almost 175,000 times by customers looking for outage updates, including 10,000 customers who reported their outages via the app.
- ACE issued six news releases over the course of the storm event, updating the media and the general public on the restoration progress and status:
 - August 4th at 6:41 P.M.;
 - August 5th at 12:19 P.M.;
 - August 5th at 5:41 P.M.;
 - August 6th at 9:37 A.M.;
 - August 7th at 11:16 A.M.; and

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- August 8th at 9:10 A.M.
- ACE's Communications Team provided live, on-air updates with NBC 10 TV and WPG 104.1 FM on the morning of August 5th, in addition to other recorded interviews with various news outlets to provide updates on the restoration process.
- ACE issued 10 sets of internal talking points to keep all employees with communications responsibilities informed about the restoration status.
- The Company posted more than 130 messages and status updates on social media.
- On August 7th – 9th, 2020, the team ran storm restoration ads on social media in the most heavily damaged counties, directing customers to storm resources on the Company's webpage. These garnered high customer engagement with a 0.96 percent click-through rate.
- Throughout the event, ACE monitored customers' questions and comments on social media and directly communicated with customers as appropriate.

Post-storm Activities -- Media, Customers and General Public

- On August 9th at 7:23 P.M., ACE issued a final news release announcing the completion of the restoration process.

Vegetation Management

The ACE region experienced tropical storm winds, straight line winds, and even tornadoes during the event period, affecting trees throughout the service territory. Trees and tree limbs from outside the right-of-way ("ROW") impacted the ACE distribution system during Isaias. ACE aggressively performed post-storm feeder patrols. ACE typically has 222 tree full-time employees ("FTEs") on property on a normal day but ramped up to 418 FTEs at the height of the restoration efforts. During the post-storm feeder patrols, ACE identified more than 1,000 follow-up work locations. Of these follow-up locations, approximately two-thirds of the follow-up locations identified were within the ROW. During the feeder patrol process, no hazard trees meeting the BPU definition were discovered. ACE Vegetation Management representatives have concluded that the majority of outages were not preventable given the severity of Isaias and the level of inspection that circuits receive during their respective preventive maintenance cycles. Specifically, visual inspections of all overhead primary and secondary supplies allow the inspector to see obvious external defects with a tree or tree limb. In combination with extreme weather events such as TS Isaias, unseen defects cannot maintain the structural integrity of a tree and can result in whole-tree and/or tree limb failure across the system.

Advanced Metering Infrastructure

During TS Isaias, ACE sought to confirm the outage status of approximately 3,217 customers. Consistent with the current legacy meter capabilities, ACE placed over 5,400 phone calls to those customers. As the Company was unable to reach many of those customers, the Company required a truck roll to those sites to determine outage status. As a result, ACE performed truck rolls to 1,203 customer sites where power had already been restored. ACE's sister utility,

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Delmarva Power and Light Company (“DPL”), avoided truck rolls to a total of 432 customer sites as a result of successful meter pinging for Tropical Storm Isaias. In a thunderstorm that occurred a few days later, DPL avoided truck rolls to a total of 106 customer sites due to meter pinging. Similarly, ComEd, ACE’s sister regulated utility, utilized its smart energy network to ping more than 37,000 meters early in the restoration efforts of the recent Derecho event in Illinois, reducing the number of truck rolls to assess customer outages by over 2,200, and saving hours of restoration time for customers.

Equipment Replacement

The following table shows the capital equipment ACE replaced as a result of Tropical Storm Isaias.

Materials	Quantity
Poles	74
Transformers	166
Fixtures	28
Primary wire	45,561 ft.
Secondary wire	48,991 ft.
Fuse cutouts (fuse, mt holder)	14
Switch disconnect	11
Ground wire	20,711 ft.
Transformer leads - copper	1,971 ft.
Cross arms	549

Investment Value

Tropical Storm Isaias (210,000 customer interruptions) was very similar to the Bow Echo (400,000 customer interruptions), Derecho (300,000 customer interruptions), and Superstorm Sandy (360,000 customer interruptions) major weather events as far as storm strength, though the customer impact was far less. The investments made from the programs within the ACE Reliability Improvement Plan, the hardening and resiliency efforts from PowerAhead, and the enhanced recloser installations and automatic sectionalization and restoration (“ASR”) activations provided through the Infrastructure Investment Program mitigated the overall damage that Isaias had on the ACE distribution system.

During TS Isaias, ACE experienced a total of seven ASR events where customer restoration occurred, saving a total 7,438 customers outages. In addition, there were a total of 153 recloser operations, which limit the amount of customer interruptions through feeder segmentation.

Overall, ACE’s SAIFI (outage frequency) has also improved. From year-end 2013 - 2019 ACE has seen a 38% reduction in SAIFI from 1.45 to 0.90; through July 2020, the trailing twelve-month SAIFI is 0.82. This declining trend is further evidence of the benefits realized by customers due to ACE’s continued investments. Here is a list of additional projects that have been completed, strengthening the distribution and transmission system in the ACE Region:

- 69 kV Lewis-Higbee-Ontario Transmission Line Rebuild – During Superstorm Sandy, three of the four lines feeding the City of Atlantic City experienced outages. During Isaias, none of the lines experienced an outage since the line was rebuilt with steel poles;

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- Higbee Switchgear Replacement – Storm Hardening and Resiliency;
- Higbee Distribution Line Modifications – Storm Hardening;
- Rio Grande Substation and Line Rebuilds – Storm Hardening and Resiliency – Relocated Outdoor feeders indoors and added a third transformer to carry additional Cape May load;
- Peermont Substation Rebuild – Storm Hardening and Resiliency;
- Distribution Automation Line Upgrades – Improves ASR capability;
- ACE PowerAhead - NJ2097 Washington Cross Keys - Selective Undergrounding;
- ACE PowerAhead - NJ0972 Lake Pine – Structural and Electrical (“S&E”) Hardening;
- ACE PowerAhead - NJ0242 Winslow South - S&E Hardening;
- ACE PowerAhead - NJ0671 Fairton Cohansey - S&E Hardening;
- ACE IIP – Recloser Installations;
- Monroe-Tansboro 69 kV rebuild;
- Salem Woodstown 69 kV rebuild;
- Peermont 69 kV sources;
- High Street 69 kV sources; and
- currently, 27 percent of ACE Transmission System is on hardened infrastructure (steel poles).

COVID-19 Impacts

All indications are that COVID-19 had minimal impact on storm readiness and on ACE’s ability to quickly restore customers due to storms. Over the past several months, ACE has effectively restored hundreds of thousands of customers who lost power due to two tropical storms, including Isaias and several heavy localized storms, without sustaining one positive COVID case among employees and contractors aiding in restoration and communications efforts. In response to the pandemic, PHI has developed emergency response guidelines to use for restoration purposes during and following a significant storm event. These guidelines address how PHI responds during the pandemic to a request for mutual assistance from a sister utility, a neighboring utility, or an impacted RMAG member utility. These guidelines have been developed following due consideration of the Electric Subsector Coordinating Council’s “Mutual Assistance Guidelines,” which were developed based on best practices from industry-wide working groups that PHI participates in, including Edison Electric Institute and The Association of Edison Illuminating Companies. Given the unique nature of a pandemic, these guidelines are specific to COVID-19 and are a supplement to, but do not supersede, those guidelines outlined in the PHI Emergency Operations Plan. These guidelines are targeted to address the various functions involved in a major restoration effort and are based on the current COVID-19 situation. The guidelines are reviewed on a continuous basis and updated as appropriate, given the changing circumstances of the pandemic.

After Action Review

ACE and its sister utilities continue to conduct “lessons learned” and after-action review sessions, and follow-up meetings to identify key opportunities for improvement. The following information is

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preliminary and provide a sampling of some of the findings as a result of the TS Isaias event. In its ongoing efforts to continuously improve its storm restoration efforts, the Company has preliminary plans in October to initiate “lessons learned” follow-up projects and projects teams that will continue to implement improvements through 2020 into early 2021.

Areas of Strength

After initial discussion, the following areas were identified as strengths:

- IMT Posturing and Response. The ACE IMT made the decision to open Sunday afternoon, August 2nd, several days prior to initial impact to ensure adequate resources, logistics, and personnel were readied prior to the beginning of the restoration phase.
- Weather Forecasts. The Weather Program, including two weather vendors and ACE’s internal meteorologist, did an admirable job providing advance notification of the eventual track and relative strength of TS Isaias, which was key to the advance planning steps and resource acquisition activities that began Sunday afternoon, August 2nd.
- Mutual Assistance. The Mutual Assistance Program and sister utilities were able to provide timely and abundant resources, despite the entire east coast taking similar steps to secure resources, which put constraints on nearby resource availability. ACE was in close contact with the three New Jersey electric distribution companies (“EDCs”) throughout the event to discuss and coordinate mutual assistance efforts as necessary.

Areas for Improvement

After initial assessment, the following areas were identified as areas for additional discussion:

- Staging Area Personnel. ACE opened two primary staging areas, including the Atlantic City Racetrack (covering the Eastern part of ACE’s service territory) and the former Sony Plant (covering the western parts of ACE’s service territory). Additional mustering sites and reporting locations were also established, though the bulk of MA crews reported to the two staging areas. In both staging areas, ACE identified the need for additional support personnel to aid with material replenishment and other staging area logistical support for large scale events.
- Additional Wire Down Safety Standbys. In order to ensure damage assessment personnel and police and fire professionals do not get impeded by guarding downed wires, ACE will request additional MA and/or contractor safety standbys whenever it requests large amounts of line personnel.
- Work with BPU Staff and the EDCs on Priority Order Request. Periodically during the event, Board Staff sent lists of non-life threatening wires down, road closures and outages by e-mail, which, after further analysis, had already been responded to by ACE in many cases. The Company will work with Board Staff and the EDCs to develop an improved method of reporting and subsequent follow-up on priority requests to ensure quicker turnaround to those priorities still requiring response.

Conclusion

Tropical Storm Isaias struck the ACE region on Tuesday, August 4th, 2020, causing severe wind damage and creating 171,937 customer outages in the ACE region at its peak. The Company’s own crews began restoration immediately after the storm, and it had contract crews

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performing restoration efforts on Tuesday, August 4th. ACE's IMT kept State, county, and municipal officials and emergency management personnel updated with their progress. The Communications Team began messaging efforts on Monday, August 3rd, and distributed the Company's communications and engagement, including news releases and media summaries, talking points, and social media posts. Although ACE is justly proud of its response, the Company is engaged in self-assessment and "lessons learned" activities following the storm. ACE continues to look for ways to improve restoration efforts and is committed to meeting customers' expectations for excellence in customer service. Overall, ACE's investment in vegetation management, feeder improvement, undergrounding, and substation supply line hardening well-prepared the Company to effectively respond to the storm.

The following are the Company's responses to specific requirements set forth in N.J.A.C. 14:5-8.8 (a).

7. *The date and time when ACE's Storm Centers opened and closed.*

Storm Room Operations		
Location	Opened	Closed
Atlantic Regional	Aug. 4 at 7:00 A.M.	Aug. 9 at 8:00 P.M.
Cape May	Aug. 4 at 7:00 A.M.	Aug. 9 at 8:00 P.M.
Glassboro	Aug. 4 at 7:00 A.M.	Aug. 9 at 8:00 P.M.
Pleasantville	Aug. 4 at 7:00 A.M.	Aug. 9 at 8:00 P.M.
Winslow	Aug. 4 at 7:00 A.M.	Aug. 9 at 8:00 P.M.

8. *The total number of customers out of service over the course of the major event over four-hour intervals, identified by operating area or circuit area. For purposes of this count, the starting time shall be when the storm center opens and the ending time shall be when the storm center closes. Regardless of when the storm center is closed, the EDC shall report the date and time when the last customer affected by a major event is restored.*

g. See **Appendix A** for the 4-hour outage report.

h. The date and time when the last customer affected by the major event is restored:

The last customer affected by the storm was restored on **Monday, August 10th, 2020 at 11:34 A.M.** After the last customer was restored, the Company continued repairing storm damaged distribution equipment as identified during the storm and post-storm assessment process.

3. *The number of trouble locations and classifications:*
See **Appendix B**.

4. *The time at which the mutual aid and non-company contractor crews were requested, arrived for duty, were released and the mutual aid and non-contractor response(s) for assistance (number of crews):*

Major Event Report – Tropical Storm Isaias

See **Appendix C**.

5. *A timeline profile of the number of company line crews, mutual aid crews, non-company contractor line and tree crews working on restoration activities during the duration of the major event.*

See **Appendix D**.

6. *The timeline profile of the number of company crews sent to an affected operating area to assist in the restoration:*

See **Appendix E**.

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Appendix A

The total number of customers out of service over the course of the major event.

Date	Time Period	ACE	Cape May	Glassboro	Pleasantville	Winslow
8/4/2020	8 - 11	161,964	26,790	29,284	81,998	23,892
	12 - 15	171,937	28,141	35,477	84,253	24,066
	16 - 19	153,576	24,527	29,613	80,653	18,783
	20 - 23	128,550	16,671	25,817	73,895	12,167
8/5/2020	0 - 3	100,289	15,184	19,062	57,354	8,689
	4 - 7	72,200	13,561	17,579	34,042	7,018
	8 - 11	66,013	13,280	12,701	33,024	7,008
	12 - 15	54,722	11,033	8,036	30,711	4,942
	16 - 19	28,662	9,607	5,677	9,477	3,901
	20 - 23	23,502	7,012	4,795	8,395	3,300
8/6/2020	0 - 3	17,254	3,452	3,433	7,146	3,223
	4 - 7	15,791	3,212	3,288	6,584	2,707
	8 - 11	14,043	3,202	1,848	6,479	2,514
	12 - 15	10,971	2,696	1,572	4,538	2,165
	16 - 19	8,006	2,422	971	3,156	1,457
	20 - 23	5,094	1,461	511	2,066	1,056
8/7/2020	0 - 3	4,147	1,175	450	1,570	952
	4 - 7	3,530	1,019	436	1,294	781
	8 - 11	3,354	1,009	383	1,236	726
	12 - 15	2,696	739	276	1,098	583
	16 - 19	1,598	315	182	722	379
	20 - 23	952	167	101	437	247
8/8/2020	0 - 3	902	163	100	401	238
	4 - 7	757	146	94	325	192
	8 - 11	694	115	92	309	178
	12 - 15	457	75	35	218	129
	16 - 19	300	59	19	132	90
	20 - 23	139	35	16	73	15
8/9/2020	0 - 3	105	20	16	59	10
	4 - 7	88	16	16	49	7
	8 - 11	78	14	13	45	6
	12 - 15	49	6	8	33	2
	16 - 19	5	0	0	4	1
	20 - 23	2	0	0	1	1
8/10/2020	0 - 3	1	0	0	1	0
	4 - 7	1	0	0	1	0
	8 - 11	1	0	0	1	0
	12 - 15	0	0	0	0	0
	16 - 19	0	0	0	0	0
	20 - 23	0	0	0	0	0

Major Event Report – Tropical Storm Isaias

Appendix B

The number of trouble locations and classifications. Please note that the number of trouble locations and classifications from August 6th through August 10th include outage orders associated with another storm that caused additional outages on the distribution system.

Order Report (Trouble Locations)		Atlantic Region		Cape May		Glassboro		Pleasantville		Winslow	
Date	4-hour Time Period	Outage Orders	Non-outage Orders	Outage Orders	Non-outage Orders	Outage Orders	Non-outage Orders	Outage Orders	Non-outage Orders	Outage Orders	Non-outage Orders
8/4/2020	8 - 11	2383	433	446	130	685	124	756	97	496	82
	12 - 15	9404	2139	1572	523	2574	485	3407	684	1851	447
	16 - 19	11730	2984	2013	650	3079	665	4213	996	2425	673
	20 - 23	12968	3618	2170	737	3252	745	4730	1317	2816	819
8/5/2020	0 - 3	13311	3862	2246	773	3209	792	4992	1451	2864	846
	4 - 7	13779	3963	2380	787	3261	807	5223	1504	2915	865
	8 - 11	14668	4106	2542	737	3461	831	5577	1602	3088	936
	12 - 15	14845	4222	2589	723	3584	841	5579	1654	3093	1004
	16 - 19	14786	4161	2541	669	3517	826	5631	1634	3097	1032
	20 - 23	14532	4148	2515	642	3396	844	5546	1612	3075	1050
8/6/2020	0 - 3	14300	4150	2470	637	3330	839	5433	1612	3067	1062
	4 - 7	14119	4142	2459	639	3254	818	5344	1620	3062	1065
	8 - 11	13990	4299	2516	679	3120	840	5413	1752	2941	1028
	12 - 15	12924	4284	2334	673	2787	869	5128	1823	2675	919
	16 - 19	11417	3968	2015	628	2511	732	4457	1733	2434	875
	20 - 23	10646	3924	1893	597	2342	684	4070	1744	2341	899
8/7/2020	0 - 3	10266	3903	1839	597	2240	687	3892	1734	2295	885
	4 - 7	9999	3863	1803	590	2186	685	3754	1714	2256	874
	8 - 11	9354	3800	1684	558	1918	710	3579	1669	2173	863
	12 - 15	7716	3562	1428	537	1490	688	2996	1551	1802	786
	16 - 19	6003	3191	1091	493	1181	622	2433	1397	1298	679
	20 - 23	5655	3223	911	478	1518	679	2031	1373	1195	693
8/8/2020	0 - 3	5491	3167	857	468	1526	674	1981	1345	1127	680
	4 - 7	5302	3086	820	461	1497	653	1929	1308	1056	664
	8 - 11	4786	2952	721	439	1331	694	1802	1198	932	621
	12 - 15	3480	2519	503	313	944	671	1322	969	711	566
	16 - 19	2255	2003	369	228	644	606	831	699	411	470
	20 - 23	1682	1749	317	185	470	548	602	573	293	443
8/9/2020	0 - 3	1400	1664	253	172	363	520	543	543	241	429
	4 - 7	1240	1585	205	163	310	478	503	520	222	424
	8 - 11	1029	1557	178	165	234	461	424	523	193	408
	12 - 15	652	1352	93	149	150	405	266	442	143	356

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Appendix C

The time at which the mutual aid and non-Company contractor crews were requested, arrived for duty, were released, and their response for assistance (number of resources).

Summary of Mutual Aid - Foreign Utility & Contractor Crews					
Requested	Arrival	Type	Name	No. of Crews	Released
8/2/2020	8/4/2020	OH	ComEd - Meade	6	8/9/2020
8/5/2020	8/6/2020	OH	ComEd - Meade (2nd Wave)	5	8/10/2020
8/2/2020	8/4/2020	OH	ComEd - Dynamic Contractor	8	8/9/2020
8/2/2020	8/5/2020	OH	ComEd - Dynamic Contractor (2nd Wave)	4	8/9/2020
8/5/2020	8/6/2020	OH	ComEd Michels	7	8/9/2020
8/2/2020	8/4/2020	OH	ComEd Internal	24	8/9/2020
8/5/2020	8/6/2020	OH	ComEd Internals (2nd Wave)	24	8/9/2020
8/5/2020	8/6/2020	OH	ComEd Internal (North & West)	25	8/9/2020
8/5/2020	8/6/2020	OH	ComEd Intren	11	8/9/2020
8/5/2020	8/6/2020	OH	ComEd Henkel	5	8/9/2020
8/5/2020	8/6/2020	OH	ComEd JF Electric	6	8/9/2020
8/2/2020	8/5/2020	OH	Kingston NB	9	8/10/2020
8/2/2020	8/4/2020	OH	Kingston Ontario	7	8/10/2020
8/2/2020	8/5/2020	OH	Tempest Battle Creek Michigan	7	8/10/2020
8/2/2020	8/4/2020	OH	PowerGrid Thayer	7	8/10/2020
8/5/2020	8/6/2020	OH	PowerGrid Thayer	4	8/10/2020
8/2/2020	8/4/2020	OH	PowerGrid Franket	3	8/10/2020
8/2/2020	8/4/2020	OH	Backbone	3	8/10/2020
8/4/2020	8/5/2020	OH	Thayer APCO	6	8/10/2020
8/5/2020	8/6/2020	OH	BGE Riggs	3	8/10/2020
8/5/2020	8/7/2020	OH	Tempest Arizona	4	8/10/2020
8/4/2020	8/5/2020	OH	Pepco H&M	4	8/11/2020
8/4/2020	8/5/2020	OH	Pepco MBI	4	8/9/2020
8/5/2020	8/6/2020	OH	BGE MBI	1	8/10/2020
8/4/2020	8/5/2020	OH	Pepco Riggs	4	8/9/2020
8/4/2020	8/5/2020	OH	Pepco Intren	1	8/11/2020
8/5/2020	8/6/2020	OH	BGE Intren	2	8/10/2020
8/4/2020	8/5/2020	OH	Pepco Miller Brothers	1	8/11/2020
8/6/2020	8/7/2020	OH	Peco Miller Brothers	0	8/11/2020
8/4/2020	8/5/2020	OH	Pepco Forestville	5	8/10/2020
8/5/2020	8/6/2020	OH	ComEd PMI	8	8/9/2020
8/5/2020	8/6/2020	OH	ComEd MJ Elec	9	8/10/2020
8/6/2020	8/7/2020	OH	Semper Utilities	3	8/8/2020
8/6/2020	8/7/2020	OH	Delmarva NE	4	8/8/2020
8/6/2020	8/7/2020	OH	Delmarva Centerville	2	8/8/2020
8/6/2020	8/7/2020	OH	Delmarva Salisbury	4	8/8/2020
8/6/2020	8/7/2020	OH	Delmarva Millsboro	2	8/8/2020
8/6/2020	8/7/2020	OH	Tempest Florida	7	8/10/2020
8/6/2020	8/7/2020	OH	Sparks Bright Star	8	8/9/2020
8/6/2020	8/7/2020	OH	Sparks Ward Elec	8	8/9/2020
8/6/2020	8/7/2020	OH	Sparks Iron Step	1	8/9/2020
8/6/2020	8/7/2020	OH	Sparks USCCO	3	8/9/2020
8/6/2020	8/7/2020	OH	Sparks Le Myers	3	8/9/2020
8/6/2020	8/7/2020	OH	Sparks Le Myers 2	2	8/9/2020

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Appendix D

A timeline profile of the number of Company line crews, mutual aid crews, non-Company contractor line and tree crews.

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
8/4/2020	0-4	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	4-8	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	8-12	Cape May	0	0	0
		Glassboro	0	0	0
		Pleasantville	0	0	0
		Winslow	0	0	0
	12-16	Cape May	2	6	2
		Glassboro	6	6	4
		Pleasantville	3	16	4
		Winslow	2	2	2
	16-20	Cape May	4	6	6
		Glassboro	9	6	11
		Pleasantville	7	16	11
		Winslow	4	2	5
	20-24	Cape May	4	6	6
		Glassboro	9	6	11
		Pleasantville	7	16	11
		Winslow	4	2	5

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Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
8/5/2020	0-4	Cape May	2	3	4
		Glassboro	4	5	7
		Pleasantville	4	6	9
		Winslow	2	2	3
	4-8	Cape May	2	26	25
		Glassboro	6	17	20
		Pleasantville	3	61	40
		Winslow	2	10	10
	8-12	Cape May	2	23	25
		Glassboro	6	12	20
		Pleasantville	3	55	40
		Winslow	2	8	10
	12-16	Cape May	2	29	25
		Glassboro	6	14	20
		Pleasantville	3	61	40
		Winslow	2	10	10
	16-20	Cape May	4	29	25
		Glassboro	9	14	20
		Pleasantville	7	61	40
		Winslow	4	10	10
	20-24	Cape May	4	29	25
		Glassboro	9	14	20
		Pleasantville	7	61	40
		Winslow	4	10	10

Major Event Report – Tropical Storm Isaias

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
8/6/2020	0-4	Cape May	2	6	4
		Glassboro	4	3	7
		Pleasantville	4	6	10
		Winslow	2	2	4
	4-8	Cape May	4	63	30
		Glassboro	8	23	15
		Pleasantville	7	118	70
		Winslow	4	18	15
	8-12	Cape May	4	57	30
		Glassboro	8	21	15
		Pleasantville	7	112	70
		Winslow	4	16	15
	12-16	Cape May	2	61	26
		Glassboro	4	23	8
		Pleasantville	3	118	60
		Winslow	2	21	11
	16-20	Cape May	4	61	30
		Glassboro	8	23	15
		Pleasantville	7	118	70
		Winslow	4	21	15
	20-24	Cape May	4	61	33
		Glassboro	8	23	19
		Pleasantville	7	118	74
		Winslow	4	21	17

Appendix D

(Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
8/7/2020	0-4	Cape May	2	4	3
		Glassboro	4	2	4
		Pleasantville	4	6	4
		Winslow	2	5	2
	4-8	Cape May	4	57	25
		Glassboro	8	61	30
		Pleasantville	7	96	50
		Winslow	4	54	25
	8-12	Cape May	4	53	25
		Glassboro	8	35	30
		Pleasantville	7	90	50
		Winslow	4	56	25
	12-16	Cape May	2	57	22
		Glassboro	4	37	26
		Pleasantville	3	98	46
		Winslow	2	61	28
	16-20	Cape May	4	57	22
		Glassboro	8	37	26
		Pleasantville	7	98	46
		Winslow	4	61	28
	20-24	Cape May	4	57	22
		Glassboro	8	37	26
		Pleasantville	7	98	46
		Winslow	4	61	28

Major Event Report – Tropical Storm Isaias

Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
8/8/2020	0-4	Cape May	2	4	3
		Glassboro	4	2	6
		Pleasantville	4	8	9
		Winslow	2	5	4
	4-8	Cape May	4	58	25
		Glassboro	8	58	30
		Pleasantville	7	98	50
		Winslow	4	62	25
	8-12	Cape May	4	54	25
		Glassboro	8	56	30
		Pleasantville	7	90	50
		Winslow	4	57	25
	12-16	Cape May	2	56	22
		Glassboro	4	52	24
		Pleasantville	3	95	41
		Winslow	2	62	21
	16-20	Cape May	4	56	22
		Glassboro	8	52	24
		Pleasantville	7	95	41
		Winslow	4	62	21
	20-24	Cape May	4	56	22
		Glassboro	8	52	24
		Pleasantville	7	95	41
		Winslow	4	62	21

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Appendix D (Cont'd)

Line and Tree Contractor Crews Working on Restoration Activities					
Date	Time Period	District	Company Line Crews	Non-Company Crews	Tree Crews
8/9/2020	0-4	Cape May	2	2	4
		Glassboro	4	4	6
		Pleasantville	4	5	9
		Winslow	2	5	4
	4-8	Cape May	4	22	25
		Glassboro	8	30	30
		Pleasantville	7	41	50
		Winslow	4	20	25
	8-12	Cape May	4	20	25
		Glassboro	8	26	30
		Pleasantville	7	36	50
		Winslow	4	15	25
	12-16	Cape May	2	22	21
		Glassboro	4	30	24
		Pleasantville	3	41	41
		Winslow	2	20	21
	16-20	Cape May	4	22	21
		Glassboro	8	26	24
		Pleasantville	7	41	41
		Winslow	4	16	21
	20-24	Cape May	4	22	21
		Glassboro	8	26	24
		Pleasantville	7	41	41
		Winslow	4	16	21

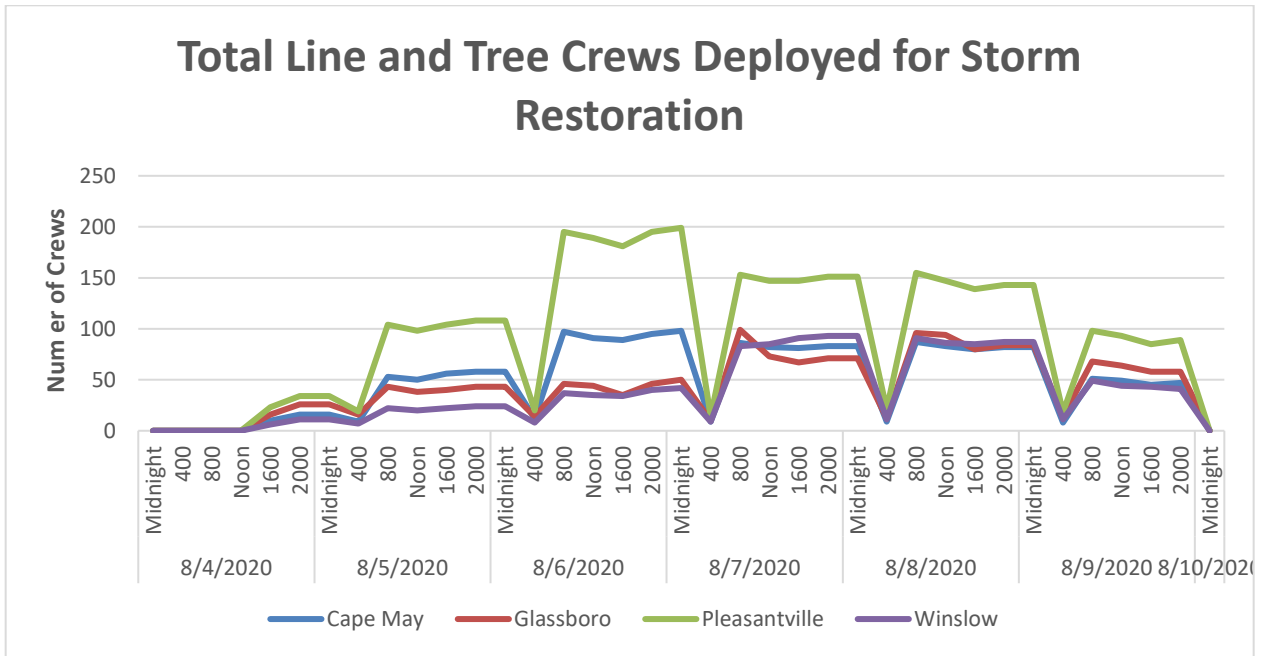
Major Event Report – Tropical Storm Isaias

Appendix E

The timeline profile of the number of Company crews sent to an affected operating area to assist in the restoration.

ACE Line and Tree Storm Resource Deployment					
Date	Time Period	Cape May	Glassboro	Pleasantville	Winslow
8/4/2020	Midnight	0	0	0	0
	400	0	0	0	0
	800	0	0	0	0
	Noon	0	0	0	0
	1600	10	16	23	6
	2000	16	26	34	11
8/5/2020	Midnight	16	26	34	11
	400	9	16	19	7
	800	53	43	104	22
	Noon	50	38	98	20
	1600	56	40	104	22
	2000	58	43	108	24
8/6/2020	Midnight	58	43	108	24
	400	12	14	20	8
	800	97	46	195	37
	Noon	91	44	189	35
	1600	89	35	181	34
	2000	95	46	195	40
8/7/2020	Midnight	98	50	199	42
	400	9	10	14	9
	800	86	99	153	83
	Noon	82	73	147	85
	1600	81	67	147	91
	2000	83	71	151	93
8/8/2020	Midnight	83	71	151	93
	400	9	12	21	11
	800	87	96	155	91
	Noon	83	94	147	86
	1600	80	80	139	85
	2000	82	84	143	87
8/9/2020	Midnight	82	84	143	87
	400	8	14	18	11
	800	51	68	98	49
	Noon	49	64	93	44
	1600	45	58	85	43
	2000	47	58	89	41
8/10/2020	Midnight	0	0	0	0

Appendix E (Cont'd)



PowerAhead® Program Feeders

As required in the Stipulation of Settlement approved by the Board in BPU Docket No. EM16030252, following a major event, the Company will provide Customer Minutes Interrupted (“CMI”) and Customer Average Interruption Duration Index (“CAIDI”) reliability data of the storm for all feeders selected for work under a sub-Program in PowerAhead. The following table lists the CMI and CAIDI data that occurred during Tropical Storm Isaias for the aforementioned feeders.

**CMI and CAIDI Indices for PowerAhead Feeders
During the Thunderstorm Event**

Feeder	CMI	CAIDI
NJ0146	2,255,291	2,090
NJ0151	3,474,016	808
NJ0152	4,587,817	968
NJ0153	476,707	1,499
NJ0154	2,622,628	1,001
NJ0213	976,874	1,720
NJ0232	685,205	1,509
NJ0241	780,443	558
NJ0242	1,329,352	541
NJ0243	1,817,716	568
NJ0244	424,844	1,517
NJ0383	5,559,273	1,864
NJ0423	1,881,537	2,221
NJ0424	1,776,008	1,603
NJ0426	78,401	142
NJ0488	1,589,414	788
NJ0551	2,304,459	1,590
NJ0671	3,457,238	924
NJ0745	1,138,214	469
NJ0747	287,606	545
NJ0813	3,024,254	1,562
NJ0922	430,147	3,361
NJ0972	2,190,095	1,210
NJ0974	82,039	4,318
NJ0982	450,817	2,853
NJ0983	1,456,487	887
NJ0985	1,745,913	736
NJ1192	2,177,861	1,361
NJ1215	143,363	843
NJ1324	862	862
NJ1325	1,274,351	583
NJ1326	706,338	733
NJ1327	494,698	438
NJ1328	2,711,219	718
NJ1329	945,649	650
NJ1357	1,386,237	771
NJ1634	3,306,017	912
NJ2061	312,649	1,297
NJ2062	205,216	1,642
NJ2097	N/A	N/A
NJ2352	380,571	1,143
NJ2391	3,482,754	1,015
NJ2392	2,237,339	544
NJ2393	2,094,262	746

F. Minimum Reliability Requirements

ACE did not meet the minimum performance requirements for 2020:

1. Cape May District 2020 CAIDI performance of 102.27 was above MRL of 100.96.
 - a. Weather (Other than Lightning) had the most impact on CAIDI in 2020 with 22 of 75 (about 1/3) of the identified weather events being related to minor storm activity that is not excludable using NJAC requirements. The 22 events affected 3,544 customers and 512,473 customer minutes. These minor storm activity events contributed to overall CAIDI by approximately 4.5 minutes.
 - b. Most of the weather events occurred late at night or overnight affecting ability to obtain crews more quickly.
 - c. Corrective action plans would be to schedule additional or extend crew hours when minor events are expected.

G. Priority Feeders (Least-Performing Feeders) and Corrective Actions

2020 Priority Feeder List										
Feeder	Substation	District	Customers Served	Outage Events	Reliability Indices			Feeder Mileages		
					SAIFI	SAIDI	CAIDI	OH	UG	Total
NJ0263	Cape may	CAPE MAY	2836	39	2.724	198.5	72.9	63%	37%	22.94
NJ0264	Cape may	CAPE MAY	3112	42	2.262	187.7	83.0	86%	14%	38.29
NJ0026	Sea isle city	CAPE MAY	2685	38	2.080	119.7	57.6	97%	3%	11.85
NJ0361	Tuckahoe	CAPE MAY	1697	49	1.865	268.7	144.1	80%	20%	72.25
NJ0478	Ocean City	CAPE MAY	1,893	15	2.434	74.6	30.6	85%	15%	11.16
NJ1551	Oldmans	GLASSBORO	2080	34	3.981	341.1	85.7	92%	8%	22.99
NJ1842	Union	GLASSBORO	1471	57	5.203	579.5	111.4	94%	6%	76.39
NJ2064	Churchtown	GLASSBORO	2570	73	3.395	203.9	60.1	91%	9%	58.43
NJ1312	Quinton	GLASSBORO	2096	90	3.301	451.0	136.6	98%	2%	69.29
NJ1786	Beckett	GLASSBORO	2138	20	3.121	173.4	55.6	37%	63%	31.49
NJ1294	Terrace	GLASSBORO	2341	37	2.997	72.1	24.1	36%	64%	46.94
NJ0414	South millville	GLASSBORO	1451	73	3.896	285.4	73.3	79%	21%	25.95
NJ1311	Quinton	GLASSBORO	1422	88	2.992	271.0	90.6	91%	9%	105.67
NJ0747	Glassboro	GLASSBORO	2600	78	2.521	167.8	66.6	73%	27%	88.77
NJ0694	Ontario	PLEASANTVILLE	3849	34	2.382	224.8	94.4	44%	56%	22.38
NJ0143	Egg harbor	PLEASANTVILLE	2058	40	2.762	273.8	99.1	92%	8%	65.57
NJ1325	Cedar	PLEASANTVILLE	2176	40	2.368	198.7	83.9	43%	57%	37.42
NJ0146	Egg harbor	PLEASANTVILLE	1109	53	4.480	247.1	55.2	94%	6%	66.31
NJ0145	Egg harbor	PLEASANTVILLE	990	22	2.835	321.7	113.5	100%	0%	9.03
NJ1327	Cedar	PLEASANTVILLE	1107	14	2.319	211.3	91.1	42%	58%	18.87
NJ1632	Scull	PLEASANTVILLE	3368	58	2.054	105.4	51.3	57%	43%	98.00
NJ1147	Pine hill	WINSLOW	2076	16	3.929	397.6	101.2	59%	41%	14.76
NJ0302	Stratford	WINSLOW	2658	40	2.366	137.5	58.1	87%	13%	20.68
NJ1733	Sickler	WINSLOW	2448	27	2.186	255.3	116.7	30%	70%	33.30
NJ1145	Pine hill	WINSLOW	1424	16	2.909	200.3	68.8	36%	64%	23.7

NJ0921	Atco	WINSLOW	2920	29	2.001	224.7	112.3	23%	77%	54.41
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Cape May District Priority Feeder Work Completed in 2020			
Feeder	Substation	WO#	Description
NJ0263	Cape May	16252396	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16254221	Zone Work behind 04154
NJ0264	Cape May	16254236	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16254248	Remove abandoned Transmission line
		16254255	Misc. reliability improvements
NJ0026	Sea Isle City	16254505	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16254537	Zone Work behind RCLR 04010
		16254564	Zone Work behind 04154
NJ0361	Tuckahoe	16266893	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16266900	Second Zone Work behind RCLR 04883
		16266909	Misc. reliability improvements
NJ0478	Ocean City	16254767	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment

Glassboro District Priority Feeder Work Completed in 2020			
Feeder	Substation	WO#	Description
NJ1842	Union	16343507	Zone Work behind B57192
		16343699	Zone Work behind B6313
		16343885	Remove open wire secondary, replace transformers, and remove unused primary
		16344028	Replace pole, remove slack from primary and remove unused secondary conductor
NJ2064	Churchtown	16276009	Reconfigure pole S25244 to remove backyard primary
		16276133	Reliability improvements behind Fuse S22657 (Mellen Ave)
		16276137	Reliability improvements behind Tripsaver B31043 (Jones Ave)
		16276141	Reliability improvements behind RCLR S15734 (Fort Mott Rd.)
		16276144	Reliability improvements behind Fuse S24779 (Sanford Rd.)
		16276151	Reliability improvements behind Tripsaver S15747 (Fort Mott Rd.)
NJ1312	Quinton	16278606	Reliability improvements behind RCLR S30224 Salem Hancock
		16278575	Install Tripsavers @ S38656, S22205, and B25460
		16278608	Reliability improvements behind RCLR S1079 Fort Elfsborg
NJ1786	Beckett	16281622	Zone Work behind RCLR S6683
		16281630	Zone Work behind RCLR S4915/4311
		16281638	Zone Work behind Fuse S8646
NJ1294	Terrace	16282286	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16282305	Zone Work behind RCLR PN3757
NJ0414	South Millville	16280417	Install 65k Tripsaver @ B37296 - Myrtle Ave
		16179470	Reliability improvements along Delsea Drive
NJ1311	Quinton	16280380	Reliability improvements behind RCLR B38428 (Quinton Alloway Rd.)
NJ0747	Glassboro	16281643	First Zone Work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16281646	Zone Work Lake View Trailer Park
		16281654	Zone Work behind Fuse PN8324
		16281660	Zone Work behind PN11056

Pleasantville District Priority Feeder Work Completed in 2020			
Feeder	Substation	WO#	Description
NJ0694	Ontario	16214694	Installed Recloser A3445 - New Hampshire Ave
		16214714	Installed Recloser A3604
NJ0143	Egg Harbor	16461063	Misc. Reliability improvements; pole replacements, transformer replacements, wire guards, cutout replacements, animal guarding, etc.
		16461074	Misc. Reliability improvements; pole replacements, transformer replacements, wire guards, cutout replacements, animal guarding, etc.
NJ1325	Cedar	16464450	Misc. Reliability improvements; pole replacements, transformer replacements, wire guards, cutout replacements, animal guarding, etc.
NJ0146	Egg Harbor	16084304	Install animal protection and fuse behind H9200
NJ0145	Egg Harbor	16464484	Misc. Reliability improvements; pole replacements, transformer replacements, wire guards, cutout replacements, animal guarding, etc.
NJ1327	Cedar	16464881	First Zone work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
NJ1632	Scull	16411333	Second Zone work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16434788	Third Zone work, animal guards, fuse laterals, tap wire, replace deteriorated equipment

Winslow District Priority Feeder Work Completed in 2020			
Feeder	Substation	WO#	Description
NJ1147	Pine Hill	16462492	First Zone work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16335927	Zone Work downstream of C7032
		16399426	Install Fuse near H22011 and Reliability upgrades
		16434306	Second Zone work behind C27257
NJ0302	Stratford	16433006	First Zone work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16126104	Zone Work behind Fuse @ C3023
NJ1733	Sickler	16347798	Zone Work downstream of C11794
		16417896	Zone Work downstream of C9891
NJ1145	Pine Hill	16254249	Second Zone work behind RCLR C1
		16254670	Second Zone work behind RCLR C2422
		16254228	First Zone work, animal guards, fuse laterals, tap wire, replace deteriorated equipment
		16205971	Second Zone work behind RCLR PN45002
		16254309	Second Zone work behind RCLR C2432
NJ0921	Atco	16358974	Zone Work behind RCLR C13584 to C13753
		16359888	Zone Work behind RCLR C13753
		16414597	Zone Work behind C18760
		16414545	Zone Work behind C18760

Appendix 1. Supplemental Reporting Metrics in Accordance with the Stipulation of Settlement in Connection with BPU Docket No. ER09080664

Supplemental Metrics for CEMI and MAIFI

CEMI

2020 CEMI Indices

District & State Jurisdiction	CEMI Counts and Indices - NJAC Exclusion Criteria (Year 2019) - Additional Requirement							
	CEMI-2*	CEMI-2 Ind	CEMI-4*	CEMI-4 Ind	CEMI-6*	CEMI-6 Ind	CEMI-8*	CEMI-8 Ind
Cape May District	8,822	7.7%	73	0.1%	0	0.0%	0	0.00%
Glassboro District	46,977	28.3%	9,723	5.9%	2,643	1.6%	44	0.03%
Pleasantville District	31,549	17.6%	3,797	2.1%	521	0.3%	7	0.00%
Winslow District	30,323	30.2%	5,589	5.6%	425	0.4%	108	0.11%
Total New Jersey (ACE)	117,671	21.0%	19,182	3.4%	3,589	0.6%	159	0.03%

* Note the definition of CEMI as shown in 3.2.7 of the IEEE Standard 1366 - 2012.

MAIFI

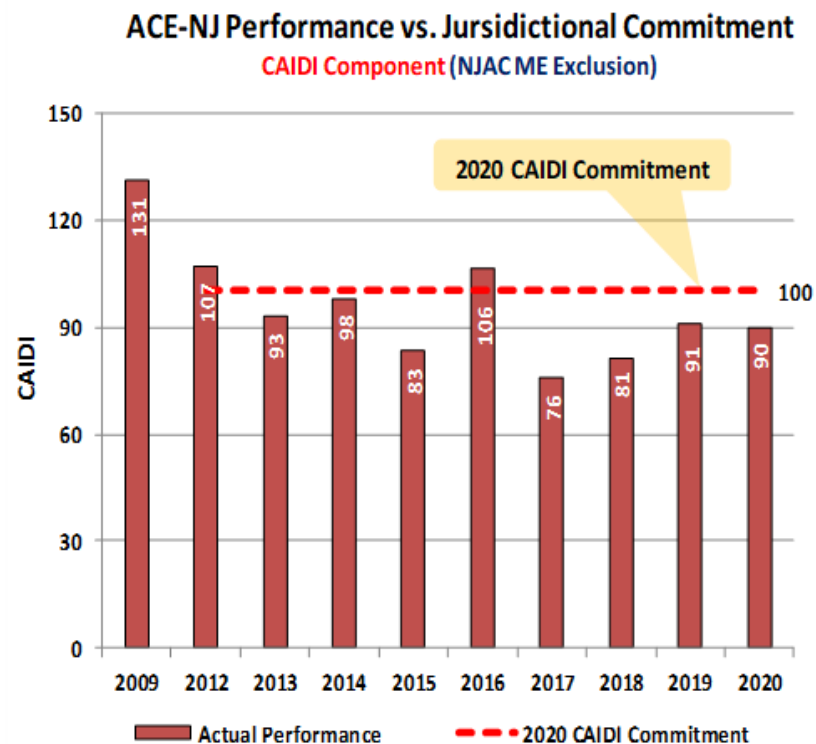
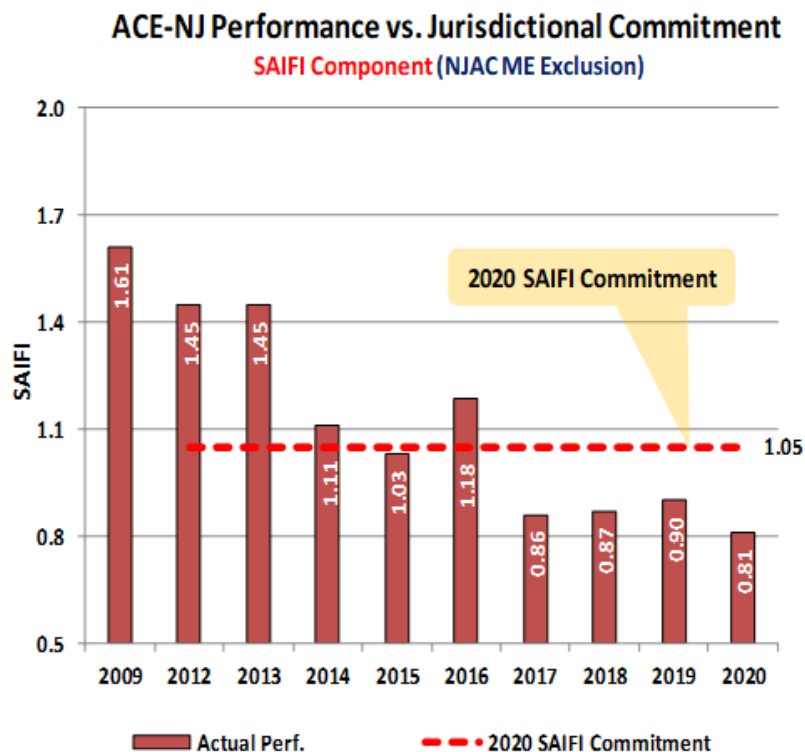
2020 MAIFI Indices

District & State Jurisdiction	MAIFI*
Cape May District	1.69
Glassboro District	1.98
Pleasantville District	2.41
Winslow District	5.46
Total New Jersey (ACE)	2.68

* Includes only breaker with SCADA capabilities
Most of the ALE (Automatic Line Equipment, such as Reclosers and Sectionalizers) not included.

Appendix 2. Reliability Improvement Plan Progress Report

ACE's reliability performance in 2020 was substantially below the RIP targets as established in the Stipulation under BPU Docket No. ER09080664. ACE's current focus is to meet the performance goals as stipulated under the merger agreement.



Reliability Improvement Plan (RIP) Supplemental Report

2020 Annual System Performance Report for ACE

As a result of the Stipulation of Settlement in BPU Docket No. ER18080925, the Company has agreed to wind down the RIP by the end of 2021. For the remaining three years, ACE will spend a total of \$75.8 million in the RIP Program.

1. Vegetation Management (“VM”)

(See Section C9 for ACE VM Completed Work Details)

Vegetation management includes tree trimming along public rights of way to obtain sufficient clearance between the overhead electric wires and existing trees. In addition to tree trimming, ACE also works with counties, communities and homeowners to remove diseased or dead trees which would damage the distribution system if they were to fall.

For overhead systems, vegetation management (tree trimming) is ACE’s largest single preventive maintenance program. ACE has a routine cyclical program of tree trimming in place. This program is designed to maintain minimum clearances between vegetation and overhead facilities.

Efficient implementation of this program throughout the electric distribution industry has proven to minimize incidental contact between vegetation and overhead distribution circuits and thus improve SAIFI.

ACE’s vegetation management program aims to provide safe and reliable electric service to its customers while maintaining the aesthetics of the environment. Vegetation management, while challenging, is essential to meeting the Company’s commitment to maintaining electric reliability and is a key priority for the company. ACE places an equal amount of importance on the beauty and the environmental health of the area vegetation in its VM program execution.

The Company's International Society of Arboriculture (ISA) certified arborists and contract tree pruning experts perform their functions for public safety and the safety and health of the trees and in accordance with state and national standards. Tree pruning for all PHI operating companies is performed following the standards and practices as outlined in the *American National Standards Institute (ANSI) publication A300 (Part 1) – 2001: Tree, Shrub and Other Woody Plant Maintenance* and its companion best management practices publication, *Utility Pruning of Trees*. Additionally, ACE must comply with all state and local laws and regulations regarding vegetation management practices.

ACE conducts tree and vegetation maintenance, which includes trimming and/or removing branches that overhang power lines and removing dead and diseased trees that are too close to the lines. Trees located along the overhead lines are trimmed as appropriate for the specific locality and in accordance with state and local regulations. Circuits are selected for inspection and trimming according to a pre-scheduled plan, created on the basis of a prioritization process that takes into account the number of vegetation related outages and overall reliability statistics of the circuit.

At a minimum, ACE inspects and mitigates imminent vegetation problems as necessary on all overhead feeder sections at least once every four years. In addition, the Company has a Vegetation Management program that is designed to:

- Maintain a high degree of reliability across the entire electric system;
- Target areas of the electric system found to be most susceptible to damage from trees during storms;
- Assist in the removal of trees in close proximity to ACE's electric lines;
- Perform emergency tree and limb removal from electric lines; and
- Provide support for local jurisdictions that require assistance to remove trees that are in close proximity to the electric facilities.

ACE added elements to the vegetation management practices currently

utilized by the Company, removing more circuit overhang and off right-of-way danger trees and increasing zones of electrical clearances where possible.

Reduction of vegetation-caused outages is a key driver of ACE's system reliability improvement efforts. ACE is constantly seeking opportunities to enhance tree- trimming management to improve reliability. The application of herbicides, ground-to-sky trimming, public and private partnerships and a public education campaign are all initiatives underway by ACE in order to improve the program even further.

Since much of this program is dependent upon increased customer approvals and continued cooperative efforts with state and local jurisdictions, ACE is optimistic the VM program will be supported by regulators, legislators and community stakeholders.

2. Priority Feeder (“PF”) Program

(See Section G for Priority Feeder Completed Work Details)

The objective of the Priority Feeder Program is to identify the least reliable distribution feeders in each operating district, analyze and prioritize those feeders and initiate corrective actions to improve individual and overall distribution feeder reliability. ACE conducts annual system performance reviews of its 308 distribution feeders and ranks these feeders from the most reliable to the least reliable, based on high frequency and extended duration outages, using data from a rolling 12-month period from October 1 to September 30.

From each of ACE's four operating districts, five feeders are selected based on their overall reliability performance and targeted for improvements under the BPU supported program. For 2020, a total of 26 feeders were selected in response to the Order issued in connection with BPU Docket EO12070650. Based on the field inspection results and historical outage data, the information for each selected feeder is reviewed, evaluated and analyzed in order to recommend appropriate corrective actions.

Proposed corrective actions may include but are not limited to the following activities:

- Perform infrared thermal scanning of lines and equipment to remediate poor connections, overloads, and defective equipment;
- Install animal guards;
- Replace blown lightning arresters and defective grounds;
- Replace deteriorated structures: poles, cross-arms, braces, down guys, etc.;
- Re-tension conductors with excessive slack, re-pull guys, install conductor spacers, etc.;
- Replace defective insulators;
- Replace or repair transformers and other distribution equipment based on observed condition;

- Install new lateral tap fuses;
- Install sectionalizing and reclosing devices;
- Trim trees to provide sufficient clearances to lines and equipment;
- Verify protective device coordination to ensure effective fault isolation; and
- Reconfigure overhead lines to avoid or minimize physical hazards such as large trees, motor vehicle hazards, etc.

In an effort to reduce overall SAIFI, ACE is emphasizing the importance of reducing feeder lockouts with added emphasis on the priority feeders. Starting in 2011, the first feeder line segment(s), defined as the feeder segment originating at the substation feeder breaker or riser terminal pole and extending to the first major protective device (usually a recloser) will receive extra scrutiny with the objective to remediate moderate to high level outage risk factors. Additional remedial work is justified for the critical line segments of a feeder. For example, ensuring all lightning arresters are either fused or equipped with ground fault isolators may make sense for the first line segment, but perhaps not the best use of funds for the last segment.

ACE continually reviews the system performance of its distribution feeders. Distribution feeders are ranked from the most to the least reliable according to several criteria over a rolling 12-month period. A group of the least reliable feeders is selected for improvements over the ensuing year. Detailed investigations are performed to determine the cause of outages and necessary corrective actions to reduce the number of outages.

3. Load Growth Projects

The design of reliable electric systems requires a thorough understanding of load growth trends. Whenever new loads are added or systems are reconfigured to incorporate new services, it is good design and planning practice to model the addition of new load to determine its impact on the system.

ACE continuously analyzes the adequacy of its electric system to ensure that the demand for energy on its system is met and that plans to meet future growth are in place. The Company maintains engineering and operating criteria to be used in the design of new and modified portions of the system as follows:

- Voltage and reactive support;
- Ratings of facilities; and
- Reliability.

ACE completes short-term planning studies for every area in the ACE distribution system on a biennial basis. When forecasting ACE's feeder and substation loads, System Planning begins with a close examination of the summer historical load. Engineering staff compare the peak meter readings on the summer peak day for each feeder and substation with the previous historical loads and the previously predicted load, while considering the effects of predicted new customer load, actual new customer load, planned changes in feeder configuration and emergency transfers.

Solutions to relieve equipment capacity overloads and voltage deficiencies at the feeder or substation level are developed, usually with alternatives. The alternatives are evaluated on an economic and effectiveness basis with the most effective/least cost solution being proposed into a Construction Recommendation. Following the review of components of the existing electrical system and the requirements for new service hook-ups, system planners develop the costs and schedule for the changes to the electric system, which will be taken forward as candidates for inclusion in the construction budget

process.

Major Load Projects

Distribution Lines

- Harbor Beach – Upgrades and New Feeders
- Ship Bottom Feeder Upgrades
- Washington Substation Feeder Reconfiguration for T3

Distribution Substation

- Harbor Beach: Est 69/12kV GIS Substation
- Beach Haven Energy Storage System
- Washington Substation Upgrade

4. Distribution Automation

Distribution Automation (“DA”) is a major component of ACE’s overall strategy for improving customer reliability in the future. DA work is performed within the confines of the IIP but will produce coincident benefits for the RIP. This work includes recloser installations, line upgrades (such as reconductoring) to improve feeder load transfer capability, and substation upgrades when needed to improve control capability of distribution feeders.

In 2020, ACE hung a net total of 305 new distribution line reclosers. In addition, 41 existing reclosers were replaced and/or relocated. This recloser work is being done to sectionalize feeders with, as a general guideline, approximately 500 customers between each recloser. This, when combined with an automatic sectionalizing and restoration (“ASR”) scheme and sufficient load transfer capability, should limit many permanent distribution outages to one 500-customer feeder section.

Several line upgrade projects were performed in 2020 to improve the load transfer capability of ASR schemes. This included about 6,800 feet of reconductoring and five voltage regulator installs/upgrades in Cape May County for new ASR feeders out of Rio Grande, Court, and Sea Isle substations.

5. Feeder Improvement Program

ACE's RIP includes an expanded feeder improvement program and aggressive vegetation management. With the pairing of complementary efforts to reduce outages on the distribution system, ACE has taken assertive steps to immediately improve customer reliability while simultaneously making asset improvements to ensure long term success. The RIP not only captures a greater number of feeders, but it entails a larger array of mitigation and preventative options ACE may deploy.

In addition to the 26 Priority Feeders selected for reliability performance improvement, ACE will identify additional feeders as needed in order to achieve better overall system reliability. Reliability improvement at the feeder level is accomplished by performing capital improvements, aggressive tree trimming, and prudent maintenance.

Measuring Benefits

The metrics that will be used to demonstrate the effectiveness of these efforts will be calculated at the feeder level. ACE will evaluate the results of improvement efforts against historical average SAIFI and SAIDI. Additionally, ACE will track performance against CEMI trending.

In order to assure the effectiveness of the program, ACE will qualitatively and quantitatively address the following four issues:

1. Cost Management: ACE will track the dollars spent on each priority feeder and characterize the type of remedial work performed.
2. Outage Cause Analysis: The feeder improvement program will not apply a blanket list of remediation efforts to every feeder, but instead identify the root cause of poor performance and address it directly to ensure that money is effectively targeted. For example, if a feeder is continually plagued by asset failures, ACE will focus its effort on asset upgrades or

replacement.

3. Quality Control: ACE will ensure that the work implemented is being carried out correctly and adheres to prescribed methodologies. This will be achieved in large part by effective construction management and performing post- construction compliance inspections.

ACE continually reviews the system performance of its distribution feeders. Distribution feeders are ranked from the most to the least reliable according to several criteria over a rolling 12-month period. A group of the least reliable feeders is selected for improvements over the ensuing year. Detailed investigations are performed to determine the cause of outages and necessary corrective actions to reduce the number of outages.

Multiple Operations of Protective Devices

ACE monitors and analyzes the operation frequency of the major protective devices on a feeder. These devices include: Feeder Main Breakers, Reclosers, Sectionalizers, and primary line fuses. Data is maintained to provide year-to-date- operations as well as the rolling 12-month operations. Managing multiple device operations by mitigating faults along line segments served can greatly reduce CEMI, substantially improve feeder performance, and significantly improve overall system reliability performance.

CEMI

ACE monitors the incidence of CEMI. Identifying poor or chronic CEMI performance allows ACE to target smaller groups of customers. Targeting CEMI will probably not have the greatest impact on overall system or feeder level SAIFI but can dramatically improve reliability for those customers experiencing poor reliability due to a localized performance issue.

Tactical Remediation Efforts

Proposed corrective actions may include but are not limited to the following activities:

- Install animal guards;
- Replace blown lightning arresters;
- Upgrade older style arresters with modern metal-oxide varistor (“MOV”) types;
- Replace deteriorated poles/cross arms;
- Re-tension slack spans and installing spacers;
- Replace deteriorated insulators;
- Inspect and/or replace transformers and other equipment based on observed condition;
- Install new lateral tap fuses;
- Install sectionalizing devices, such as ACRs;
- Tree pruning & vegetation management;
- Danger tree removals;
- Replace missing or damaged grounds and guys; and
- Check for appropriate fuse installation and resizing of fuses for fuse coordination with respect to inspection results.

Strategic Remediation Efforts

ACE follows a process that utilizes the routine correction actions that history has shown provide significant reliability improvement. In those cases where significant reliability improvement has not been obtained, and a feeder is repeated on the feeder improvement listing within a five-year period, ACE will examine more extensive options for addressing performance. Such options may include:

- Installation of Automatic Circuit Reclosers (“ACRs”) to provide improved feeder segmentation and greater success clearing temporary faults;
- Implement ASR schemes;
- Installation of larger class poles for strength with double arms, double dead ends, and larger and stronger conductors; and
- Reconfigure and/or reroute main trunk of feeder to avoid potential fault

hazards such as heavily treed areas and high vehicular accident zones.

Analysis

In the Analysis phase, the Reliability Engineer shall gather and review all relevant feeder data to identify the more “obvious” feeder issues and determine inspection requirements. The goal of this process step is to determine if the feeder is optimally designed and to ensure sectionalizing devices are properly located and operating effectively. Analysis includes the following steps:

1. Determine root causes of feeder faults and consider improvements to reduce the probability of reoccurrences;
2. Look for opportunities to improve feeder segmentation;
3. Ensure all laterals are fused to protect main trunk of feeder;
4. Consider replacing high-count fuse operations with single-phase reclosers;
5. Conduct a Protective Device Coordination Study/Evaluation, especially for suspected mis-trips;
6. Refer Substation, Transmission, and Operational issues to the appropriate groups; and
7. For apparent nuisance tripping of devices during heavy loading periods, perform a detailed load study and upgrade equipment as necessary.

Inspection

The Inspection phase includes visually examining the feeder and equipment to confirm and augment the findings of the Analysis. For Priority Feeder work, the entire feeder is inspected. Other reliability improvement initiatives may focus only on specific areas. Field inspections are performed to determine a feeder’s structural and electrical integrity, identify major equipment problems, and verify proper tree clearance.

At a minimum, all inspections will include the following for backbone and three phase taps:

Overhead

1. Check locations for proposed ACRs;
2. Concentrate inspection activities and significant recommendation between the substation and the first automatic sectionalizing device;
3. Verify that all completely self-protected transformers protected by a recloser

or circuit breaker are fused (or replaced, as necessary), animal guarded, and upgraded with an MOV arrester;

4. Verify that all lightning arrestors on main lines are MOV type or located below a fused cutout;
5. Replace all blown arresters;
6. Conduct a grounding survey to identify grounding issues if the outage cause is lightning;
7. Examine equipment down grounds on poles to ensure their presence and integrity;
8. Verify that all taps are fused as close as safely and feasibly possible to the backbone; and
9. Verify that all electrical equipment and configuration/connectivity are accurately reflected on the GIS feeder map/ drawing.

Underground

1. Verify that no leaks are visible on switching equipment;
2. Review leaded joints on feeder trunks for swelling or extreme deflation (where the phases are visible through the jacket); and
3. Identify areas for possible underground residential cable replacement or renewal (curing).

In addition to the minimum Inspection requirements noted above, Analysis results may also necessitate the following feeder attributes be examined:

General

1. Note areas that require tree trimming and forward this information to local Forester. A drawing showing the approved corrective actions shall be forwarded to Vegetation Management;
2. Discrepancies identified on other circuits on the same pole line as the subject PF should be remedied;
3. Identify damage to cross arms, braces, insulators;
4. Replace wood pins and 5kV insulators;
5. Replace porcelain insulators with polymer types where tree wire burn-downs have occurred;

6. If insulators do not match on existing pole, replace so they all match (polymer insulator with jacketed wire or porcelain Insulator with bare wire);
7. Inspect non-standard design/ installations to determine potential for future outages (e.g., inadequate clearance, long spans, etc.);
8. Examine overall pole health (e.g., wood pecker damage, cracks, decay);
9. Identify incipient pole fires resulting from tracking/charring on crossarms or poles; and
10. Reinforced Poles (Banded Poles):
 - a. Replace all fiberglass wrapped poles;
 - b. For other c-truss banded poles, check inspection badge date;
 - c. If over 15 years old, replace pole;
 - d. If no date, replace pole; and
 - e. If under 15 years, do not replace pole unless work is being performed on the pole.

Equipment:

1. Assess condition – fused, rusted, deteriorating, inadequate spacing, etc.
 - a. Transformers
 - b. Capacitor banks
 - c. Regulators
 - d. Switches
 - e. Reclosers
 - f. Cutouts
2. Guy/ guy insulator/ anchor
3. Identify missing or improperly installed lightning arresters:
 - a) Ensure that all 13kV circuits have LAs in the same location as 69 or 34 kV arrester locations.
 - b) Verify that LAs are installed every 1/4 mile on 13 or 4 kV circuits.
 - c) Replace all blown arresters.
 - d) Install LAs where missing.
 - i. Risers
 - ii. Either side of Feeder Trunk Tie switches
4. Identify missing or improperly placed animal guards:
 - a) Risers/Transformers/Caps/Regs, etc. – Animal guards similar to bottle cap should be replaced. New Animal Guards (tall profile-hinged style)

should enclose only the top skirt of the bushing. Replace all old animal guards (such as “funnel- shaped” soft plastic type and round –handle insulated bushing connector types).

5. Conduct an infrared survey on all three-phase mainlines under high load conditions, if possible.

Atlantic City Electric Company

Vegetation Management Program

May 28, 2021

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EXECUTIVE SUMMARY

This Program contains Atlantic City Electric's ("ACE" or the "Company") strategies and activities for the management of vegetation in proximity to poles, substations, and energized electric plant. Generally, ACE's Vegetation Management ("VM") Program (the "Program") applies to energized electric overhead ("OH") facilities greater than 600 volts , and less than 35 kV.

The Program is an important part of improving and maintaining reliability of the electric system. Due to the density of tree coverage in the Company's service territory and public concerns relating to tree pruning, challenges exist when balancing the value of trees to customers and communities and the need for reliable electric service. The main objectives that the VM Program attempts to balance are safety, reliability, regulatory compliance, environmental stewardship, and customer satisfaction. ACE appreciates the environmental and societal benefits of a mature tree canopy, including improving air quality, serving as habitat for wildlife, reducing energy costs, attributing to the control of storm water and runoff, and providing aesthetic value to homes and neighborhoods.

ACE's vegetation management strategy focuses on:

- achieving and maintaining a high degree of reliability across the entire electric system;
- targeting areas of the electric system found to be most susceptible to outages and damage from trees;
- performing cyclical inspections and pruning to maintain the stability of the system;
- working with local governments and property owners to remove trees in close proximity to ACE's electric lines;
- communicating with customers through various media;
- performing emergency tree and limb removal from electric lines;
- performing VM work consistent with good environmental stewardship; ANSI Standards. ISA BMPs, among other standards and methods;¹ and

¹ ACE VM practices are consistent with, but not limited to, the following standards and methods. In the case of a conflict, the most appropriate standard or method will be selected by ACE:

- providing educational resources that focus on a variety of VM topics including planting the right tree in the right place in order to prevent and avoid hazards created by tree interaction with power lines.

OVERVIEW OF THE ACE VM PROGRAM

ACE's subtransmission and distribution systems are particularly vulnerable to tree damage because a large portion of the Company's electric and the tree canopy occupy the same and adjacent space. The Company also faces significant pressure from residential customers to minimize VM and is limited when requests to remove trees in private and municipal areas are denied. In addition, the Company is subject to relevant state and local requirements relating to VM. Due to this challenging operating environment, a carefully conceived, comprehensive, and

1. Part 1 of the document entitled Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Pruning). This document, also known as ANSI A300, is published by the American National Standards Institute, and may be obtained at www.ansi.org;
2. Part 7 of the document entitled for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices (Integrated Vegetation Management A. Utility Rights-Of-Way). This document, also known as ANSI A300, is published by the American National Standards Institute, and may be obtained at www.ansi.org;
3. Part 9 of the document entitled for Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices (Tree Risk Assessment). This document, also known as ANSI A300, is published by the American National Standards Institute, and may be obtained at www.ansi.org;
4. Best Management Practices, Utility Pruning of Trees. This title is published by the International Society of Arboriculture and may be obtained at <http://www.isaarbor.com/store/product.aspx?ProductID=65>;
5. Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush--Safety Requirements. This document, also known as ANSI Z133.1, is published by the American National Standards Institute, and may be obtained at www.ansi.org;
6. Native Trees, Shrubs And Vines For Urban And Rural America: A Planting Design Manual for Environmental Designers, by Hightshoe, G.L., is published by John Wiley and Sons and may be obtained from various resellers;
7. Manual of woody landscape plants 5th Ed., by Michael A. Dirr. Stipes Publishing, LLC; 5th edition, and may be obtained from various resellers;
8. Hortus Third: A concise dictionary of plants cultivated in the United States and Canada, by L.H. Bailey Hortorium, and may be obtained from various resellers; and
9. National Electric Safety Code C2-2012. ISBN: 9780738165882 is published by the Institute of Electrical and Electronics Engineers, Inc., and may be purchased at www.ieee.org.

proactive program is essential to address tree-related outages, and will therefore play a large role in meeting the Company's commitment to improve electric reliability.

ABE's VM Program does not apply to any electric transmission plant regulated by the Federal Energy Regulatory Commission ("FERC") and does not include transmission strategies and activities filed with North American Electric Reliability Corporation (also referred to as NERC), an entity approved by the FERC, that contain confidential critical energy infrastructure information.

All work described in this Program must comply with a variety of laws, standards, specifications, and guidelines, including those listed below (as any of them may be amended or supplemented from time to time):

- wetland delineation;
- local/municipal tree permits;
- ANSI A300 Tree, Shrub, and other Woody Plant - Standard Practices;
- ISA Best Management Practices - Utility Tree Pruning, Integrated Vegetation Management; Tree Risk Assessment;
- OSHA 1910.269, subpart r;
- Exelon Utilities ("EU") Safety policies and procedures;
- EU VM contract work specifications; and
- all other relevant federal, state and local legal standards, including N.J.A.C. 14:5, Subchapter 9 (Electric Utility Line Vegetation Management) statutes.

VEGETATION MANAGEMENT PLANNING

In accordance with the provisions of N.J.A.C. 14:5, Subchapter 9, the following factors are taken into consideration in determining the extent and priority of VM to be performed at a particular site:

- Facilities being maintained:
 - voltage of affected energized conductor, with higher voltages requiring larger clearances;
 - relative importance of affected energized conductor in maintaining safety and reliability;
 - type of conductors and overhead construction; and
 - the potential movement of energized conductors and vegetation during various weather conditions.
- Vegetation involved:
 - the extent of the potential for vegetation to interfere with poles, substation, and energized overhead electric plant;

- o the likely re-growth rate for each species of vegetation at the site;
 - o the maturity of the vegetation;
 - o the identification of the structural conditions of the vegetation, including the characteristics of a species as one having a high probability of causing a service interruption during weather events; and
 - o presence and condition of hazard trees.
- Legal considerations:
 - o utility's legal rights to access the area where VM is to be performed; and
 - o state and local statutes, regulations or ordinances affecting utility performance of VM.
- Customer considerations:
 - o customer acceptance of the proposed vegetation management where the utility does not have legal rights to perform VM.

VEGETATION MANAGEMENT WORK PROCESS OVERVIEW

ACE performs both preventive and reactive maintenance on vegetation. Preventive maintenance is the planned vegetation management activities that are the focus of this VM Program. The planning and implementation are described in detail below under Preventive Maintenance. ACE also performs corrective maintenance activities. These activities are all unplanned, non-routine vegetation management driven by customer inquiries, and weather events (emergency restoration). The planning and implementation of this work is also detailed below under Corrective Maintenance. In addition, detailed below is vegetation management done in support of new capital project work.

Preventative Maintenance

ACE Vegetation Management staff determines the Annual Plan for vegetation management on OH facilities less than 35 kV. All planning, work, and tracking of these overhead facilities will be feeder/circuit-based, and a long-term schedule has been developed based on a four-year cycle strategy. The overall annual plan will generally target 25% of the total applicable circuit miles in ACE's territory.

The Vegetation Management Department implements the VM strategy. There are three steps that ACE takes to execute the VM Annual Plan. These steps are planning, execution, and quality control/quality assurance.

ACE VM has specific roles and responsibilities for its internal Program Managers, a Contract Forester or Work Planner, and the Tree Contractor. A Contract Arborist or Work Planner, monitored by ACE's Program Managers, generally conducts the following activities in order to develop a work plan that a Tree Contractor can execute:

- use GIS-based hand-held computers and software to schedule work, and work with a contract Work Planner, whose job it is to evaluate and inventory all VM work on a given feeder/circuit;
- field inspect circuit on which VM is performed in its entirety, from substation all primary, and to the last secondary line section on the circuit;
- abide by the above-mentioned standards and regulations on tree pruning, removal, brush clearing, herbicide application, etc.; and
- document planned work on GIS map layers through the GIS-based, GPS enabled hand-held computer. Data is then uploaded, and work maps and summaries are created and made available to the ACE Program Manager. These summaries should include work units including amount of tree removals, customer information relative to the work location, such as customer notice, refusals, and debris management information.

Once work is planned, the contract Work Planner conveys vegetation data and maps to the responsible ACE Program Manager.

The Program Manager has the following responsibilities in preventive maintenance activities:

- preparing any unit cost estimates required for unit priced work;
- delivering circuit vegetation data and maps to the Vegetation Management Tree Contractor;
- reaching agreement with Tree Contractor on work described and pricing of project;
- initiating customer notification through mailing and/or door hanger notification;
- monitoring work implementation for contract compliance, including federal \, state, and local legal and regulatory requirements;
- auditing completed circuit work project, identifying non-compliance on punch list; documenting and assuring that Tree Contractor corrects issues;
- completing Job Acceptance Form and files along with other data and maps from circuit; Data is retained for required timeframe; and
- recording completion date of circuit in Company tracking reports.

Tree Contractors are responsible for:

- reviewing unit cost estimates for unit priced work;
- reviewing and verifying circuit vegetation data and maps;
- initiating VM work on vegetation per EU contract specifications, including federal, state,

- and local legal and regulatory requirements, EU safety policies and procedures;
- receiving and addressing non-compliance items on punch list;
- submitting invoices and documentation for payment, per contract terms;
- providing reports and other documentation on work completed; and
- managing multiple circuit projects for completion deadlines.

Corrective Maintenance

Non-routine work is known as corrective maintenance ("CM"). The majority of CM work is received when customers call the Company to request assistance related to a tree issue that is not associated with an outage. These calls generally come in through the Call Center and are assigned to VM for resolution. CM work is non-cyclical work, and resources are specifically allocated to this work in an organized, safe, and efficient manner.

Customers, municipalities, businesses, internal departments, and other entities may encounter vegetation problems around energized OH facilities throughout the ACE service territory. To manage this non-cyclical work, the VM Department currently uses the ACE Advantex System. ACE is in the process of transitioning to Exelon mobile dispatch systems as part of the merger. This transition is expected to be completed across ACE in late 2018. This system interfaces with the Customer Information Systems and logs requests based on a customer's account and address. It provides the capability to receive, investigate, dispatch for work execution, and complete customer-requested VM work.

Contract Work Planners are used to investigate most of the CM work orders, most within 10 working days of receipt. The Work Planners evaluate the vegetation, facilities, customer's request, and legal rights to determine whether or not work is required and/or permitted.

Once work is determined to be required, the investigation order is converted to a work order in the system and sent to a VM Contractor's tree crew for implementation of required work. When work is completed, the work order is completed, closed, and documented on the customer's account.

Capital Construction Work

Another type of VM work is done in support of capital construction projects. Engineers designing new distribution line sections and upgrades to existing line sections, transmission rebuilds or even new right of way ("ROW") corridors may require vegetation clearing or pruning in order for a project to be built. Once appropriate regulatory approvals are obtained, the Vegetation Management Department plans VM work, provides notification, obtains permission as required, and implements the vegetation clearing necessary for these projects to be built.

VEGETATION MANAGEMENT PRACTICES

Tree Pruning

ACE abides by the following tree-wire clearances when pruning trees near ACE's OH energized facilities:

- **Voltages 12 kV to 34.5 kV - Sub-transmission Feeder**
 - Horizontal - Greater of 4 year growth clearance or 10'
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - Blue Sky at horizontal clearance measurement
 - Mature Tree Exemption
- **Voltages 12 kV to 34.5 kV - Distribution Feeder - From the Substation to the First Protective Device**
 - Horizontal – 4 to 5 year growth clearance
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - Blue Sky at horizontal clearance measurement
 - Mature Tree Exemption
- **Voltages 24 kV to 34.5 kV - Distribution Feeder - Beyond the First Protective Device**
 - Horizontal - 4 to 5 year growth clearance
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - 15' at horizontal clearance measurement
 - Mature Tree Exemption
- **Voltages 124 kV to 34.5 kV – Distribution Feeder - Single Phase or Pre-Assembled Aerial Cable ("PAC")**
 - Horizontal - 4 to 5 year growth clearance
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - 6' at horizontal clearance measurement
 - Mature Tree Exception
- **Less than 12 kV, but at least 600 volts – From the Substation to the first protective device**
 - Horizontal - 4 to 5 year growth clearance,
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - Blue Sky at horizontal clearance measurement
 - Mature Tree Exemption
- **Less than 12 kV but at least 600 volts – Beyond the first protective device**
 - Horizontal - 4 to 5 year growth clearance
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - 15' at horizontal clearance measurement
 - Mature Tree Exception

- Less than 12 kV but at least 600 volts – Single Phase or Pre-Assembled Aerial Cable ("PAC")
 - Horizontal - 4 to 5 year growth clearance
 - Clearance beneath conductor is measured radially from the horizontal requirement
 - Vertical - 6' at horizontal clearance measurement
 - Mature Tree Exception

When determining the exact tree growth to be pruned back, each individual tree's size, shape and growth rate is taken into consideration. This is done under the guidance and direction of a certified arborist. The amount of pruning varies based on the different tree species, unique growth rates, the health of the individual tree and other factors such as the relative location of the tree to the power lines.

Annual tree growth is measured as the distance from the terminal bud leaf scar from the current year back to the previous year terminal bud leaf scar. This method can be extended back into the crown to measure previous years' growth as well. This method is used to determine how much a tree grew in the previous years and then to determine how much of the tree must be pruned in the current cycle to establish an average of four years growth clearance. Trees of different species grow at different rates. Please refer to the definition of "rate of growth" below from Dirr's *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*.

"Rate of growth refers to the vertical increase in growth unless specified differently. Rate, as is true for size, is influenced by numerous variables such as soil, drainage, water, fertility, light, exposure, *ad infinitum*. The designation *slow* means the plant grows 12" or less per year; *medium* refers to 13-24" of growth per year; and *fast* to 25" or greater."²

Tree Removal

Hazard trees³ are identified by Company Work Planners during preventative maintenance inspections and are documented on the work planning tool. The documented hazard trees are worked by Company tree contractors during preventative maintenance execution in accordance with New Jersey Board of Public Utilities ("BPU") regulations:

14:5-9.5 Hazard trees

- (a) If the EDC's VM determines that a tree meets the definition of a hazard tree, the EDC shall determine if it is permitted (for example, by easement, tariff or law) to remove or mitigate the hazard tree. If the EDC determines that it is not

² Dirr, M. A. , 2009, *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*, Stipes Publishing L.L.C. Champaign, Illinois, pg. xii.

³ "Hazard tree" is a structurally unsound tree on or off the right of way that could strike electric supply lines when it fails. Structural unsoundness distinguishes a hazard tree from a danger tree, such that, while all hazard trees are danger trees, not all danger trees are hazard trees.

permitted to remove or mitigate the hazard tree, the EDC shall attempt to obtain permission to remove or mitigate the hazard tree.

(b) If permission is granted or it is determined that permission is not necessary under (a) above, the EDC shall arrange to remove or mitigate the hazard tree as part of the scheduled vegetation management work to be performed during the current year, unless the VM determines that the condition of the hazard tree poses an imminent risk of failure, in which case, the EDC shall remove or mitigate the hazard tree as soon as practicable.

(c) The EDC is required to comply with the recording and reporting requirements of this subchapter as set forth at N.J.A.C. 14:5-9.9(d)2.

Inspections

Before commencement of trimming and other VM activities, ACE personnel will inspect the feeder and plan the appropriate VM activities to address vegetation issues on that circuit. After trimming and other VM activities are completed, ACE personnel will once again inspect the feeder to assure corrective actions were completed appropriately.

Right of Way Reclamation and Brush Removal

When vegetation around a distribution or transmission ROW is overgrown and has made it difficult to access equipment for maintenance, outage restoration or capital improvement, the ROW must be reclaimed to its original width and length. This involves using non-selective control methods, including mechanical methods such as hand-cutting or mowing brush. Hand cutting involves crew members using chainsaws to cut small trees, vines, and other small vegetation overtaking the ROW. Mowing uses various sizes of rubber tired or tracked mowing units that specialize in woody plant cutting and mulching of the debris. ROW reclamation is done in consultation with ACE Environmental Planning to ensure proper permitting and approvals are sought based on the extent and nature of the proposed work.

Herbicide Application

ACE uses herbicides as a control method to manage vegetation on both distribution and transmission ROWs. Herbicides are used once a ROW has been reclaimed to control undesirable vegetation and encourage desirable, compatible vegetation. ACE uses selective herbicides that control selective plant types versus non-selective herbicides that can impact both grasses and broadleaf growth. Additionally, ACE uses individual stem treatment methods such as stump, basal, injection, and selective foliar to avoid damage and apply the least amount of herbicide required to achieve the vegetation management objective. When ACE does use a broadcast treatment, the herbicide selectivity is considered. Selective methods are used as much as possible to control undesirable species of vegetation and retain desirable vegetation. ACE Foresters use the most effective and environmentally methods available, depending on the objectives, and after evaluating the site to be treated.

Vegetation Management Around Substations

Substation Vegetation Control: All active substation sites are treated each spring to prevent weeds and any other undesirable growth. Trees are not permitted to grow in substations. Weeds are eliminated to prevent fires within these facilities, from clogging cooling apparatus in transformers, and to protect the grounding grid within substations. This work is done by treating the inside of each site (usually stoned area) using pre-emergent herbicides.

Substation Lawn Maintenance: Lawn maintenance on transmission and distribution substations and rights-of-way is performed by contractors, coordinated by ACE, on a predetermined mowing schedule.

Debris Management

Any utility vegetation management activity – tree pruning, removal, and brush control – creates wood debris that must be disposed of. ACE has methods in place to handle this debris stream in a safe, environmentally acceptable manner. Where permitted, the following describes ACE's debris removal practices.

- **Under Normal Routine Maintenance:** The basic component of a wood disposal program under normal conditions includes chipping tree branches, small wood pieces, and leaves through a trailered wood chipper and into a container on a truck. The brush to be chipped must be of a size to fit through the chipper, and the wood chips created must be emptied after the container is filled. Wood chips generated may be blown into a container and disposed of off-site in an acceptable manner – given to nurseries, landscapers, property owners, municipal/county waste disposal sites, etc. In addition, with permission, wood chips are sometimes blown and spread into wooded areas or onto ROW corridors and left to degrade, providing nutrition and erosion control to soil in upland, non-wetland areas. Pursuant to N.J.A.C. 14:5-9.6(g), debris is to be removed from the property within five business days after the vegetation was cut, unless consent is obtained by ACE from the property owner to leave the trimmings or cut vegetation.

Larger wood is normally cut up into manageable lengths and stacked on-site for the tree owner or left according to mutual agreement of ACE with the tree owner or regulatory body. The debris may be removed from the property within a specific time period agreed to with the tree owner. Under specific situations, logs and very large wood pieces are sometimes removed and disposed of in an environmentally acceptable manner.

Tree stumps created when trees are removed are cut as close to the ground as possible to promote disintegration and prevent tripping. ACE does not remove tree stumps by grinding or excavation.

Mowing with heavy-duty brush mowers involves debris management as well, as trees and other vegetation are chopped up by the mower head and dispersed onto the ROW. It is important that mowers are in good working order so that debris is mulched into small, degradable pieces and spread evenly over the ROW. Operators must take special care to assure the safe mulching of debris, protecting themselves, nearby property owners and the general public.

- **Under Outage Conditions:** Under outage conditions (e.g., during storm restoration events), wood debris is handled differently than under routine maintenance. Utility tree crews work with utility line crews and others to eliminate tree problems to enable electric line crews to restore power and repair damaged facilities. This involves clearing trees and tree branches on top of downed wires, cutting access routes into electric facilities or clearing trees or tree branches lying on energized electric wires.

These tree crews cut wood to allow for power restoration, but do not cut debris into chips or manageable sizes. No brush chipping is performed during storm restoration events, and tree crews are instructed not to use a chipper during these events. Tree debris that falls during storms is an act of nature and is not due to ACE maintenance activities; therefore, ACE is not responsible for the tree owners' debris from their tree(s). As such, ACE is not responsible for disposing of this debris during or after a storm event.

PUBLIC EDUCATION AND CUSTOMER NOTIFICATION, PERMITTING, PERMISSION, AND REFUSALS

ACE uses various notification methods to communicate with property owners and occupants, depending on the type of planned vegetation management work being implemented. These specifically include:

- **Direct mailing:** A notification letter is sent to each customer (by Vegetation Management) on the feeder/circuit being worked or to owners of property adjacent to fee-owned ROWs being worked, using ACE's customer database and real estate records. Customer information for those receiving a letter will be retained.
- **Personal contact/informational door hangers to customers:** Work Planners, ACE Foresters or Tree Contractor notification personnel will knock on doors and attempt to make contact with property owners or occupants where work is to be performed. These ACE representatives will explain what work is to be performed and will explain vegetation management methods. If no one is home or available, ACE informational brochures will

be dropped off by same ACE representative. The door hanger notifies customers of impending work, and explains ACE's utility vegetation management method.

- Personal contact with counties and municipalities: Work Planners, ACE Foresters, Tree Contractor notification personnel or the Company or designated representative will contact appropriate county/municipal authorities when working in their jurisdiction, in accordance with local regulations. Written notice of planned VM will be provided at least two months in advance, and the ACE representative shall document contact and retain documentation per regulation.

These methods are used to notify customers of the Company's presence in their communities, the need to access their property, and to let them know ACE will be pruning their tree(s). ACE does not obtain written permission for normal routine tree pruning, as this is the utility's responsibility to perform under certain municipal consent documents with various communities and counties in which ACE operates or is contained in relevant easement agreements, covenants, public rights-of-way, etc.

- Customer Permission: When removing trees or clearing brush involving cutting down small diameter trees and other vegetation, written permission is obtained from the managing entities or occupant. Standard permission forms are used to obtain customer signatures and document any special conditions. Permission forms are retained, and Work Planners document this notification data on work planning software. When the Company has identified a tree for removal that it has the legal right to remove, notification of the removal will be made to the managing entity or occupant.
- Permits: ACE Foresters or contract Work Planners apply to appropriate federal, state, and/or local official to obtain authorization to perform utility vegetation management work as necessary. Permit application and correspondence should be performed electronically as much as possible to expedite the process and document the request and permit. Permits are retained electronically and in hard copy filed with the inspection records for each feeder/circuit where routine, cyclical VM is performed.
- Easement Rights: ACE Foresters have access to ACE easement data through the Real Estate and ROW Department ("RE/ROW"). Easements are not available for every property where ACE facilities are located, so research by RE/ROW must be performed to determine easement availability and requirements. A search for easement records should be performed if a refusal occurs or ACE rights on a property are questioned.

- Refusals: Occasionally, customers refuse to allow ACE to implement its VM work, for a number of reasons. Initial refusals are many times resolved through further explanation of the work, presentation of ROW easement or negotiation with the tree owner. If negotiation fails, and customer absolutely refuses, legal counsel may be sought for further action. Customers that refuse any work are documented as "refusals" in the GIS based, GPS enabled handheld computer for routine, cyclical VM work. Generally, the tree or trees in question are photographed to document the condition of the vegetation at the time the refusal occurred. Whatever the outcome at this point in the process, it is important to document this issue. This documentation is important for reporting reasons, and for an explanation of future reliability issues. Further, in the event of a customer refusal of a hazard tree is documented as a BPU Hazard Tree Refusal.

VEGETATION MANAGEMENT PUBLIC OUTREACH PROGRAMS

- Program and Materials: ACE has an ongoing Public Outreach Program that educates customers, property owners, and the general public about the importance of vegetation management, as well as the utility's role and responsibility in managing vegetation around the Company's energized facilities. ACE has created a number of outreach avenues to be used for specific situations. This includes general VM information to educate the customers, such as customer brochures discussing the type of work planned to be performed on an owner's property. Other topics may include, for example, information on the following topics: the Company's "Right Tree in the Right Place" initiative, trees' role in reducing greenhouse gases, the importance of proper tree planting near power lines, information of why trees interrupt power supply, and how ACE prunes and conducts vegetation management activities near distribution lines, information on the importance of the selection of tree size and species when planting trees, and information on pruning methods used by ACE Foresters and proper homeowner pruning care.
 - Bill Inserts: These documents contain general information about a variety of utility topics, including billing, safety, emergency preparedness, etc., and are sent out in customers' electric bills. On a periodic basis, ACE includes articles on VM topics, such as proper tree pruning, tree species selection and planting, customer tree work near energized wires, websites to access for further information, etc. These are also available electronically on the ACE website.
 - TV, newspaper, magazine, and radio advertisements: These various media outlets have been used to educate and remind customers of various topics, including vegetation management and how the Company is working to improve service reliability.

- VM Brochures: These documents contain specific information about the VM Program, the utility's responsibility to manage vegetation around energized facilities for reliability and safety, and contact information to learn more about work on property owners' trees. Brochures are offered to property owners with whom the Company interacts and are left for owners and occupants who are not at home when the VM representative is in the area.
- Tree Line USA Program: ACE has been the recipient for many years of the "Tree Line USA" award from the Arbor Day Foundation. The Arbor Day Foundation is an international environmental organization that works with municipalities, utilities, citizen groups, and individuals to encourage the planting, maintenance, and benefits of trees. The benefits to customers are numerous, as ACE must annually:
 - provide training to all ACE tree workers and supervisors. Past topics have included proper tree pruning, working with customers, and tree risk assessment;
 - work with one or more communities on Arbor Day activities, including tree planting, tree maintenance, and educational programs;
 - publish or otherwise distribute literature on the importance of trees, planting the right tree in the right place, electric safety around trees, etc.; and
 - promote energy conservation through the use of trees – tree planting for shade, etc.
 - More information is available at adf.org or on the ACE website.
- Coordinated Outreach as part of ACE's Environmental Stewardship: ACE conducts environmental outreach at various events including annual Earth Day celebrations, non-for profit agency support, and environmentally-focused event support. ACE's Environmental Services Department works with ACE Forestry to provide focused information on specific forestry conservation measures practices by ACE. These include:
 - "Right Tree in the Right Place" communication;
 - Best Practices and Impact Minimization in Forestry Practices; and
 - General Tree Pruning information and handouts.

- ACE Shade Tree Energy Conservation Program: ACE, in partnership with Arbor Day Foundation, offers free trees to be planted by residential customers in strategic locations to provide energy cost savings. This program includes:
 - education related to “Right Tree in the Right Place”;
 - education on the energy savings a properly placed tree can provide a homeowner;
 - estimated cost savings that the tree can provide over a 5, 10, and 15 year time period;
 - education on the benefits of a tree to a customer 's community;
 - education and information of the specific species of trees available in the program; and
 - a powerful, online tool that recommends proper planting locations at a customer's property.