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March 2, 2020

VIA: ELECTRONIC MAIL

Mr. Tom Ballinger, Director  
Division of Engineering  
Florida Public Service Commission  
Room 215J – Gerald L. Gunter Building  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Storm Implementation Plan and Annual Reliability Performance Reports

Dear Mr. Ballinger:

Submitted herewith is Tampa Electric Company's 2019 Storm Implementation Plan and Annual Reliability Performance Reports.

Sincerely,



Malcolm N. Means

MNM/bmp  
Enclosure



**TECO**<sup>®</sup>  
**TAMPA ELECTRIC**  
AN EMERA COMPANY

**2019**

**STORM IMPLEMENTATION PLAN**  
**&**  
**ANNUAL RELIABILITY**  
**PERFORMANCE**  
**REPORTS**

**FILED: March 2, 2020**



## Table of Contents

<b>SUMMARY OF 2019</b> .....	1
<b>A) Initiative 1: Four-year Vegetation Management</b> .....	2
<b>B) Initiative 2: Joint Use Pole Attachments Audit</b> .....	3
<b>C) Initiative 3: Transmission Structure Inspection Program</b> .....	3
<b>D) Initiative 4: Hardening of Existing Transmission Structures</b> .....	3
<b>E) Initiative 5: Geographic Information System</b> .....	4
<b>F) Initiative 6: Post-Storm Data Collection</b> .....	4
<b>G) Initiative 7: Outage Data - Overhead and Underground Systems</b> .....	4
<b>H) Initiative 8: Increase Coordination with Local Governments</b> .....	5
<b>I) Initiative 9: Collaborative Research</b> .....	5
<b>J) Initiative 10: Disaster Preparedness and Recovery Plan</b> .....	5
<b>K) Wood Pole Inspection Program</b> .....	7
<b>SECTION I – Storm Preparedness Plans</b> .....	7
<b>A) Initiative 1: Four-year Vegetation Management</b> .....	7
1) Program Overview.....	7
2) Description of Vegetation Management Program .....	7
3) Summary of Past and Future Activities .....	8
4) Tree-related Terms and Definitions.....	9
5) Criteria Used to Select a Vegetation Management Response .....	9
6) Vegetation Management Practices – Utility Easements and Rights of Way.....	9
7) Relevant Utility Tariffs .....	10
8) Company Practices Regarding Trimming Requests.....	10
9) Coordination with Local Governments and Communities .....	11
10) Conclusion.....	11
<b>B) Initiative 2: Joint Use Pole Attachments Audit</b> .....	12
1) Overview .....	12
2) Joint Use Agreements .....	12
3) Tampa Electric’s Joint Use Department.....	13

**2019 Storm Implementation Plan and Annual Reliability Report**

- 4) **Impact of Non-electric Utility Poles on Storm Recovery** ..... 14
- 5) **Initiatives that Align with Tampa Electric’s Pole Inspection Program** ..... 14
- 6) **Conclusion**..... 15
- C) Initiative 3: Eight-year Inspection Cycle for Transmission Structures**..... 15
  - 1) **Overview** ..... 15
  - 2) **Ground Line Inspection** ..... 16
  - 3) **Ground Patrol** ..... 16
  - 4) **Aerial Infrared Patrol**..... 17
  - 5) **Above Ground Inspections** ..... 17
  - 6) **Substation Inspections**..... 18
  - 7) **Pre-Climb Inspections** ..... 18
  - 8) **Reporting** ..... 18
- D) Initiative 4: Storm Hardening Activities for Transmission Structures**..... 19
  - 1) **Overview** ..... 19
- E) Initiative 5: Geographic Information System** ..... 19
  - 1) **Overview** ..... 19
  - 2) **Conclusion**..... 20
- F) Initiative 6: Post-Storm Data Collection** ..... 20
  - 1) **Establishment of a Forensics Team** ..... 20
  - 2) **Establishment of Forensics Measurements** ..... 20
  - 3) **Establishment of Forensics Database Format** ..... 22
  - 4) **Forensics and Restoration Process Integration** ..... 22
  - 5) **Forensics Data Sampling Methodology** ..... 24
  - 6) **Reporting Format Used to Report Forensics Results** ..... 24
  - 7) **Conclusion**..... 25
- G) Initiative 7: Outage Data – Overhead and Underground Systems** ..... 25
  - 1) **Overview** ..... 25
- H) Initiative 8: Increase Coordination with Local Governments** ..... 25
  - 1) **Communication Efforts**..... 25
  - 2) **Storm Workshop and Training with Local Government** ..... 26
  - 3) **Emergency Operations Centers – Key Personnel Contact** ..... 27
  - 4) **Staffing Practices at Local Emergency Operations Centers**..... 28
  - 5) **Search and Rescue Teams – Assistance to Local Government**..... 30
  - 6) **Tree Ordinances, Planting Guides and Trip Procedures**..... 30
  - 7) **Utility’s Coordination of Critical Facilities with local governments** ..... 30

**2019 Storm Implementation Plan and Annual Reliability Report**

- 8) **Underground Conversions** ..... 32
- 9) **Conclusion**..... 32
- I) **Initiative 9: Collaborative Research**..... 33
  - 1) **PURC Collaborative Research Report**..... 33
- J) **Initiative 10: Disaster Preparedness and Recovery Plan**..... 36
  - 1) **2019 Emergency Management Summary**..... 36
  - 2) **2020 Emergency Management Activities & Budget** ..... 37
  - 3) **2019 Energy Delivery Emergency Management**..... 38
  - 4) **Mutual Assistance**..... 39
  - 5) **Mutual Assistance Lessons Learned** ..... 40
  - 6) **2020 Energy Delivery Emergency Management**..... 40
  - 7) **Contingency Planning and Response**..... 40
- K) **Storm Hardening Plan Update**..... 43
  - 1) **Undergrounding Distribution Interstate Crossings** ..... 43
  - 2) **Testing Network Protectors** ..... 43
  - 3) **Extreme Wind Pilot Projects** ..... 44
  - 4) **Storm Hardening Project Analysis and Alternatives** ..... 44
  - 5) **Underground Equipment Construction Standard**..... 44
  - 6) **Performance Data for Hardened vs. Non-Hardened and Underground Facilities** 45
  - 7) **Coordination with Third Party Attachers** ..... 45
- A) **Storm Season Ready Status: 2019 Accomplishments**..... 46
  - 1) **Transmission**..... 46
  - 2) **Vegetation Management**..... 46
  - 3) **Updated and Reviewed Circuit Priority** ..... 47
  - 4) **Capacitor Maintenance Program** ..... 47
  - 5) **Increased Equipment Inventory**..... 47
  - 6) **Communication and Coordination with Key EOC and Governmental Organizations** ..... 48
  - 7) **Secured and Expanded Incident Bases** ..... 48
  - 8) **Hurricane Preparedness Exercises** ..... 49
  - 9) **Post-Storm Data Collection and Forensic Analysis Activities**..... 49
  - 10) **Wooden Pole Replacements** ..... 49
  - 11) **Storm Hardening** ..... 50
- B) **Storm Season Ready Status: 2020 Planned Activities**..... 50
  - 1) **Program Summary** ..... 50

**2019 Storm Implementation Plan and Annual Reliability Report**

- 2) **Transmission Inspections and Maintenance**..... 50
- 3) **Pole Inspections**..... 50
- 4) **Capacitor Maintenance Program** ..... 51
- 5) **Communication with Local Governments** ..... 51
- 6) **Increase Equipment Inventory** ..... 51
- 7) **Circuit Priority Review** ..... 51
- 8) **Hurricane Preparedness Exercise** ..... 52
- 9) **Storm Hardening Plan**..... 52
- SECTION III – Wood Pole Inspection Program**..... 53
- A) **Wood Pole Inspection Program** ..... 53
- 1) **Program Summary** ..... 53
- 2) **Inspection Cycle**..... 53
- 3) **Inspection Method and Procedure** ..... 53
- a) **Visual Inspection** ..... 53
- b) **Sound and Bore** ..... 54
- c) **Excavation** ..... 54
- d) **Hardware Inspection**..... 54
- e) **Inspection and Treatment Labeling** ..... 55
- f) **Data Collection**..... 55
- 4) **Inspection in Conjunction with Other Field Work** ..... 55
- 5) **Disposition of Poles**..... 55
- 6) **Routing of Inspections** ..... 56
- a) **Distribution**..... 56
- b) **Transmission**..... 56
- 7) **Shared Poles** ..... 56
- 8) **Standards Superseding NESC Requirements** ..... 57
- 9) **Pole Inspection Program Performance Verification** ..... 57
- 10) **Reporting** ..... 57
- 11) **2019 Accomplishments** ..... 57
- 12) **2020 Activities and Budget Levels** ..... 58
- 13) **Chromated Copper Arsenate Pole Inspections**..... 58
- SECTION IV – Rule 25-6.0455 F.A.C** ..... 60
- A) **2019 Reliability Performance**..... 60
- 1) **Overview** ..... 60
- 2) **Summary**..... 60

## 2019 Storm Implementation Plan and Annual Reliability Report

3) Conclusion.....	63
B) Generation Events – Adjustments .....	63
C) Transmission Events – Adjustments.....	63
1) Transmission Outage Summary .....	63
2) Equipment Failure Outages.....	64
3) Vehicle Collision Outages .....	64
4) Human Error Outages .....	64
5) Vegetation Related Outages.....	64
6) Animal Related Outages .....	64
7) Clearance Outages.....	64
8) Other and Weather Outages.....	64
9) Transmission Outage Detail.....	65
D) Extreme Weather .....	68
E) Other Distribution – Adjustments .....	68
F) Distribution Substation.....	68
1) Distribution Substation Adjustments.....	68
2) Patterns and Trends – Distribution Substation Reliability Performance.....	68
3) Process to Promote Substation Reliability.....	69
G) 2019 Adjusted Distribution Reliability .....	74
1) Causes of Outages.....	74
2) Three Percent Feeder.....	75
H) Regional Reliability Indices .....	77
1) Summary.....	77
2) Regional Reliability Trends .....	78
I) Overhead – Underground Reliability .....	80
1) Five-Year Trends – Reliability Performance .....	80
2) Tracking Overhead to Underground Reliability Performance.....	81
3) Underground Distribution System Conversions.....	82
J) Reliability-Related Customer Complaints .....	83
APPENDIX.....	86
Appendix A) Form PSC/ECR 102-1(a)(8/06) .....	87
Form 102 – Part II – Actual.....	88
Form 102 – Part III – Actual.....	89
Form 102 – Part III continued – Actual.....	90
Appendix B) .....	91

## 2019 Storm Implementation Plan and Annual Reliability Report

Form PSC/ECR 102-1(b) (8/06).....	91
Form 103 - PART II – Adjusted .....	92
Form 103 - PART III – Adjusted .....	93
Form 103 Part III continued Adjusted .....	94
Actual Data: CMI, CI and Documented Exclusions .....	95
2019 Adjustments: Planned Distribution Outage Events.....	96
Appendix C) Annual Wood Pole Inspection Report.....	180
Appendix D) Storm Hardening Metrics .....	181
1) Initiative 1: Four-year Vegetation Management.....	181
2) Initiative 2: Joint-Use Pole Attachments Audit.....	189
3) Initiative 3: Eight-Year Inspection Cycle for Transmission Structures.....	191
4) Initiative 4: Storm Hardening Activities for Transmission Structures .....	193
5) Initiative 5: Geographic Information System .....	193
6) Initiative 6: Post-Storm Data Collection .....	193
7) Initiative 7: Outage Data – Overhead and Underground Systems.....	193
8) Initiative 8: Increase Coordination with Local Governments.....	193
9) Initiative 9: Collaborative Research.....	195
10) Initiative 10: Disaster Preparedness and Recovery Plan .....	195
11) Feeder Specific and Attached Laterals Data .....	195



# 2019 Storm Implementation Plan and Annual Reliability Report

## SUMMARY OF 2019

### STORM HARDENING PLAN, ANNUAL RELIABILITY PERFORMANCE REPORTS and ANNUAL WOOD POLE INSPECTIONS

Tampa Electric received approval of its 2019-2021 Storm Hardening Plan in Docket No. 20180145-EI, Order No. PSC-2019-0302-PAA-EI, issued July 29, 2019 and finalized by Consummating Order No. PSC-2019-0365-CO-EI issued August 27, 2019.

In 2019, Tampa Electric continued to perform the required system hardening activities such as equipment upgrades, system and equipment maintenance, upgrading of distribution wood structures, replacement of transmission wood structures and the company's distribution and transmission inspection processes. These continued storm hardening activities will ensure Tampa Electric's electrical system will perform at an acceptable level if another major storm impacts the company's service area.

Tampa Electric's 2019 distribution reliability indices showed improvement when compared to 2018, in System Average Interruption Duration Index ("SAIDI"), Customer Average Interruption Duration Index ("CAIDI"), System Average Interruption Frequency Index ("SAIFI"), and Average Duration of Outage Events ("L-Bar"). SAIDI, CAIDI, and L-Bar showed improvement when compared to the five-year average. L-Bar improved in 2019 for both underground and overhead outages. The improvements in SAIDI and CAIDI are attributed to less severe weather events than the previous year. When compared to 2018, SAIFI showed an improvement due to the decrease in outages that customers experienced in 2019. The improvements to L-Bar are attributed to quicker restoration time on outages when compared to 2018.

Tampa Electric saw unfavorable results in 2019 for Momentary Average Interruption Frequency Index ("MAIFle") and Customers Experiencing More Than Five Interruption ("CEMI-5") as compared to 2018. Due to the increase of breaker events MAIFle showed a

## 2019 Storm Implementation Plan and Annual Reliability Report

significant increase when compared to 2018. The main contributing factor to CEMI-5 unfavorable performance is due to the same customers experiencing continuous outages.

For 2020, Tampa Electric remains committed to continued electric system storm hardening and looks forward to the eventual submission and transition to the new Storm Protection Plan. The company anticipates that the new Storm Protection Plan will encompass the current storm hardening efforts in addition to the new incremental storm hardening programs, supporting projects and efforts the company will propose to meet the requirements of Rule 25-6.030 Florida Administrative Code ("FAC").

The following pages include the following reports:

1. Tampa Electric's 2019 activities and costs and 2020 projected activity and costs for each of the Ten Storm Hardening Initiatives.
2. Tampa Electric's 2019 Annual Distribution Service Reliability Report as required by Rule 25-6.0342 FAC.
3. Tampa Electric's 2019 Annual Wood Pole Inspection Report as required by Docket Nos. 20070634-EI and 20070635-TL, Order No. PSC-07-0918-PAA-PU issued November 14, 2007.

### **A) Initiative 1: Four-year Vegetation Management**

Tampa Electric's Vegetation Management Program ("VMP") incorporates a balanced approach to electrical safety and reliability while adhering to National Electric Safety Code ("NESC") and the American National Standards Institute ("ANSI") A300 pruning standards. The company manages approximately 6,300 miles of overhead distribution and 1,300 miles of overhead transmission lines over five counties within Florida. Tampa Electric's current VMP calls for trimming the company's distribution system on a four-year cycle approved by the Commission in Docket No. 20120038-EI, Order No. PSC-12-0303-PAA-EI, issued June 12, 2012. The plan incorporates the flexibility to change circuit prioritization utilizing the company's reliability-based methodology.

### **B) Initiative 2: Joint Use Pole Attachments Audit**

In 2019, Tampa Electric conducted comprehensive loading analyses and continued to streamline processes to better manage attachment requests from attaching entities. The comprehensive loading analysis was performed on 116 poles and all poles determined to be overloaded will be corrected.

For 2020, Tampa Electric will continue conducting comprehensive loading analyses where necessary.

### **C) Initiative 3: Transmission Structure Inspection Program**

Tampa Electric's Transmission Structure Inspection Program is a multi-pronged approach that identifies potential transmission system issues.

In 2019, all scheduled inspections were completed. These included the annual ground patrol, above ground, ground line, aerial infrared and substation inspections.

For 2020, the annual ground patrol, above ground, ground line, aerial infrared and substation inspections are scheduled to meet program requirements.

### **D) Initiative 4: Hardening of Existing Transmission Structures**

Tampa Electric continues hardening the existing transmission system in a prudent and cost-effective manner utilizing the company's inspection and maintenance program to systematically replace wood structures with non- wood structures.

In 2019, Tampa Electric hardened 149 structures that included 144 pole replacements utilizing steel or concrete poles and five sets of insulators replaced with polymer insulators.

For 2020, Tampa Electric is projecting to harden 120 transmission structures as part of the pole inspection and maintenance program.

### **E) Initiative 5: Geographic Information System**

Tampa Electric's Geographic Information System ("GIS") continues to serve as the foundational database for all transmission, substation and distribution facilities. All transmission, substation and distribution facilities are inputted into the company's GIS.

In 2019, Tampa Electric continued to implement changes and enhancements to the company's GIS system. These changes included data updates, plus metadata and functionality changes, to closer align with business processes and improve user performance.

### **F) Initiative 6: Post-Storm Data Collection**

Tampa Electric's process for post-storm data collection and forensic analysis has been in place for approximately eleven years. The company has continued the relationship with outside contractors to perform data collection, forensic analysis, forensic reporting and the following critical components of the plan:

- The establishment of a field asset database
- Implement forensic measurement protocol
- Perform the integration of forensics activity with overall system restoration efforts
- Perform forensic data sampling
- Provide reporting in a standardized format

Should a Category One or greater storm impact Tampa Electric's service area, the overall process will facilitate post-storm data collection and forensic analysis that will be used to determine the root cause of damage occurring to the company's transmission and distribution system.

### **G) Initiative 7: Outage Data - Overhead and Underground Systems**

Tampa Electric was directly impacted by one Tropical Storm ("TS") in 2019. The name of the storm was TS Nestor. If a major weather event occurs in 2020, the company believes it has an established process in place for collecting post-storm data and performing forensic

## 2019 Storm Implementation Plan and Annual Reliability Report

analyses. The company also has appropriate measures in place to manage outage performance data for both overhead and underground systems.

### **H) Initiative 8: Increase Coordination with Local Governments**

In 2019, Tampa Electric's communication efforts focused on maintaining existing vital government contacts and continued participation on standing disaster recovery planning committees. Tampa Electric continues to be involved in improving emergency response to vulnerable populations. In addition, the company also participated in storm planning meetings, training, and/or joint storm exercises with the Florida Public Service Commission ("FPSC"), Hillsborough and Pinellas Counties, as well as the Cities of Oldsmar, Tampa and Temple Terrace.

### **I) Initiative 9: Collaborative Research**

Tampa Electric is participating in a collaborative research effort with the state's other investor-owned, municipal and cooperative electric utilities to further the development of storm resilient electric utility infrastructure and technologies that reduce storm restoration costs and outages to customers. This research is being facilitated by the Public Utility Research Center ("PURC") at the University of Florida. A steering committee comprised of one member from each of the participating utilities is providing the direction for research initiatives. The Memorandum of Understanding ("MOU") was signed with PURC in December 2018 which expires on December 31, 2020 allowing this collaborative research to cover two years of the current Commission approved Storm Hardening Plan.

### **J) Initiative 10: Disaster Preparedness and Recovery Plan**

Tampa Electric Emergency Management plans address all hazards, including extreme weather events. Tampa Electric follows the policy set by TECO Energy for Emergency Management and Business Continuity which delineates the responsibility at employee, company and community levels.

## 2019 Storm Implementation Plan and Annual Reliability Report

In 2019, Tampa Electric participated in the following disaster preparedness and recovery plan activities which included in-depth coordination with local, state and federal emergency management in the following areas:

- Principal member of the National Fire Protection Association (“NFPA”) 1600 – Committee on Continuity, Emergency, and Crisis Management
- Member of the Edison Electric Institute (“EEI”) Business Continuity Leadership Team
- Member of the EEI Mutual Assistance Committee
- Member of Post Disaster Redevelopment Planning (“PRDP”) Committees
- Member of the Electric Subsector Coordinating Council (“ESCC”) Leadership Working Group
- Member of the Local Mitigation Strategy (“LMS”) and Vulnerable Population Committees
- Member of the GridEx Working Group (“GEWG”) for the planning and development of GridEx V exercise design plan and exercise scenario
- Member of the Critical Facility Working Group to review restoration priorities
- Member of the Southeastern Electric Exchange (“SEE”) Mutual Assistance Committee
- Member of the SEE Logistics Subcommittee
- Member of the Florida Emergency Preparedness Association (“FEPA”)
- Member of the Association of Contingency Planners (“ACP”)
- Member of the International Association of Emergency Managers (“IAEM”)

Tampa Electric continues to participate in internal and external preparedness exercises, collaborating with government emergency management agencies, at local, state and federal levels.

For 2020, Tampa Electric will continue in leadership roles in county and national preparedness groups: Hillsborough County and the COT PDRP, EEI, FEPA, ESCC, and the NFPA 1600 Committee on Continuity, Emergency, and Crisis Management. In addition, Tampa Electric will continue to be active participants in LMS, Vulnerable Population

## **2019 Storm Implementation Plan and Annual Reliability Report**

Committees, SEE's Mutual Assistance Committee and Logistics Subcommittee, EEI Mutual Assistance Committee, as well as the Critical Facility Working Group. Tampa Electric will also continue to promote growth of its website, Twitter and Facebook followers.

### **K) Wood Pole Inspection Program**

Tampa Electric's Ground Line Inspection Program for the company's transmission, distribution and lighting poles is based on the requirements of the NESC and is designed to inspect the entire pole population every eight years. Tampa Electric manages a total pole population of approximately 436,000 over the company's entire service area. Out of this population, there are approximately 285,000 distribution and lighting wood poles and 26,000 transmission poles appropriate for inspection for a total pole inspection population of approximately 311,000 over five counties within Florida.

In 2019, Tampa Electric performed 38,940 wood pole inspections. This completes the sixth year of the second cycle of the company's eight-year wood poles inspection program.

For 2020, the company plans to perform approximately 23,900 wood pole inspections.

## **SECTION I – Storm Preparedness Plans**

### **A) Initiative 1: Four-year Vegetation Management**

#### **1) Program Overview**

Tampa Electric's VMP provides a balanced approach to vegetation management and currently calls for a four-year tree trim cycle, which will improve the quality of line clearance while increasing system reliability related to system hardening activities. Tampa Electric facilitates the VMP with an emphasis on critical trimming needed in areas identified by the company's reliability-based methodology and storm hardening plan..

#### **2) Description of Vegetation Management Program**

In 2019, Tampa Electric's VMP utilized eight full-time company employees and approximately 200 contracted tree trim personnel to manage the company's distribution

## **2019 Storm Implementation Plan and Annual Reliability Report**

tree trimming requirements. The company's VMP utilizes ANSI A300 standards which are implemented through Tampa Electric's Transmission and Distribution Line Clearance Specifications. This comprehensive document covers specifications related to operations, notification guidelines, tree trimming and removal, chemical application, targeted completion dates, overtime and non-compliance.

In 2019, Tampa Electric utilized approximately 20 contracted tree trim personnel to manage the company's transmission tree trimming requirements. In addition, Tampa Electric's Transmission Vegetation Management Program ("TVMP") continues to comply with the North American Electric Reliability Corporation ("NERC") standard for Transmission Vegetation Management FAC-003-3.

For 2020, Tampa Electric has 260 dedicated distribution tree trim personnel throughout the company's seven service areas. These dedicated resources are broken out into two categories: Proactive and Reactive. The proactive resources are utilized for circuit tree trimming activities and consist of 200 personnel. The reactive resources consist of 60 personnel and are employed for mid-cycle trims, customer requested work and work orders associated with circuit improvement process. Lastly, Tampa Electric has 20 dedicated personnel responsible for the vegetation management of the company's transmission system.

### **3) Summary of Past and Future Activities**

In 2019, Tampa Electric's System Reliability and Line Clearance Departments utilized a third-party vegetation management software application. Using this application, an analysis was completed which took into consideration multi-year circuit performance data, trim cycles and cost. The analysis has resulted in the development of a multi-year VMP which optimizes activities from both a reliability based and cost-effective standpoint within the company's overall VMP.



## **2019 Storm Implementation Plan and Annual Reliability Report**

For 2020, Tampa Electric will continue to review current reliability-based information and pertinent field and customer information along with the company's annual trimming plan to maximize the overall effectiveness of the company's VMP.

### **4) Tree-related Terms and Definitions**

Tampa Electric utilizes the following tree-related terms and definitions:

- Top for safety - A tree that must be cleared to a safe distance from the overhead electrical facilities for property owner trim/removal.
- Mid-Cycle trimming - Any internal or external customer driven request for tree trimming. Therefore, all tree trim requests outside of full circuit trimming activities are categorized as mid-cycle trims.

### **5) Criteria Used to Select a Vegetation Management Response**

Tampa Electric's Line Clearance arborists, in conjunction with a contracted tree trim general foreman, evaluate whether to remove a tree, mid-cycle trim, or execute full circuit maintenance based on several variables. These variables include the date the circuit was last trimmed, circuit reliability data, and visual inspection of the circuit. Specific to tree removal, any tree which cannot be trimmed in accordance with ANSI A300 standards is considered for removal. On occasion, Tampa Electric has replaced a tree with a more suitable tree at the company's expense. The company promotes the Right Tree, Right Place Program, whereby customers are encouraged to plant trees that will not interfere with electrical facilities. Tampa Electric operates and maintains a customer information website which allows any customer to review the recommended set back distances for planting from electrical facilities.

### **6) Vegetation Management Practices – Utility Easements and Rights of Way**

Tampa Electric's tree clearing practices inside and outside utility easements and Rights of Way ("ROW") utilize a variety of methods to determine the corrective actions to be taken on a case-by-case basis.

## **2019 Storm Implementation Plan and Annual Reliability Report**

Inside utility easements, where tree and/or brush removal is required to complete the maintenance activity Tampa Electric's tree trimming practices, the contractor or company representative is required to make every reasonable effort to notify the property owner(s) prior to removing and/or chemically treating any trees or brush.

Outside utility easements and ROW, where tree and/or brush removal is required to complete the maintenance activity, the contractor or company representative is required to make every reasonable effort to secure permission from property owners prior to removing and/or chemically treating any trees or brush. Instances where removal is not possible, Tampa Electric will clear to the extent of the company's distribution Line Clearance specifications.

### **7) Relevant Utility Tariffs**

Tampa Electric is not limited in terms of tariff language pertaining to vegetation management within easements and ROW.

### **8) Company Practices Regarding Trimming Requests**

Most external based requests for tree trimming are routed to representatives in Tampa Electric's Customer Service - One Source Department for input into the work order management system. Work orders are received by Tampa Electric's Line Clearance personnel and assigned to tree trim contractors for a field inspection. Once the field inspection is complete, proper action is taken to satisfy the customer(s) request. These actions include communicating directly with the customer on-site or leaving a door hanger with detailed tree trimming information.

In 2019, approximately 78 percent of all customer driven tree trim requests resulted in some form of tree trimming. The balance of the requests did not require immediate action or were the responsibility of other utilities.

### 9) Coordination with Local Governments and Communities

Tampa Electric continued its efforts toward effective vegetation management as part of a coordinated plan with local governments and communities. Tampa Electric's Line Clearance Department and Community Relations Department hold periodic meetings with local governments and communities related to vegetation maintenance activities, upcoming projects, and emergency recovery strategies. Tampa Electric's Community Relations Department is tasked with communicating with local and state government officials, residential and commercial customers on several topics, including vegetation management. The company's goal is to keep governmental officials aware and briefed on relevant issues regarding these topics while working with internal Tampa Electric departments to resolve vegetation management issues in and around the company's infrastructure in a timely and responsive manner.

In 2019, Tampa Electric partnered with University of South Florida, Hillsborough County, and City of Tampa for National Arbor Day where employees and volunteers planted a variety of trees on the University of South Florida campus. For Florida Arbor Day, Tampa Electric donated 500 holly seedlings to two Hillsborough County Elementary Schools and spoke with students about proper tree planting and power line safety.

During the fourth quarter 2019, Tampa Electric submitted its renewal application to the National Arbor Day Foundation's Tree Line USA Program and expects to receive endorsement in the first quarter of 2020. This will be the twelfth consecutive year Tampa Electric has received the National Arbor Day Foundation's prestigious Tree Line USA Program designation.

### 10) Conclusion

Tampa Electric has set forth an aggressive program to effectively operate and manage the company's overall VMP and will continue to enhance the level of communication and coordination with local governments and communities.

## **2019 Storm Implementation Plan and Annual Reliability Report**

For 2020, the company will continue to operate the VMP on a four-year cycle in accordance with Commission approved Docket No. 20120038-EI, Order No. PSC-12-0303-PAA-EI, issued June 12, 2012.

### **B) Initiative 2: Joint Use Pole Attachments Audit**

#### **1) Overview**

In 2019, Tampa Electric conducted comprehensive loading analyses and continued to streamline processes to better manage attachment requests from attaching entities. A comprehensive loading analysis was performed on 116 poles and all poles determined to be overloaded will be corrected.

For 2020, Tampa Electric will continue conducting comprehensive loading analyses where necessary.

#### **2) Joint Use Agreements**

Due to the size of Tampa Electric's service area and the number of poles the company has, there will always be the potential for unknown foreign attachments to exist on facilities which could place additional loading on a facility which may create an overload situation. To help mitigate these potential overload situations, all Tampa Electric joint use agreements have provisions that allow for periodic inspections and/or audits of all joint use attachments to the company's facilities. In addition, all agreements have provisions that require the attaching party to build and maintain attachments within NESC guidelines or Tampa Electric specifications, whichever are more stringent. All of Tampa Electric's existing joint use agreements require attaching parties to receive authorization from the company prior to making all attachments to its facilities.

In 2019, Tampa Electric reviewed all known attachment records and verified that the company has joint use agreements with all attaching entities. Tampa Electric added one new third-party agreement for a total of 38 joint use agreements with attaching entities and continue negotiations with others requesting permission to attach to Tampa Electric poles.

## **2019 Storm Implementation Plan and Annual Reliability Report**

For 2020, Tampa Electric's Joint Use Department will continue working with third party attachers on new attachment agreements.

### **3) Tampa Electric's Joint Use Department**

Tampa Electric's Joint Use Department strives to ensure the poles are not overloaded and meet the NESC or Tampa Electric Standards, whichever is more stringent, in an effort to lessen storm related issues on poles with joint use attachments. All joint use agreements require attaching entities to apply for and gain permission to make attachments to Tampa Electric's poles. Tampa Electric's permit application process requires a thorough review of the application, an engineering assessment of every pole where attachments are being proposed which includes comprehensive loading analysis and compliance with NESC or Tampa Electric's construction standards, the completion of any necessary construction to ensure poles are ready for attachments, Tampa Electric's permission to attach to the poles requested and a post inspection and authorization of the attachments that have been placed in the field. The company also uses National Joint Utility Notification Systems ("NJUNS") for the purpose of improving the coordination and notification process with attaching entities.

In 2019, Tampa Electric had steady requests for small cell permit applications. The company's Joint Use department processed 15 pole attachment applications for 116 poles. As a result, the company identified 3 distribution poles that were overloaded due to joint use attachments and 2 poles were overloaded due to Tampa Electric's attachments. Out of the 116 poles that were assessed through the pole attachment application process and the comprehensive loading analysis, there were 34 that had NESC violations due to joint use attachments and no poles with NESC violations due to Tampa Electric attachments. All poles with NESC violations were either corrected by adjustments to attachments, pole replacements or joint use entities' removal of the attachments in violation.

## **2019 Storm Implementation Plan and Annual Reliability Report**

In 2019, effort was made by third party “attachers” to notify Tampa Electric of poles planned for over-lashing. Over-lashing is one specific area of concern which is when a joint use entity attaches to an existing attachment without prior Tampa Electric engineering and authorization.

For 2020, Tampa Electric’s Joint Use Department will continue working with small cell companies to finalize attachment agreements. Tampa Electric will continue performing make ready for the small cell and fiber deployments across the company’s entire service territory.

### **4) Impact of Non-electric Utility Poles on Storm Recovery**

Tampa Electric has internal procedures that if a pole is identified during an emergency, restoration or is needed to provide electrical service to a customer and must be replaced, the company will replace the pole on-site and will notify the owner of the pole after the fact. The notification follow-up will also include an invoice for the cost to replace the pole. Tampa Electric utilizes foreign owned wood poles throughout the company’s service are mainly for service lines. Prior to Tampa Electric making an attachment to a foreign owned pole, the pole is put through comprehensive loading analysis. During the company’s last major storm event (Hurricane Irma) there was no impact of non-electric poles on storm recovery.

### **5) Initiatives that Align with Tampa Electric’s Pole Inspection Program**

Tampa Electric has completed a pole loading analysis and data collection on all current poles having joint users’ attachments. Any new pole being proposed that will have non-electric pole attachments or any pole found to have unauthorized or unnoticed non-electric pole attachments will have a comprehensive pole loading analysis conducted. The analysis will ensure that the condition of the pole meets the requirements in Table 261-1 of the NESC and Tampa Electric Construction Standards. Additionally, comprehensive stress calculations will be conducted on any proposed joint use pole to ensure that each pole is not overloaded or approaching overloading for instances not already addressed by Order No. PSC-06-0144-PAA-EI. A comprehensive pole loading

## **2019 Storm Implementation Plan and Annual Reliability Report**

analysis will be conducted to determine if the pole loading is within acceptable tolerances and to determine which attachment is causing the overload condition if one exists. If the responsible party is a Joint User that has not permitted with Tampa Electric to be on that pole, Tampa Electric will notify said party. The Joint Users will have the choice to either remove their attachment(s) or pay for the cost of corrective action. Corrective action will typically require either a pole replacement or the installation of an extended steel truss.

Tampa Electric's Joint Use Department started the process for a pole attachment audit in the last quarter of 2018 and continued through 2019. The attachment audit is scheduled to be completed in the first quarter of 2020. The main benefit of performing the audit is the identification of unauthorized attachments. This allows Tampa Electric to perform the engineering and loading analysis on these poles to ensure that all loading requirements are met.

### **6) Conclusion**

In 2019, Tampa Electric's Joint Use Department continued ensuring the performance of the Comprehensive Loading Analysis Initiative and the processes for facilitating pole attachments were efficient to both the attaching entities and the company.

For 2020, Tampa Electric's Joint Use Department will continue performing comprehensive loading analysis on the company's poles for all new attachers that want to make attachments to the company's poles and will continue to look for more efficient processes for attaching entities as well as the Comprehensive Loading Analysis Initiative.

### **C) Initiative 3: Eight-year Inspection Cycle for Transmission Structures**

#### **1) Overview**

Tampa Electric's Transmission System Inspection Program identifies potential system issues along the entire transmission circuit by analyzing the structural conditions at the ground line and above ground as well as the conductor spans. The inspection program is a multi-pronged approach with inspection cycles of one and eight-years depending on

## **2019 Storm Implementation Plan and Annual Reliability Report**

the goals or requirements of the individual inspection activity. Formal inspection activities included in the program are ground line, ground patrol, aerial infrared patrol, above ground and substation inspections. Typically, the ground patrol, aerial infrared patrol and substation inspections are performed on one-year cycles. The ground line and above ground inspections are performed on an eight-year cycle. Additionally, pre-climb inspections are performed prior to commencing work on any structure.

### **2) Ground Line Inspection**

Tampa Electric has continued the company's ground line inspection program that complies with the Commission's order requiring ground line inspection of wooden transmission structures. Ground line inspections are performed on an eight-year cycle. Each year approximately 12.5 percent of all transmission structures are scheduled for inspection.

In 2019, approximately 800 ground line inspections were completed as scheduled.

For 2020, ground line inspections are planned on approximately 12.5 percent of all wooden transmission structures.

### **3) Ground Patrol**

The ground patrol is a visual inspection for deficiencies with poles, insulators, switches, conductors, static wire and grounding provisions, cross arms, guying, hardware and encroachment.

In 2019, all 230 kV, 138 kV and 69 kV circuits were patrolled by ground at least once. The cost for the 2019 ground patrol inspections was \$144,025.

For 2020, ground patrol is planned for all transmission circuits. All 230 kV, 138 kV and all critical 69 kV circuits will be ground patrolled prior to the peak of hurricane season with the remaining transmission circuits being completed by the end of 2020. Transmission circuits are typically scheduled to be patrolled by level of system criticality,



## **2019 Storm Implementation Plan and Annual Reliability Report**

with the most critical circuits patrolled first. The 2020 budget for the ground patrol inspections is \$137,833.

### **4) Aerial Infrared Patrol**

The aerial infrared patrol is typically performed on the entire transmission system. It is performed by helicopter with a contractor specializing in thermographic power line inspections and a company employee serving as navigator and observer. This inspection identifies areas of concern that are not readily identifiable by normal visual methods as well as splices and other connections that are heating abnormally and may result in premature failure of the component. Since many of these structures are on limited access ROW, this aerial inspection provides a frequent review of the entire transmission system and helps identify potential reliability issues in a timely manner.

The 2019 aerial infrared patrol was completed as scheduled on the entire transmission system.

For 2020, the aerial infrared patrol is planned on the entire transmission system.

### **5) Above Ground Inspections**

Above ground inspections will continue to be performed on transmission structures on an eight-year cycle; therefore, each year approximately 12.5 percent or one-eighth of transmission structures are inspected. This inspection is performed either by internal team members or contractors specializing in above ground power pole inspections and may be performed by climbers, bucket truck, helicopter or Unmanned Aerial Systems (“UAS”). The above ground inspection is a comprehensive inspection that includes assessment of poles, insulators, switches, conductors, static wire, grounding provisions, cross arms, guying, hardware and encroachment issues. This program provides a detailed review of the above ground condition of the structure.

In 2019, above ground inspections were completed as scheduled on approximately 12.5 percent of all transmission structures.

## **2019 Storm Implementation Plan and Annual Reliability Report**

For 2020, above ground inspections are planned on approximately 12.5 percent of all transmission structures.

### **6) Substation Inspections**

Substation inspections consist at a minimum of an annual inspection of all transmission substations as well as sample and perform dissolved gas analyses annually for all transmission system autotransformers. These inspections identify equipment deficiencies and the information is entered into a maintenance database. The database is reviewed by substation leadership for prioritization and facilitation of the remediation process across Tampa Electric's system.

In 2019, substation inspections were performed on all transmission substations.

For 2020, substation inspections are planned on all transmission substations.

### **7) Pre-Climb Inspections**

While not a part of the formal inspection program outlined above, Tampa Electric crews are required to inspect poles prior to climbing. As part of these inspections, the employee is required to visually inspect each pole prior to climbing and sound each pole with a hammer if deemed necessary. These pre-climbing inspections provide an additional integrity check of poles prior to the employee ascending the pole and may also result in the identification of any structural deterioration issues.

### **8) Reporting**

Standardized reports are provided for each of the formal inspections. Deficiencies identified during the inspections are entered into a maintenance database. This maintenance database is used to prioritize and manage required remediation. Deficiencies identified during the pre-climb inspections are assessed by the on-site crew and reported to supervisory personnel for determination of corrective action.

**D) Initiative 4: Storm Hardening Activities for Transmission Structures**

**1) Overview**

Tampa Electric is hardening the existing transmission system in a prudent, cost-effective manner utilizing the company's inspection and maintenance program. This plan includes the systematic replacement of wood transmission structures with non-wood structures during the company's annual maintenance of the transmission system. Additionally, the company will utilize non-wood structures for all new transmission line construction projects as well as system rebuilds and line relocations.

In 2019, Tampa Electric hardened 149 structures at a cost of \$4.9 million. This included 144 pole replacements with steel or concrete poles and 5 sets of insulators replaced with polymer insulators.

For 2020, Tampa Electric plans to harden 120 transmission structures as a part of the pole inspection and maintenance program with a budget of \$4.9 million. This includes 120 structure replacements with steel or concrete poles as well as replacing insulators with polymer insulators as needed.

**E) Initiative 5: Geographic Information System**

**1) Overview**

GIS is fully integrated into Tampa Electric's process as the foundational database for all transmission, substation and distribution facilities. All new computing technology requests are evaluated with an emphasis on full integration with GIS. Development and improvement of the GIS for users continues. In 2019, Tampa Electric continued to make changes and enhancements to the company's GIS system. These changes included data updates, plus metadata and functionality changes to better conform to business processes and improve the user experience.

All initiatives are evaluated with the goal to eliminate redundant, exclusive and difficult to update databases, further cementing GIS as the foundational database for Tampa Electric.

## **2019 Storm Implementation Plan and Annual Reliability Report**

Tampa Electric has an ongoing activity directed toward improving the functionality of the company's GIS. User improvement requests are forwarded to Tampa Electric's GIS User's Group, which meets regularly to review, evaluate and recommend enhancements for implementation.

### **2) Conclusion**

Tampa Electric has fully integrated GIS into the company's business processes. All technology requests are evaluated with a goal of full integration into GIS. Development and improvement of the GIS for users continues.

In 2019, the company's GIS & Mapping Services Group reviewed and corrected, where necessary, feature attributes in Tampa Electric's GIS database. This review was completed to make the company's GIS data clean and compatible with the upcoming implementation of the company's ADMS. In all, 879,572 GIS attributes were reviewed during this intensive process.

For 2020, Tampa Electric expects to identify more opportunities to continue to enhance and improve the company's GIS.

### **F) Initiative 6: Post-Storm Data Collection**

#### **1) Establishment of a Forensics Team**

In 2019, Tampa Electric was not impacted by any major hurricanes and did not initiate storm data collection to have forensic analysis performed. Tampa Electric has continued its relationship with its outside consultant to perform post-storm forensic analysis resulting from a Category One or greater storm. Its purpose is to determine the root cause of storm damage on a significant part of the company's service area after a major storm.

#### **2) Establishment of Forensics Measurements**

In 2019, Tampa Electric updated the database that was constructed by a consultant in 2007 for the establishment of forensics measurements. The consultant used the

## **2019 Storm Implementation Plan and Annual Reliability Report**

company's existing data sources and built a database of distribution facilities on a geographic basis of Tampa Electric's service areas. The database is updated on an annual basis with the company's transmission and distribution facilities. Tampa Electric will continue utilizing the consultants to collect data and facilitate the completion of the database to provide a complete understanding of the total facilities exposed to storm conditions in a given area in order to effectively analyze the extent of damage.

Pole damage compared to damage on other overhead components, such as conductors and equipment, generally have the biggest impacts on the system reliability, restoration and resource allocation. Tampa Electric's forensic analysis will look at pole damage during storm events. Pole damage during hurricanes can be categorized into two major categories: pole impacted (leaning poles and damaged other equipment) and broken poles. Recommendations on pole setting depth in different soil types will be provided, if needed.

Contributing factors to pole breakages during hurricanes can include trees, debris, presence of deterioration and wind. Although these factors may seem independent, they will result in additional stress on poles causing breakage to occur. Therefore, the impacts of these external factors will be examined and analyzed. Meanwhile, internal factors such as pole material (e.g., concrete, wood, metal), pole height/class, framing types, conductors, attachments and equipment will also be considered to determine the current pole loading profile. The company's consultant will take both external and internal factors into account and evaluate pole loading in both normal conditions (based on design criteria) and hurricane conditions.

Breakage rates (defined as the proportion of pole breakages to the total pole population) as opposed to absolute breakage counts will be considered in forensic analysis. Breakage rate analysis will be applied to every category of pole structures. Categories of pole structures are classified by each pole structure's unique combination of features including pole height/class, framing type, conductors, attachments and equipment and presence of deterioration, etc. Each category of pole structure will be studied in each

wind region (region that has unique range of wind speed) to determine the breakage rate in each region.

### 3) Establishment of Forensics Database Format

In 2019, Tampa Electric updated the database that was constructed by a consultant in 2007 for the establishment of post-storm forensics measurements. The consultant used the company's existing data sources and built a database of transmission and distribution facilities on a geographic basis of Tampa Electric's service areas. The database was updated in 2019 with the company's transmission and distribution facilities.

Tampa Electric also utilizes a pole database that includes such information as pole size, average age, pole population by type of treatment, pole inspection and maintenance data such as last inspection or treatment, types of conductor, foreign utility attachment size and quantity and a number of other important factors and variables used for forensic analysis.

The pole database was built from Tampa Electric's pole inventory, pole inspection records and joint use attachment records. To address additional infrastructure installed in the company's system since the raw data was collected, all data collected during the forensic analysis process will be cross checked against the database and any missing data will be added. This will allow for all data collected during a storm event to be evaluated.

### 4) Forensics and Restoration Process Integration

Tampa Electric currently utilizes two separate contractors to perform the forensic and restoration process integration. The first consultant is used for data gathering immediately following a Category One or greater storm impacting the company's service area. The second consultant is used to conduct the actual forensic analysis on the data captured from the large storm event. As a Category One or greater storm approaches, the consultants will be notified that a request to mobilize may be imminent when Tampa

## 2019 Storm Implementation Plan and Annual Reliability Report

Electric activates the company's Incident Command System ("ICS"). This will likely occur when the storm is within three days of landfall. The consultant is required to mobilize data gathering personnel and equipment no later than two days prior to landfall to be ready for data gathering as soon as it is safe after the storm passes. The decision to mobilize the consultants will be made by the company in conjunction with the decision to mobilize foreign crews for restoration work.

Prior to data collection, the consultants will work with Tampa Electric to determine the geographical areas to be patrolled for data collection. This will be done using storm path and wind strength information, flood/surge information, initial damage assessment reports and other relevant data. Scheduling of the data collection effort will be done in conjunction with the company's restoration effort.

The consultant will be responsible for patrolling a representative sample of the damaged areas of the electrical system following a major storm event and perform the data collection process. At a minimum, the following types of information will be collected:

- Pole/Structure – type of damage, size and type of pole, age (birth mark), and likely cause of damage
- Conductor – type of damage, conductor or joint use size and type, and likely cause of damage
- Equipment – type of damage, overhead only, size and type, and likely cause of damage
- Hardware – type of damage, size and type, and likely cause of damage

To collect post-storm field data, a data collection model will be used by field personnel doing the damage assessments. This data collection model will exist electronically for use on computer tablets in the field. The electronic spreadsheet will be based on the available information from the initial data inventory and the additional information required from field collection. The input form of an electronic collection tool will include many drop-down selections based on all the possible alternatives found on Tampa

## **2019 Storm Implementation Plan and Annual Reliability Report**

Electric's system to facilitate easy data entry for field personnel and ensure consistent information for later analysis.

### **5) Forensics Data Sampling Methodology**

Following a storm resulting in significant system damage, Tampa Electric will work with the consultant to perform the initial damage assessment of the storm damage area to determine the data sample to be collected. This initial assessment will provide information on the size of the area(s) impacted by the storm and the level of damage in the area(s).

From the damage assessment and initial data inventory, the consultant will make a correlation between size of damage area and the number of facilities exposed to storm force winds. This analysis will then lead to an estimated sample size to be collected and direct the areas in which samples should be collected. The consultant will use weather reports and wind data throughout the storm area to analyze the wind forces Tampa Electric facilities encountered during the storm.

### **6) Reporting Format Used to Report Forensics Results**

Following a storm event and the subsequent forensic analysis, Tampa Electric's consultant will provide a full report containing the data collected and resulting findings. The data collected will be provided in an electronic database, Excel or Access format, with accompanying analyses, charts and diagrams.

Reporting for this project will include a detailed written report of findings, analyses, conclusions and recommendations for improvement in system performance. The report format will typically include the following sections:

- Summary of Findings
- Available Data
- Analysis and Findings
- Integral Analysis and Interpretation
- Conclusions



### 7) Conclusion

In 2019, Tampa Electric was not impacted by any major hurricanes. Tampa Electric in preparations for the potential impacts of Hurricane Dorian, put the company's forensic consultant on notice 72 hours prior to the expected impact. The company cancelled the notice 24 hours later due to the shifting track of the storm and did not initiate any storm data collection to have forensic analysis performed. Tampa Electric has an established process in place to gather the necessary data for forensic analysis following a Category One or greater storm that significantly impacts the company's service area. This data will be used to determine the root cause of damage after a storm event.

For 2020, depending upon the number of storm events, the company will incur costs based upon the category of storm and level of activation upon the forensic analysis contractors.

### G) Initiative 7: Outage Data – Overhead and Underground Systems

#### 1) Overview

Tampa Electric was directly impacted by TS Nestor in 2019. If a major weather event occurs in 2020, the company believes it has an established process in place for collecting post-storm data and performing forensic analyses. The company also has appropriate measures in place to manage outage performance data for both overhead and underground systems.

### H) Initiative 8: Increase Coordination with Local Governments

The following is a summary of Tampa Electric's 2019 activities with local governments in support of ongoing programs, storm preparation and plans. This information is represented in the matrix provided in Appendix D.

#### 1) Communication Efforts

Tampa Electric strives to maintain excellent communications with the local governments within the company's service territory. These communications are carried out by specifically assigned personnel from Tampa Electric's Community Relations and Emergency Management Departments to each of the local governments served. Tampa

## **2019 Storm Implementation Plan and Annual Reliability Report**

Electric representatives engage in ongoing discussions with local officials regarding critical issues such as storm restoration, underground conversions and vegetation management. In addition, Tampa Electric is committed to improving these relationships even further and will increase coordination in key areas.

In 2019, Tampa Electric's Emergency Management Department communication efforts continued to focus on local, state and federal governments and agencies for all emergency management missions. Tampa Electric was invited to participate in local, state and federal government exercises. Other communication topics in 2019 included updating governmental officials of the company's transmission line inspections, structural upgrades and providing information on undergrounding overhead distribution lines.

In 2019, community focused communications included pre-hurricane season news releases to all major media outlets that serve Tampa Electric customers. All releases were also posted on Tampa Electric's website. Hurricane guides were published in several major newspapers including the Tampa Bay Times, Lakeland Ledger, the Winter Haven News Chief, Centro (Spanish), and the Florida Sentinel Bulletin. In addition, Tampa Electric continued to promote its storm restoration video, which is available on the company's website.

### **2) Storm Workshop and Training with Local Government**

In 2019, Tampa Electric participated with government officials and agencies in storm planning meetings, training and/or joint storm exercises with the FPSC, Hillsborough and Pinellas Counties, as well as the Cities of Oldsmar, Tampa, and Temple Terrace. In addition, Tampa Electric hosted Community Outreach events in Hillsborough County and Polk County and invited local emergency management officials, law enforcement, and fire rescue personnel to share Tampa Electric's concepts on restoration efforts and how local authorities can assist.

**2019 Storm Implementation Plan and Annual Reliability Report**

**3) Emergency Operations Centers – Key Personnel Contact**

In 2019, two named tropical weather events (Hurricane Dorian and TS Nestor) triggered various county and municipal agencies to activate their EOC at either full or partial activation levels to support emergency response activities. Tampa Electric was activated by Hillsborough County to support emergency response activities during Hurricane Dorian and the company remained readily available to assist as needed. In addition, Pasco, Pinellas, and Polk County EOCs were under partial activation for situational awareness and to support local activities, including sandbag operations and shelter management. Lastly, the State of Florida activated its EOC at full activation for Hurricane Dorian and Tampa Electric personnel supported outage reporting and EOC requests from Tallahassee.

During TS Nestor, all county/municipal EOCs, as well as the State EOC, monitored the storm closely and maintained situational awareness. Most counties and municipalities did not activate their EOCs but continued to monitor weather conditions. As a result of tornado activity and subsequent damage, Polk County partially activated its EOC but did not request assistance from Tampa Electric as the primary damage area was served by other electric utilities.

The table below shows the activation levels for the tropical weather events by county or municipal EOC which covers Tampa Electric’s service area:

<b>EOC</b>	<b>Hurricane Dorian</b>	<b>Tropical Storm Nestor</b>
City of Oldsmar	None	None
City of Plant City	None	None
City of Tampa	Partial	None
City of Temple Terrace	Partial	None
Hillsborough County	Full	None
Pasco County	Partial	None
Pinellas County	Partial	None

**2019 Storm Implementation Plan and Annual Reliability Report**

Polk County	Partial	Partial
State of Florida	Full	None

Tampa Electric continues to work with local, state and federal governments to streamline the flow of information and incorporate lessons learned to restore electric service as quickly and as safely as possible. Prior to June 1st of each year, the company’s Emergency Response Plan is reviewed and updated to ensure Tampa Electric representatives are fully trained to support EOC activation.

**4) Staffing Practices at Local Emergency Operations Centers**

Tampa Electric provides representatives to each of the four (4) County EOCs within the company’s service territory, including Hillsborough, Pasco, Pinellas and Polk counties. In addition, depending upon the magnitude of the event, representatives are provided to the four (4) municipalities (Cities of Oldsmar, Plant City, Temple Terrace, and Tampa), when requested. The number of liaisons provided is dependent upon various factors (e.g., seating capacity at the EOC, amount of damage, EOC operating hours, available personnel, etc.). Lastly, representatives are also provided to support the State of Florida EOC to support the State and the Florida Public Service Commission (“FPSC”) for power restoration issues.

The representatives who staff the EOCs have business acumen and experience in customer service and/or electric or gas distribution. Since the EOC representative role is not a day-to-day job function, the company strives to maintain a balance of seasoned and less experienced representatives during both day and night operations in the EOC when possible. In some EOCs, the company utilizes representatives from the gas company (Peoples Gas System) to supplement Tampa Electric personnel, especially in areas where the company has a natural gas presence. In any case, EOC representatives are trained to deal with both electric and gas issues.

Staffing hours at the EOC are dictated by each EOC’s operational periods and are dependent upon the magnitude of the event. EOCs have and may require company

**2019 Storm Implementation Plan and Annual Reliability Report**

representatives to report for duty before the onset of tropical storm force winds and ride-out the storm at the EOC with other Emergency Support Function (“ESF”) personnel. Initially, EOCs may, at their discretion, operate 24 hours/day until the event is stabilized. To support the 24-hour cycle, company staffing hours at EOCs are generally based on two (2), 12-hour shifts based on the EOCs operational cycle and vary by County; however, the hours of operation may be adjusted based on EOC needs to support emergency response.

The table below further shows the number of company representatives available to support EOC activation. The table does not represent the number of representatives on-site at the same time.

<b>Utility staffing practices at local EOCs</b>		
<b>EOC in Service Territory</b>	<b>Number of Utility staff</b>	<b>Planned daily hours scheduled for working in the EOC</b>
Hillsborough County	6-8	Dependent on EOC operational period
City of Plant City	2	Dependent on EOC operational period
City of Oldsmar	2	Dependent on EOC operational period
City of Tampa	4	Dependent on EOC operational period
Pasco County	4	Dependent on EOC operational period
Pinellas County	3	Dependent on EOC operational period
Polk County	3	Dependent on EOC operational period

**Responsibilities:** The role of the company’s EOC representative is to facilitate and respond to critical community issues in support of life safety and power restoration efforts. The representatives are responsible for maintaining situational awareness and communicating any public safety issues or concerns to the company. In addition, the representatives work closely with other ESF liaisons to facilitate or coordinate any requests made by the company or in support of community citizens. The representatives

## 2019 Storm Implementation Plan and Annual Reliability Report

will utilize all available “lifelines” to respond to requests which originate from the EOC or company personnel. Lastly, the EOC representative communicates outage updates and provides restoration status, as requested.

**Communications:** Because the company has representatives dedicated to each of the county and city EOCs within its service territory, there are limited opportunities for an EOC to not be staffed. In the remote situation where an EOC representative is unavailable, the local EOCs have contact information for their assigned EOC representatives, as well as the company’s Emergency Management personnel, which can be called upon for assistance. In addition, the company’s Community Relations Department personnel have established relationships throughout the communities served and are also available to provide support, as needed.

### 5) Search and Rescue Teams – Assistance to Local Government

In 2019, Tampa Electric received one request for Search and Rescue Teams to support Hillsborough County prior to Hurricane Dorian’s landfall; however, due to a change in the storm’s path, Tampa Electric resources were not needed and did not deploy to support local government.

### 6) Tree Ordinances, Planting Guides and Trip Procedures

For 2020, the company’s Manager of Line Clearance will continue to work with Tampa Electric’s Community Relations staff to offer meetings with local government’s staff on how Tampa Electric can best work with city staff in pre-storm and post-storm events and to better coordinate the company’s tree trimming procedures with governmental ordinances.

### 7) Utility’s Coordination of Critical Facilities with local governments

Tampa Electric works closely with County Emergency Management (“EM”) officials and other stakeholders throughout the year to identify and prioritize facilities deemed most critical to the overall health of the whole community (e.g., public health, safety, security or national/global economy). Tampa Electric has discussions with EM officials through

## 2019 Storm Implementation Plan and Annual Reliability Report

face-to-face meetings/contacts, in a working group setting, or through email or phone communications. The identification of public and private critical facilities during preparedness planning supports the goal of a coordinated and flexible restoration process for all critical infrastructure and is directly related to business continuity and continuity of the government. Critical facilities for municipalities are identified and incorporated into the respective County data.

The table below provides the dates that Tampa Electric met with local governments during 2019 that involved discussions with critical facilities:

<b>Meetings with Local Government</b>				
<b>Entity</b>	<b>Date(s)</b>	<b>Topics</b>	<b>Pending Issues/Follow-up Items</b>	<b>Contact Information Provided to Local Authorities</b>
Hillsborough County	1/4/2019 3/5/2019 3/6/2019 4/25/2019 5/20/2019	Critical Facility Discussion	Prioritization levels between small and large Assisted Living Facilities (ALFs)	Yes
Pasco County	1/4/2019 2/22/2019 3/8/2019	Critical Facility Discussion	N/A	Yes
Pinellas County	1/8/2019 4/4/2019	Critical Facility Discussion	N/A	Yes
Polk County	2/19/2019 2/20/2019	Critical Facility Discussion	Need updated water/waste-water facilities	Yes

### 8) Underground Conversions

Over the past seven years, the Dana Shores Civic Association and Tampa Electric have been working with Hillsborough County to create and execute a Municipal Service Benefit Units (“MSBU”) ordinance and initiate the first project under this new mechanism. The MSBU provide an opportunity for neighborhoods to set up self-elected taxing districts that would fund capital upgrade through annual Ad Valorem taxes. Tampa Electric employees have attended several meetings with officers of the association, county officials, as well as regular association meetings to provide assistance. These meetings have also created interest in other neighborhoods, as well as the City of Tampa, for the possibility of converting portions of the system to underground. Tampa Electric is evaluating these conversions especially those that are more susceptible to failure during storms to determine how they should be incorporated as part of the company’s storm plan. Estimates for the Dana Shores project have been presented jointly by the association’s officers and Tampa Electric employees to the County Planning Commission Staff, and in 2018 a final, binding bid was submitted by Tampa Electric to Dana Shores and Hillsborough County. Efforts were completed with Hillsborough County to create the Dana Shores taxing district and a bond was acquired to fund his project. Although the initial MSBU ordinance was created and passed by the County Commission in 2015, Dana Shores Civic Association leadership has completed the necessary neighborhood consensus documentation to be the County’s first MSBU project. In 2019, Tampa Electric reviewed and chose to incorporate the Dana Shores Overhead to Underground Conversion Project as a “Turn-Key” project assigning two electrical contractors to perform all the construction of this project. Tampa Electric utilizes a job site manager to oversee the daily activities, document and report back to the company on progress of the undergrounding project on a weekly basis. The completion date for the Dana Shores Underground Conversion Project is projected to be December 31, 2021.

### 9) Conclusion

For 2020, Tampa Electric will continue to focus its government communication efforts in providing governmental officials with the company’s emergency response contacts, to



## **2019 Storm Implementation Plan and Annual Reliability Report**

review the company's Emergency Response Plan, incorporate lessons learned and to validate restoration priority for critical facilities. In addition, Tampa Electric will continue communicating storm preparedness information to customers through its annual media pre-hurricane season press release. Tampa Electric will also continue to train the company's EOC representatives and maintain a list of designated search and rescue personnel.

### **I) Initiative 9: Collaborative Research**

#### **1) PURC Collaborative Research Report**

## **Report on Collaborative Research for Hurricane Hardening**

Provided by

The Public Utility Research Center  
University of Florida

To the

Utility Sponsor Steering Committee

Final Report dated February 2020

### **I. Introduction**

The Florida Public Service Commission (FPSC) issued Order No. PSC-06-00351-PAA-EI on April 25, 2006 (Order 06-0351) directing each investor-owned electric utility (IOU) to establish a plan that increases collaborative research to further the development of storm resilient electric utility infrastructure and technologies that reduce storm restoration costs and outages to customers. This order directed IOUs to solicit participation from municipal electric utilities and rural electric cooperatives in addition to available educational and research organizations. As a

## **2019 Storm Implementation Plan and Annual Reliability Report**

means of accomplishing this task, the IOUs joined with the municipal electric utilities and rural electric cooperatives in the state (collectively referred to as the Research Collaboration Partners) to form a Steering Committee of representatives from each utility and entered into a Memorandum of Understanding (MOU) with the University of Florida's Public Utility Research Center (PURC). In 2018 the Research Collaboration MOU was renewed for an initial term of two years, effective January 1, 2019, and will be automatically extended for successive two-year terms.

PURC performs the administration function for research collaboration, including financial management, logistics, production and distribution of documents, and preparation of reports. PURC also coordinates and performs research as agreed upon with the Steering Committee by facilitating the exchange of information from the Research Collaboration Partners with individuals conducting research projects and facilitating the progress of each research project.. The collaborative research has focused on undergrounding, vegetation management, hurricane-wind speeds at granular levels, and improved materials for distribution facilities.

This report provides an update on the activities of the Steering Committee since the previous report dated February 2019.

### **II. Undergrounding**

The collaborative research on undergrounding has been focused on understanding the existing research on the economics and effects of hardening strategies, including undergrounding, so that informed decisions can be made about undergrounding policies and specific undergrounding projects.

The collaborative has refined the computer model developed by Quanta Technologies and there has been a collective effort to learn more about the function and functionality of the computer code. PURC and the Project Sponsors have worked to fill information gaps for model inputs and significant efforts have been invested in the area of forensics data collection.

In addition, PURC has worked with doctoral and master's candidates in the University of Florida Department of Civil and Coastal Engineering to assess some of the inter-relationships between

## **2019 Storm Implementation Plan and Annual Reliability Report**

wind speed and other environmental factors on utility equipment damage. PURC has also been contacted by engineering researchers at the University of Wisconsin and North Carolina State University with an interest in the model, though no additional relationships have been established. In addition to universities, PURC has been in contact with stakeholders in Puerto Rico in light of PURC Director Mark Jamison's appointment to the Southern States Energy Board Blue Ribbon Task Force on the future of Puerto Rico's energy system. The stakeholders, government and task force are concerned with strategies to make Puerto Rico's system more resilient and are interested in the role that the model could play. Finally, PURC has been contacted by California stakeholders interested in applying the principles of the model to the mitigation of the interactions between the electricity grid and the surrounding vegetation, potentially reducing the risk of wildfires. Despite the outside interest, there are no concrete plans to expand the scope of the model at this time. Every researcher that contacts PURC cites the model as the only non-proprietary model of its kind.

### **III. Wind Data Collection**

The Project Sponsors entered into a wind monitoring agreement with WeatherFlow, Inc., in 2007. Under the agreement, Florida Sponsors agreed to provide WeatherFlow with access to their properties and to allow WeatherFlow to install, maintain and operate portions of their wind monitoring network facilities on utility-owned properties under certain conditions in exchange for access to wind monitoring data generated by WeatherFlow's wind monitoring network in Florida. WeatherFlow's Florida wind monitoring network includes 50 permanent wind monitoring stations around the coast of Florida, including one or more stations located on utility-owned property. The wind monitoring agreement expired in early 2012; however, it was renewed in April 2017 and will renew automatically annually on the effective date for an additional one-year period, unless terminated by the parties to the agreement.

### **IV. Public Outreach**

We have previously discussed the impact of increasingly severe storms and the increased population and utility infrastructure along the coast on greater interest in storm preparedness. PURC researchers continue to discuss the collaborative effort in Florida with the engineering departments of the state regulators in New York, New Jersey, and Pennsylvania, and regulators

## **2019 Storm Implementation Plan and Annual Reliability Report**

in Jamaica, Grenada, Curacao, St. Lucia, the Bahamas, Samoa, and the Philippines. In 2019, stakeholders in Puerto Rico and California also showed interest in the collaborative's efforts. While all of the regulators and policymakers showed great interest in the genesis of the collaborative effort, and the results of that effort, they have not, at this point, shown further interest in participating in the research effort. In 2019, there continued to be considerable interest in Florida's hardening efforts from the popular media in California, in light of continued wildfire problems in the state and their aftermath.

### **VI. Conclusion**

In response to the FPSC's Order 06-0351, IOUs, municipal electric utilities, and rural electric cooperatives joined together and retained PURC to coordinate research on electric infrastructure hardening. The steering committee has taken steps to extend the research collaboration MOU so that the industry will be in a position to focus its research efforts on undergrounding research, granular wind research and vegetation management when significant storm activity affects the state.

### **J) Initiative 10: Disaster Preparedness and Recovery Plan**

#### **1) 2019 Emergency Management Summary**

In 2019, Tampa Electric worked with the local governments within the company's service areas to further enhance dialogue and seek opportunities to partner in training. As in the past, the company provided local communities with public service information at the beginning of storm season via local news media and publications. During the State of Florida's mock hurricane exercise, Tampa Electric's Emergency Response Team tested its response and communication plans.

Prior to June 1, 2019, emergency support functions were reviewed, personnel trained, and the portions of the Incident Command System ("ICS") Logistics and Planning Section plans were tested. In addition, Tampa Electric conducted a site-specific exercise at its new Gateway location.

### 2) 2020 Emergency Management Activities & Budget

For 2020, the company's Emergency Response Plan will be reviewed prior to hurricane season to ensure it is up to date and ready for the upcoming 2020 storm season. Due to organizational changes and alignment of emergency management functions, Tampa Electric's Emergency Management budget for 2020 is \$641,983, which will be used to cover labor costs, preparedness resources such as emergency notification system, weather services, resilience management products, internal and external training, exercises to test plans and the following initiatives to enhance capabilities:

- Tampa Electric Emergency Preparedness Fair with representation from government agencies, and support additional external county fairs
- Annual cyber security exercise
- Retain and train additional Tampa Electric Certified Business Emergency Response Team ("BERT") members
- Continue to participate in the NFPA 1600 Standard Committee
- Continue to participate in EEI Business Continuity Leadership committee
- Participate in local, state and federal emergency management and business continuity forums
- Participate in the SEE Mutual Assistance Committee
- Participate in the SEE Logistics Subcommittee
- Participate in the EEI Mutual Assistance Committee
- Support of Hillsborough County in communicating the national flood insurance program to county residents
- Support the ESCC strategy
- Support Hillsborough County and the COT PDRP planning, State of Florida Division of Emergency Management and Department of Homeland Security ("DHS")
- Participate in the Critical Facilities Working Group to support the review of restoration priorities for critical facilities
- Participate with the COT in their "Push Team" (debris clearing) exercise
- Support community preparedness through participation in various government committees (e.g., Maritime Security, Florida Department of Law Enforcement,

## 2019 Storm Implementation Plan and Annual Reliability Report

Regional Domestic Security Task Force), and activate as necessary during major community events

- Support the local county LMS Working Groups
- Participate in public/private storm related exercises
- Attend annual FEPA Conference
- Conduct all-hazards internal preparedness exercises and training sessions using the company ICS model to test plans

### 3) 2019 Energy Delivery Emergency Management

In 2019, Tampa Electric's Energy Delivery Department was involved in many activities throughout the entire storm season.

As a result of the lessons learned from 2017's Hurricane Irma, in 2019, the department conducted an exercise to practice the new processes in order to insure their smooth integration during an ICS activation. Existing processes that experience had shown needed additional exercising were also included in the scope of the exercise. All processes where ARCOS (Automated Roster Call Out System) had been implemented were also exercised. Two additional Distribution Department tabletop exercises were conducted for handling of trouble tickets, cut-n-clear teams, entry of data into GIS and communications between the Service Areas and the Energy Control Center (ECC). The Substation Department trained on and practiced distribution circuit patrols along with the recording of outage data and the Transmission Department conducted training and a field exercise on damage assessment.

Tampa Electric's Emergency Management Department continued to serve as lead representative for the company in the state-wide Mutual Assistance agreement. Efforts continue to focus on initiatives to improve the state's utilities abilities to obtain crews quickly and efficiently to speed restoration efforts.

Tampa Electric annually reviews sites for incident bases, base camps and staging sites which ensure primary and backup locations for distribution, transmission and materials. Additionally, logistical needs and equipment requirements are reviewed for each incident

## **2019 Storm Implementation Plan and Annual Reliability Report**

base site. Throughout Tampa Electric's service territory, the company is constantly developing and maintaining relationships with property owners for potential incident bases, base camps and staging sites. Energy Delivery also annually reviews existing purchase orders and contacts vendors who would assist the company with restoration efforts. Corporate Emergency Management annually reviews purchase orders and vendor contact information on those who would provide logistics' support (i.e., meals, transportation, laundry services, etc.) to Energy Delivery during restoration. All these activities were performed in 2019.

Prior to hurricane season, Energy Delivery management reviewed all employees' storm assignments and communicated roles and expectations. Meetings and training were held as needed throughout the year.

### **4) Mutual Assistance**

In 2019, Energy Delivery participated in numerous conference calls with other SEE utilities regarding tropical storms, severe weather and ice events. The company's participation in these calls was to offer as well as request mutual assistance to assist in restoration activities.

In August 2019, Tampa Electric requested mutual assistance personnel from the SEE and secured a total of 1,945 resources from both SEE and non-SEE sources.

In September 2019, Tampa Electric deployed 62 team members to Grand Bahama Power Company to assist with the restoration work for outages caused by Hurricane Dorian. Tampa Electric also deployed 16 team members to Nova Scotia Power to assist with the restoration work for outages caused by Hurricane Dorian.

In October 2019, Tampa Electric deployed 42 team members and 218 native contractors to assist Oncor with restoration work for outages caused by tornadoes.

### 5) Mutual Assistance Lessons Learned

In 2019, Tampa Electric provided mutual assistance for restoration efforts as a result of other utilities being impacted by storm events. As a result of providing this assistance, Tampa Electric learned many lessons that will help improve the company's existing Emergency Management plan and reinforce several existing provisions already contained within the plan. Most of the lessons learned resulted from Hurricane Michael. Some of the common lessons learned themes from Mutual Assistance activities in 2019 include:

- The value of having cell service from more than one service provider
- The need to not solely rely on satellite phone service as a backup plan
- The value of having UG facility locates to avoid damaging other utilities (gas and communications)
- The need to have flaggers to ensure proper traffic control and safety of crew members

### 6) 2020 Energy Delivery Emergency Management

For 2020, Tampa Electric's Energy Delivery Department is currently planning the next mock storm exercise. Tentative plans are to conduct a department wide exercise to practice all existing processes and to ensure the new processes introduced in the last year are fully integrated and functional. Follow-up items and lessons learned will be recorded.

Prior to hurricane season, Tampa Electric's Energy Delivery management will review all employees' storm assignments and communicate roles and expectations. Meetings, training and exercises will be scheduled at various locations. Additionally, employee preparedness will be emphasized prior to storm season via training materials and presentations.

### 7) Contingency Planning and Response

Roadway Congestion: In the event of roadway congestion that is impacting travel by foreign crews into Tampa Electric's service area, the company will seek to resolve the



## 2019 Storm Implementation Plan and Annual Reliability Report

situation by obtaining information through various sources to find an alternative route. In the event that traffic congestion is so pervasive that there are no available alternative routes, Tampa Electric will work through company representatives at local Emergency Operations Centers (“EOC”) or the State of Florida EOC depending on the location, nature and severity of the congestion. The company’s representatives will communicate the situation to the law enforcement or appropriate Emergency Support Function (“ESF”) personnel to obtain assistance.

Fuel: Tampa Electric has agreements in place with two bulk fuel vendors to supply diesel and gasoline fuel on a daily/ as needed basis in response to a storm event. The company also has an agreement with one mobile fuel vendor.

Prior to the storm: Upon notification the bulk fuel vendor(s) will top off Tampa Electric’s on-site fuel storage tanks which consists of 50,000 gallons of diesel and 50,000 gallons of gasoline.

During the storm: The bulk fuel vendor(s) will top off the on-site fuel storage tanks as described above daily or as needed. These vendors typically obtain their fuel supply from Port Tampa Bay. In the event that the Port Tampa Bay is unable to supply fuel, the vendors will obtain their fuel supply from a main fuel supply facility in Georgia.

The mobile fuel vendor will provide 500-gallon bulk fuel tanks to each incident base or base camp Tampa Electric establishes to support restoration efforts. The mobile fuel vendor will also fuel all Tampa Electric, Tampa Electric’s native crews and any foreign crew resource vehicles that are being used to assist the company in restoration of the system during a storm event on a daily basis after hours at each incident base.

Lodging Accommodations: Lodging accommodations are acquired, when the leadership of Tampa Electric’s Electric Delivery department deems it is necessary to bring “foreign crew” resources into Tampa Electric’s service area to support power restoration. The amount of lodging accommodations is based on the forecasted severity of the storm,

## 2019 Storm Implementation Plan and Annual Reliability Report

strength, storm surge and the path of the storm. Tampa Electric's Electric Delivery department will estimate the damage to the area, and the number of power outages that will affect the company's customers, to determine the number of resources needed to help with power restoration. Once the decision to request outside resources is made, Tampa Electric's Logistics Chief will activate those company employees that make up the lodging unit to start acquiring hotel rooms and/or alternative housing.

Tampa Electric's Real Estate Department and Logistics section keeps a list of hotels of which there are verbal agreements to utilize hotel rooms in their establishment if they are available. It is customary to double bunk (two people) to a room. The rooms are secured pre-storm for post-storm occupancy.

Tampa Electric also has a contract in place with a Base Camp Operator to provide turnkey support for lodging, meals and laundry in the event hotel accommodations are limited or mutual assistance requirements are significant. In preparations for Hurricane Dorian, the Base Camp Operator was activated and set up operations to accommodate 500 resources at Tampa Electric's Plant City Strawberry Incident Base.

Communications: Tampa Electric is continuing to explore alternative communications means in the event public communications systems such as cellular, satellite and hard lines are rendered unavailable due to an event. Currently, Tampa Electric has fixed and portable Satellite phone capabilities, and key personnel have Government Emergency Telecommunications Service (GETS) and Wireless Priority Service (WPS). In addition to carrier-based solutions, a third-party portable cellular long-range product was purchased and will be utilized to improve communications by accessing multiple cellular carriers.

In 2019, Tampa Electric met with Verizon Wireless to discuss ways each company could work together to ensure wireless communications are maintained/restored quickly in the event of a major event. Contact names and numbers have been exchanged to provide expedited resolution of any issues that may arise.

### **K) Storm Hardening Plan Update**

Tampa Electric's 2019-2021 Storm Hardening Plan was approved by the Commission in Docket No. 20180145-EI, in Order No. PSC-2019-0302-PAA-EI, issued July 29, 2019 and finalized by Consummating Order No. PSC-2019-0365-CO-EI issued August 27, 2019. The plan is largely a continuation of previously approved plans with an overall focus aimed at improving the company's energy delivery system to withstand severe weather events. Activities discussed below have been either completed in prior plans or are ongoing efforts in the current plan, all of which are designed to harden the company's system.

#### **1) Undergrounding Distribution Interstate Crossings**

The continued focus of this activity is to harden limited access highway crossings to prevent the hindrance of first responders, emergency vehicles and others due to fallen distribution lines blocking traffic. The restoration of downed overhead power lines over interstate highways can be lengthy due to heavy traffic congestion following a major storm. Tampa Electric's current preferred construction standard requires all distribution line interstate crossings to be underground. Therefore, the company initially converted several overhead distribution line crossings to underground on major interstate highways. Through 2019, a total of 16 distribution crossings have been converted. Any remaining distribution interstate highway crossings will be converted to underground as construction and maintenance activities present opportunities.

#### **2) Testing Network Protectors**

The Tampa downtown network is a small area of dense loads made up of mostly high-rise office buildings. This area is considered critical infrastructure because of the high concentration of business and governmental buildings in this area. The types of businesses include telecommunications switching center, banking, city and county governmental offices, federal and county courthouses as well as approximately 2,500 hotel rooms and 6.5 million square feet of office space. The Marion Street substation serves the downtown network with six underground distribution circuits. The downtown network consists of 361 manholes and 56 network vaults. Most network vaults contain two network transformers and two network protectors. In 2019, a total of 33 network

## 2019 Storm Implementation Plan and Annual Reliability Report

protectors were tested and no units required replacement. Tampa Electric will continue to remotely monitor the network protectors daily, address any issues that arise and visually inspect each unit at least once bi-annually. Further analysis will be conducted on the network protectors to determine the benefit of these hardening efforts in the unfortunate event that a hurricane impacts the downtown network.

### 3) Extreme Wind Pilot Projects

As part of Tampa Electric's previous storm hardening plans, the company hardened to extreme wind criteria the following portions of the company's service area:

- Distribution systems for two critical facilities, namely, the Port Tampa Bay and Saint Joseph's Hospital.
- Distribution circuits for two feeders to the City of Tampa Tippins Water Treatment Plant.

### 4) Storm Hardening Project Analysis and Alternatives

Tampa Electric has not experienced a storm event that would have significantly impacted the company's electrical system and provided the data required for a meaningful storm hardening project analysis and alternatives evaluation. In general, the pole hardening project appears to be an effective project to reduce failures due to storm events as the company experienced during Hurricane Irma. Tampa Electric going forward has implemented a plan to more accurately collect storm damage data. This data will provide an opportunity to more effectively analyze electrical system damage during significant storm events.

### 5) Underground Equipment Construction Standard

Tampa Electric's standard specifies the use of stainless-steel transformers and switchgear. Tampa Electric will continually evaluate and implement reliable and cost-effective options that improve the performance of all underground installations exposed to harsh conditions.

## **2019 Storm Implementation Plan and Annual Reliability Report**

In 2019, Tampa Electric continued the implementation standard for replacing live-front switchgear. The new specification standard converts live-front switchgear with dead-front switchgear when replacement is necessary. The use of dead-front switchgear is also being deployed in all new installations. The dead-front switchgear provides greater protection from service interruptions due to animals and harsh environments.

### **6) Performance Data for Hardened vs. Non-Hardened and Underground Facilities**

Tampa Electric was not impacted by any major storms in 2019. Tampa Electric provided the tables that summarize the performance data for Hardened vs. Non-Hardened and Underground Facilities based on the company's electric system performance during Hurricane Matthew, Hermine and Irma as part of the 2018 Annual Storm Hardening and Reliability Report that was filed with the Commission on March 1, 2019.

### **7) Coordination with Third Party Attachers**

Tampa Electric continually conducts in-house and site meetings in advance with third party attachers to discuss hardening projects as well as coordination between companies. Communication has been the key to success in resolving any potential conflicts that have been brought to Tampa Electric's attention. Coordination with third party attachers will continue to play a vital role in achieving continued positive and productive results.

**SECTION II - Storm Season Ready Status**

**A) Storm Season Ready Status: 2019 Accomplishments**

**1) Transmission**

In 2019, Tampa Electric completed ground patrols on the transmission system including all 230 kV, 138 kV circuits and 69 kV circuits. The ground patrols identified access, encroachment and vegetation management issues and facilitated a visual review of the system.

The company continued to execute its eight-year transmission structure inspection program with priority given to critical facilities and coastal facilities with progression to inspection of older inland circuits. As inspections were completed, the inspections moved to interconnection circuits, circuits serving co-generators and other inland circuits. The transmission structure inspections took into consideration the condition of each pole and span of wire, including issues with structural hardware such as nuts that have backed off their bolts, corroded equipment, deteriorated appurtenance arms, unbraided conductors and woodpecker holes. This inspection work is completed when the system is under load.

In 2019, Tampa Electric also hardened 149 structures that included 144 pole replacements utilizing steel or concrete poles and 5 sets of insulators replaced with polymer insulators.

**2) Vegetation Management**

In 2019, Tampa Electric continued to maximize the effectiveness of the company's VMP efforts relative to storm season. All bulk transmission lines were patrolled twice for vegetation management. Any vegetative conditions identified from those patrols were either resolved immediately or scheduled for full circuit maintenance.

These efforts, along with the company's ongoing, aggressive trimming of the distribution system in 2019, have better prepared Tampa Electric for future storm seasons.

### 3) Updated and Reviewed Circuit Priority

In 2019, Tampa Electric continued to work with county and municipal agencies in reviewing and updating the restoration priorities following established procedures. In addition, enhancements were made to Tampa Electric's GIS to capture critical facility identification and restoration priority information.

### 4) Capacitor Maintenance Program

In support of maintaining balanced voltage to both the transmission and distribution systems and in maintaining the interconnection power factor with Tampa Electric's neighboring utilities, the company continued its capacitor maintenance program in 2019. Tampa Electric's capacitor maintenance program consists of online monitoring and proactive scheduled inspections of capacitor banks. Through remote monitoring, when apparent problems are identified, a Tampa Electric field crew is dispatched to resolve the operational problem(s). During scheduled inspections, the proper operation of the capacitor bank will be checked in addition to verifying the grounding requirements to meet the NEC. If any issues are found, the necessary corrective repairs or improvements will be made. In 2019, the company conducted field visits to 1,065 capacitor banks and made repairs as needed.

### 5) Increased Equipment Inventory

Tampa Electric's process for equipment inventory requires a review prior to hurricane season of each year. The company reviews the current level of inventory in stock and then increases the inventory prior to the hurricane season. The stock increase secures a full four-day supply of overhead distribution supplies, parts and materials such as splices, fuses, connectors, service clamps, brackets, wire, poles, transformers, etc. This increase in stock ensures that Tampa Electric has enough inventory on hand to handle the immediate need for replacement supplies, parts and materials if a major restoration weather event occurs. The company has procurement contracts in place that will provide additional supplies, parts and materials that will be delivered within four days of landfall. These replacement supplies, parts and materials will replenish required stock for the

## **2019 Storm Implementation Plan and Annual Reliability Report**

duration of the restoration event. Following hurricane season, the level of inventory is managed to return to non-hurricane season levels.

### **6) Communication and Coordination with Key EOC and Governmental Organizations**

In 2019, Tampa Electric continued its communication efforts focusing on maintaining vital governmental contacts and participation on standing disaster recovery planning committees, which the company will continue to meet. Tampa Electric also participated in storm planning meetings, training and/or joint storm exercises with the FPSC, Hillsborough and Pinellas Counties, as well as the Cities of Oldsmar, Tampa and Temple Terrace.

Tampa Electric also participates in the Florida Mutual Assistance process in which the company has made numerous contacts with municipalities, as well as municipal and cooperative associations in the state. These contacts were successfully used to prepare for a restoration response for 2019's Hurricane Dorian.

### **7) Secured and Expanded Incident Bases**

Tampa Electric annually reviews the company's current sites for incident bases, base camps and staging sites which ensure primary and backup locations for distribution, transmission and materials. Additionally, logistical needs and equipment requirements are reviewed for each incident base and base camp sites. Throughout Tampa Electric's service territory, the company is constantly developing and maintaining relationships with property owners for potential incident bases, base camps and staging sites. Tampa Electric's Energy Delivery Department also annually reviews existing purchase orders and contacts vendors who would support and assist the company with restoration efforts. Corporate Emergency Management annually reviews purchase orders and vendor contact information on those who would provide logistics' support (i.e., lodging, meals, transportation, laundry services, etc.) to Energy Delivery during restoration. All these activities were performed in 2019.



## **2019 Storm Implementation Plan and Annual Reliability Report**

Based on Tampa Electric's experiences in 2017 with Hurricane Irma, all site reviews will continue to focus on the ability to accommodate large numbers of Foreign Crews. Additional incident base and base camp sites are also being developed.

### **8) Hurricane Preparedness Exercises**

As a result of the lessons learned from 2017's Hurricane Irma, in 2019, the Electric Delivery Emergency Management department conducted an exercise to practice the new processes in order to ensure their smooth integration during an ICS activation. Existing processes that experience had shown needed additional exercising were also included in the scope of the exercise. All processes where ARCOS (Automated Roster Call Out System) had been implemented were also exercised. Two additional tabletop exercises were conducted for handling of trouble tickets, cut-n-clear teams, entry of data into GIS and communications between the Service Areas and the Energy Control Center. Substation trained on and practiced distribution circuit patrols along with the recording of outage data and Transmission conducted training and a field exercise on damage assessment.

### **9) Post-Storm Data Collection and Forensic Analysis Activities**

In 2019, Tampa Electric was not impacted by any major hurricanes. Tampa Electric in preparations for the potential impacts of Hurricane Dorian, put the company's forensic consultant on notice 72 hours prior to the expected impact. The company cancelled the notice 24 hours later due to the shifting track of the storm and did not initiate any storm data collection to have forensic analysis performed. Tampa Electric continued its relationship with its outside consultants for performing post-storm forensic analysis of the company's distribution and transmission systems. This analysis will be completed to gather a statistically significant representative sample of damage and using this sample to determine root causes of failure during major storms.

### **10) Wooden Pole Replacements**

In 2019, Tampa Electric replaced 3,376 wood poles.

**11) Storm Hardening**

See Section K for update to this section.

**B) Storm Season Ready Status: 2020 Planned Activities**

**1) Program Summary**

Tampa Electric's 2020 Storm Season Readiness preparation focuses on a number of areas including additional distribution circuit protection equipment installations, pre-storm transmission inspections and maintenance, wood pole inspections and replacements, vegetation management, capacitor maintenance, local government interaction, increased equipment inventory, circuit priority reviews, hurricane preparation exercises, and industry research for best practices and procedures for storm restoration.

**2) Transmission Inspections and Maintenance**

Prior to hurricane season, all 230 kV, 138 kV and all priority 69 kV circuits will be patrolled with the remaining transmission circuits being completed by the end of 2020.

Tampa Electric plans to change out approximately 120 wood transmission poles throughout the year with steel or concrete structures. Also, Tampa Electric intends to replace existing insulators with polymer insulators as needed, with much of this work being completed prior to the peak of hurricane season.

**3) Pole Inspections**

In 2019, Tampa Electric continued the ground line inspections by completing 38,940 inspections to ensure the company remains on pace for completing the eight-year inspection cycle.

For 2020, future inspections coupled with the company's pole replacement program will enhance the storm resiliency of Tampa Electric's transmission and distribution system.

### 4) Capacitor Maintenance Program

For 2020, the company will continue to monitor and make improvements to capacitor banks with proactive scheduled inspections. Tampa Electric will continue the pace throughout the spring of 2020 for inspections in preparation for summer peak loads and in anticipation of potential impacts of summer storms on workforce availability and capacitor failure rates. Repairs during the summer are generally limited to an as needed basis. Regularly scheduled inspection will continue in the fall of 2020 as the need and weather permits. For 2020, the company estimates that the remaining of the capacitor banks in Tampa Electric's service area will be field visited, tested and repaired if needed.

### 5) Communication with Local Governments

In 2020, Tampa Electric will continue its communication efforts focusing on maintaining vital governmental contacts and participation on standing disaster recovery planning committees. These committees are standing committees and will continue to meet. Tampa Electric is planning on participating in joint storm exercises with the FPSC, Hillsborough, Pasco, Pinellas and Polk Counties, as well as various cities within the company's service area.

### 6) Increase Equipment Inventory

As was the case in 2019, the company will review and increase storm stock in 2020 to ensure a four-day supply of overhead distribution materials such as splices, fuses, connectors, service clamps, brackets, wire, poles, transformers, etc., as well as transmission and substation materials. The company will also ensure that procurement contracts are in place to support additional supplies being delivered within four days of landfall and it will replenish required stock for the duration of a major restoration event.

### 7) Circuit Priority Review

For 2020, Tampa Electric will continue working with county and municipal agencies in reviewing and updating the restoration priorities for the areas served by the company.

### 8) Hurricane Preparedness Exercise

For 2020, Tampa Electric's Energy Delivery Department is currently planning the next mock storm exercise. Tentative plans are to conduct a department wide exercise to practice all existing processes and to ensure the new processes introduced in the last year are fully integrated and functional. Follow-up items and lessons learned will be recorded.

Prior to hurricane season, Tampa Electric's Energy Delivery management will review all employees' storm assignments and communicate roles and expectations. Meetings, training and exercises will be scheduled at various locations. Additionally, employee preparedness will be emphasized prior to storm season via training materials and presentations.

In addition, hurricane preparedness exercises will be conducted by corporate Emergency Management for other key functions, including Leadership, Logistics, Planning, and EOC representatives.

### 9) Storm Hardening Plan

All projects in Section K of this report have been either completed or are a continuation of previous activities. Should a severe weather event strike Tampa Electric's service area, the company will evaluate the performance of the pilot projects to determine next steps to be taken. Tampa Electric will continue hardening its energy delivery system in accordance with the company's currently approved storm hardening plan. That plan continues to define the criteria, construction standards, maintenance practices, system inspection programs and other policies and procedures utilized for transmission, distribution, and substation facilities in Tampa Electric's service territory. Tampa Electric's 2019-2021 Storm Hardening Plan was filed on March 1, 2019 and approved by the Commission by Consummating Order PSC-2019-0365-CO-EI on August 27, 2019.

**SECTION III – Wood Pole Inspection Program**

**A) Wood Pole Inspection Program**

**1) Program Summary**

Tampa Electric's Wood Pole Ground Line Inspection Program is part of a comprehensive program initiated by the FPSC for Florida investor-owned electric utilities to harden the electric system against severe weather and unauthorized and unnoticed non-electric pole attachments which affect pole loading.

This inspection program complies with Order No. PSC-2006-0144-PAA-EI, issued February 27, 2006 in Docket No. 20060078-EI which requires each investor-owned electric utility to implement an inspection program of its wooden transmission, distribution and lighting poles on an eight-year cycle based on the requirements of the NESC. This program provides a systematic identification of poles that require repair or replacement to meet NESC strength requirements.

**2) Inspection Cycle**

Tampa Electric performs inspections of all wood poles on an eight-year cycle. Tampa Electric has approximately 285,000 distribution and lighting wood poles and 26,000 transmission poles appropriate for inspection for a total pole inspection population of approximately 311,000. Approximately 12.5 percent of the known system will be targeted for inspections annually although the actual number of poles may vary from year to year due to recently constructed circuits, de-energized circuits, reconfigured circuits, etc.

**3) Inspection Method and Procedure**

Tampa Electric will utilize three basic inspection procedures for determining the condition of wooden poles. These procedures include a visual inspection, sound and bore, and excavation when required.

**a) Visual Inspection**

An initial visual inspection shall be made on all poles from the ground line to the pole top to determine the condition of the pole before any additional inspection work is

## 2019 Storm Implementation Plan and Annual Reliability Report

completed. The visual inspection shall include a review of the pole condition itself and any attachments to the pole for conditions that jeopardize reliability and are in need of replacement, repair or minor follow-up. After a pole passes the initial visual inspection, the balance of the required inspection methods will be performed.

### **b) Sound and Bore**

After passing the visual inspection, the pole shall be sounded to a minimum height of seven feet above the ground line to locate any rotten conditions or pockets of decay inside the pole. Borings shall be made to determine the location and extent of internal decay or voids. All borings shall be plugged with preservative treated wooden dowels. After the pole has passed the sound and bore inspection, an excavation inspection will be performed, if required.

### **c) Excavation**

For poles requiring excavation, the pole shall be excavated to a minimum depth of 18 inches below the ground line. Any external decay shall be removed to expose the remaining sound wood. The remaining pole strength shall be calculated.

For a pole in concrete or pavement where excavation is not possible, Tampa Electric will utilize a shell boring technique. This will consist of boring two 3/8-inch holes at a 60-degree angle to a depth of 16 to 18 inches below ground level. Upon withdrawing the drill bit, the technician will examine the condition of the wood shavings to determine whether decay is present. A "Shell Gauge" is used to determine the thickness of the shell, which is then used to calculate the pole strength. All borings shall be plugged as previously described.

### **d) Hardware Inspection**

The inspector shall inspect all of Tampa Electric's guying, grounding provisions and hardware that is visible from the ground. Any deficiencies or problems will be corrected as directed or reported to Tampa Electric to correct.

**e) Inspection and Treatment Labeling**

After completion of the ground line inspection, an aluminum tag identifying the contractor and date of inspection shall be attached to the pole above the birthmark. Additionally, a tag shall be attached identifying any preservative treatments applied and the date of application.

**f) Data Collection**

The collected data shall be managed in a database and include information related to pole class, material, vintage, location, pole strength and any pole deficiencies that required follow-up actions, if any.

**4) Inspection in Conjunction with Other Field Work**

As part of day-to-day operations, operation personnel are at times required to climb poles to perform different types of field work. Prior to climbing any pole, personnel will assess the condition of the pole. This will include a visual check and may include sounding to determine pole integrity. This type of inspection will supplement the systematic inspection approach otherwise outlined in this pole inspection program.

**5) Disposition of Poles**

Poles with early stage decay that do not require remediation to meet the NESC strength requirements shall be treated with an appropriate preservative treatment. Poles with moderate decay that have substantial sound wood shall be considered for reinforcement. Analysis shall be performed to determine if reinforcement will bring the deficient pole into compliance with the requirements of the NESC. If it is determined that the pole can be reinforced, the pole shall be treated with an appropriate preservative treatment and may be reinforced or replaced if needed. Poles with advanced decay shall fail the inspection and be replaced.

**6) Routing of Inspections**

**a) Distribution**

Tampa Electric's distribution system is a radial system with many laterals and service drops. In 2019, the company continued to use the methodology determined to be the most cost-effective and reasonable approach for routing the work by substation and circuit for the performance of the annual inspection program. This approach allows Tampa Electric to better align and coordinate other maintenance activities. Therefore, inspectors will be provided substation and circuit numbers to guide their inspection routes. All poles associated with selected circuits will be systematically inspected.

**b) Transmission**

Tampa Electric's transmission system is primarily a network system with few radials. The company has determined the most cost-effective and reasonable approach for routing the inspection work to be on a circuit basis. Therefore, annual inspections will be performed sequentially from substation to substation completing an entire circuit in the process.

**7) Shared Poles**

Tampa Electric supports the Commission's effort to establish pole inspection requirements on the owners of all utility poles. Tampa Electric will coordinate with third-party owners of utility poles that carry the company's facilities. With regard to the third-party's inspection process, the company will rely upon the third-party's inspection requirements and share data requested by the third-party to be utilized in their inspection procedure. Tampa Electric will cooperate, as requested, in the work associated with pole replacement where joint use exists. Third-party poles are visually inspected and sounded for internal decay. Issues found are provided to the third-party owner for resolution.



**8) Standards Superseding NESC Requirements**

At this time, there are no standards that supersede NESC requirements. Tampa Electric's Wood Pole Ground Line Inspection Program complies with NESC requirements.

**9) Pole Inspection Program Performance Verification**

Qualified Tampa Electric personnel or an independent contractor will conduct a quality control audit on the pole inspection work to verify compliance with the pole inspection services contract. This quality control audit shall consist of selecting random poles, determining the proper course of action per the inspection services contract, and comparing the independent audit recommendation against the proposed recommendation by the pole inspection service.

**10) Reporting**

Tampa Electric will file the annual Pole Inspection Report, as an inclusion to the company's Storm Implementation Plan and Annual Reliability Performance Reports, by March 1st of each year in full accordance with the reporting requirements set forth in Docket No. 20070634-EI, Order No. PSC-2007-0918-PAA-PU, issued November 14, 2007. The report will contain the methods used to determine the strength and structural integrity of wooden poles, the selection criteria for inspected poles, a summary of the results of the inspections, the cause(s) of inspection failures, and the corrective action taken for the failures.

**11) 2019 Accomplishments**

Tampa Electric performed 39,739 inspections of wooden transmission, distribution and lighting poles. Of this inspected population, there were 1,726 that failed and 775 that were reinforced. Tampa Electric total expenditures for the Wood Inspection Program was \$1,679,448.

In 2019, the Ground Line Pole Inspection Program results include:

- There were 808 wooden transmission poles.

## 2019 Storm Implementation Plan and Annual Reliability Report

- There were 38,940 wooden distribution and lighting poles.
- Tampa Electric performed reinforcement of 775 distribution and lighting poles.

Expenditures for the 2019 Ground Line Pole Inspection Program include:

- Distribution and lighting ground line pole inspections: \$1,220,355
- Transmission ground line pole inspections: \$58,806
- Distribution and lighting pole reinforcements: \$400,287

### 12)2020 Activities and Budget Levels

For 2020, Tampa Electric will continue performing transmission, distribution and lighting wood pole inspections by circuit with the goal of completing approximately 12.5 percent of the system.

For 2020, the Ground Line Pole Inspection Program goals include:

- 702 transmission pole inspections
- 23,967 distribution and lighting wood pole inspections
- 24,669 total transmission, distribution and lighting wood pole inspections.

Projected expenditures for the 2020 Ground Line Pole Inspection Program include:

- Transmission pole inspections: \$83,108
- Distribution and lighting wood pole inspection: \$708,000
- Distribution and lighting pole reinforcements: \$530,000

Tampa Electric's Ground Line Inspection Program strategy takes a balanced approach and has produced excellent results in a cost-effective manner. The future inspections coupled with its pole replacement program will enhance the storm resilience of Tampa Electric's distribution, lighting and transmission poles.

### 13)Chromated Copper Arsenate Pole Inspections

In Docket No. 20080219-EI, Order No. PSC-2008-0615-PAA-EI, issued September 23, 2008 the FPSC approved a modification to Tampa Electric's Wood Pole Inspection

## **2019 Storm Implementation Plan and Annual Reliability Report**

Program involving chromated copper arsenate (“CCA”) poles. Specifically, the modification requires CCA treated poles less than 16 years of age to be sound and selectively bored. Selective boring shall be performed on poles suspected of internal decay. Additionally, one percent of the annual number of CCA treated poles inspected less than 16 years of age shall be excavated to validate this inspection method. Finally, all CCA treated poles over 16 years of age shall be excavated.

# 2019 Storm Implementation Plan and Annual Reliability Report

## SECTION IV – Rule 25-6.0455 F.A.C

### A) 2019 Reliability Performance

#### 1) Overview

Tampa Electric's 2019 distribution reliability indices showed significant improvement in SAIDI, CAIDI, SAIFI, and L-Bar. The improvements in SAIDI, CAIDI and L-Bar are attributed to less severe weather events combined with much quicker restoration times. SAIFI improved due to the decrease in outages that customers experienced. MAIFle and CEMI-5 indices showed unfavorable results in 2019, as compared to 2018. The main contributing factor to MAIFle dropping in performance was the increase of breaker events. The main contributing factors to CEMI-5 being unfavorable was vegetation and animal interruptions.

#### 2) Summary

Tampa Electric's actual 2019 SAIDI decreased by 17.83 minutes as compared to 2018, representing a 16.55 percent decrease. The adjusted 2019 adjusted SAIDI decreased by 18.83 minutes as compared to 2018 representing a 19.88 percent decrease. Actual 2019 CAIDI decreased by 6.36 minutes as compared to 2018 representing an 8.77 percent decrease. The adjusted 2019 CAIDI decreased by 9.56 minutes as compared to 2018 representing a 11.20 percent decrease. Actual 2019 SAIFI decrease by 0.12 interruptions as compared to 2018 representing an 8.11 percent decreased. The adjusted 2019 decrease by 0.11 interruptions as compared to 2018 representing a 9.32 percent decreased. Actual 2019 MAIFle increase by 0.15 events as compared to 2018 representing a 1.41 percent increase. The adjusted 2019 MAIFle increased by 0.13 events as compared to 2018 representing a 1.35 percent increase. A summary table of Tampa Electric's reliability performance for 2019 as compared to 2018 is below:

## 2019 Storm Implementation Plan and Annual Reliability Report

<b>Tampa Electric's 2019 Reliability Performance Summary</b>				
<b>ACTUAL</b>	<b>2018</b>	<b>2019</b>	<b>Difference</b>	<b>Percent Change</b>
<b>SAIDI</b>	107.73	89.90	-17.83	-16.55%
<b>CAIDI</b>	72.55	66.19	-6.36	-8.77%
<b>SAIFI</b>	1.48	1.36	-0.12	-8.11%
<b>MAIFle</b>	10.61	10.76	0.15	1.41%
<b>L-BAR</b>	179.05	177.69	-1.36	-0.76%
<b>CEMI-5</b>	2.57%	3.37%	0.80%	31.13%
<b>ADJUSTED</b>	<b>2018</b>	<b>2019</b>	<b>Difference</b>	<b>Percent Change</b>
<b>SAIDI</b>	94.7	75.87	-18.83	-19.88%
<b>CAIDI</b>	80.31	70.75	-9.56	-11.20%
<b>SAIFI</b>	1.18	1.07	-0.11	-9.32%
<b>MAIFle</b>	9.63	9.76	0.13	1.35%
<b>L-BAR</b>	179.74	173.09	-6.65	3.70%
<b>CEMI-5</b>	1.54%	2.13%	0.59%	38.31%

Tampa Electric experienced a decrease of 599 overall outages in 2019 as compared to 2018. Five primary outage causes in 2019 had a decrease in outages and six primary outage causes had an increase in outages as compared to 2018. The following five primary causes had a decrease of 1,221 outages as compared to 2019:

- Vegetation decreased by 257
- Lightning decreased by 545
- Electrical decreased by 128
- Bad Connection decreased by 101
- Other Weather decreased by 190

The following six primary causes had an increase of 622 outages as compared to 2018:

- Animals increased by 416
- Unknown increased by 86
- Down Wire increased by seven
- Vehicle increased by 27
- Defective Equipment increased by six

## 2019 Storm Implementation Plan and Annual Reliability Report

- All Remaining Causes increased by 80

In comparison to the last five-year average, Tampa Electric experienced 686 more outages in 2019 representing a 6.99 percent increase. For the 2019 outage causes, four of the eleven categories are lower when compared to the five-year average totals. Here is the listing of how the eleven categories changed as compared to the five-year average:

- Animals increased by 27.97 percent
- Vegetation increased by 9.94 percent
- Lightning decreased by 17.34 percent
- Electrical decreased by 10.37 percent
- Unknown increased by 40.81 percent
- Bad Connection increased by 0.05 percent
- Down Wire increased by 1.18 percent
- Vehicle increased by 3.81 percent
- Other Weather decreased by 13.71 percent
- Defective Equipment decreased by 4.08 percent
- All Remaining Causes increased by 54.43 percent

Tampa Electric currently tracks outage records in the company's Distribution Outage Database ("DOD") according to the date, duration, customer affected, cause, equipment-type, associated field reports, breaker operations, etc., and uses this information to track and report interdepartmental, intercompany and external regulatory request as required.

Tampa Electric continues reviewing system performance and related metrics on a daily basis. Primary areas of focus include incremental and year-to-date semi-weekly SAIDI, CAIDI and SAIFI performance for Transmission, Substation and Distribution, year-to-date MAIFle and associated breaker operations, customer outages by system and service area and major unplanned outages. In addition, Tampa Electric reviews the status of de-energized underground cables, reclosers, online capacitor banks and streetlights previously identified as needing maintenance.

## **2019 Storm Implementation Plan and Annual Reliability Report**

In 2019, Tampa Electric continued the company's increased focus on the priority of feeder restoration activities. One example of this priority is the review and report of lessons learned on feeder outages where the outage duration exceeded acceptable thresholds. This review and report are done semi-weekly in pursuit of continued improvements with response time.

In addition to reviewing semi-weekly performance as noted above, the company analyzes Distribution circuit performance, including feeders represented on the three percent feeder list, through a number of different ongoing processes. These processes include tree trimming analysis and circuit analysis.

### **3) Conclusion**

In 2019, Tampa Electric customers experienced a decrease in system average interruption duration, customer average interruption duration, system average interruption frequency, and average duration of outage events.

### **B) Generation Events – Adjustments**

Tampa Electric experienced no outages due to generation events that would have impacted Distribution Reliability. Because of this, there are no exclusions in the company's 2019 Annual Distribution Reliability Report related to generation outage events.

### **C) Transmission Events – Adjustments**

#### **1) Transmission Outage Summary**

In 2019, there were twelve transmission outages that affected customers. These transmission outages included seven outages that were due to equipment failures, one outage due to human error, one due to vegetation, one outage due to animals and two outages due to weather circumstances. A total of 1,386,223 CMI and 89,761 Customer Interruptions ("CI") were excluded from the 2019 Annual Distribution Reliability Report per Rule 25-6.0455.

### 2) Equipment Failure Outages

There were seven outages attributed to aerial tap, insulator, conductor splice and static dead-end connection failures in 2019. The repair or replacement of structures and associated components has been identified and prioritized.

### 3) Vehicle Collision Outages

There were no outages due to vehicle collisions with poles and guy wire in 2019.

### 4) Human Error Outages

There was one outage due to human error in 2019. The appropriate procedures have been implemented in order to prevent this from happening again.

### 5) Vegetation Related Outages

There was one outage due to vegetation in 2019. Tampa Electric Linemen have been instructed to report vegetation growth that is near the conductor. Once a location is identified, the Line Clearance department will be contacted to remove the overgrown vegetation.

### 6) Animal Related Outages

There was one outage related to animals in 2019. The event was caused by a bird nest material coming in contact with the pole top switch.

### 7) Clearance Outages

There were no outages due to insufficient clearance in 2019.

### 8) Other and Weather Outages

There were two outages related to weather circumstances in 2019.



9) Transmission Outage Detail

**69 kV Circuit**

**March 2019**

Date: 3/11/2019                      Circuit: 66042

Customers Affected: 5224    SAIDI Impact: 0.48

Discussion: Service was interrupted when vegetation (mangroves) came in contact with the conductor. The mangroves were trimmed, and the circuit was returned to service.

Event: Localized

Date: 3/23/2019                      Circuit: 66064

Customers Affected: 14,889    SAIDI Impact: 18.66

Discussion: Service was interrupted when the static dead-end connection failed and static wire fell. The static dead-end connection was replaced, and the circuit was returned to service.

Event: Localized

**April 2019**

Date: 4/19/2019                      Circuit: 66426

Customers Affected: 3599    SAIDI Impact: 17.01

Discussion: Service was interrupted when an aerial tap connection failed. The aerial tap connection was replaced, and the circuit was returned to service.

Event: Localized

**May 2019**

Date: 5/5/2019                      Circuit: 66085

Customers Affected: 8,156    SAIDI Impact: 0.81

Discussion: Service was interrupted when severe weather was in the area. No issues were identified, and the circuit was returned to service.

Event: Localized

## 2019 Storm Implementation Plan and Annual Reliability Report

Date: 5/5/2019                      Circuit: 66026

Customers Affected: 15,218 SAIDI Impact: 52.09

Discussion: Service was interrupted when a suspension insulator failed, and conductor make contact with the crossarm below. The insulators and clamps were replaced, and the circuit was returned to service.

Event: Localized

Date: 5/5/2019                      Circuit: 66416

Customers Affected: 1,558 SAIDI Impact: 0.48

Discussion: Service was interrupted when severe weather was in the area. No issues were identified, and the circuit was returned to service.

Event: Localized

### **June 2019**

Date: 6/2/2019                      Circuit: 66658

Customers Affected: 490 SAIDI Impact: 0.05

Discussion: Service was interrupted when a stick from a bird nest fell, making contact with a pole top switch. The stick burned and fell to the ground, and the circuit was returned to service.

Event: Localized

### **July 2019**

Date: 7/19/2019                      Circuit: 66035

Customers Affected: 4223 SAIDI Impact: 6.05

Discussion: Service was interrupted when a post insulator failed. The insulators and clamps were replaced, and the circuit was returned to service.

Event: Localized

### **August 2019**

Date: 8/5/2019                      Circuit: 66031

Customers Affected: 12,342 SAIDI Impact: 1.95

## 2019 Storm Implementation Plan and Annual Reliability Report

Discussion: Service was interrupted when a clearance device was switched in an improper sequence. The appropriate procedures have been implemented in order to prevent this from happening again. The circuit was returned to service without issue.

Event: Localized

Date: 8/9/2019                      Circuit: 66017

Customers Affected: 8,072    SAIDI Impact: 3.76

Discussion: Service was interrupted when the static dead-end connection failed and static wire fell. The static wire was removed, and the circuit was returned to service.

Event: Localized

### **December 2019**

Date: 12/4/2019                      Circuit: 66035

Customers Affected: 9,386    SAIDI Impact: 1.09

Discussion: Service was interrupted when a conductor splice connection failed. The conductor splice was replaced, and the circuit was returned to service.

Event: Localized

### **138 kV Circuit**

There were no outages on the 138 kV circuits in 2019.

### **230 kV Circuit**

#### **November 2019**

Date: 11/18/2019                      Circuit: 230003

Customers Affected: 6,604    SAIDI Impact: 4.15

Discussion: Service was interrupted when a conductor splice connection failed and dropped the wire into two circuits below. The conductor splice was replaced, and the circuit was returned to service.

Event: Localized

### D) Extreme Weather

Tampa Electric experienced no extreme weather events during 2019 which affected transmission customers in the company's service territory.

### E) Other Distribution – Adjustments

In 2019, there were 3,356 Other Distribution outages that affected customers. A total of 10,029,553 CMI and 210,105 CI were excluded from the 2019 Annual Distribution Reliability Report per Rule 25-6.0455. All outages were attributed to substation equipment as noted within the 2019 Adjustments: Distribution Substation in Appendix starting on page 96.

### F) Distribution Substation

#### 1) Distribution Substation Adjustments

In 2019, there were 206 Distribution Substation outages that affected customers. A total of 13,502,483 CMI and 201,889 CI were excluded from the 2019 Annual Distribution Reliability Report per Rule 25-6.0455. All outages were attributed to substation equipment as noted within the 2019 Adjustments: Distribution Substation in Appendix B.

#### 2) Patterns and Trends – Distribution Substation Reliability Performance

In 2019, Substation outages due to circuit breaker mechanism mis-operation contributed the most to SAIDI. Tampa Electric currently has a program in place to replace aging and problematic circuit breakers. Since 2008, the total number of 13 kV circuit breakers that have been replaced through a 13-kV circuit breaker replacement program and failed circuit breakers is 290. In 2019, 34 circuit breakers and associated circuit protection relaying were replaced as part of the company's capital asset replacement program or failed circuit breakers.

In 2019, Substation outages due to animal contact were the second leading contributor to SAIDI. A total of eight occurred in 2019. Three of the events were caused by racoons, these animals were large enough to make contact around the animal protection on the 13-kV bus.

## **2019 Storm Implementation Plan and Annual Reliability Report**

The third leading substation outage contributor to SAIDI in 2019 can be attributed to breaker failure. Events such as a failed interrupter, hydraulic operator or severe damage in the high voltage compartment weighs in the decision to replace a circuit breaker. In addition to the cause of the failure being a reason for replacing the breaker, the age, condition and lack of spare parts are other factors considered when replacement is necessary.

### **3) Process to Promote Substation Reliability**

Tampa Electric's Substation Department utilizes the following processes and activities to determine the actions to promote substation reliability:

- Routine substation inspections
- Root cause analysis of outages
- Track and review of all substation outages

Tampa Electric findings support the following ongoing activities:

- Review of all mis-operation of circuit breakers
- Installation of animal protection in substations
- Install microprocessor-based relays for reclosing in all new construction and upgrade projects
- Replace station wide static under frequency relays with feeder-based microprocessor under frequency relays in all new construction projects
- Replacing 13 kV circuit breakers that have been identified as problem breakers
- Increased lightning withstand protection on Tampa Electric Large Autotransformers
- An improved standard of all bushings on all new transformers and circuit breakers
- Implementation of automatic bus restoration schemes in stations with multiple transformers and microprocessor-based relay protection schemes.

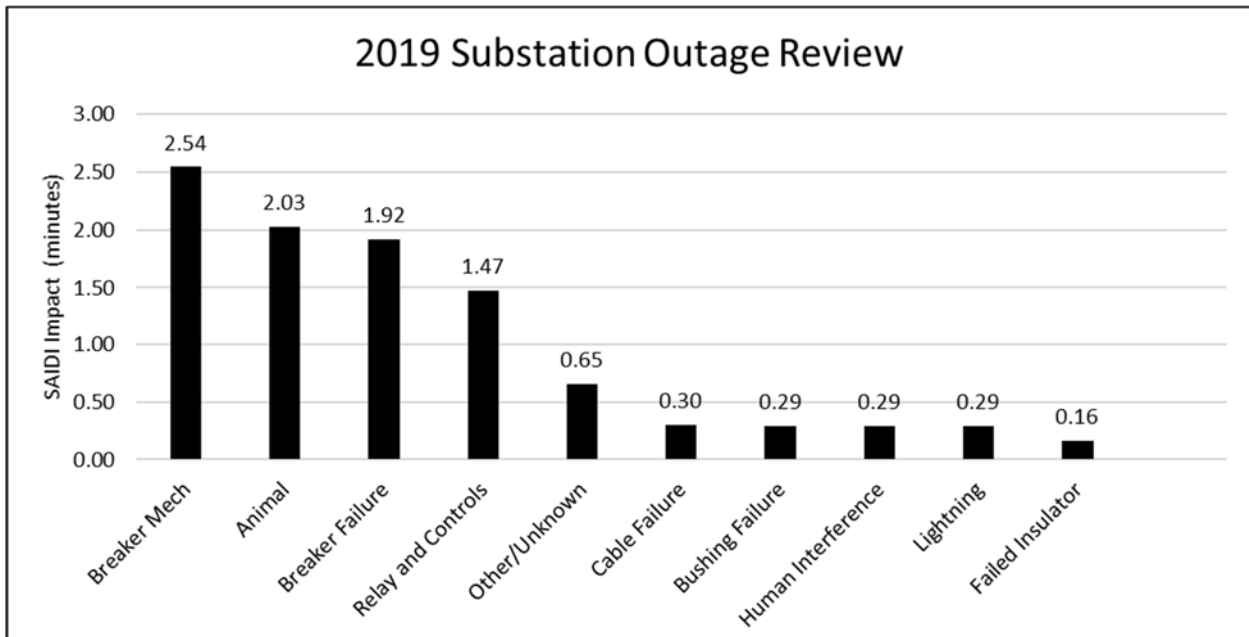
## 2019 Storm Implementation Plan and Annual Reliability Report

The tables and exhibits that follow provide number of distribution substation inspections performed by year and the SAIDI Impact in minutes for distribution substation outages by cause. This information is used to gauge and track the substation reliability.

**Table 1: Distribution Substation Inspections by Year**

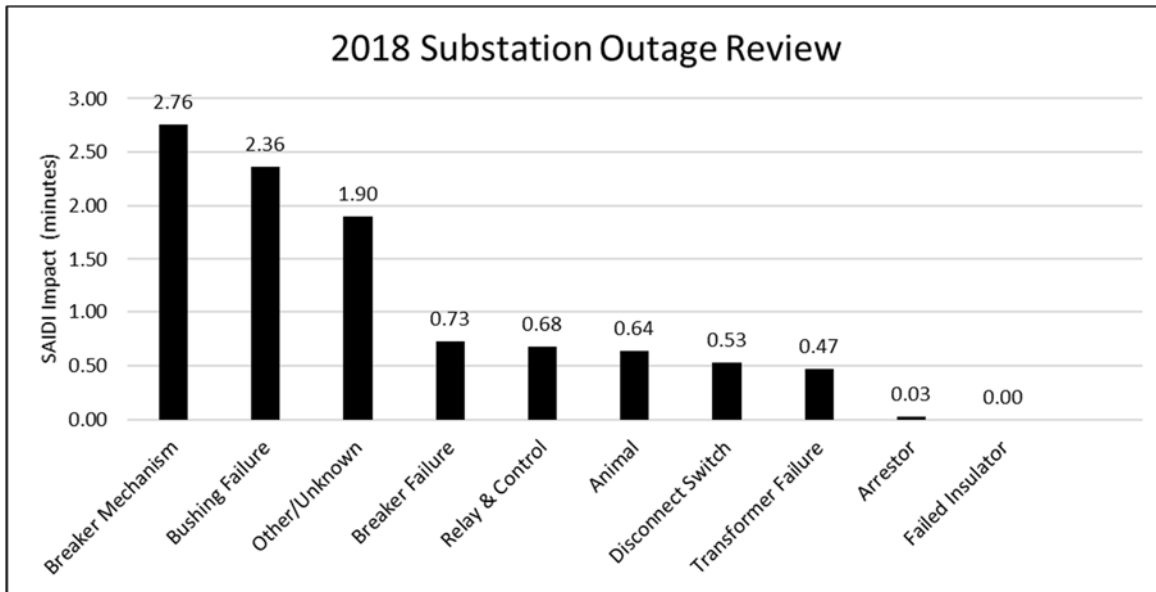
Year	Number of Distribution Substation Inspections
2015	377
2016	361
2017	347
2018	418
2019	327

**Exhibit 1: 2019 Distribution Substation Outages**

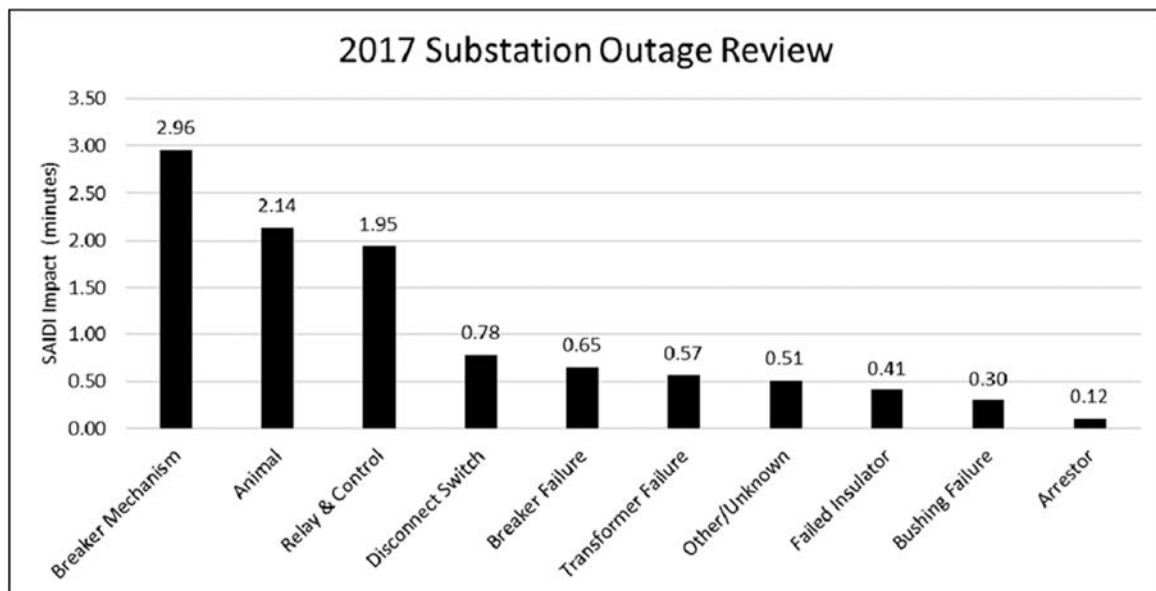


# 2019 Storm Implementation Plan and Annual Reliability Report

## Exhibit 2: 2018 Distribution Substation Outages



## Exhibit 3: 2017 Distribution Substation Outages



Note 1: The SAIDI impact excluded from substation outages in 2017 due to Hurricane Irma was 27.20 minutes.

Exhibit 4: 2016 Distribution Substation Outages

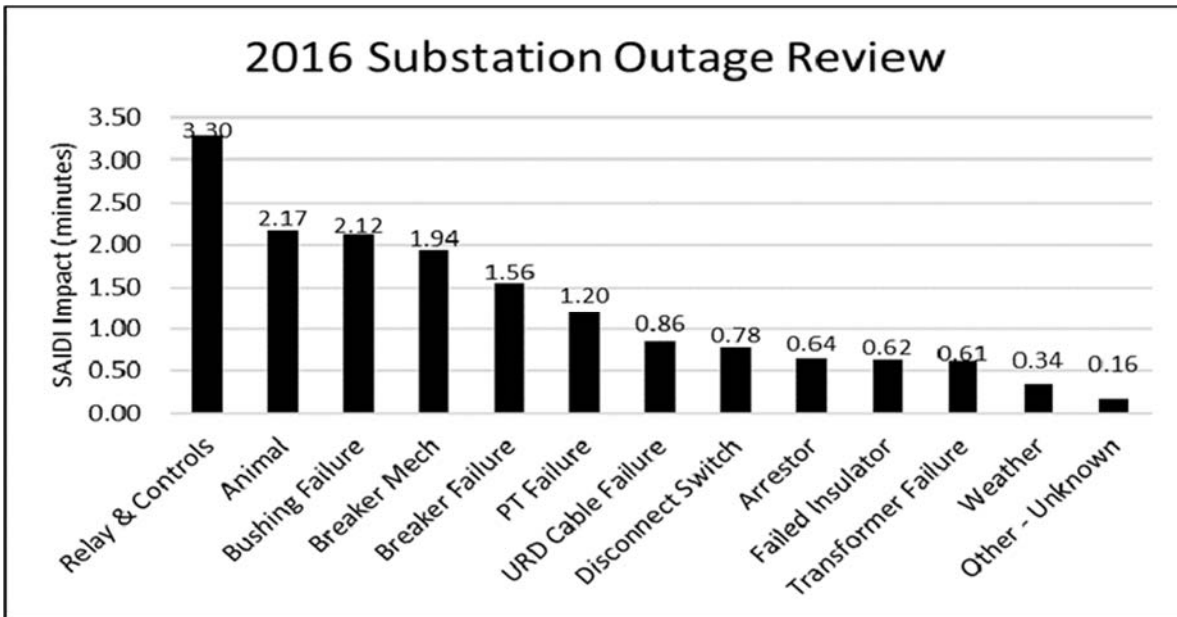


Exhibit 5: 2015 Distribution Substation Outages

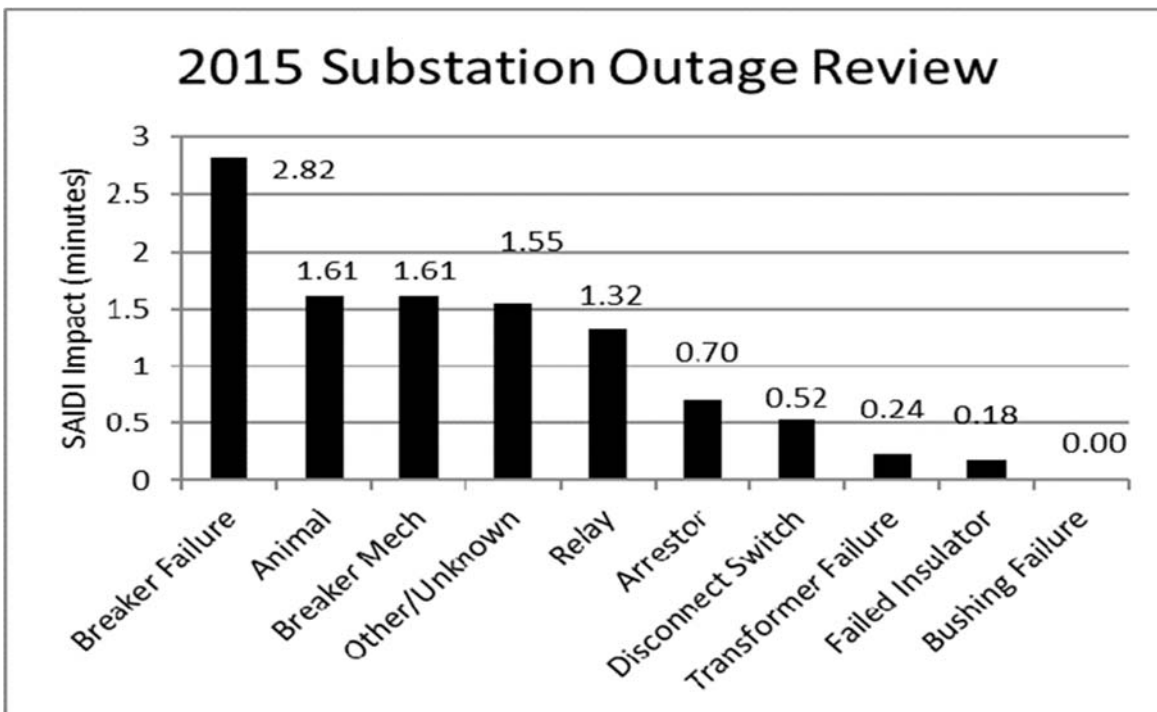




Exhibit 6: Substation Outages due to Breaker Mechanism

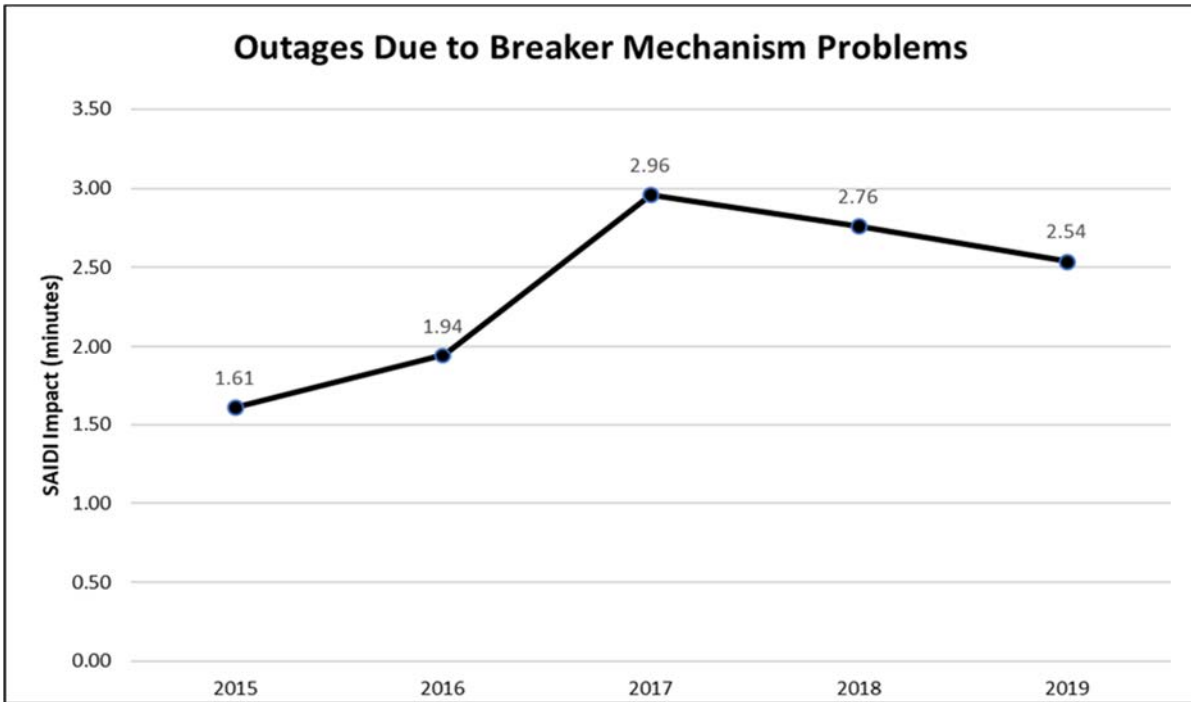


Exhibit 7: Substation Outages due to Animal Contact

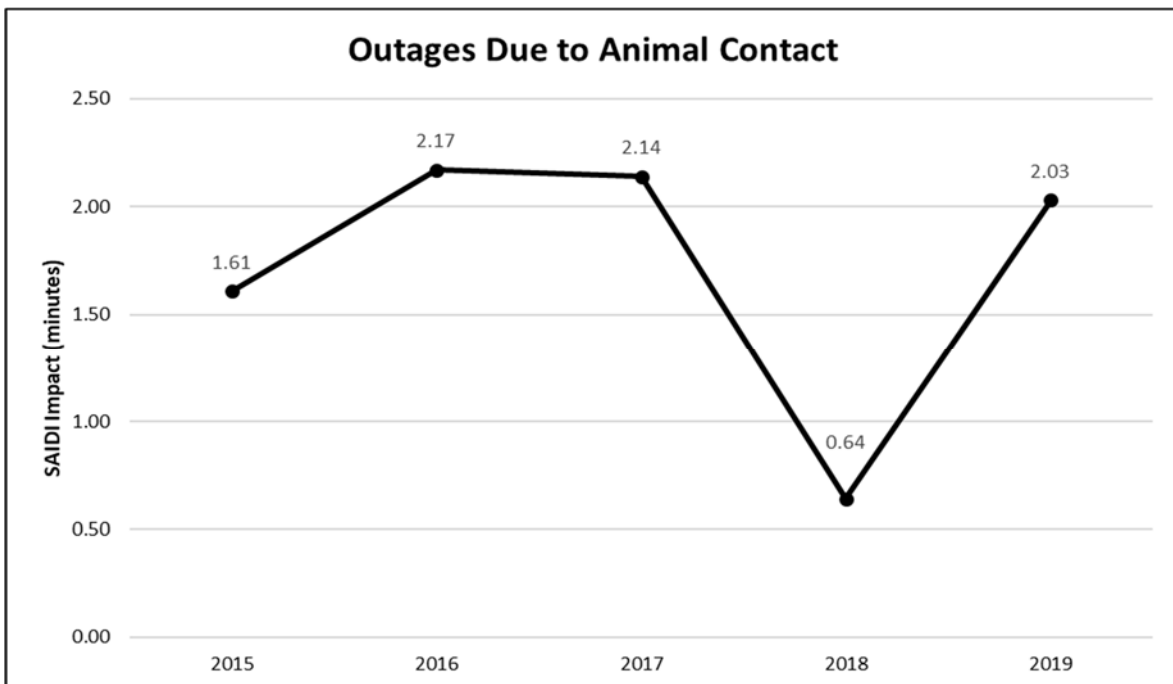
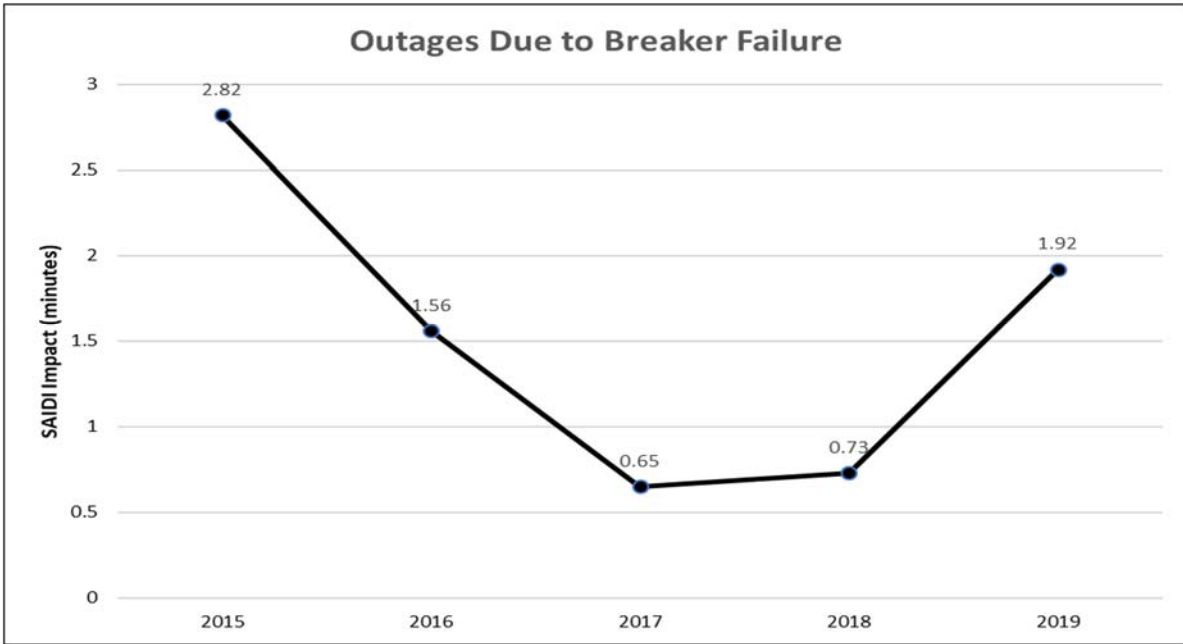


Exhibit 8: Substation Outages due to Breaker Failure



G) 2019 Adjusted Distribution Reliability

1) Causes of Outages

Table 2: Cause of Outage Events by Year

	2015	2016	2017	2018	2019
Vegetation	2,064	1,959	2,108	2,614	2,357
Animals	1,321	1,178	1,632	1,372	1,788
Lightning	1,779	1,751	1,258	1,981	1,436
Electrical	1,184	1,053	1,113	1,162	1,034
Bad Connection	875	840	770	962	861
Unknown	792	931	972	1,270	1,356
Down Wire	563	544	611	557	564
Vehicle	397	363	401	360	387
Other Weather	166	183	278	404	214
Defective Equipment	170	144	122	135	141
All Remaining Causes	223	245	249	286	366
<b>System Totals</b>	<b>9,534</b>	<b>9,191</b>	<b>9,514</b>	<b>11,103</b>	<b>10,504</b>

### 2) Three Percent Feeder

In 2019, Tampa Electric has identified eleven circuits that have been listed once before in the prior five years. These circuits include:

- Blanton Circuit 13815
- Fairgrounds Circuit 13213
- Mulberry Circuit 13010
- Kirkland Road Circuit 13388
- Manhattan Avenue Circuit 13112
- Ehrlich Circuit 13895
- Lake Gum Circuit 13924
- Fort King Circuit 13422
- Lakewood Circuit 14114
- St. Cloud Circuit 13793
- Fishhawk Circuit 14123

Actual events for Blanton 13815 included eight circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced cut outs and primary line fuses.

Actual events for Fairgrounds 13213 included six circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced 45-foot pole, transformer and switchgear.

Actual events for Mulberry 13010 included six circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced down guy wire.

Actual events for Kirkland Road 13388 included five circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced cutouts and broken crossarm.

## **2019 Storm Implementation Plan and Annual Reliability Report**

Actual events for Manhattan Avenue 13112 included six circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced 600 amp in-line switches, crab connection in hand hole, cutouts on two phases, and 600 amp under arm switches.

Actual events for Ehrlich 13895 included six circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced cutouts, one span of underground cable, and transformer. In addition, the company inspected insulators.

Actual events for Lake Gum 13924 included four circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced insulators.

Actual events for Fort King 13422 included two circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced cut out and arrestor.

Actual events for Lakewood 14114 included five circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced two cable lines.

Actual events for St. Cloud 13793 included two circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: replaced transformers and a cable line.

Actual events for Fishhawk 14123 included two circuit outages as reported. The company completed corrective activities on this circuit in 2019 by performing the following: installed terminal pole and replaced bells and cutouts.

## 2019 Storm Implementation Plan and Annual Reliability Report

Other circuits identified in both “Actual” and “Adjusted” reports have had maintenance activities performed as noted on the Three Percent Feeder Report. The company will continue to monitor circuit outage performance as part of its daily and ongoing review of system reliability and will respond accordingly.

### H) Regional Reliability Indices

#### 1) Summary

Table 3 below represents customer by service area for 2019. Dade City, Plant City and Winter Haven have the fewest customers and represent the most rural, lowest customer density per line mile in comparison to the other four Tampa Electric service areas. Actual reliability indices for the rural areas have carried from those of the most urban, densely populated areas for this period. This is due to the greater distance travel for service restoration in rural areas.

In 2019, SAIDI by service areas decreased, as compared to 2018, in all areas except the Dade City and Plant City service areas as shown in Table 4 below. The 2019 SAIDI performance compared to the five-year average decreased for four of the seven service areas. Actual results by service areas and year have varied for the five-year period.

In 2019, CAIDI by service areas decreased, as compared to 2018 in all service areas except for the Dade City service area shown in Table 5 below. The 2019 CAIDI performance compared to the five-year average decreased for six of the seven service areas. Actual results by service areas and year have varied for the five-year period.

In 2019, SAIFI by service areas decreased, as compared to 2018, in all areas except for the Dade City, Eastern and Plant City service areas shown in Table 6 below. The 2019 SAIFI performance compared to the five-year average decreased for four of the seven service areas. Actual results by service areas and year have varied for the five-year period.

## 2019 Storm Implementation Plan and Annual Reliability Report

In 2019, MAIFle by service areas decreased, as compared to 2018, in all areas except for the Eastern, Western and Winter Haven service areas shown in Table 7 below. The 2019 MAIFle performance compared to the five-year average decreased for three of the seven service areas. Actual results by service areas and year have varied for the five-year period.

### 2) Regional Reliability Trends

**Table 3: Number of Customers by Service Area Per Year**

	2015	2016	2017	2018	2019
Central	193,436	196,431	202,572	205,611	209,057
Dade City	14,372	14,492	14,801	14,954	15,305
Eastern	117,268	119,286	122,667	125,030	127,437
Plant City	58,472	59,381	61,187	62,131	63,502
South Hillsborough	72,340	75,450	80,194	84,636	91,219
Western	198,224	199,891	203,805	206,962	210,151
Winter Haven	70,799	71,888	74,403	75,778	78,282
<b>System</b>	<b>724,911</b>	<b>736,819</b>	<b>759,629</b>	<b>775,102</b>	<b>794,953</b>

**Table 4: SAIDI by Service Area per Year**

	2015	2016	2017	2018	2019
Central	69.57	63.10	63.83	86.82	63.23
Dade City	199.20	153.43	153.49	168.45	190.69
Eastern	67.28	85.28	63.49	85.29	83.46
Plant City	116.91	112.79	91.97	112.22	113.54
South Hillsborough	86.24	104.28	84.42	98.82	52.39
Western	77.79	81.26	70.79	96.68	77.47
Winter Haven	65.74	81.71	75.65	92.71	67.35
<b>System</b>	<b>79.12</b>	<b>83.43</b>	<b>72.99</b>	<b>94.70</b>	<b>75.87</b>

**2019 Storm Implementation Plan and Annual Reliability Report**

**Table 5: CAIDI by Service Area per Year**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Central	65.78	73.82	78.1	83.28	69.54
Dade City	103.99	85.64	73.25	85.19	88.56
Eastern	74.61	85.81	71.53	85.65	72.43
Plant City	80.18	93.66	63.83	72.3	71.08
South Hillsborough	78.44	76.97	70.37	68.99	51.91
Western	87.04	86.01	71.65	86.35	77.53
Winter Haven	70.64	86.62	62.31	73.07	66.63
<b>System</b>	<b>76.92</b>	<b>82.78</b>	<b>70.94</b>	<b>80.31</b>	<b>70.75</b>

**Table 6: SAIFI by Service Area per Year**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Central	1.06	0.85	0.82	1.04	0.91
Dade City	1.92	1.79	2.10	1.98	2.15
Eastern	0.90	0.99	0.89	1.00	1.15
Plant City	1.46	1.20	1.44	1.55	1.60
South Hillsborough	1.10	1.35	1.20	1.43	1.01
Western	0.89	0.94	0.99	1.12	1.00
Winter Haven	0.93	0.94	1.21	1.27	1.01
<b>System</b>	<b>1.03</b>	<b>1.00</b>	<b>1.03</b>	<b>1.18</b>	<b>1.07</b>

**Table 7: MAIFle by Service Area per Year**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Central	8.46	7.80	7.87	8.08	7.86
Dade City	17.95	14.65	14.17	14.76	12.29
Eastern	9.08	9.22	8.76	10.15	10.81
Plant City	11.80	13.35	12.78	14.72	13.74
South Hillsborough	11.03	12.76	10.84	11.05	9.37
Western	8.71	8.81	8.40	8.26	9.45
Winter Haven	11.07	9.67	9.66	9.95	10.70
<b>System</b>	<b>9.59</b>	<b>9.58</b>	<b>9.16</b>	<b>9.63</b>	<b>9.76</b>

**Table 8: CEMI5 by Service Area per Year**

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Central	0.51%	0.96%	0.18%	1.41%	0.81%
Dade City	10.41%	2.72%	6.64%	4.73%	11.17%
Eastern	0.27%	0.47%	1.79%	0.77%	2.10%
Plant City	2.61%	2.15%	3.02%	1.10%	4.03%
South Hillsborough	0.82%	0.17%	2.43%	2.93%	4.62%
Western	0.42%	0.63%	0.30%	1.19%	1.69%
Winter Haven	0.15%	1.81%	0.20%	2.23%	0.39%
<b>System</b>	<b>0.81%</b>	<b>0.92%</b>	<b>1.07%</b>	<b>1.54%</b>	<b>2.13%</b>

**I) Overhead – Underground Reliability**

**1) Five-Year Trends – Reliability Performance**

**Table 9: Outages per Year**

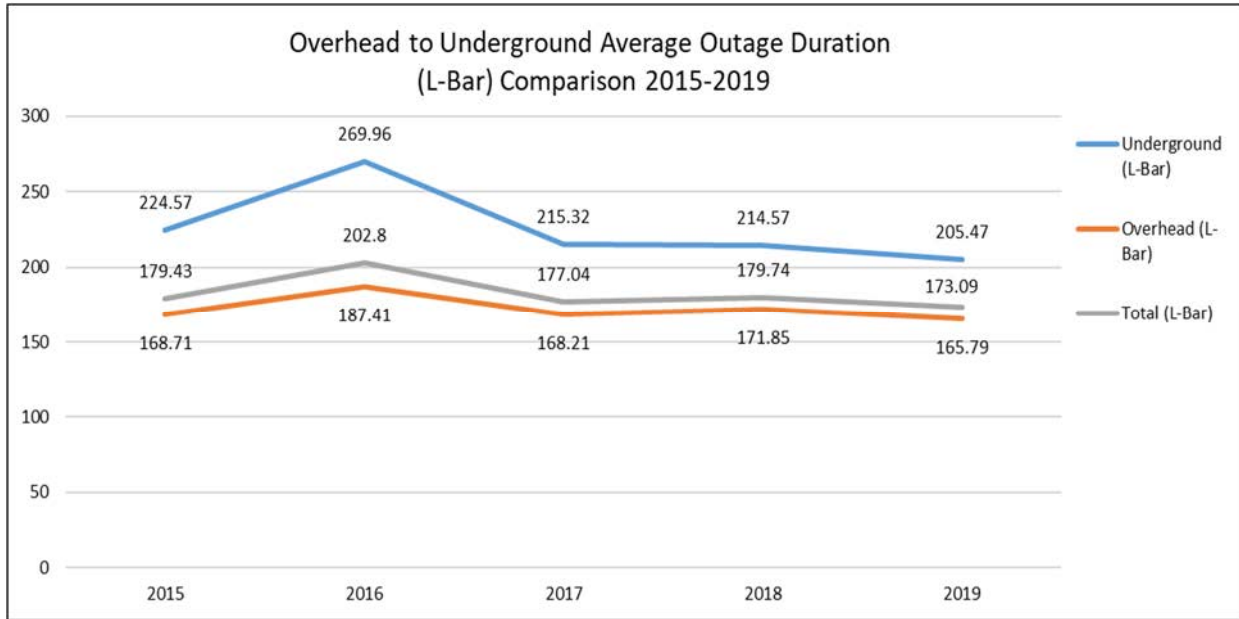
<b>System Totals</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Number of Outages Events (N)	9,534	9,191	9,514	11,103	10,504
System Average Duration (L-Bar)	179.43	202.80	177.04	179.74	173.09
Average Restoration Time (CAIDI)	76.92	82.78	70.94	80.31	70.75

<b>Overhead</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Number of Outages Events (N)	7,705	7,490	7,731	9,087	8,571
System Average Duration (L-Bar)	168.71	187.41	168.21	171.85	165.79
Average Restoration Time (CAIDI)	70.55	77.16	65.45	75.55	65.24

<b>Underground</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Number of Outages Events (N)	1,829	1,701	1,783	2,016	1,933
System Average Duration (L-Bar)	224.57	269.96	215.32	214.57	205.47
Average Restoration Time (CAIDI)	139.73	138.93	118.2	124.44	112.95



**Exhibit 9: Overhead to Underground Outage Duration**



**2) Tracking Overhead to Underground Reliability Performance**

Tampa Electric tracks outage records in the company’s DOD according to cause and equipment type. These equipment types are designed and associated with the overhead and underground systems. Reporting capability allows the company to track CMI, CI, Number of outages, Average Duration and CAIDI as referenced in Section C – Overhead to Underground in the Appendix. In addition, separate reporting was undertaken in order to align miles and customers for overhead and underground distribution.

The company tracks and reports MAIFle by system and circuit. Interruption data is electronically captured, recorded and tracked at each individual distribution circuit breaker. As a result, a momentary interruption occurring down-line from the circuit breaker in which the circuit breaker does not operate is not currently captured and cannot be reported.

The company currently measures CEMI-5 through a query that is run through the company’s OMS. There is no option to run a query for overhead or underground systems. Therefore, the company is unable to provide CEMI-5 as previously requested by Commission Staff.

### 3) Underground Distribution System Conversions

Over the past seven years, the Dana Shores Civic Association and Tampa Electric have been working with Hillsborough County to create and execute a Municipal Service Benefit Units (“MSBU”) ordinance and initiate the first project under this new mechanism. The MSBU provide an opportunity for neighborhoods to set up self-elected taxing districts that would fund capital upgrade through annual Ad Valorem taxes. Tampa Electric employees have attended several meetings with officers of the association, county officials, as well as regular association meetings to provide assistance. These meetings have also created interest in other neighborhoods, as well as the City of Tampa, for the possibility of converting portions of the system to underground. Tampa Electric is evaluating these conversions especially those that are more susceptible to failure during storms to determine how they should be incorporated as part of the company’s storm plan. Estimates for the Dana Shores project have been presented jointly by the association’s officers and Tampa Electric employees to the County Planning Commission Staff, and in 2018 a final, binding bid was submitted by Tampa Electric to Dana Shores and Hillsborough County. Efforts are still underway with Hillsborough County to create the Dana Shores taxing district and to acquire a bond to fund his project. Although the initial MSBU ordinance was created and passed by the County Commission in 2015, Dana Shores Civic Association leadership has continued to work on getting the necessary neighborhood consensus documentation to be the County’s first MSBU project. In 2019, Tampa Electric reviewed and chose to incorporate the Dana Shores Overhead to Underground Conversion Project as a “Turn-Key” project assigning two electrical contractors to perform all the construction of this project. Tampa Electric utilizes a job site manager to oversee the daily activities, document and report back to the company on progress of the undergrounding project on a weekly basis. The completion date for the Dana Shores Underground Conversion Project is projected to be December 31, 2021.

### J) Reliability-Related Customer Complaints

In 2019, Tampa Electric experienced an increase of 13 formal service-related complaints as logged by the Florida Division of Consumer Affairs and noted in Exhibit 10 below. In addition, service-related complaints as tracked by the company and including FPSC Formal, Three-Day, Transfer-Connect, eWarm Transfer and Executive Level decreased 13 complaints in 2019 as noted in Exhibit 11 below. In comparison to the five-year average, overall complaints increased by 3.36 percent in 2019.

When comparing, formal complaints logged against the company to reliability performance (Exhibits 12 and 13 below) over the last five years, the reliability performance has varied, and complaints have tracked accordingly. The company believes that a continued focus on activities such as vegetation management, circuit review activity and resulting line improvements and other maintenance activities will contribute toward minimizing service-related complaints in 2020 and beyond.

Tampa Electric's current process for responding to all service-related complaints includes the central intake and coordination of complaint resolution through the company's Quality Assurance Department and extends out to operations engineers who are responsible for the daily oversight of feeders in their respective service area. Operations engineers are involved in customer interactions, identifying needs and corrective measures and are responsible for coordination through to completion. Working through and responding to complaints at a region/service area level provides the company an opportunity to be aware of any trends that may occur for a given feeder or lateral.

In addition, the group of Operations Engineers and System Reliability meet monthly to review common areas of concern across the system and identifies opportunities for improvement.

Exhibit 10: Tampa Electric Formal Reliability Complaints  
Filed with the FPSC by Year

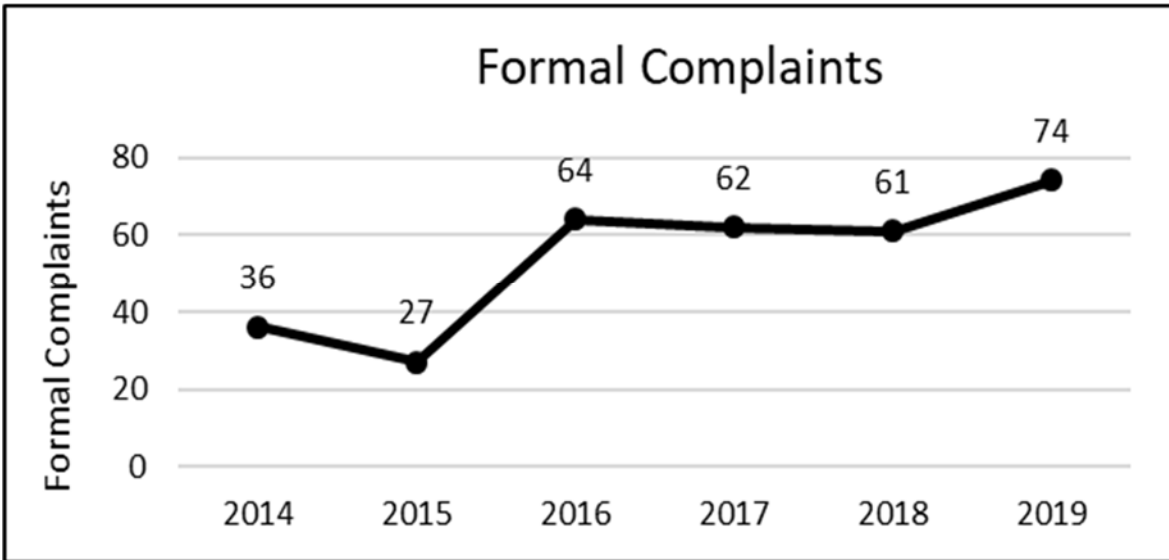


Exhibit 11: Tampa Electric Service Complaints by Year

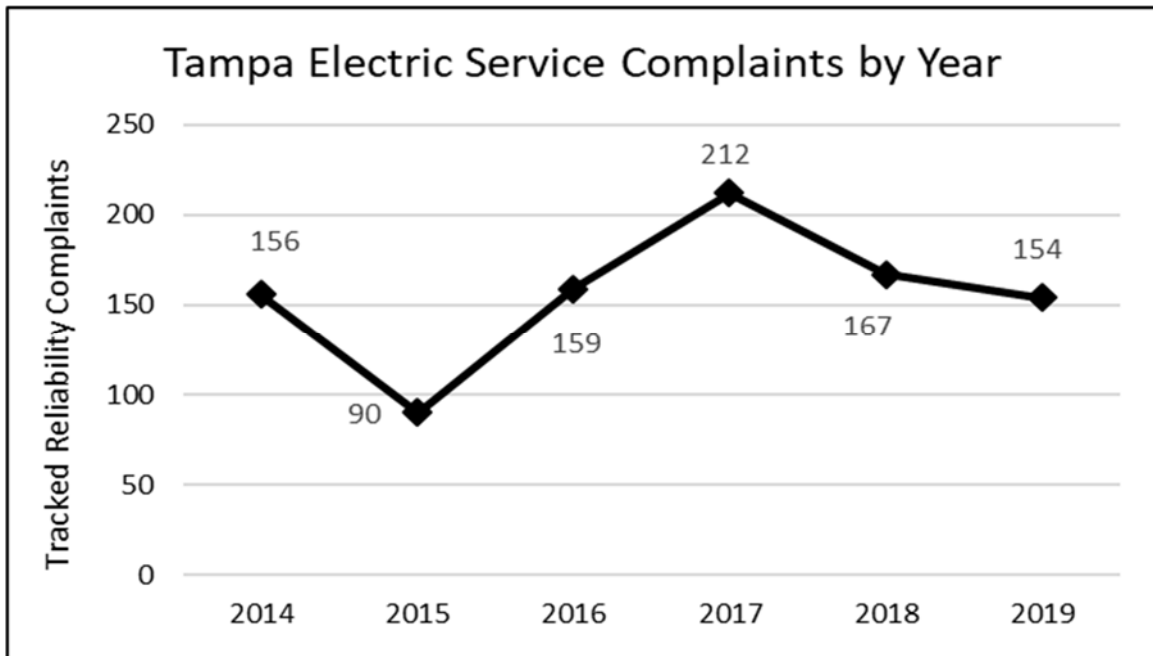


Exhibit 12: Formal Complaints vs. SAIDI by Year

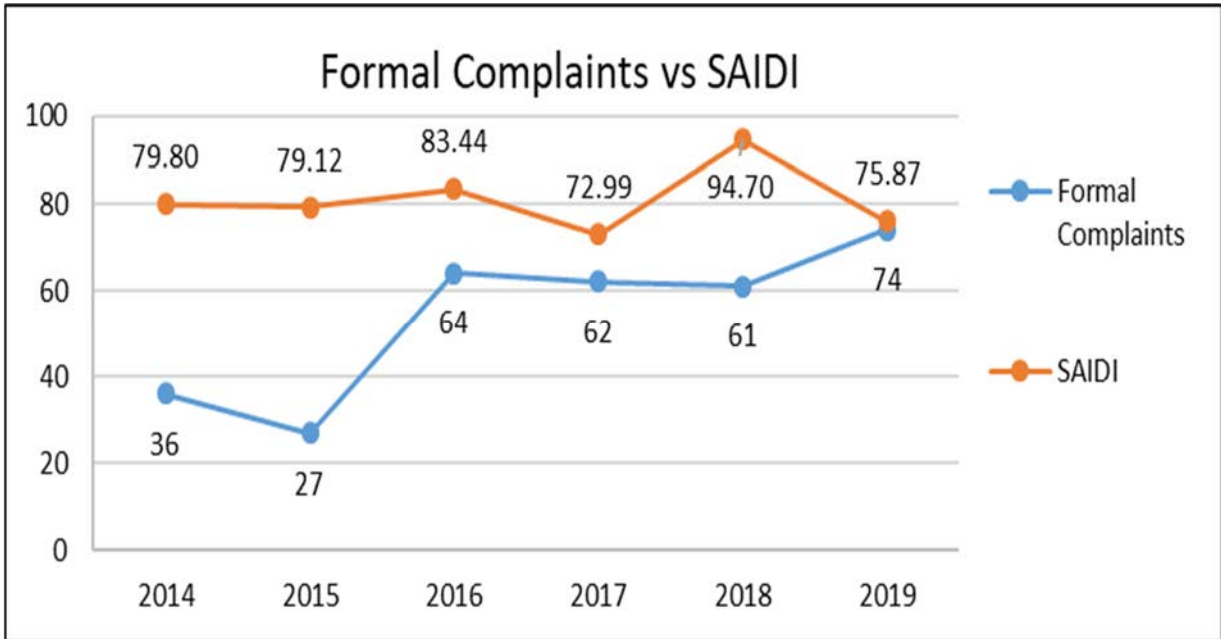
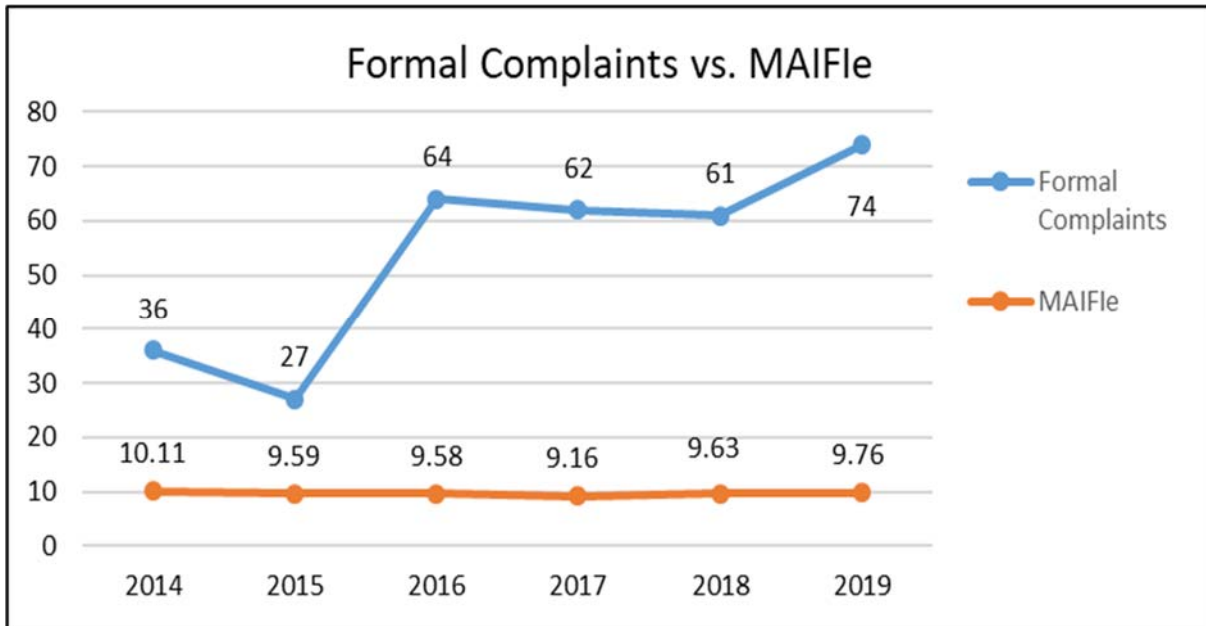


Exhibit 13: Formal Complaints vs. MAIFle by Year





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## **APPENDIX**

**2019**

# **STORM IMPLEMENTATION PLAN & ANNUAL RELIABILITY PERFORMANCE REPORTS**

## 2019 Storm Implementation Plan and Annual Reliability Report

### Appendix A) Form PSC/ECR 102-1(a)(8/06)

<b>Primary Causes of Outage Events</b>			
Utility Name: Tampa Electric		Year: 2019	
Cause (a)	Number of Outages Events (N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Lightning	1,441	221.41	98.34
Unknown	1,363	128.64	44.97
Electrical	1,051	185.27	68.02
Bad Connection	891	237.72	93.40
Down Wire	570	151.76	62.66
Vehicle	390	230.77	86.89
Human Interference	282	165.35	52.00
Other Weather	221	193.13	81.93
Defective Equipment	142	175.87	89.45
Unassigned	55	230.52	95.11
Customer Owned Equipment	47	149.74	14.01
Fire	16	83.04	45.16
Substation Equipment	7	32.85	38.53
Structure	5	169.72	105.05
Transmission Equipment	2	91.57	29.37
Other	0	0.00	0.00
<b>Total</b>	<b>14,173</b>	<b>177.69</b>	<b>66.19</b>

Note: L-Bar and CAIDI are expressed in minutes.

# 2019 Storm Implementation Plan and Annual Reliability Report

## Form 102 – Part II – Actual

### FPSC Annual Report - 3 Percent Feeder List

Primary Circuit Id. No. or Name (a)	Substation Origin (b)	Location (c)	Residential (d)	Commercial (e)	Industrial (f)	Total (g)	Circuit Outage "N" (h)	Avg. Duration "L-Bar" (i)	CAIDI (j)	Listed Last Year? (k)	Years in the Last 5 (l)	Action Completion Date (n)
13815	BLANTON	Dade City	547	100	0	647	12	190.54	67.63	1	3	12/19, 05/12
13213	FAIRGROUNDS	Eastern	1,082	392	2,811	1,481	11	135.31	48.38	1	1	10/24, 04/11, 10/21
13070	MULBERRY	Plant City	1,471	190	1,749	1,665	11	111.82	54.38	1	2	10/3
13079	COOLIDGE	Western	1,262	184	0	1,446	11	223.39	72.7	1	0	03/06, 03/08, 06/08, 06/09
13188	PINE LAKE	Central	1,066	68	0	1,134	9	134.94	69.62	1	0	08/28, 01/17, 01/25, 07/23, 03/22, 07/09, 08/30
13388	KIRKLAND RD	Plant City	637	103	286	740	9	148.51	-49.69	1	1	02/26, 09/17
13439	DEL WEBB	South Hillsborough	800	184	0	984	9	132.88	65.87	1	0	12/05, 04/27, 02/27, 05/30
13254	GULF CITY	South Hillsborough	1,559	180	2,555	1,746	9	136.31	40.04	1	0	12/19, 08/08
13813	BLANTON	Dade City	803	63	0	866	8	182.49	53.3	0	0	03/06, 01/07
13112	MANHATTAN AV	Western	1,862	178	2,190	2,046	8	166.55	44.66	1	1	10/14, 12/18, 05/09, 08/20
13051	46TH ST	Central	941	156	1,095	1,100	7	157.12	40.16	1	0	06/06, 05/30, 05/13, 06/04, 05/22, 06/26
13367	U.S.F	Central	0	2	0	2	7	140.12	51.14	1	0	03/03, 04/28, 06/20, 03/20, 03/17, 06/20, 01/04
14050	FOLK POWER CONSTRUCTION	Plant City	372	79	1,850	456	7	214.71	82.25	1	0	04/08, 12/20, 01/30
13895	EHRUCH	Western	68	253	0	321	7	124.86	47.24	1	0	08/25, 01/04, 01/05, 06/09
13924	LAKE GUM	Winter Haven	470	115	1,689	589	7	149.23	33.91	1	1	10/21
13939	LAKE MAGDALENE	Central	1,042	165	0	1,207	6	138.5	45.71	1	0	06/27, 07/10, 10/16
13732	BEL SHOL	Eastern	1,226	41	0	1,267	6	149.95	75.82	1	0	11/22, 07/01
13691	PEARSON RD	Eastern	896	24	0	920	6	125.07	70.93	1	0	05/15, 04/03
13506	SR-574	Eastern	532	150	959	684	6	204.12	81.81	1	0	03/20, 06/19
13799	ST.CLOUD	Eastern	1,796	58	0	1,854	6	137.49	101.83	1	0	07/06, 08/01
13656	HAMPTON	Plant City	1,651	180	0	1,831	6	188.21	64.97	1	0	04/30
13651	RHODINE	South Hillsborough	1,808	43	0	1,851	6	119.34	51.66	1	0	09/04, 09/12
13582	D.MABRY	Western	1,153	147	0	1,300	6	193.98	51.46	1	0	05/07, 04/25, 10/21, 08/10
13143	HYDE PARK	Western	1,448	124	0	1,572	6	167.58	84.3	1	0	11/05, 09/13, 07/20, 07/24
13574	ROCKY CR	Western	797	84	0	881	6	114.73	36.74	1	0	06/26, 08/01, 08/17, 07/04
14274	SLVRDOLR	Western	942	121	0	1,063	6	176.01	74.48	1	0	12/09, 12/23, 07/20, 05/05
13338	WATERS AV	Western	196	152	10,442	376	6	245.78	83.28	1	1	10/25, 07/03, 08/07, 08/20
13183	11TH.AVE	Central	204	201	6,783	422	5	150.07	45.24	1	1	10/09, 05/01, 01/20, 07/31, 06/30, 09/27, 04/19
13221	56TH ST	Central	1,169	212	4,015	1,392	5	167.78	68.02	0	0	08/01, 08/10, 04/18, 05/11, 01/21, 03/04, 02/01, 09/05, 09/30, 11/16, 07/15, 05/27
13422	FORT KING	Dade City	1,297	135	0	1,432	5	209.38	62.97	0	1	5/31
14114	LAKEWOOD	Eastern	1,399	30	0	1,429	5	137.56	67.68	1	0	09/26, 09/04
13171	MADISON AV	Eastern	1,530	152	1,825	1,687	5	135.42	34.02	0	1	03/01, 09/16
13793	ST.CLOUD	Eastern	1,625	56	0	1,681	5	161.38	43.31	1	0	06/23, 11/14, 12/12
14123	FISHHAWK	Plant City	1,024	58	345	1,082	5	276.66	104.18	1	1	12/24
13808	KNIGHTS	Plant City	1,907	147	2,862	2,062	5	207.58	48.21	1	0	12/31, 06/16
13440	DEL WEBB	South Hillsborough	866	185	1,054	1,054	5	151.92	40.08	1	0	1/21
13218	HABANA AV	Western	1,325	87	0	1,412	5	178.41	121.25	1	0	08/20, 07/31, 11/08, 01/28
13109	MANHATTAN AV	Western	2,241	213	0	2,454	5	156.67	55.28	1	0	08/05, 01/03, 01/09, 03/25
13673	MEADOW PARK	Western	1,003	29	0	1,032	5	203.07	100.96	1	0	01/02, 12/30, 06/08, 09/12
13443	LAKE REGION	Winter Haven	1,288	253	1,324	1,544	5	196.55	50.7	0	0	8/28



## 2019 Storm Implementation Plan and Annual Reliability Report

### Form 102 – Part III – Actual

#### ANNUAL DISTRIBUTION RELIABILITY REPORT - 2019

Utility Name: Tampa Electric

<b>SAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	<u>71,466,578</u>	<b>89.90</b>
Total number of Customers Served (C)	794,953	
<b>CAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	<u>71,466,578</u>	<b>66.19</b>
Total number of Customer Interruptions (CI)	1,079,714	
<b>SAIFI: System Average Interruption Frequency Index</b>		
= <u>Total number of Customer Interruptions (CI)</u>	<u>1,079,714</u>	<b>1.36</b>
Total number of Customers Served (C)	794,953	
<b>MAIFle: Momentary Average Interruption Event</b>		
= <u>Sum of All Customer Momentary Interruption Events (CME)</u>	<u>8,554,054</u>	<b>11.04</b>
Total number of Customers Served (C)	775,102	
<b>L-Bar:</b>		
= Minutes of Interruption	<u>2,518,368</u>	<b>177.69</b>
Total number of Outages	14,173	

District	C	CMI	CI	CME	CEMI-5
Central	209,057	16,677,007	239,638	1,832,795	5,010
Dade City	15,305	3,183,581	41,834	211,959	3,019
Eastern	127,437	11,943,445	174,608	1,532,387	3,194
Plant City	63,502	7,600,301	127,524	962,269	3,922
South Hillsborough	91,219	5,422,368	119,630	923,187	5,276
Western	210,151	19,941,163	270,741	2,180,603	5,317
Winter Haven	78,282	6,698,713	105,739	910,854	784
<b>System Total:</b>	794,953	71,466,578	1,079,714	8,554,054	26,766

## 2019 Storm Implementation Plan and Annual Reliability Report

### Form 102 – Part III continued – Actual

<b>Service Reliability Indices - Actual</b>					
Utility Name: Tampa Electric			Year: 2019		
<b>District or Service Area (a)</b>	<b>SAIDI</b>	<b>CAIDI</b>	<b>SAIFI</b>	<b>MAIFle</b>	<b>CEMI-5%</b>
Central	79.77	69.59	1.15	8.77	2.40%
Dade City	208.01	76.10	2.73	13.84	19.73%
Eastern	93.72	68.40	1.37	12.02	2.51%
Plant City	119.68	59.60	2.01	15.15	6.18%
South Hillsborough	59.44	45.33	1.31	10.12	5.78%
Western	94.89	73.65	1.29	10.38	2.53%
Winter Haven	85.57	63.35	1.35	11.64	1.00%
<b>System Total:</b>	89.89	66.19	1.36	10.76	3.37%

Form PSC/ECR 102-3, Docket No. 011351-EI, Rule 25-6.0455(c)

Note: L-Bar and CAIDI are expressed in minutes

## 2019 Storm Implementation Plan and Annual Reliability Report

### Appendix B)

#### Form PSC/ECR 102-1(b) (8/06)

<b>Causes of Outage Events - Adjusted</b>			
Utility Name: Tampa Electric		Year: 2019	
<b>Cause (a)</b>	<b>Number of Outages Events (N)</b>	<b>Average Duration (L-Bar)</b>	<b>Average Restoration Time (CAIDI)</b>
<b>1. Vegetation</b>	2,357	196.84	87.14
<b>2. Animals</b>	1,788	93.82	64.39
<b>3. Lightning</b>	1,436	221.81	98.34
<b>4. Unknown</b>	1,356	128.56	44.80
<b>5. Electrical</b>	1,034	184.29	68.05
<b>6. Bad Connection</b>	861	232.85	93.28
<b>7. Down Wire</b>	564	151.44	63.37
<b>8. Vehicle</b>	387	230.62	86.78
<b>All Remaining Causes</b>	721	148.36	59.87
<b>Total</b>	10,504	173.09	70.75

Note: L-Bar and CAIDI are expressed in minutes.

2019 Storm Implementation Plan and Annual Reliability Report

Form 103 - PART II – Adjusted

FPSC Annual Report - 3 Percent Feeder List

Primary Circuit Id. No. or Name (a)	Substation Origin (b)	Location (c)	Residential (d)	Commercial (e)	Industrial (f)	Total (g)	Circuit Outage "N" (h)	Avg. Duration "L_Bar" (i)	CAIDI (j)	Listed Last Year? (k)	Years in the Last 5 (l)	Action Completion Date (n)	Numbers of Customers	
													Commercial (e)	Industrial (f)
13815	BLANTON	Dade City	547	100	0	647	12	181.32	67.48	No	2	12/19, 05/12		
13213	FAIRGROUNDS	Eastern	1,082	392	2,811	1,481	11	128.14	44.37	Yes	0	10/24, 04/11, 10/21		
13010	MULBERRY	Plant City	1,471	190	1,749	1,665	11	111.59	54.31	No	2	10/3		
13439	DEL WEBB	South Hillsborough	800	184	0	984	9	104.38	65.06	No	0	12/05, 04/27, 02/27, 05/30		
13188	PINE LAKE	Central	1,066	68	0	1,134	8	72.48	37.5	No	0	07/09, 08/30		
13254	GULF CITY	South Hillsborough	1,559	180	2,555	1,746	8	114.43	43.93	No	0	12/19, 08/08,		
13051	46TH ST	Central	941	156	1,095	1,100	7	97.3	39.24	No	0	07/09, 08/30		
13367	U.S.F	Central	0	2	0	2	7	142.15	44.21	No	0	06/20, 01/04		
13813	BLANTON	Dade City	803	63	0	866	7	179.65	62.14	No	0	03/06, 01/07		
13388	KIRKLAND RD	Plant City	637	103	286	740	7	179.87	74.61	Yes	0	02/26, 09/17		
14050	POLK POWER CONSTRUCTION	Plant City	372	79	1,850	456	7	225.51	93.03	No	0	04/08, 12/20, 01/30		
13079	COOLIDGE	Western	1,262	184	0	1,446	7	215.92	102.53	No	0	03/06, 03/08, 06/08, 06/09		
13112	MANHATTAN AV	Western	1,862	178	2,190	2,046	7	158.13	44.92	No	1	08/25, 01/04, 01/05, 06/09		
13939	LAKE MAGDALENE	Central	1,042	165	0	1,207	6	138.5	45.71	No	0	06/27, 07/10, 10/16		
13732	BEL SHOL	Eastern	1,226	41	0	1,267	6	173.25	85.74	No	0	11/22, 07/01,		
13691	PEARSON RD	Eastern	896	24	0	920	6	121.17	67.72	No	0	05/15, 04/03		
13506	SR.574	Eastern	532	150	959	684	6	204.12	81.81	No	0	03/20, 06/19		
13895	EHRlich	Western	68	253	0	321	6	134.99	53.81	No	1	08/25, 01/04, 01/05, 06/09		
13574	ROCKY CR	Western	797	84	0	881	6	114.73	36.74	No	0	06/26, 08/01, 08/17, 07/04		
14274	SLVRDOLR	Western	942	121	0	1,063	6	180.22	74.72	No	0	12/09, 12/23, 07/20, 05/05		
13338	WATERS AV	Western	196	152	10,442	376	6	242.88	82.13	No	1	10/25, 07/03, 08/07, 08/20		
13924	LAKE GUM	Winter Haven	470	115	1,689	589	6	157.21	38.34	Yes	1	10/21		
13221	56TH ST	Central	1,169	212	4,015	1,392	5	163.98	67.64	No	0	03/04, 02/01, 09/05, 09/30, 11/16,		
13422	FORT KING	Dade City	1,297	135	0	1,432	5	224.06	79.45	No	0	07/15, 05/27		
14114	LAKEWOOD	Eastern	1,399	30	0	1,429	5	147.74	67.66	No	1	09/26, 09/04		
13793	ST.CLOUD	Eastern	1,625	56	0	1,681	5	165.31	43.3	No	1	06/23, 11/14, 12/12		
13799	ST.CLOUD	Eastern	1,796	58	0	1,854	5	140.62	91.66	No	0	07/6, 08/01		
14123	FISHHAWK	Plant City	1,024	58	345	1,082	5	211.4	101.23	No	1	12/24		
13656	HAMPTON	Plant City	1,651	180	0	1,831	5	202.11	71.43	No	1	14/30		
13440	DEL WEBB	South Hillsborough	866	185	1,095	1,054	5	100.12	55.69	No	0	1/21		
13651	RHODINE	South Hillsborough	1,808	43	0	1,851	5	140.2	66.06	No	0	09/04, 09/12		
13582	D.MABRY	Western	1,153	147	0	1,300	5	200.12	71.69	No	0	05/07, 04/25, 10/21, 08/10		
13143	HYDE PARK	Western	1,448	124	0	1,572	5	172.79	104.83	No	0	11/05, 09/13, 07/20, 07/24		
13673	MEADOW PARK	Western	1,003	29	0	1,032	5	215.31	134.45	No	0	01/02, 12/30, 06/08, 09/12		

## 2019 Storm Implementation Plan and Annual Reliability Report

### Form 103 - PART III – Adjusted

#### PART III ANNUAL DISTRIBUTION RELIABILITY REPORT - 2019 Utility Name: Tampa Electric

<b>SAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	60,314,919	<b>75.87</b>
Total number of Customers Served (C)	794,953	
<b>CAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	60,314,919	<b>70.75</b>
Total number of Customer Interruptions (CI)	852,505	
<b>SAIFI: System Average Interruption Frequency Index</b>		
= <u>Total number of Customer Interruptions (CI)</u>	852,505	<b>1.07</b>
Total number of Customers Served (C)	794,953	
<b>MAIFle: Momentary Average Interruption Event</b>		
= <u>Sum of All Customer Momentary Interruption Events (CME)</u>	7,761,303	<b>9.76</b>
Total number of Customers Served (C)	794,953	
<b>L-Bar:</b>		
= <u>Minutes of Interruption</u>	1,818,182	<b>173.09</b>
Total number of Outages	10,504	

District	C	CMI	CI	CME	CEMI-5
Central	209,057	13,218,812	190,077	1,644,217	1,697
Dade City	15,305	2,918,477	32,955	188,026	1,710
Eastern	127,437	10,635,990	146,847	1,377,832	2,671
Plant City	63,502	7,210,144	101,444	872,600	2,556
South Hillsborough	91,219	4,778,846	92,058	855,011	4,210
Western	210,151	16,279,991	209,990	1,985,994	3,562
Winter Haven	78,282	5,272,659	79,134	837,623	308
<b>System Total:</b>	794,953	60,314,919	852,505	7,761,303	16,912

## 2019 Storm Implementation Plan and Annual Reliability Report

### Form 103 Part III continued Adjusted

<b>Service Reliability Indices - Adjusted</b>					
Utility Name: Tampa Electric			Year: 2019		
<b>District or Service Area (a)</b>	<b>SAIDI (b)</b>	<b>CAIDI (c)</b>	<b>SAIFI (d)</b>	<b>MAIFle (e)</b>	<b>CEMI-5% (f)</b>
Central	63.23	69.54	0.91	7.86	0.81%
Dade City	190.69	88.56	2.15	12.29	11.17%
Eastern	83.46	72.43	1.15	10.81	2.10%
Plant City	113.54	71.08	1.60	13.74	4.03%
South Hillsborough	52.39	51.91	1.01	9.37	4.62%
Western	77.47	77.53	1.00	9.45	1.69%
Winter Haven	67.35	66.63	1.01	10.70	0.39%
<b>System Total:</b>	75.87	70.75	1.07	9.76	2.13%

Form PSC/ECR 102-3, Docket No. 011351-EI, Rule 25-6.0455(c)

Note: L-Bar and CAIDI are expressed in minutes

## 2019 Storm Implementation Plan and Annual Reliability Report

### Actual Data: CMI, CI and Documented Exclusions

2019	CMI		CI	
	Value	% of Actual	Value	% of Actual
<b>Reported Actual Data</b>	92,805,642	100.00%	1,398,802	100.00%
<b>Documented Exclusions</b>				
Planned Service Interruptions	9,895,225	10.66%	234,069	16.73%
Named Storm	0.00	0.00%	0.00	0.00%
Tornadoes	0.00	0.00%	0.00	0.00%
Ice on Lines	0.00	0.00%	0.00	0.00%
Planned Load Management Events	0.00	0.00%	0.00	0.00%
Generation/Transmission Events	9,505,418	10.24%	250,764	17.93%
Extreme Weather (EOC Activation/Fire)	0.00	0.00%	0.00	0.00%
<b>Reported Adjusted Data</b>	73,404,999	79.10%	913,969	65.34%

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	566	54,534.10
PLF	PLANNED OUTAGE	4	820.40
PLF	PLANNED OUTAGE	220	27,360.67
URD Outage	PLANNED OUTAGE	8	633.20
OH Other	PLANNED OUTAGE	10	225.50
OH Other	PLANNED OUTAGE	13	611.43
OH Other	PLANNED OUTAGE	1	180.15
OH Other	PLANNED OUTAGE	4	1,055.67
URD Outage	PLANNED OUTAGE	2	138.70
OH Other	PLANNED OUTAGE	10	166.50
OH Other	PLANNED OUTAGE	7	2,296.47
URD Outage	PLANNED OUTAGE	1	53.05
OH Other	PLANNED OUTAGE	8	1,821.73
OH Other	PLANNED OUTAGE	8	178.13
OH Other	PLANNED OUTAGE	13	4,599.18
OH Other	PLANNED OUTAGE	1	305.45
URD Outage	PLANNED OUTAGE	7	250.25
OH Other	PLANNED OUTAGE	6	1,936.50
OH Other	PLANNED OUTAGE	7	1,178.33
OH Other	PLANNED OUTAGE	8	1,900.27
URD Outage	PLANNED OUTAGE	6	500.90
OH Other	PLANNED OUTAGE	7	1,702.98
URD Outage	PLANNED OUTAGE	511	22,875.77
OH Other	PLANNED OUTAGE	22	7.70
OH Other	PLANNED OUTAGE	1	20.00
URD Outage	PLANNED OUTAGE	4	367.93
OH Other	PLANNED OUTAGE	61	36,635.58
OH Other	PLANNED OUTAGE	2	443.60
OH Other	PLANNED OUTAGE	8	2,821.73
OH Other	PLANNED OUTAGE	6	1,728.80
URD Outage	PLANNED OUTAGE	13	947.05
Connections	PLANNED OUTAGE	1	26.98
OH Other	PLANNED OUTAGE	50	3,509.17
Circuit Out	PLANNED OUTAGE	1,508	11,284.87
OH Other	PLANNED OUTAGE	55	1,635.33
OH Other	PLANNED OUTAGE	19	352.13
URD Outage	PLANNED OUTAGE	8	365.60
OH Other	PLANNED OUTAGE	7	922.37
URD Outage	PLANNED OUTAGE	1	120.05
OH Other	PLANNED OUTAGE	11	2,649.72
OH Other	PLANNED OUTAGE	4	90.00
OH Other	PLANNED OUTAGE	7	1,473.97
OH Other	PLANNED OUTAGE	3	821.55
OH Other	PLANNED OUTAGE	29	6,518.23
Service - Crew	PLANNED OUTAGE	1	106.53
OH Other	PLANNED OUTAGE	3	1,462.45



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	8	2,263.33
OH Other	PLANNED OUTAGE	7	1,843.33
OH Other	PLANNED OUTAGE	19	3,793.67
OH Other	PLANNED OUTAGE	5	289.08
OH Other	PLANNED OUTAGE	12	269.60
OH Other	PLANNED OUTAGE	2	546.63
OH Other	PLANNED OUTAGE	11	3,033.80
OH Other	PLANNED OUTAGE	44	15,131.60
OH Other	PLANNED OUTAGE	2	176.67
URD Outage	PLANNED OUTAGE	1	5.57
URD Outage	PLANNED OUTAGE	18	4,687.80
OH Other	PLANNED OUTAGE	14	2,170.00
Step Restoration	PLANNED OUTAGE	66	6,158.90
Step Restoration	PLANNED OUTAGE	76	14,849.13
URD Outage	PLANNED OUTAGE	25	1,828.75
OH Other	PLANNED OUTAGE	2	282.77
OH Other	PLANNED OUTAGE	4	2,123.13
OH Other	PLANNED OUTAGE	1	83.32
URD Outage	PLANNED OUTAGE	5	135.42
OH Other	PLANNED OUTAGE	9	3,325.35
Circuit Out	PLANNED OUTAGE	2,505	8,433.50
OH Other	PLANNED OUTAGE	13	2,726.75
OH Other	PLANNED OUTAGE	3	850.45
URD Outage	PLANNED OUTAGE	6	2,000.00
OH Other	PLANNED OUTAGE	5	1,943.33
OH Other	PLANNED OUTAGE	5	3,383.00
OH Other	PLANNED OUTAGE	1	104.95
OH Other	PLANNED OUTAGE	1	69.57
OH Other	PLANNED OUTAGE	13	2,511.38
URD Outage	PLANNED OUTAGE	67	3,961.93
OH Other	PLANNED OUTAGE	2	206.97
OH Other	PLANNED OUTAGE	1	61.23
OH Other	PLANNED OUTAGE	373	3,587.02
OH Other	PLANNED OUTAGE	2	70.00
OH Other	PLANNED OUTAGE	2	736.23
OH Other	PLANNED OUTAGE	1	94.42
OH Other	PLANNED OUTAGE	1	71.88
OH Other	PLANNED OUTAGE	5	1,324.17
URD Outage	PLANNED OUTAGE	13	1,989.87
OH Other	PLANNED OUTAGE	1	82.97
OH Other	PLANNED OUTAGE	14	722.40
OH Other	PLANNED OUTAGE	6	280.30
OH Other	PLANNED OUTAGE	1	26.10
OH Other	PLANNED OUTAGE	1	260.15
OH Other	PLANNED OUTAGE	8	470.13
OH Other	PLANNED OUTAGE	4	1,323.53

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	1,321.02
URD Outage	PLANNED OUTAGE	3	551.20
URD Outage	PLANNED OUTAGE	1	173.70
OH Other	PLANNED OUTAGE	2	344.73
OH Other	PLANNED OUTAGE	9	1,652.10
URD Outage	PLANNED OUTAGE	23	2,042.02
URD Outage	PLANNED OUTAGE	1	179.63
UG Other	PLANNED OUTAGE	3	1,772.05
URD Outage	PLANNED OUTAGE	1	144.73
URD Outage	PLANNED OUTAGE	107	829.25
URD Outage	PLANNED OUTAGE	1	574.08
OH Other	PLANNED OUTAGE	104	4,636.67
OH Other	PLANNED OUTAGE	1	412.27
OH Other	PLANNED OUTAGE	2	317.27
OH Other	PLANNED OUTAGE	11	2,626.25
PLF	PLANNED OUTAGE	7	1,979.48
Circuit Out	PLANNED OUTAGE	2,606	19,805.60
UG Other	PLANNED OUTAGE	14	138.37
PLF	PLANNED OUTAGE	2	789.20
PLF	PLANNED OUTAGE	1	72.87
OH Other	PLANNED OUTAGE	9	1,748.25
OH Other	PLANNED OUTAGE	7	1,359.63
OH Other	PLANNED OUTAGE	7	2,063.13
OH Other	PLANNED OUTAGE	4	1,586.60
OH Other	PLANNED OUTAGE	4	1,586.27
OH Other	PLANNED OUTAGE	8	3,112.67
OH Other	PLANNED OUTAGE	3	1,247.95
Circuit Out	PLANNED OUTAGE	416	2,690.13
URD Outage	PLANNED OUTAGE	1	309.67
OH Other	PLANNED OUTAGE	1	187.38
Circuit Out	PLANNED OUTAGE	188	360.33
URD Outage	PLANNED OUTAGE	17	2,303.50
OH Other	PLANNED OUTAGE	1	84.73
OH Other	PLANNED OUTAGE	35	5,335.17
OH Other	PLANNED OUTAGE	120	12,856.00
Circuit Out	PLANNED OUTAGE	416	17,624.53
OH Other	PLANNED OUTAGE	2	75.53
OH Other	PLANNED OUTAGE	7	671.77
OH Other	PLANNED OUTAGE	5	476.33
OH Other	PLANNED OUTAGE	5	843.42
OH Other	PLANNED OUTAGE	5	2,048.33
OH Other	PLANNED OUTAGE	14	9,134.77
OH Other	PLANNED OUTAGE	4	2,607.40
OH Other	PLANNED OUTAGE	1	107.48
OH Other	PLANNED OUTAGE	7	2,108.17
OH Other	PLANNED OUTAGE	1	70.02

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	83.73
OH Other	PLANNED OUTAGE	6	842.00
OH Other	PLANNED OUTAGE	2	127.10
OH Other	PLANNED OUTAGE	6	363.40
OH Other	PLANNED OUTAGE	5	797.25
Service - Crew	PLANNED OUTAGE	1	218.38
OH Other	PLANNED OUTAGE	7	624.40
OH Other	PLANNED OUTAGE	45	10,229.25
OH Other	PLANNED OUTAGE	1	186.32
OH Other	PLANNED OUTAGE	6	830.20
OH Other	PLANNED OUTAGE	1	47.50
PLF	PLANNED OUTAGE	18	1,641.30
Step Restoration	PLANNED OUTAGE	18	2,088.00
OH Other	PLANNED OUTAGE	7	419.18
OH Other	PLANNED OUTAGE	6	1,704.50
OH Other	PLANNED OUTAGE	11	3,500.02
OH Other	PLANNED OUTAGE	5	470.75
OH Other	PLANNED OUTAGE	11	2,095.50
URD Outage	PLANNED OUTAGE	23	330.43
OH Other	PLANNED OUTAGE	8	1,953.33
OH Other	PLANNED OUTAGE	2	738.17
OH Other	PLANNED OUTAGE	1	112.77
OH Other	PLANNED OUTAGE	8	581.33
URD Outage	PLANNED OUTAGE	1	14.25
OH Other	PLANNED OUTAGE	1	128.23
OH Other	PLANNED OUTAGE	10	1,752.67
OH Other	PLANNED OUTAGE	2	114.23
OH Other	PLANNED OUTAGE	21	834.40
OH Other	PLANNED OUTAGE	6	121.10
OH Other	PLANNED OUTAGE	6	614.60
OH Other	PLANNED OUTAGE	1	70.40
OH Other	PLANNED OUTAGE	1	99.50
OH Other	PLANNED OUTAGE	1	432.32
OH Other	PLANNED OUTAGE	1	106.58
OH Other	PLANNED OUTAGE	7	1,207.50
UG Other	PLANNED OUTAGE	1	149.17
OH Other	PLANNED OUTAGE	32	9,150.93
OH Other	PLANNED OUTAGE	6	1,866.60
OH Other	PLANNED OUTAGE	2	165.13
OH Other	PLANNED OUTAGE	9	316.35
OH Other	PLANNED OUTAGE	7	531.30
PLF	PLANNED OUTAGE	8	2,239.60
PLF	PLANNED OUTAGE	7	278.60
OH Other	PLANNED OUTAGE	4	108.80
OH Other	PLANNED OUTAGE	34	826.20
Circuit Out	PLANNED OUTAGE	1,515	37,269.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	4	291.13
OH Other	PLANNED OUTAGE	11	2,882.37
Circuit Out	PLANNED OUTAGE	573	13,541.90
Circuit Out	PLANNED OUTAGE	1,984	21,790.93
OH Other	PLANNED OUTAGE	7	519.63
URD Outage	PLANNED OUTAGE	4	273.33
OH Other	PLANNED OUTAGE	821	4,200.78
URD Outage	PLANNED OUTAGE	62	6,588.53
OH Other	PLANNED OUTAGE	3	585.05
URD Outage	PLANNED OUTAGE	1	285.10
OH Other	PLANNED OUTAGE	20	2,218.33
UG Other	PLANNED OUTAGE	11	854.33
OH Other	PLANNED OUTAGE	1	75.83
OH Other	PLANNED OUTAGE	4	724.00
OH Other	PLANNED OUTAGE	8	539.73
URD Outage	PLANNED OUTAGE	1	299.82
Circuit Out	PLANNED OUTAGE	661	37,346.50
Step Restoration	PLANNED OUTAGE	286	64,426.27
Step Restoration	PLANNED OUTAGE	492	47,822.40
Step Restoration	PLANNED OUTAGE	88	19,047.60
Step Restoration	PLANNED OUTAGE	90	19,480.50
OCR, Sec.	PLANNED OUTAGE	161	1,548.28
UG Other	PLANNED OUTAGE	3	797.90
OH Other	PLANNED OUTAGE	2	557.13
URD Outage	PLANNED OUTAGE	57	6,365.95
OH Other	PLANNED OUTAGE	6	1,749.90
OH Other	PLANNED OUTAGE	4	514.47
OH Other	PLANNED OUTAGE	2	412.43
OH Other	PLANNED OUTAGE	8	1,448.80
OH Other	PLANNED OUTAGE	8	648.53
URD Outage	PLANNED OUTAGE	8	212.93
Step Restoration	PLANNED OUTAGE	5	1,759.17
OH Other	PLANNED OUTAGE	5	1,874.33
OH Other	PLANNED OUTAGE	2	328.97
OH Other	PLANNED OUTAGE	4	883.00
OH Other	PLANNED OUTAGE	9	915.90
OH Other	PLANNED OUTAGE	6	1,102.00
URD Outage	PLANNED OUTAGE	5	1,071.83
OH Other	PLANNED OUTAGE	14	4,594.57
OH Other	PLANNED OUTAGE	4	601.00
OH Other	PLANNED OUTAGE	5	173.75
OH Other	PLANNED OUTAGE	12	1,401.20
OH Other	PLANNED OUTAGE	26	19.07
OH Other	PLANNED OUTAGE	6	1,072.70
OH Other	PLANNED OUTAGE	6	1,073.20
URD Outage	PLANNED OUTAGE	57	5,870.05

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	26	1,959.97
OH Other	PLANNED OUTAGE	32	685.87
URD Outage	PLANNED OUTAGE	2	24.57
URD Outage	PLANNED OUTAGE	2	100.67
URD Cable Cut	PLANNED OUTAGE	1	101.28
URD Outage	PLANNED OUTAGE	1	146.97
URD Outage	PLANNED OUTAGE	1	256.98
URD Outage	PLANNED OUTAGE	1	276.12
OH Other	PLANNED OUTAGE	18	8,294.40
OH Other	PLANNED OUTAGE	24	10,448.00
OH Other	PLANNED OUTAGE	12	974.80
OH Other	PLANNED OUTAGE	5	159.50
OH Other	PLANNED OUTAGE	2	259.40
OH Other	PLANNED OUTAGE	17	6,440.73
URD Outage	PLANNED OUTAGE	6	1,497.60
OH Other	PLANNED OUTAGE	6	2,825.00
OH Other	PLANNED OUTAGE	1	223.03
OH Other	PLANNED OUTAGE	16	5,866.40
OH Other	PLANNED OUTAGE	4	1,456.27
OH Other	PLANNED OUTAGE	3	1,092.25
URD Outage	PLANNED OUTAGE	1	64.67
OH Other	PLANNED OUTAGE	7	2,254.12
OH Other	PLANNED OUTAGE	5	3,268.08
OH Other	PLANNED OUTAGE	8	2,502.67
OH Other	PLANNED OUTAGE	9	1,479.90
OH Other	PLANNED OUTAGE	6	1,025.70
URD Outage	PLANNED OUTAGE	2	637.40
OH Other	PLANNED OUTAGE	4	201.67
OH Other	PLANNED OUTAGE	2	239.50
OH Other	PLANNED OUTAGE	3	268.45
OH Other	PLANNED OUTAGE	12	2,392.80
OH Other	PLANNED OUTAGE	8	161.20
OH Other	PLANNED OUTAGE	1	101.13
OH Other	PLANNED OUTAGE	4	600.27
UG Other	PLANNED OUTAGE	25	5,625.00
OH Other	PLANNED OUTAGE	3	91.10
URD Outage	PLANNED OUTAGE	1	52.43
OH Other	PLANNED OUTAGE	6	1,447.30
OH Other	PLANNED OUTAGE	5	1,844.83
OH Other	PLANNED OUTAGE	4	1,026.33
OH Other	PLANNED OUTAGE	1	135.12
OH Other	PLANNED OUTAGE	1	97.55
URD Outage	PLANNED OUTAGE	1	47.40
OH Other	PLANNED OUTAGE	3	470.30
OH Other	PLANNED OUTAGE	6	921.40
OH Other	PLANNED OUTAGE	8	973.20

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	8	1,881.47
OH Other	PLANNED OUTAGE	3	231.40
OH Other	PLANNED OUTAGE	1	267.93
OH Other	PLANNED OUTAGE	6	1,480.30
OH Other	PLANNED OUTAGE	20	7,167.67
OH Other	PLANNED OUTAGE	7	1,690.38
URD Outage	PLANNED OUTAGE	13	1,387.32
TX Replaced (OH)	PLANNED OUTAGE	1	198.10
OH Other	PLANNED OUTAGE	14	1,192.57
Circuit Out	PLANNED OUTAGE	317	1,035.53
OH Other	PLANNED OUTAGE	7	1,388.57
Circuit Out	PLANNED OUTAGE	1,127	12,340.65
OH Other	PLANNED OUTAGE	8	2,478.93
URD Outage	PLANNED OUTAGE	6	1,244.30
OH Other	PLANNED OUTAGE	1	232.00
URD Outage	PLANNED OUTAGE	7	506.22
Step Restoration	PLANNED OUTAGE	21	3,111.15
OH Other	PLANNED OUTAGE	6	2,232.50
URD Outage	PLANNED OUTAGE	1	194.65
OH Other	PLANNED OUTAGE	9	3,155.70
Circuit Out	PLANNED OUTAGE	893	32,445.67
OH Other	PLANNED OUTAGE	3	1,558.50
OH Other	PLANNED OUTAGE	6	1,228.30
OH Other	PLANNED OUTAGE	6	363.70
OH Other	PLANNED OUTAGE	16	3,341.60
OH Other	PLANNED OUTAGE	2	723.23
OH Other	PLANNED OUTAGE	1	99.65
OH Other	PLANNED OUTAGE	7	2,275.12
OH Other	PLANNED OUTAGE	2	295.67
OH Other	PLANNED OUTAGE	7	361.90
OH Other	PLANNED OUTAGE	9	916.80
Circuit Out	PLANNED OUTAGE	379	827.48
OH Other	PLANNED OUTAGE	11	5,238.57
OH Other	PLANNED OUTAGE	13	1,586.00
OH Other	PLANNED OUTAGE	9	3,872.70
OH Other	PLANNED OUTAGE	4	860.20
OH Other	PLANNED OUTAGE	7	1,718.03
OH Other	PLANNED OUTAGE	3	268.15
URD Outage	PLANNED OUTAGE	1	29.07
OH Other	PLANNED OUTAGE	5	283.42
OH Other	PLANNED OUTAGE	15	628.00
OH Other	PLANNED OUTAGE	2	211.03
URD Outage	PLANNED OUTAGE	1	74.20
OH Other	PLANNED OUTAGE	13	798.42
OH Other	PLANNED OUTAGE	2	336.53
OH Other	PLANNED OUTAGE	1	197.33

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	4	348.07
OH Other	PLANNED OUTAGE	8	3,917.60
URD Outage	PLANNED OUTAGE	1	369.93
OH Other	PLANNED OUTAGE	7	3,323.95
OH Other	PLANNED OUTAGE	4	1,640.13
OH Other	PLANNED OUTAGE	4	1,019.87
OH Other	PLANNED OUTAGE	11	335.32
OH Other	PLANNED OUTAGE	4	1,514.93
OH Other	PLANNED OUTAGE	9	3,407.25
URD Outage	PLANNED OUTAGE	1	18.52
OH Other	PLANNED OUTAGE	5	1,876.42
URD Outage	PLANNED OUTAGE	31	4,316.75
OH Other	PLANNED OUTAGE	10	252.33
OH Other	PLANNED OUTAGE	1	533.22
URD Outage	PLANNED OUTAGE	1	143.05
OH Other	PLANNED OUTAGE	8	1,549.47
OH Other	PLANNED OUTAGE	6	561.30
OH Other	PLANNED OUTAGE	11	2,657.23
OH Other	PLANNED OUTAGE	9	4,640.85
URD Outage	PLANNED OUTAGE	8	587.07
OH Other	PLANNED OUTAGE	1	86.05
OH Other	PLANNED OUTAGE	12	2,945.00
OH Other	PLANNED OUTAGE	10	172.33
OH Other	PLANNED OUTAGE	8	1,025.20
URD Outage	PLANNED OUTAGE	17	700.68
OH Other	PLANNED OUTAGE	1	75.02
URD Outage	PLANNED OUTAGE	1	98.98
OH Other	PLANNED OUTAGE	5	1,834.08
URD Outage	PLANNED OUTAGE	15	5,568.25
URD Outage	PLANNED OUTAGE	9	423.30
URD Outage	PLANNED OUTAGE	6	290.40
URD Outage	PLANNED OUTAGE	2	553.63
OH Other	PLANNED OUTAGE	1	123.85
OH Other	PLANNED OUTAGE	14	289.80
OH Other	PLANNED OUTAGE	6	2,142.60
URD Outage	PLANNED OUTAGE	2	519.37
URD Outage	PLANNED OUTAGE	5	265.67
OH Other	PLANNED OUTAGE	10	849.17
OH Other	PLANNED OUTAGE	5	1,715.83
OH Other	PLANNED OUTAGE	5	391.75
OH Other	PLANNED OUTAGE	23	5,359.77
OH Other	PLANNED OUTAGE	11	1,352.82
OH Other	PLANNED OUTAGE	8	168.27
OH Other	PLANNED OUTAGE	3	51.45
URD Outage	PLANNED OUTAGE	18	796.80
URD Outage	PLANNED OUTAGE	1	191.27

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	485.50
OH Other	PLANNED OUTAGE	1	68.43
URD Outage	PLANNED OUTAGE	8	350.40
OH Other	PLANNED OUTAGE	4	445.40
URD Outage	PLANNED OUTAGE	3	688.45
OH Other	PLANNED OUTAGE	7	2,837.80
OH Other	PLANNED OUTAGE	3	514.10
OH Other	PLANNED OUTAGE	8	4,107.47
OH Other	PLANNED OUTAGE	4	196.67
OH Other	PLANNED OUTAGE	4	44.00
OH Other	PLANNED OUTAGE	1	63.18
OH Other	PLANNED OUTAGE	2	36.97
OH Other	PLANNED OUTAGE	8	2,646.93
OH Other	PLANNED OUTAGE	3	2.45
OH Other	PLANNED OUTAGE	2	32.90
OH Other	PLANNED OUTAGE	8	285.73
OH Other	PLANNED OUTAGE	16	2,083.47
Circuit Out	PLANNED OUTAGE	427	3,828.77
OH Other	PLANNED OUTAGE	4	151.73
Circuit Out	PLANNED OUTAGE	1,026	10,225.80
Step Restoration	PLANNED OUTAGE	1	40.70
OH Other	PLANNED OUTAGE	8	1,088.27
OH Other	PLANNED OUTAGE	6	815.60
OH Other	PLANNED OUTAGE	1	135.92
OH Other	PLANNED OUTAGE	6	271.20
OH Other	PLANNED OUTAGE	1	54.73
OH Other	PLANNED OUTAGE	47	551.47
OH Other	PLANNED OUTAGE	3	86.05
OH Other	PLANNED OUTAGE	3	157.45
OH Other	PLANNED OUTAGE	11	4,670.23
OH Other	PLANNED OUTAGE	14	522.20
Cross Arm	PLANNED OUTAGE	119	40,672.22
OH Other	PLANNED OUTAGE	1	135.87
OH Other	PLANNED OUTAGE	10	3,004.17
OH Other	PLANNED OUTAGE	12	2,927.60
OH Other	PLANNED OUTAGE	9	2,639.40
OH Other	PLANNED OUTAGE	3	118.45
OH Other	PLANNED OUTAGE	2	71.47
OH Other	PLANNED OUTAGE	4	1,777.27
OH Other	PLANNED OUTAGE	12	2,142.00
OH Other	PLANNED OUTAGE	4	1,230.47
OH Other	PLANNED OUTAGE	9	2,770.95
OH Other	PLANNED OUTAGE	9	2,769.90
URD Outage	PLANNED OUTAGE	1	478.68
OH Other	PLANNED OUTAGE	8	2,456.53
UG Other	PLANNED OUTAGE	1	227.92



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	10	1,502.33
OH Other	PLANNED OUTAGE	6	2,115.80
URD Outage	PLANNED OUTAGE	9	86.40
URD Outage	PLANNED OUTAGE	15	1,143.00
OH Other	PLANNED OUTAGE	14	1,088.97
OH Other	PLANNED OUTAGE	5	670.17
OH Other	PLANNED OUTAGE	3	44.55
OH Other	PLANNED OUTAGE	6	207.90
URD Outage	PLANNED OUTAGE	6	172.50
OH Other	PLANNED OUTAGE	8	2,264.40
OH Other	PLANNED OUTAGE	10	1,793.33
OH Other	PLANNED OUTAGE	8	1,800.13
OH Other	PLANNED OUTAGE	1	148.90
OH Other	PLANNED OUTAGE	34	517.37
OH Other	PLANNED OUTAGE	9	683.55
OH Other	PLANNED OUTAGE	1	271.03
OH Other	PLANNED OUTAGE	8	467.47
OH Other	PLANNED OUTAGE	8	464.53
URD Outage	PLANNED OUTAGE	6	451.20
OH Other	PLANNED OUTAGE	14	1,994.30
URD Outage	PLANNED OUTAGE	5	510.08
UG Other	PLANNED OUTAGE	1	33.58
OH Other	PLANNED OUTAGE	10	59.67
Circuit Out	PLANNED OUTAGE	1,156	6,242.40
OH Other	PLANNED OUTAGE	5	24.42
URD Outage	PLANNED OUTAGE	6	379.40
URD Outage	PLANNED OUTAGE	7	312.43
OH Other	PLANNED OUTAGE	1	258.47
URD Outage	PLANNED OUTAGE	11	297.37
URD Outage	PLANNED OUTAGE	6	265.30
URD Outage	PLANNED OUTAGE	7	276.27
OH Other	PLANNED OUTAGE	4	744.53
OH Other	PLANNED OUTAGE	5	394.33
OH Other	PLANNED OUTAGE	16	2,836.53
OH Other	PLANNED OUTAGE	6	986.40
URD Outage	PLANNED OUTAGE	5	745.83
OH Other	PLANNED OUTAGE	8	1,682.40
OCR, Sec.	PLANNED OUTAGE	944	27,848.00
URD Outage	PLANNED OUTAGE	6	523.20
OH Other	PLANNED OUTAGE	8	1,753.60
URD Outage	PLANNED OUTAGE	10	723.00
URD Outage	PLANNED OUTAGE	1	164.05
OH Other	PLANNED OUTAGE	10	2,709.33
URD Outage	PLANNED OUTAGE	38	4,146.43
URD Outage	PLANNED OUTAGE	4	368.47
URD Outage	PLANNED OUTAGE	9	683.70

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	8	479.20
OH Other	PLANNED OUTAGE	7	3,400.48
OH Other	PLANNED OUTAGE	3	705.90
PLF	PLANNED OUTAGE	17	1,043.52
OH Other	PLANNED OUTAGE	2	92.63
OH Other	PLANNED OUTAGE	10	359.17
OH Other	PLANNED OUTAGE	4	785.73
OH Other	PLANNED OUTAGE	3	780.05
OH Other	PLANNED OUTAGE	14	1,009.17
PLF	PLANNED OUTAGE	26	996.23
URD Outage	PLANNED OUTAGE	6	438.80
OCR, Sec.	PLANNED OUTAGE	656	29,181.07
OH Other	PLANNED OUTAGE	8	548.40
Circuit Out	PLANNED OUTAGE	785	10,440.50
Circuit Out	PLANNED OUTAGE	1,756	16,740.53
OH Other	PLANNED OUTAGE	1,190	5,236.00
PLF	PLANNED OUTAGE	1	501.85
Circuit Out	PLANNED OUTAGE	1,034	1,637.17
OH Other	PLANNED OUTAGE	15	2,196.75
OH Other	PLANNED OUTAGE	11	368.68
OH Other	PLANNED OUTAGE	13	3,711.72
OH Other	PLANNED OUTAGE	23	6,215.75
OH Other	PLANNED OUTAGE	1	114.03
OH Other	PLANNED OUTAGE	1	22.68
OH Other	PLANNED OUTAGE	3	1,076.35
OH Other	PLANNED OUTAGE	8	3,211.07
OH Other	PLANNED OUTAGE	31	9,745.37
OH Other	PLANNED OUTAGE	3	730.60
OH Other	PLANNED OUTAGE	2	28.43
OH Other	PLANNED OUTAGE	6	284.10
OH Other	PLANNED OUTAGE	6	1,618.10
Service - Crew	PLANNED OUTAGE	1	220.17
OCR, Sec.	PLANNED OUTAGE	357	23,954.70
Service - Crew	PLANNED OUTAGE	1	170.37
Circuit Out	PLANNED OUTAGE	1,243	6,940.08
OH Other	PLANNED OUTAGE	1	42.83
OH Other	PLANNED OUTAGE	6	657.60
UG Other	PLANNED OUTAGE	1	34.80
OH Other	PLANNED OUTAGE	5	394.83
OH Other	PLANNED OUTAGE	10	759.83
OH Other	PLANNED OUTAGE	6	195.00
OH Other	PLANNED OUTAGE	2	496.70
OH Other	PLANNED OUTAGE	1	248.05
OH Other	PLANNED OUTAGE	5	1,100.42
OH Other	PLANNED OUTAGE	5	1,100.33
OH Other	PLANNED OUTAGE	10	1,857.67

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	8	1,485.87
OH Other	PLANNED OUTAGE	10	1,410.50
OH Other	PLANNED OUTAGE	7	1,512.93
OH Other	PLANNED OUTAGE	5	301.33
URD Outage	PLANNED OUTAGE	1	452.15
OH Other	PLANNED OUTAGE	1	364.48
OH Other	PLANNED OUTAGE	16	5,815.47
URD Outage	PLANNED OUTAGE	4	2,246.73
URD Outage	PLANNED OUTAGE	15	2,362.00
OH Other	PLANNED OUTAGE	1	281.52
OCR, Sec.	PLANNED OUTAGE	12	2,222.00
OH Other	PLANNED OUTAGE	10	1,201.67
UG Other	PLANNED OUTAGE	1	63.58
OH Other	PLANNED OUTAGE	1	211.32
UG Other	PLANNED OUTAGE	1	87.07
UG Other	PLANNED OUTAGE	7	641.90
UG Other	PLANNED OUTAGE	6	887.80
UG Other	PLANNED OUTAGE	6	887.80
OH Other	PLANNED OUTAGE	14	5,229.70
OH Other	PLANNED OUTAGE	16	5,332.53
OH Other	PLANNED OUTAGE	3	982.85
UG Other	PLANNED OUTAGE	8	720.67
Oil Switch	PLANNED OUTAGE	1	303.95
URD Outage	PLANNED OUTAGE	6	2,379.10
URD Outage	PLANNED OUTAGE	4	169.87
URD Outage	PLANNED OUTAGE	4	402.33
OH Other	PLANNED OUTAGE	11	1,467.58
OH Other	PLANNED OUTAGE	1	147.58
OH Other	PLANNED OUTAGE	1	33.57
Circuit Out	PLANNED OUTAGE	183	1,711.05
OH Other	PLANNED OUTAGE	2	46.30
OH Other	PLANNED OUTAGE	10	4,380.83
OH Other	PLANNED OUTAGE	9	3,161.55
OH Other	PLANNED OUTAGE	6	2,107.70
OH Other	PLANNED OUTAGE	38	14,125.23
URD Outage	PLANNED OUTAGE	5	261.00
OH Other	PLANNED OUTAGE	7	2,029.53
URD Outage	PLANNED OUTAGE	10	624.00
OH Other	PLANNED OUTAGE	7	1,439.55
OH Other	PLANNED OUTAGE	30	1,537.50
URD Outage	PLANNED OUTAGE	1	114.22
OH Other	PLANNED OUTAGE	82	36,552.87
URD Outage	PLANNED OUTAGE	6	1,878.60
PLF	PLANNED OUTAGE	2	244.63
PLF	PLANNED OUTAGE	1	67.62
PLF	PLANNED OUTAGE	8	992.40

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	2	533.83
OH Other	PLANNED OUTAGE	5	1,259.75
OH Other	PLANNED OUTAGE	9	1,724.40
OH Other	PLANNED OUTAGE	3	177.85
OH Other	PLANNED OUTAGE	1	94.18
OH Other	PLANNED OUTAGE	2	267.53
OH Other	PLANNED OUTAGE	10	1,020.83
URD Outage	PLANNED OUTAGE	2	140.97
URD Outage	PLANNED OUTAGE	1	155.82
OH Other	PLANNED OUTAGE	14	923.30
OH Other	PLANNED OUTAGE	10	3,046.33
OH Other	PLANNED OUTAGE	13	4,675.02
OH Other	PLANNED OUTAGE	14	2,495.97
URD Outage	PLANNED OUTAGE	8	369.33
OH Other	PLANNED OUTAGE	2	684.63
URD Outage	PLANNED OUTAGE	11	1,166.73
URD Outage	PLANNED OUTAGE	11	534.42
Service - Crew	PLANNED OUTAGE	1	439.23
URD Outage	PLANNED OUTAGE	16	1,832.80
URD Outage	PLANNED OUTAGE	2	30.80
OH Other	PLANNED OUTAGE	10	1,227.67
OH Other	PLANNED OUTAGE	4	458.33
URD Outage	PLANNED OUTAGE	23	1,683.22
URD Outage	PLANNED OUTAGE	235	17,080.58
URD Outage	PLANNED OUTAGE	50	5,960.00
OH Other	PLANNED OUTAGE	13	5,542.12
OH Other	PLANNED OUTAGE	4	1,694.00
UG Other	PLANNED OUTAGE	1	479.33
OH Other	PLANNED OUTAGE	11	1,860.83
OH Other	PLANNED OUTAGE	1	100.42
UG Other	PLANNED OUTAGE	1	108.18
URD Outage	PLANNED OUTAGE	12	1,321.40
OH Other	PLANNED OUTAGE	5	841.08
OH Other	PLANNED OUTAGE	10	337.83
OH Other	PLANNED OUTAGE	15	6,032.50
UG Other	PLANNED OUTAGE	10	479.17
OH Other	PLANNED OUTAGE	6	682.90
OH Other	PLANNED OUTAGE	13	5,876.00
OH Other	PLANNED OUTAGE	12	5,412.40
OH Other	PLANNED OUTAGE	10	302.17
OH Other	PLANNED OUTAGE	1	26.82
OH Other	PLANNED OUTAGE	18	3,437.70
OH Other	PLANNED OUTAGE	15	2,741.00
OH Other	PLANNED OUTAGE	5	178.33
OH Other	PLANNED OUTAGE	8	1,067.33
OH Other	PLANNED OUTAGE	1	328.02

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
UG Other	PLANNED OUTAGE	1	112.67
OH Other	PLANNED OUTAGE	8	2,451.73
PLF	PLANNED OUTAGE	53	11,593.75
UG Other	PLANNED OUTAGE	15	744.50
UG Other	PLANNED OUTAGE	6	447.20
OH Other	PLANNED OUTAGE	2	447.70
OH Other	PLANNED OUTAGE	9	1,694.85
URD Outage	PLANNED OUTAGE	8	6,037.33
URD Outage	PLANNED OUTAGE	5	49.58
URD Outage	PLANNED OUTAGE	8	1,016.27
URD Outage	PLANNED OUTAGE	3	34.60
OH Other	PLANNED OUTAGE	14	6,076.70
URD Outage	PLANNED OUTAGE	6	187.50
OH Other	PLANNED OUTAGE	2	220.97
OH Other	PLANNED OUTAGE	21	183.40
URD Outage	PLANNED OUTAGE	13	4,094.57
Service - Crew	PLANNED OUTAGE	1	168.03
OH Other	PLANNED OUTAGE	2	406.60
OH Other	PLANNED OUTAGE	10	3,511.00
OH Other	PLANNED OUTAGE	20	6,877.67
OH Other	PLANNED OUTAGE	2	568.67
URD Outage	PLANNED OUTAGE	12	693.20
OH Other	PLANNED OUTAGE	8	4,499.47
URD Outage	PLANNED OUTAGE	2	62.80
OH Other	PLANNED OUTAGE	1	119.03
OH Other	PLANNED OUTAGE	1	30.13
Circuit Out	PLANNED OUTAGE	726	3,581.60
URD Outage	PLANNED OUTAGE	1	235.98
UG Other	PLANNED OUTAGE	3	357.25
UG Other	PLANNED OUTAGE	4	772.80
Circuit Out	PLANNED OUTAGE	1,253	11,652.90
Circuit Out	PLANNED OUTAGE	1,194	10,726.10
PLF	PLANNED OUTAGE	11	55.18
OH Other	PLANNED OUTAGE	11	572.18
OH Other	PLANNED OUTAGE	4	647.13
PLF	PLANNED OUTAGE	48	6,341.60
Step Restoration	PLANNED OUTAGE	1	132.12
URD Outage	PLANNED OUTAGE	10	4,169.33
OH Other	PLANNED OUTAGE	11	5,841.92
OH Other	PLANNED OUTAGE	2	79.67
OH Other	PLANNED OUTAGE	4	1,768.20
OH Other	PLANNED OUTAGE	11	4,270.93
OH Other	PLANNED OUTAGE	1	321.80
OCR, Sec.	PLANNED OUTAGE	856	3,095.87
Circuit Out	PLANNED OUTAGE	1,373	21,327.27
URD Outage	PLANNED OUTAGE	1	0.22

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	1,749	14,021.15
OH Other	PLANNED OUTAGE	3	1,492.20
OH Other	PLANNED OUTAGE	11	2,484.17
OH Other	PLANNED OUTAGE	7	575.87
OH Other	PLANNED OUTAGE	9	1,122.45
URD Outage	PLANNED OUTAGE	2	185.93
OH Other	PLANNED OUTAGE	6	2,419.30
OH Other	PLANNED OUTAGE	11	5,718.90
OH Other	PLANNED OUTAGE	4	2,028.80
URD Outage	PLANNED OUTAGE	2	206.43
OH Other	PLANNED OUTAGE	5	1,423.42
PLF	PLANNED OUTAGE	76	13,948.53
OH Other	PLANNED OUTAGE	7	3,087.58
OH Other	PLANNED OUTAGE	10	2,334.17
OH Other	PLANNED OUTAGE	2	344.40
UG Other	PLANNED OUTAGE	1	71.60
OH Other	PLANNED OUTAGE	2	293.97
OH Other	PLANNED OUTAGE	2	230.57
URD Outage	PLANNED OUTAGE	1	561.13
OH Other	PLANNED OUTAGE	8	2,676.00
OH Other	PLANNED OUTAGE	3	960.00
Circuit Out	PLANNED OUTAGE	1,031	15,843.03
OH Other	PLANNED OUTAGE	2	473.13
OH Other	PLANNED OUTAGE	3	178.45
OH Other	PLANNED OUTAGE	1	90.52
OH Other	PLANNED OUTAGE	1	44.27
OH Other	PLANNED OUTAGE	2	399.00
OH Other	PLANNED OUTAGE	6	1,184.10
OH Other	PLANNED OUTAGE	1	140.22
URD Outage	PLANNED OUTAGE	5	252.75
Step Restoration	PLANNED OUTAGE	7	1,005.67
OH Other	PLANNED OUTAGE	1	332.72
OH Other	PLANNED OUTAGE	1	333.80
URD Outage	PLANNED OUTAGE	1	7.95
OH Other	PLANNED OUTAGE	3	309.45
OH Other	PLANNED OUTAGE	10	1,515.00
URD Outage	PLANNED OUTAGE	12	832.40
OH Other	PLANNED OUTAGE	1	45.70
UG Other	PLANNED OUTAGE	1	315.67
OH Other	PLANNED OUTAGE	1	59.57
URD Outage	PLANNED OUTAGE	4	534.07
OH Other	PLANNED OUTAGE	21	7,979.65
URD Outage	PLANNED OUTAGE	15	560.25
OH Other	PLANNED OUTAGE	2	1,000.43
OH Other	PLANNED OUTAGE	10	3,674.33
URD Outage	PLANNED OUTAGE	33	4,818.55

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	9	3,935.70
OH Other	PLANNED OUTAGE	3	300.85
PLF	PLANNED OUTAGE	6	140.70
UG Other	PLANNED OUTAGE	34	797.30
OH Other	PLANNED OUTAGE	11	986.52
PLF	PLANNED OUTAGE	27	205.20
OH Other	PLANNED OUTAGE	10	3,777.50
UG Other	PLANNED OUTAGE	10	504.00
OH Other	PLANNED OUTAGE	7	2,580.43
OH Other	PLANNED OUTAGE	4	1,155.67
OH Other	PLANNED OUTAGE	1	104.13
OH Other	PLANNED OUTAGE	2	301.00
UG Other	PLANNED OUTAGE	15	7,770.00
Connections	PLANNED OUTAGE	1	68.65
OH Other	PLANNED OUTAGE	1	43.13
OH Other	PLANNED OUTAGE	1	27.17
OH Other	PLANNED OUTAGE	5	211.67
URD Outage	PLANNED OUTAGE	15	3,171.50
OH Other	PLANNED OUTAGE	18	3,360.30
UG Other	PLANNED OUTAGE	8	476.27
OH Other	PLANNED OUTAGE	5	371.17
PLF	PLANNED OUTAGE	2	735.87
PLF	PLANNED OUTAGE	2	735.70
Circuit Out	PLANNED OUTAGE	679	1,335.37
OH Other	PLANNED OUTAGE	2	51.87
URD Outage	PLANNED OUTAGE	5	286.67
OH Other	PLANNED OUTAGE	7	2,583.70
OH Other	PLANNED OUTAGE	6	636.90
OH Other	PLANNED OUTAGE	8	1,983.33
URD Outage	PLANNED OUTAGE	2	296.83
OH Other	PLANNED OUTAGE	7	1,833.07
OH Other	PLANNED OUTAGE	6	1,744.10
URD Outage	PLANNED OUTAGE	3	410.65
OH Other	PLANNED OUTAGE	1	491.68
URD Outage	PLANNED OUTAGE	2	46.20
URD Outage	PLANNED OUTAGE	4	225.73
OH Other	PLANNED OUTAGE	2	648.33
OH Other	PLANNED OUTAGE	6	2,289.20
OH Other	PLANNED OUTAGE	1	83.15
URD Outage	PLANNED OUTAGE	1	54.10
OH Other	PLANNED OUTAGE	13	1,760.20
OH Other	PLANNED OUTAGE	1	126.77
OH Other	PLANNED OUTAGE	9	303.30
OH Other	PLANNED OUTAGE	7	2,916.20
OH Other	PLANNED OUTAGE	7	2,905.47
OH Other	PLANNED OUTAGE	9	3,726.30

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	9	3,674.70
OH Other	PLANNED OUTAGE	4	1,651.13
OH Other	PLANNED OUTAGE	21	4,404.05
OH Other	PLANNED OUTAGE	1	207.80
OH Other	PLANNED OUTAGE	5	674.75
OH Other	PLANNED OUTAGE	2	67.50
URD Outage	PLANNED OUTAGE	1	186.75
OH Other	PLANNED OUTAGE	5	813.50
OH Other	PLANNED OUTAGE	8	1,299.60
OH Other	PLANNED OUTAGE	5	554.08
OH Other	PLANNED OUTAGE	2	414.93
URD Outage	PLANNED OUTAGE	5	344.17
URD Outage	PLANNED OUTAGE	1	60.20
URD Outage	PLANNED OUTAGE	1	26.72
PLF	PLANNED OUTAGE	238	6,029.33
URD Outage	PLANNED OUTAGE	6	580.50
URD Outage	PLANNED OUTAGE	10	1,631.33
OH Other	PLANNED OUTAGE	11	995.50
URD Outage	PLANNED OUTAGE	16	313.33
OH Other	PLANNED OUTAGE	21	491.40
OH Other	PLANNED OUTAGE	5	538.42
OH Other	PLANNED OUTAGE	213	65,806.35
OH Other	PLANNED OUTAGE	2	1,218.77
OH Other	PLANNED OUTAGE	1	145.73
OH Other	PLANNED OUTAGE	4	584.13
OH Other	PLANNED OUTAGE	4	583.53
OH Other	PLANNED OUTAGE	7	1,481.20
OH Other	PLANNED OUTAGE	6	43.40
OH Other	PLANNED OUTAGE	5	285.83
OH Other	PLANNED OUTAGE	6	2,125.20
OH Other	PLANNED OUTAGE	1	29.65
OH Other	PLANNED OUTAGE	1	377.85
OH Other	PLANNED OUTAGE	58	20,407.30
URD Outage	PLANNED OUTAGE	7	455.93
OH Other	PLANNED OUTAGE	17	3,969.50
URD Outage	PLANNED OUTAGE	121	173.43
OH Other	PLANNED OUTAGE	4	2,930.73
URD Outage	PLANNED OUTAGE	7	487.55
URD Outage	PLANNED OUTAGE	12	2,762.80
OH Other	PLANNED OUTAGE	2	75.03
OH Other	PLANNED OUTAGE	8	262.40
OH Other	PLANNED OUTAGE	22	4,589.57
URD Outage	PLANNED OUTAGE	3	672.60
OH Other	PLANNED OUTAGE	1	521.20
OH Other	PLANNED OUTAGE	1	228.30
OH Other	PLANNED OUTAGE	6	1,366.90



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	6	157.30
OH Other	PLANNED OUTAGE	13	1,609.18
URD Outage	PLANNED OUTAGE	8	561.87
OH Other	PLANNED OUTAGE	4	893.13
URD Outage	PLANNED OUTAGE	5	275.17
OH Other	PLANNED OUTAGE	11	1,954.15
OH Other	PLANNED OUTAGE	2	22.43
OH Other	PLANNED OUTAGE	2	283.67
OH Other	PLANNED OUTAGE	10	470.50
OH Other	PLANNED OUTAGE	12	565.60
URD Outage	PLANNED OUTAGE	2	170.50
OH Other	PLANNED OUTAGE	7	1,708.93
OH Other	PLANNED OUTAGE	1	89.08
OH Other	PLANNED OUTAGE	1	89.25
OH Other	PLANNED OUTAGE	1	87.92
OH Other	PLANNED OUTAGE	1	88.88
OH Other	PLANNED OUTAGE	1	87.68
OH Other	PLANNED OUTAGE	1	172.80
OH Other	PLANNED OUTAGE	3	233.75
OH Other	PLANNED OUTAGE	13	1,218.10
URD Outage	PLANNED OUTAGE	4	226.93
OH Other	PLANNED OUTAGE	7	952.70
OH Other	PLANNED OUTAGE	7	240.45
URD Outage	PLANNED OUTAGE	1	423.98
OH Other	PLANNED OUTAGE	5	593.75
URD Outage	PLANNED OUTAGE	14	749.00
URD Outage	PLANNED OUTAGE	3	116.95
OH Other	PLANNED OUTAGE	4	492.07
OH Other	PLANNED OUTAGE	12	443.60
URD Outage	PLANNED OUTAGE	1	400.23
OH Other	PLANNED OUTAGE	9	356.40
UG Other	PLANNED OUTAGE	16	1,065.60
OH Other	PLANNED OUTAGE	6	2,567.40
PLF	PLANNED OUTAGE	1	209.83
UG Other	PLANNED OUTAGE	4	195.20
UG Other	PLANNED OUTAGE	33	3,200.45
UG Other	PLANNED OUTAGE	4	203.27
PLF	PLANNED OUTAGE	5	222.58
PLF	PLANNED OUTAGE	5	222.58
OH Other	PLANNED OUTAGE	5	747.25
OH Other	PLANNED OUTAGE	3	1,005.90
OH Other	PLANNED OUTAGE	4	591.53
PLF	PLANNED OUTAGE	16	3,511.73
PLF	PLANNED OUTAGE	1	350.18
OH Other	PLANNED OUTAGE	1	64.10
OH Other	PLANNED OUTAGE	7	1,671.48

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	3	535.10
OH Other	PLANNED OUTAGE	5	220.50
OH Other	PLANNED OUTAGE	11	3,750.08
OH Other	PLANNED OUTAGE	5	242.92
OH Other	PLANNED OUTAGE	12	1,152.00
OH Other	PLANNED OUTAGE	14	1,992.90
URD Outage	PLANNED OUTAGE	1	128.67
URD Outage	PLANNED OUTAGE	3	1,001.25
OH Other	PLANNED OUTAGE	14	3,846.03
OH Other	PLANNED OUTAGE	6	747.00
URD Outage	PLANNED OUTAGE	6	123.40
OH Other	PLANNED OUTAGE	8	1,957.33
OH Other	PLANNED OUTAGE	6	1,339.50
URD Outage	PLANNED OUTAGE	10	820.17
URD Outage	PLANNED OUTAGE	14	1,340.73
OH Other	PLANNED OUTAGE	16	2,162.13
OH Other	PLANNED OUTAGE	1	14.33
OH Other	PLANNED OUTAGE	1	259.77
URD Outage	PLANNED OUTAGE	1	35.95
OH Other	PLANNED OUTAGE	8	4,002.93
OH Other	PLANNED OUTAGE	1	438.05
URD Outage	PLANNED OUTAGE	1	31.88
URD Outage	PLANNED OUTAGE	4	345.53
OH Other	PLANNED OUTAGE	1	265.78
OH Other	PLANNED OUTAGE	9	362.85
OH Other	PLANNED OUTAGE	1	168.95
OH Other	PLANNED OUTAGE	1	29.37
OH Other	PLANNED OUTAGE	6	88.90
OH Other	PLANNED OUTAGE	5	1,955.50
OH Other	PLANNED OUTAGE	1	49.83
OH Other	PLANNED OUTAGE	1	38.87
URD Outage	PLANNED OUTAGE	1	206.05
URD Outage	PLANNED OUTAGE	8	414.40
OH Other	PLANNED OUTAGE	1	128.60
URD Outage	PLANNED OUTAGE	1	121.88
OH Other	PLANNED OUTAGE	1	581.40
OH Other	PLANNED OUTAGE	11	155.65
OH Other	PLANNED OUTAGE	91	890.28
URD Outage	PLANNED OUTAGE	1	31.97
URD Outage	PLANNED OUTAGE	8	325.33
OH Other	PLANNED OUTAGE	8	484.67
URD Outage	PLANNED OUTAGE	2	63.63
URD Outage	PLANNED OUTAGE	2	336.70
OH Other	PLANNED OUTAGE	5	1,751.83
URD Outage	PLANNED OUTAGE	1	61.00
OH Other	PLANNED OUTAGE	10	946.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	12	470.60
URD Outage	PLANNED OUTAGE	32	1,763.20
Step Restoration	PLANNED OUTAGE	6	530.50
Step Restoration	PLANNED OUTAGE	6	530.50
OH Other	PLANNED OUTAGE	8	2,414.67
OH Other	PLANNED OUTAGE	14	4,075.63
OH Other	PLANNED OUTAGE	7	89.72
OH Other	PLANNED OUTAGE	5	263.25
OH Other	PLANNED OUTAGE	3	579.25
OH Other	PLANNED OUTAGE	12	4,298.40
OH Other	PLANNED OUTAGE	8	2,868.40
OCR, Sec.	PLANNED OUTAGE	295	442.50
URD Outage	PLANNED OUTAGE	8	308.13
URD Outage	PLANNED OUTAGE	9	569.40
OH Other	PLANNED OUTAGE	83	3,230.08
OH Other	PLANNED OUTAGE	10	2,439.33
OH Other	PLANNED OUTAGE	1	159.63
PLF	PLANNED OUTAGE	21	1,558.55
OH Other	PLANNED OUTAGE	1	156.38
OH Other	PLANNED OUTAGE	5	2,022.83
OH Other	PLANNED OUTAGE	1	454.07
OH Other	PLANNED OUTAGE	1	204.48
OH Other	PLANNED OUTAGE	6	1,786.40
OH Other	PLANNED OUTAGE	6	498.00
Circuit Out	PLANNED OUTAGE	456	950.00
OH Other	PLANNED OUTAGE	5	663.08
OH Other	PLANNED OUTAGE	8	250.53
OH Other	PLANNED OUTAGE	3	86.65
OH Other	PLANNED OUTAGE	14	3,000.67
OH Other	PLANNED OUTAGE	5	1,204.42
URD Outage	PLANNED OUTAGE	11	769.27
URD Outage	PLANNED OUTAGE	11	769.27
URD Outage	PLANNED OUTAGE	32	2,237.87
OH Other	PLANNED OUTAGE	10	735.50
URD Outage	PLANNED OUTAGE	1	179.35
URD Outage	PLANNED OUTAGE	71	7,402.93
OH Other	PLANNED OUTAGE	5	1,215.33
OH Other	PLANNED OUTAGE	6	2,672.70
OH Other	PLANNED OUTAGE	1	531.45
OH Other	PLANNED OUTAGE	1	531.22
OH Other	PLANNED OUTAGE	12	696.20
URD Outage	PLANNED OUTAGE	11	749.10
OH Other	PLANNED OUTAGE	10	3,247.00
URD Outage	PLANNED OUTAGE	1	307.27
UG Other	PLANNED OUTAGE	1	43.82
UG Other	PLANNED OUTAGE	5	285.42

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	11	3,082.38
OH Other	PLANNED OUTAGE	7	175.58
OH Other	PLANNED OUTAGE	5	966.67
OH Other	PLANNED OUTAGE	3	729.85
PLF	PLANNED OUTAGE	4	589.00
UG Other	PLANNED OUTAGE	5	308.83
OH Other	PLANNED OUTAGE	4	511.27
OH Other	PLANNED OUTAGE	3	134.95
OH Other	PLANNED OUTAGE	10	4,053.00
OH Other	PLANNED OUTAGE	3	1,125.60
UG Other	PLANNED OUTAGE	10	457.67
OH Other	PLANNED OUTAGE	5	1,767.33
PLF	PLANNED OUTAGE	5	1,296.33
OH Other	PLANNED OUTAGE	1	201.97
PLF	PLANNED OUTAGE	24	3,388.80
OH Other	PLANNED OUTAGE	6	658.30
UG Other	PLANNED OUTAGE	37	3,420.65
OH Other	PLANNED OUTAGE	5	555.00
OH Other	PLANNED OUTAGE	4	62.20
OH Other	PLANNED OUTAGE	9	730.80
UG Other	PLANNED OUTAGE	15	8,450.75
OH Other	PLANNED OUTAGE	172	74,521.87
OH Other	PLANNED OUTAGE	29	11,950.42
OH Other	PLANNED OUTAGE	29	11,950.42
OH Other	PLANNED OUTAGE	12	2,830.00
OH Other	PLANNED OUTAGE	5	1,710.67
UG Other	PLANNED OUTAGE	3	87.25
OH Other	PLANNED OUTAGE	16	3,886.93
OH Other	PLANNED OUTAGE	3	231.85
OH Other	PLANNED OUTAGE	1	471.03
UG Other	PLANNED OUTAGE	107	20,169.50
OH Other	PLANNED OUTAGE	22	4,680.50
OH Other	PLANNED OUTAGE	4	125.67
OH Other	PLANNED OUTAGE	1	29.75
OH Other	PLANNED OUTAGE	1	198.75
OH Other	PLANNED OUTAGE	4	794.80
PLF	PLANNED OUTAGE	9	1,428.90
Circuit Out	PLANNED OUTAGE	609	1,573.25
OH Other	PLANNED OUTAGE	1	456.75
PLF	PLANNED OUTAGE	7	418.37
OH Other	PLANNED OUTAGE	17	4,820.07
OH Other	PLANNED OUTAGE	1	359.28
URD Cable Cut	PLANNED OUTAGE	10	596.17
OH Other	PLANNED OUTAGE	7	1,763.77
URD Outage	PLANNED OUTAGE	7	294.70
OH Other	PLANNED OUTAGE	2	170.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	2	423.10
URD Outage	PLANNED OUTAGE	1	343.88
OH Other	PLANNED OUTAGE	2	195.60
URD Outage	PLANNED OUTAGE	5	185.50
OH Other	PLANNED OUTAGE	1	136.98
URD Outage	PLANNED OUTAGE	21	1,310.40
URD Outage	PLANNED OUTAGE	65	6,228.08
OH Other	PLANNED OUTAGE	10	276.83
OH Other	PLANNED OUTAGE	1	182.65
OH Other	PLANNED OUTAGE	1	182.47
OH Other	PLANNED OUTAGE	8	4,368.40
OH Other	PLANNED OUTAGE	15	2,994.00
OH Other	PLANNED OUTAGE	1	449.97
OH Other	PLANNED OUTAGE	10	1,759.83
OH Other	PLANNED OUTAGE	8	1,424.80
OH Other	PLANNED OUTAGE	6	1,973.70
OH Other	PLANNED OUTAGE	2	657.83
OH Other	PLANNED OUTAGE	7	421.75
OH Other	PLANNED OUTAGE	8	373.20
URD Outage	PLANNED OUTAGE	10	389.00
OH Other	PLANNED OUTAGE	5	360.25
OH Other	PLANNED OUTAGE	1	305.12
OH Other	PLANNED OUTAGE	35	10,522.17
OH Other	PLANNED OUTAGE	4	1,137.67
OH Other	PLANNED OUTAGE	1	29.60
URD Outage	PLANNED OUTAGE	5	264.00
OH Other	PLANNED OUTAGE	3	503.85
TX Repaired (OH)	PLANNED OUTAGE	1	167.08
OH Other	PLANNED OUTAGE	23	8,647.23
OH Other	PLANNED OUTAGE	6	1,016.60
OH Other	PLANNED OUTAGE	3	802.25
OH Other	PLANNED OUTAGE	4	145.80
OH Other	PLANNED OUTAGE	5	903.25
PLF	PLANNED OUTAGE	29	1,812.02
OH Other	PLANNED OUTAGE	13	6,735.73
TX Repaired (OH)	PLANNED OUTAGE	2	757.53
TX Repaired (OH)	PLANNED OUTAGE	1	72.72
TX Repaired (OH)	PLANNED OUTAGE	16	4,441.87
OH Other	PLANNED OUTAGE	13	6,525.13
OH Other	PLANNED OUTAGE	13	3,298.53
UG Other	PLANNED OUTAGE	2	230.07
OH Other	PLANNED OUTAGE	47	7,869.37
OH Other	PLANNED OUTAGE	16	5,029.33
Circuit Out	PLANNED OUTAGE	1,120	7,914.67
UG Other	PLANNED OUTAGE	25	1,547.08
PLF	PLANNED OUTAGE	8	1,216.67

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	1,920.68
Invalid	PLANNED OUTAGE	13	381.55
OH Other	PLANNED OUTAGE	5	361.25
URD Outage	PLANNED OUTAGE	6	384.40
OH Other	PLANNED OUTAGE	2	3.23
OH Other	PLANNED OUTAGE	1	1,327.82
OH Other	PLANNED OUTAGE	3	494.40
OH Other	PLANNED OUTAGE	3	1,121.00
OH Other	PLANNED OUTAGE	3	1,120.70
OH Other	PLANNED OUTAGE	1	75.63
UG Other	PLANNED OUTAGE	9	593.70
UG Other	PLANNED OUTAGE	24	2,461.60
PLF	PLANNED OUTAGE	49	18,494.23
OH Other	PLANNED OUTAGE	2	92.97
OH Other	PLANNED OUTAGE	5	408.75
OH Other	PLANNED OUTAGE	5	792.58
OH Other	PLANNED OUTAGE	2	303.93
OH Other	PLANNED OUTAGE	3	192.50
OH Other	PLANNED OUTAGE	8	1,262.13
OH Other	PLANNED OUTAGE	6	1,648.60
OH Other	PLANNED OUTAGE	1	37.93
URD Outage	PLANNED OUTAGE	1	311.43
OH Other	PLANNED OUTAGE	14	766.73
URD Outage	PLANNED OUTAGE	9	923.70
URD Outage	PLANNED OUTAGE	9	923.10
URD Outage	PLANNED OUTAGE	14	770.23
URD Outage	PLANNED OUTAGE	5	557.75
URD Outage	PLANNED OUTAGE	4	446.20
OH Other	PLANNED OUTAGE	1	78.28
PLF	PLANNED OUTAGE	1	363.12
URD Outage	PLANNED OUTAGE	8	7,928.40
OH Other	PLANNED OUTAGE	5	1,188.00
UG Other	PLANNED OUTAGE	8	493.87
Circuit Out	PLANNED OUTAGE	1,869	5,575.85
OCR, Sec.	PLANNED OUTAGE	322	7,218.17
PLF	PLANNED OUTAGE	3	498.55
PLF	PLANNED OUTAGE	5	306.50
UG Other	PLANNED OUTAGE	1	152.67
Circuit Out	PLANNED OUTAGE	206	1,321.83
OH Other	PLANNED OUTAGE	1	51.10
OH Other	PLANNED OUTAGE	1	78.48
OH Other	PLANNED OUTAGE	6	300.60
UG Other	PLANNED OUTAGE	2	400.00
OH Other	PLANNED OUTAGE	5	1,557.83
UG Other	PLANNED OUTAGE	35	1,895.83
OH Other	PLANNED OUTAGE	1	123.88

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	11	229.17
Circuit Out	PLANNED OUTAGE	1,733	17,994.32
OH Other	PLANNED OUTAGE	2	314.00
PLF	PLANNED OUTAGE	5	131.92
OH Other	PLANNED OUTAGE	10	617.83
UG Other	PLANNED OUTAGE	6	318.90
UG Other	PLANNED OUTAGE	7	783.30
UG Other	PLANNED OUTAGE	3	490.75
PLF	PLANNED OUTAGE	2	403.67
OH Other	PLANNED OUTAGE	4	1,125.67
TX Repaired (OH)	PLANNED OUTAGE	10	1,175.67
PLF	PLANNED OUTAGE	38	3,844.33
PLF	PLANNED OUTAGE	3	1,273.10
TX Repaired (OH)	PLANNED OUTAGE	7	760.55
TX Repaired (OH)	PLANNED OUTAGE	7	918.05
OH Other	PLANNED OUTAGE	8	243.73
OH Other	PLANNED OUTAGE	2	40.43
OH Other	PLANNED OUTAGE	3	552.20
OH Other	PLANNED OUTAGE	32	2,439.47
OH Other	PLANNED OUTAGE	11	838.20
URD Outage	PLANNED OUTAGE	9	611.40
OH Other	PLANNED OUTAGE	87	5,882.65
OH Other	PLANNED OUTAGE	3	356.85
URD Outage	PLANNED OUTAGE	10	1,565.00
OH Other	PLANNED OUTAGE	6	486.70
OH Other	PLANNED OUTAGE	7	1,041.37
OH Other	PLANNED OUTAGE	7	1,981.58
URD Outage	PLANNED OUTAGE	4	161.87
OH Other	PLANNED OUTAGE	2	759.10
OH Other	PLANNED OUTAGE	1	71.42
OH Other	PLANNED OUTAGE	8	735.73
OH Other	PLANNED OUTAGE	29	9,421.13
OH Other	PLANNED OUTAGE	23	11,197.93
Circuit Out	PLANNED OUTAGE	1,279	2,238.25
OH Other	PLANNED OUTAGE	1	190.08
OH Other	PLANNED OUTAGE	10	2,578.17
URD Outage	PLANNED OUTAGE	4	169.33
OH Other	PLANNED OUTAGE	9	2,224.50
OH Other	PLANNED OUTAGE	18	9,595.80
OH Other	PLANNED OUTAGE	3	1,534.25
TX Replaced (PM)	PLANNED OUTAGE	7	438.78
OH Other	PLANNED OUTAGE	40	1,988.00
UG Other	PLANNED OUTAGE	17	1,082.05
UG Other	PLANNED OUTAGE	12	918.40
OH Other	PLANNED OUTAGE	1	50.58
OH Other	PLANNED OUTAGE	8	1,340.93

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	29.68
OH Other	PLANNED OUTAGE	1	222.62
PLF	PLANNED OUTAGE	3	147.10
OH Other	PLANNED OUTAGE	10	1,962.67
OH Other	PLANNED OUTAGE	5	439.17
UG Other	PLANNED OUTAGE	9	791.85
OH Other	PLANNED OUTAGE	1	53.18
OCR, Sec.	PLANNED OUTAGE	11	326.52
UG Other	PLANNED OUTAGE	2	39.57
UG Other	PLANNED OUTAGE	16	1,021.33
PLF	PLANNED OUTAGE	4	396.80
UG Other	PLANNED OUTAGE	9	1,232.70
URD Outage	PLANNED OUTAGE	14	881.30
URD Outage	PLANNED OUTAGE	10	873.50
UG Other	PLANNED OUTAGE	3	519.80
URD Outage	PLANNED OUTAGE	11	1,183.97
PLF	PLANNED OUTAGE	30	1,807.00
OH Other	PLANNED OUTAGE	9	617.40
OH Other	PLANNED OUTAGE	9	618.30
OH Other	PLANNED OUTAGE	5	1,637.58
UG Other	PLANNED OUTAGE	8	1,073.33
UG Other	PLANNED OUTAGE	5	670.83
PLF	PLANNED OUTAGE	6	410.00
OH Other	PLANNED OUTAGE	4	1,144.87
Circuit Out	PLANNED OUTAGE	350	9,076.67
UG Other	PLANNED OUTAGE	4	274.13
OH Other	PLANNED OUTAGE	5	1,374.92
OH Other	PLANNED OUTAGE	5	2,060.50
OH Other	PLANNED OUTAGE	1	112.27
OH Other	PLANNED OUTAGE	1	390.28
PLF	PLANNED OUTAGE	1	483.97
OH Other	PLANNED OUTAGE	58	708.57
URD Outage	PLANNED OUTAGE	8	388.53
URD Outage	PLANNED OUTAGE	15	3,429.75
OH Other	PLANNED OUTAGE	2	558.20
URD Outage	PLANNED OUTAGE	27	3,307.95
OH Other	PLANNED OUTAGE	2	558.30
URD Outage	PLANNED OUTAGE	10	1,094.33
OH Other	PLANNED OUTAGE	7	1,608.72
URD Outage	PLANNED OUTAGE	17	5,545.40
URD Outage	PLANNED OUTAGE	4	87.60
URD Outage	PLANNED OUTAGE	7	397.02
OH Other	PLANNED OUTAGE	8	253.33
OH Other	PLANNED OUTAGE	13	896.35
OH Other	PLANNED OUTAGE	10	1,035.33
Circuit Out	PLANNED OUTAGE	671	2,795.83



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	2	569.40
URD Outage	PLANNED OUTAGE	13	1,441.70
URD Outage	PLANNED OUTAGE	2	203.97
OH Other	PLANNED OUTAGE	6	705.60
URD Outage	PLANNED OUTAGE	14	733.83
OH Other	PLANNED OUTAGE	2	963.57
OH Other	PLANNED OUTAGE	1	70.53
OH Other	PLANNED OUTAGE	2	878.60
OH Other	PLANNED OUTAGE	2	31.47
URD Outage	PLANNED OUTAGE	19	983.25
OH Other	PLANNED OUTAGE	1	57.35
URD Outage	PLANNED OUTAGE	13	259.78
OH Other	PLANNED OUTAGE	23	1,166.48
URD Outage	PLANNED OUTAGE	25	6,620.42
OH Other	PLANNED OUTAGE	6	3,395.00
OH Other	PLANNED OUTAGE	1	49.60
URD Outage	PLANNED OUTAGE	8	280.27
URD Outage	PLANNED OUTAGE	1	348.12
Step Restoration	PLANNED OUTAGE	476	59,269.93
Circuit Out	PLANNED OUTAGE	9	733.50
OH Other	PLANNED OUTAGE	1	11.42
OH Other	PLANNED OUTAGE	10	3,063.67
OH Other	PLANNED OUTAGE	9	577.35
OH Other	PLANNED OUTAGE	6	482.60
URD Outage	PLANNED OUTAGE	9	1,016.70
URD Outage	PLANNED OUTAGE	6	468.70
OH Other	PLANNED OUTAGE	14	3,424.87
UG Other	PLANNED OUTAGE	11	1,767.70
URD Outage	PLANNED OUTAGE	3	171.00
OH Other	PLANNED OUTAGE	1	170.73
OH Other	PLANNED OUTAGE	6	1,242.80
URD Outage	PLANNED OUTAGE	7	500.73
OH Other	PLANNED OUTAGE	1	50.62
URD Outage	PLANNED OUTAGE	18	3,135.90
OH Other	PLANNED OUTAGE	1	357.90
URD Outage	PLANNED OUTAGE	8	436.13
OH Other	PLANNED OUTAGE	5	138.92
URD Outage	PLANNED OUTAGE	2	251.37
OH Other	PLANNED OUTAGE	13	4,385.98
OH Other	PLANNED OUTAGE	2	561.73
OH Other	PLANNED OUTAGE	1	25.47
OH Other	PLANNED OUTAGE	16	2,760.00
OH Other	PLANNED OUTAGE	8	1,377.20
OH Other	PLANNED OUTAGE	8	353.20
OH Other	PLANNED OUTAGE	3	48.95
OH Other	PLANNED OUTAGE	1	379.07

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	6	2,336.10
OH Other	PLANNED OUTAGE	1	11.87
URD Outage	PLANNED OUTAGE	17	586.78
OCR, Sec.	PLANNED OUTAGE	92	708.40
URD Outage	PLANNED OUTAGE	1	90.23
Circuit Out	PLANNED OUTAGE	3,200	23,840.00
URD Outage	PLANNED OUTAGE	1	122.37
OH Other	PLANNED OUTAGE	11	3,321.08
OH Other	PLANNED OUTAGE	9	2,271.90
OH Other	PLANNED OUTAGE	8	1,548.67
OH Other	PLANNED OUTAGE	13	3,678.57
Connections	PLANNED OUTAGE	1	67.70
OH Other	PLANNED OUTAGE	8	1,316.13
OH Other	PLANNED OUTAGE	1	284.57
OH Other	PLANNED OUTAGE	2	321.57
OH Other	PLANNED OUTAGE	5	504.92
OH Other	PLANNED OUTAGE	15	369.50
URD Outage	PLANNED OUTAGE	15	232.75
URD Outage	PLANNED OUTAGE	1	99.05
OH Other	PLANNED OUTAGE	4	1,565.07
OH Other	PLANNED OUTAGE	2	730.07
OH Other	PLANNED OUTAGE	117	918.45
OH Other	PLANNED OUTAGE	2	432.57
OH Other	PLANNED OUTAGE	2	430.37
OH Other	PLANNED OUTAGE	4	121.33
OH Other	PLANNED OUTAGE	8	1,343.07
OH Other	PLANNED OUTAGE	7	3,206.35
URD Outage	PLANNED OUTAGE	25	13,051.25
OH Other	PLANNED OUTAGE	10	2,137.83
URD Outage	PLANNED OUTAGE	40	1,332.00
UG Other	PLANNED OUTAGE	1	101.65
OH Other	PLANNED OUTAGE	5	24.92
OH Other	PLANNED OUTAGE	8	1,441.60
OH Other	PLANNED OUTAGE	4	877.93
OH Other	PLANNED OUTAGE	3	622.80
OH Other	PLANNED OUTAGE	1	267.95
OH Other	PLANNED OUTAGE	6	2,632.50
OH Other	PLANNED OUTAGE	36	8,079.00
OH Other	PLANNED OUTAGE	1	421.73
Circuit Out	PLANNED OUTAGE	1,459	46,663.68
OCR, Sec.	PLANNED OUTAGE	465	9,129.50
OH Other	PLANNED OUTAGE	1	15.87
OH Other	PLANNED OUTAGE	3	489.60
Circuit Out	PLANNED OUTAGE	1,363	4,429.75
OH Other	PLANNED OUTAGE	3	519.30
OH Other	PLANNED OUTAGE	10	925.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	11	1,605.63
OH Other	PLANNED OUTAGE	1	123.98
OH Other	PLANNED OUTAGE	8	3,009.20
OH Other	PLANNED OUTAGE	6	2,321.90
OH Other	PLANNED OUTAGE	6	272.40
OH Other	PLANNED OUTAGE	2	484.27
URD Outage	PLANNED OUTAGE	2	424.77
OH Other	PLANNED OUTAGE	1	52.23
OH Other	PLANNED OUTAGE	10	1,491.67
URD Outage	PLANNED OUTAGE	544	29,493.87
OH Other	PLANNED OUTAGE	1	71.30
OH Other	PLANNED OUTAGE	1	175.78
URD Outage	PLANNED OUTAGE	1	23.15
OH Other	PLANNED OUTAGE	6	2,408.70
OH Other	PLANNED OUTAGE	1	45.70
OH Other	PLANNED OUTAGE	11	3,239.50
OH Other	PLANNED OUTAGE	2	125.20
OH Other	PLANNED OUTAGE	2	292.27
OH Other	PLANNED OUTAGE	7	694.17
URD Outage	PLANNED OUTAGE	1	117.28
URD Outage	PLANNED OUTAGE	1	63.30
OH Other	PLANNED OUTAGE	13	334.53
OH Other	PLANNED OUTAGE	6	851.60
OH Other	PLANNED OUTAGE	3	1,419.35
OH Other	PLANNED OUTAGE	1	142.33
URD Outage	PLANNED OUTAGE	17	1,140.98
OH Other	PLANNED OUTAGE	3	143.20
PLF	PLANNED OUTAGE	14	457.57
OH Other	PLANNED OUTAGE	8	256.67
URD Outage	PLANNED OUTAGE	1	132.70
URD Outage	PLANNED OUTAGE	1	109.47
OH Other	PLANNED OUTAGE	10	1,237.33
OH Other	PLANNED OUTAGE	4	997.13
OH Other	PLANNED OUTAGE	10	2,314.50
OH Other	PLANNED OUTAGE	9	796.95
OH Other	PLANNED OUTAGE	7	2,627.68
OH Other	PLANNED OUTAGE	6	2,090.30
URD Outage	PLANNED OUTAGE	1	13.53
OH Other	PLANNED OUTAGE	12	4,269.40
OH Other	PLANNED OUTAGE	11	2,893.55
URD Outage	PLANNED OUTAGE	16	4,138.67
OH Other	PLANNED OUTAGE	9	1,642.05
OH Other	PLANNED OUTAGE	8	1,410.40
URD Outage	PLANNED OUTAGE	15	3,185.25
OH Other	PLANNED OUTAGE	5	2,056.17
URD Outage	PLANNED OUTAGE	67	12,656.30

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Step Restoration	PLANNED OUTAGE	45	8,500.50
OH Other	PLANNED OUTAGE	11	2,035.92
OH Other	PLANNED OUTAGE	2	782.77
Service - Crew	PLANNED OUTAGE	1	249.53
OH Other	PLANNED OUTAGE	7	2,744.70
OH Other	PLANNED OUTAGE	1	200.22
URD Outage	PLANNED OUTAGE	7	219.80
OH Other	PLANNED OUTAGE	9	456.75
OH Other	PLANNED OUTAGE	9	4,691.25
OH Other	PLANNED OUTAGE	8	1,870.93
URD Outage	PLANNED OUTAGE	209	10,655.52
URD Outage	PLANNED OUTAGE	25	972.08
URD Outage	PLANNED OUTAGE	4	724.27
OH Other	PLANNED OUTAGE	1	29.07
OH Other	PLANNED OUTAGE	4	1,249.93
URD Outage	PLANNED OUTAGE	5	307.50
URD Outage	PLANNED OUTAGE	2	813.30
OH Other	PLANNED OUTAGE	16	6,443.47
OH Other	PLANNED OUTAGE	7	931.47
OH Other	PLANNED OUTAGE	5	1,719.08
OH Other	PLANNED OUTAGE	4	153.93
OH Other	PLANNED OUTAGE	11	1,714.35
OH Other	PLANNED OUTAGE	7	1,775.32
OH Other	PLANNED OUTAGE	1	253.58
OH Other	PLANNED OUTAGE	5	1,009.92
OH Other	PLANNED OUTAGE	1	284.37
URD Outage	PLANNED OUTAGE	12	745.20
UG Other	PLANNED OUTAGE	12	16,292.00
OH Other	PLANNED OUTAGE	9	2,961.60
OH Other	PLANNED OUTAGE	4	777.47
OH Other	PLANNED OUTAGE	5	2,691.92
OH Other	PLANNED OUTAGE	7	1,674.05
URD Outage	PLANNED OUTAGE	1	233.85
URD Outage	PLANNED OUTAGE	7	457.33
OH Other	PLANNED OUTAGE	16	3,132.27
OH Other	PLANNED OUTAGE	2	656.83
OH Other	PLANNED OUTAGE	16	4,296.00
OH Other	PLANNED OUTAGE	5	1,635.25
OH Other	PLANNED OUTAGE	4	672.93
Service - Crew	PLANNED OUTAGE	1	146.37
Circuit Out	PLANNED OUTAGE	1,499	5,021.65
Connections	PLANNED OUTAGE	23	837.97
OH Other	PLANNED OUTAGE	3	820.70
OH Other	PLANNED OUTAGE	11	592.90
OH Other	PLANNED OUTAGE	10	1,653.33
OH Other	PLANNED OUTAGE	5	651.92

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	10	452.50
OH Other	PLANNED OUTAGE	1	67.02
OH Other	PLANNED OUTAGE	12	215.20
URD Outage	PLANNED OUTAGE	1	133.78
URD Outage	PLANNED OUTAGE	39	4,723.55
URD Outage	PLANNED OUTAGE	1	147.17
OH Other	PLANNED OUTAGE	16	660.80
OH Other	PLANNED OUTAGE	3	45.95
Connections	PLANNED OUTAGE	1	105.28
OH Other	PLANNED OUTAGE	1	28.07
Connections	PLANNED OUTAGE	1	86.10
URD Outage	PLANNED OUTAGE	1	357.60
Circuit Out	PLANNED OUTAGE	2,355	24,649.00
OH Other	PLANNED OUTAGE	15	6,071.25
Oil Switch	PLANNED OUTAGE	4	1,047.60
Oil Switch	PLANNED OUTAGE	6	1,947.40
Circuit Out	PLANNED OUTAGE	1,118	8,571.33
PLF	PLANNED OUTAGE	161	1,406.07
OH Other	PLANNED OUTAGE	9	811.65
OH Other	PLANNED OUTAGE	5	505.75
OH Other	PLANNED OUTAGE	12	3,244.40
OH Other	PLANNED OUTAGE	8	660.80
OH Other	PLANNED OUTAGE	17	1,314.10
OH Other	PLANNED OUTAGE	1	48.68
OH Other	PLANNED OUTAGE	5	681.25
OH Other	PLANNED OUTAGE	2	656.53
OH Other	PLANNED OUTAGE	2	316.63
URD Outage	PLANNED OUTAGE	1	103.62
OH Other	PLANNED OUTAGE	2	501.43
OH Other	PLANNED OUTAGE	11	679.62
Circuit Out	PLANNED OUTAGE	229	5,202.12
OH Other	PLANNED OUTAGE	3	625.50
OCR, Sec.	PLANNED OUTAGE	362	12,875.13
OCR, Sec.	PLANNED OUTAGE	716	3,782.87
URD Outage	PLANNED OUTAGE	22	914.47
OH Other	PLANNED OUTAGE	2	572.10
OCR, Sec.	PLANNED OUTAGE	254	18,609.73
OH Other	PLANNED OUTAGE	2	299.17
OH Other	PLANNED OUTAGE	3	321.75
OH Other	PLANNED OUTAGE	2	249.20
URD Outage	PLANNED OUTAGE	1	311.27
OH Other	PLANNED OUTAGE	4	1,560.53
OH Other	PLANNED OUTAGE	10	2,423.67
OH Other	PLANNED OUTAGE	6	1,189.00
OH Other	PLANNED OUTAGE	6	946.00
OH Other	PLANNED OUTAGE	2	252.53

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	8	1,458.40
PLF	PLANNED OUTAGE	1	258.65
URD Outage	PLANNED OUTAGE	1	243.05
UG Other	PLANNED OUTAGE	9	1,727.85
OH Other	PLANNED OUTAGE	3	901.55
URD Outage	PLANNED OUTAGE	7	253.98
OH Other	PLANNED OUTAGE	7	2,283.98
OH Other	PLANNED OUTAGE	12	432.00
URD Outage	PLANNED OUTAGE	2	119.93
OH Other	PLANNED OUTAGE	3	509.40
OH Other	PLANNED OUTAGE	15	479.75
OH Other	PLANNED OUTAGE	5	293.75
URD Outage	PLANNED OUTAGE	6	707.30
OH Other	PLANNED OUTAGE	8	1,238.80
OH Other	PLANNED OUTAGE	78	1,151.80
OH Other	PLANNED OUTAGE	6	2,775.10
URD Outage	PLANNED OUTAGE	1	24.83
OH Other	PLANNED OUTAGE	16	6,989.07
OH Other	PLANNED OUTAGE	9	1,484.25
OH Other	PLANNED OUTAGE	3	590.85
URD Outage	PLANNED OUTAGE	15	1,486.25
URD Outage	PLANNED OUTAGE	7	522.43
URD Outage	PLANNED OUTAGE	1	258.35
OH Other	PLANNED OUTAGE	1	93.45
URD Outage	PLANNED OUTAGE	4	1,058.13
URD Outage	PLANNED OUTAGE	21	5,624.50
URD Outage	PLANNED OUTAGE	1	87.92
OH Other	PLANNED OUTAGE	1	55.20
OH Other	PLANNED OUTAGE	8	2,946.93
OH Other	PLANNED OUTAGE	11	3,512.85
OH Other	PLANNED OUTAGE	9	339.90
OH Other	PLANNED OUTAGE	11	1,068.83
OH Other	PLANNED OUTAGE	9	1,048.50
OH Other	PLANNED OUTAGE	3	308.60
OH Other	PLANNED OUTAGE	9	2,244.60
OH Other	PLANNED OUTAGE	4	1,310.60
OH Other	PLANNED OUTAGE	7	3,075.80
URD Outage	PLANNED OUTAGE	1	237.48
OH Other	PLANNED OUTAGE	10	251.33
OH Other	PLANNED OUTAGE	8	731.73
OH Other	PLANNED OUTAGE	3	519.45
OH Other	PLANNED OUTAGE	17	3,500.02
OH Other	PLANNED OUTAGE	9	1,059.45
OH Other	PLANNED OUTAGE	9	1,680.75
OH Other	PLANNED OUTAGE	6	1,118.80
OH Other	PLANNED OUTAGE	2	403.50

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	9	834.00
OH Other	PLANNED OUTAGE	6	794.40
URD Outage	PLANNED OUTAGE	1	1,016.77
OH Other	PLANNED OUTAGE	10	2,287.67
OH Other	PLANNED OUTAGE	1	116.07
OH Other	PLANNED OUTAGE	11	3,677.12
UG Other	PLANNED OUTAGE	1	131.13
URD Outage	PLANNED OUTAGE	1	57.12
OH Other	PLANNED OUTAGE	2	492.37
OH Other	PLANNED OUTAGE	6	2,287.50
URD Outage	PLANNED OUTAGE	11	732.78
URD Outage	PLANNED OUTAGE	1	62.13
URD Outage	PLANNED OUTAGE	2	839.77
URD Outage	PLANNED OUTAGE	2	328.23
OH Other	PLANNED OUTAGE	11	3,678.77
URD Outage	PLANNED OUTAGE	1	374.65
OH Other	PLANNED OUTAGE	1	241.02
OH Other	PLANNED OUTAGE	5	718.42
OH Other	PLANNED OUTAGE	9	1,287.75
OH Other	PLANNED OUTAGE	11	1,571.90
OH Other	PLANNED OUTAGE	46	7,663.60
OH Other	PLANNED OUTAGE	12	2,004.60
OH Other	PLANNED OUTAGE	18	2,314.50
OH Other	PLANNED OUTAGE	6	527.10
OH Other	PLANNED OUTAGE	14	193.67
OH Other	PLANNED OUTAGE	1	55.38
OH Other	PLANNED OUTAGE	11	1,468.87
OH Other	PLANNED OUTAGE	1	119.10
OH Other	PLANNED OUTAGE	8	2,519.20
OH Other	PLANNED OUTAGE	2	379.53
OH Other	PLANNED OUTAGE	4	848.33
OH Other	PLANNED OUTAGE	4	1,182.40
URD Outage	PLANNED OUTAGE	7	660.92
URD Outage	PLANNED OUTAGE	8	478.13
OH Other	PLANNED OUTAGE	12	749.60
OH Other	PLANNED OUTAGE	12	1,127.60
URD Outage	PLANNED OUTAGE	14	474.13
URD Outage	PLANNED OUTAGE	2	1,153.20
OH Other	PLANNED OUTAGE	10	1,567.50
OH Other	PLANNED OUTAGE	67	14,477.58
OH Other	PLANNED OUTAGE	5	791.25
OH Other	PLANNED OUTAGE	2	308.53
URD Outage	PLANNED OUTAGE	21	4,194.40
OH Other	PLANNED OUTAGE	9	2,786.55
OH Other	PLANNED OUTAGE	12	1,054.40
OH Other	PLANNED OUTAGE	2	75.90

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	121.38
URD Outage	PLANNED OUTAGE	6	1,127.70
OH Other	PLANNED OUTAGE	1,210	8,691.83
URD Outage	PLANNED OUTAGE	1	239.35
OH Other	PLANNED OUTAGE	1	27.58
URD Outage	PLANNED OUTAGE	4	364.40
OH Other	PLANNED OUTAGE	11	1,034.55
Circuit Out	PLANNED OUTAGE	429	11,039.60
OH Other	PLANNED OUTAGE	21	908.25
OH Other	PLANNED OUTAGE	1	15.33
URD Outage	PLANNED OUTAGE	1	303.58
URD Outage	PLANNED OUTAGE	11	831.23
URD Outage	PLANNED OUTAGE	1	98.35
OH Other	PLANNED OUTAGE	6	2,617.60
OH Other	PLANNED OUTAGE	9	80.25
OH Other	PLANNED OUTAGE	10	1,070.50
OH Other	PLANNED OUTAGE	10	1,064.67
OH Other	PLANNED OUTAGE	88	3,144.53
OH Other	PLANNED OUTAGE	10	1,422.33
URD Outage	PLANNED OUTAGE	12	420.60
OH Other	PLANNED OUTAGE	9	2,437.80
URD Outage	PLANNED OUTAGE	1	328.38
OH Other	PLANNED OUTAGE	3	1,092.50
OH Other	PLANNED OUTAGE	11	1,077.63
URD Outage	PLANNED OUTAGE	1	127.28
OH Other	PLANNED OUTAGE	1	163.12
URD Outage	PLANNED OUTAGE	5	614.50
OH Other	PLANNED OUTAGE	9	3,856.65
OH Other	PLANNED OUTAGE	10	1,594.33
OH Other	PLANNED OUTAGE	7	2,686.48
OH Other	PLANNED OUTAGE	11	3,728.08
OH Other	PLANNED OUTAGE	15	2,341.50
URD Outage	PLANNED OUTAGE	8	820.53
URD Outage	PLANNED OUTAGE	6	1,669.40
OH Other	PLANNED OUTAGE	4	171.67
OH Other	PLANNED OUTAGE	3	533.00
OH Other	PLANNED OUTAGE	7	1,084.77
OH Other	PLANNED OUTAGE	7	1,084.53
URD Outage	PLANNED OUTAGE	1	29.12
OH Other	PLANNED OUTAGE	1	46.80
OH Other	PLANNED OUTAGE	2	46.87
OH Other	PLANNED OUTAGE	3	1,520.90
OH Other	PLANNED OUTAGE	7	2,713.43
OH Other	PLANNED OUTAGE	1	204.65
UG Other	PLANNED OUTAGE	1	246.87
OH Other	PLANNED OUTAGE	1	127.48



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
UG Other	PLANNED OUTAGE	9	882.30
OH Other	PLANNED OUTAGE	8	3,329.33
OH Other	PLANNED OUTAGE	2	483.00
PLF	PLANNED OUTAGE	34	7,929.37
OH Other	PLANNED OUTAGE	1	385.53
OH Other	PLANNED OUTAGE	2	423.67
OH Other	PLANNED OUTAGE	7	934.27
UG Other	PLANNED OUTAGE	1	337.35
OH Other	PLANNED OUTAGE	8	1,184.53
OH Other	PLANNED OUTAGE	14	328.07
OH Other	PLANNED OUTAGE	5	864.75
OH Other	PLANNED OUTAGE	2	29.20
OH Other	PLANNED OUTAGE	2	29.37
PLF	PLANNED OUTAGE	33	11,913.00
OH Other	PLANNED OUTAGE	2	585.10
OH Other	PLANNED OUTAGE	2	995.30
OH Other	PLANNED OUTAGE	6	2,961.70
OH Other	PLANNED OUTAGE	6	665.30
OH Other	PLANNED OUTAGE	1	275.98
OH Other	PLANNED OUTAGE	8	2,080.80
OH Other	PLANNED OUTAGE	1	242.42
UG Other	PLANNED OUTAGE	6	209.90
OH Other	PLANNED OUTAGE	6	710.40
UG Other	PLANNED OUTAGE	4	4,166.20
UG Other	PLANNED OUTAGE	4	4,762.73
UG Other	PLANNED OUTAGE	1	48.97
UG Other	PLANNED OUTAGE	23	8,694.77
PLF	PLANNED OUTAGE	1	267.67
OH Other	PLANNED OUTAGE	11	4,336.20
OH Other	PLANNED OUTAGE	1	393.08
Service - Crew	PLANNED OUTAGE	1	339.48
PLF	PLANNED OUTAGE	4	1,256.20
OH Other	PLANNED OUTAGE	1	246.60
PLF	PLANNED OUTAGE	157	8,310.53
Invalid	PLANNED OUTAGE	1	80.68
Circuit Out	PLANNED OUTAGE	31	269.70
UG Other	PLANNED OUTAGE	5	245.25
UG Other	PLANNED OUTAGE	7	359.68
OH Other	PLANNED OUTAGE	4	329.27
Circuit Out	PLANNED OUTAGE	233	18,224.48
Connections	PLANNED OUTAGE	1	86.15
OH Other	PLANNED OUTAGE	11	694.28
OCR, Sec.	PLANNED OUTAGE	349	3,740.12
Circuit Out	PLANNED OUTAGE	553	19,096.93
OH Other	PLANNED OUTAGE	1	79.18
Circuit Out	PLANNED OUTAGE	600	8,380.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	218.57
TX Repaired (PM)	PLANNED OUTAGE	2	650.97
URD Outage	PLANNED OUTAGE	20	6,489.67
Circuit Out	PLANNED OUTAGE	939	13,803.30
OH Other	PLANNED OUTAGE	179	61,975.77
PLF	PLANNED OUTAGE	6	757.90
PLF	PLANNED OUTAGE	1	106.27
OH Other	PLANNED OUTAGE	8	2,411.47
OH Other	PLANNED OUTAGE	3	567.85
OH Other	PLANNED OUTAGE	10	2,222.83
OH Other	PLANNED OUTAGE	10	1,542.00
OH Other	PLANNED OUTAGE	1	90.25
OH Other	PLANNED OUTAGE	1	175.28
OH Other	PLANNED OUTAGE	9	1,612.50
OH Other	PLANNED OUTAGE	1	49.05
OH Other	PLANNED OUTAGE	1	220.37
OH Other	PLANNED OUTAGE	1	377.02
PLF	PLANNED OUTAGE	85	2,276.58
OH Other	PLANNED OUTAGE	8	2,666.67
URD Outage	PLANNED OUTAGE	1	974.47
OH Other	PLANNED OUTAGE	8	1,890.67
OH Other	PLANNED OUTAGE	1	536.05
URD Outage	PLANNED OUTAGE	1	183.23
OH Other	PLANNED OUTAGE	14	7,345.10
URD Outage	PLANNED OUTAGE	9	1,874.40
URD Outage	PLANNED OUTAGE	9	1,873.20
OH Other	PLANNED OUTAGE	2	267.67
URD Outage	PLANNED OUTAGE	47	14,823.80
OH Other	PLANNED OUTAGE	1	118.25
OH Other	PLANNED OUTAGE	245	27,358.33
OH Other	PLANNED OUTAGE	1	204.38
OH Other	PLANNED OUTAGE	1	34.18
URD Outage	PLANNED OUTAGE	47	23,328.45
OH Other	PLANNED OUTAGE	31	2,632.93
URD Outage	PLANNED OUTAGE	90	28,776.00
URD Outage	PLANNED OUTAGE	1	274.90
URD Outage	PLANNED OUTAGE	2	550.27
OH Other	PLANNED OUTAGE	9	874.35
OH Other	PLANNED OUTAGE	4	505.07
URD Outage	PLANNED OUTAGE	8	496.53
OH Other	PLANNED OUTAGE	3	584.50
OH Other	PLANNED OUTAGE	4	626.13
OH Other	PLANNED OUTAGE	3	1,100.35
OH Other	PLANNED OUTAGE	5	197.42
OH Other	PLANNED OUTAGE	2	78.87
OH Other	PLANNED OUTAGE	1	39.28

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	1,139.25
URD Outage	PLANNED OUTAGE	16	5,703.73
OH Other	PLANNED OUTAGE	8	2,682.93
OH Other	PLANNED OUTAGE	14	4,974.67
OH Other	PLANNED OUTAGE	1	565.08
OH Other	PLANNED OUTAGE	3	1,047.70
URD Outage	PLANNED OUTAGE	28	8,253.00
OH Other	PLANNED OUTAGE	1	50.17
OH Other	PLANNED OUTAGE	1	90.15
UG Other	PLANNED OUTAGE	1	51.48
OH Other	PLANNED OUTAGE	7	929.25
OH Other	PLANNED OUTAGE	6	795.90
OH Other	PLANNED OUTAGE	4	892.33
OH Other	PLANNED OUTAGE	11	2,098.98
UG Other	PLANNED OUTAGE	7	706.18
URD Outage	PLANNED OUTAGE	2	367.63
OH Other	PLANNED OUTAGE	3	649.75
OH Other	PLANNED OUTAGE	8	2,259.73
OH Other	PLANNED OUTAGE	1	435.03
OH Other	PLANNED OUTAGE	4	723.60
Step Restoration	PLANNED OUTAGE	78	5,336.50
Step Restoration	PLANNED OUTAGE	47	7,214.50
Step Restoration	PLANNED OUTAGE	1	341.68
Step Restoration	PLANNED OUTAGE	1	341.68
Step Restoration	PLANNED OUTAGE	1	341.68
Step Restoration	PLANNED OUTAGE	1	341.68
Connections	PLANNED OUTAGE	1	72.12
OH Other	PLANNED OUTAGE	5	1,829.58
URD Outage	PLANNED OUTAGE	1	1.67
OH Other	PLANNED OUTAGE	8	356.93
OH Other	PLANNED OUTAGE	69	1,665.20
OH Other	PLANNED OUTAGE	3	841.90
OH Other	PLANNED OUTAGE	10	1,143.67
OH Other	PLANNED OUTAGE	2	746.77
URD Outage	PLANNED OUTAGE	9	1,281.15
OH Other	PLANNED OUTAGE	8	1,219.47
URD Outage	PLANNED OUTAGE	7	427.00
OH Other	PLANNED OUTAGE	1	80.73
UG Other	PLANNED OUTAGE	1	501.27
UG Other	PLANNED OUTAGE	1	501.27
OH Other	PLANNED OUTAGE	3	138.30
PLF	PLANNED OUTAGE	1	232.53
OH Other	PLANNED OUTAGE	2	464.90
PLF	PLANNED OUTAGE	222	6,882.00
OH Other	PLANNED OUTAGE	15	530.00
OH Other	PLANNED OUTAGE	7	898.68

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
PLF	PLANNED OUTAGE	12	358.20
OH Other	PLANNED OUTAGE	1	366.12
OH Other	PLANNED OUTAGE	8	1,037.47
OH Other	PLANNED OUTAGE	9	37.95
OH Other	PLANNED OUTAGE	9	2,730.90
OH Other	PLANNED OUTAGE	31	8,606.63
OH Other	PLANNED OUTAGE	1	70.78
OH Other	PLANNED OUTAGE	6	2,574.00
OH Other	PLANNED OUTAGE	6	2,086.40
OH Other	PLANNED OUTAGE	11	3,156.08
OH Other	PLANNED OUTAGE	6	3,520.70
OH Other	PLANNED OUTAGE	17	9,653.73
OH Other	PLANNED OUTAGE	5	1,263.92
OH Other	PLANNED OUTAGE	8	1,483.07
OH Other	PLANNED OUTAGE	10	1,213.67
OH Other	PLANNED OUTAGE	12	3,749.40
OH Other	PLANNED OUTAGE	13	2,561.43
UG Other	PLANNED OUTAGE	11	165.73
OH Other	PLANNED OUTAGE	6	2,078.70
OH Other	PLANNED OUTAGE	6	1,910.70
URD Outage	PLANNED OUTAGE	8	349.07
OH Other	PLANNED OUTAGE	10	2,073.33
OH Other	PLANNED OUTAGE	15	2,515.25
OH Other	PLANNED OUTAGE	25	5,575.00
OH Other	PLANNED OUTAGE	17	5,526.70
OH Other	PLANNED OUTAGE	2	102.87
OH Other	PLANNED OUTAGE	7	1,283.10
Circuit Out	PLANNED OUTAGE	1,162	4,493.07
OH Other	PLANNED OUTAGE	15	3,610.00
OH Other	PLANNED OUTAGE	16	3,103.20
OH Other	PLANNED OUTAGE	13	3,125.85
OH Other	PLANNED OUTAGE	2	225.20
OH Other	PLANNED OUTAGE	10	1,961.83
OH Other	PLANNED OUTAGE	3	587.25
OH Other	PLANNED OUTAGE	7	255.62
OH Other	PLANNED OUTAGE	4	176.33
UG Other	PLANNED OUTAGE	1	48.25
OH Other	PLANNED OUTAGE	3	176.65
UG Other	PLANNED OUTAGE	13	1,683.07
OH Other	PLANNED OUTAGE	1	180.82
OH Other	PLANNED OUTAGE	6	2,210.90
URD Outage	PLANNED OUTAGE	1	199.18
OH Other	PLANNED OUTAGE	2	614.63
OH Other	PLANNED OUTAGE	6	375.20
OH Other	PLANNED OUTAGE	3	48.10
URD Outage	PLANNED OUTAGE	1	230.73

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	4	348.27
URD Outage	PLANNED OUTAGE	1	188.30
OH Other	PLANNED OUTAGE	1	16.97
OH Other	PLANNED OUTAGE	2	114.07
OH Other	PLANNED OUTAGE	21	2,900.80
URD Outage	PLANNED OUTAGE	3	981.90
OH Other	PLANNED OUTAGE	7	1,264.78
OH Other	PLANNED OUTAGE	5	142.75
OH Other	PLANNED OUTAGE	1	130.77
OH Other	PLANNED OUTAGE	6	715.40
OH Other	PLANNED OUTAGE	8	326.40
URD Outage	PLANNED OUTAGE	4	144.53
OH Other	PLANNED OUTAGE	2	899.50
OH Other	PLANNED OUTAGE	10	1,174.67
OH Other	PLANNED OUTAGE	5	1,556.25
OH Other	PLANNED OUTAGE	13	2,415.18
OH Other	PLANNED OUTAGE	1	306.07
Invalid	PLANNED OUTAGE	1	54.37
OH Other	PLANNED OUTAGE	1	93.60
OH Other	PLANNED OUTAGE	11	547.98
Connections	PLANNED OUTAGE	1	52.25
OH Other	PLANNED OUTAGE	23	904.67
OH Other	PLANNED OUTAGE	10	292.83
UG Other	PLANNED OUTAGE	10	301.50
Switch 600 amp	PLANNED OUTAGE	171	4,158.15
Circuit Out	PLANNED OUTAGE	1,498	14,056.23
PLF	PLANNED OUTAGE	2	542.87
Circuit Out	PLANNED OUTAGE	300	2,840.00
OH Other	PLANNED OUTAGE	7	271.83
Circuit Out	PLANNED OUTAGE	1,109	1,386.25
UG Other	PLANNED OUTAGE	1	531.77
URD Outage	PLANNED OUTAGE	1	369.07
OH Other	PLANNED OUTAGE	16	8,258.13
URD Outage	PLANNED OUTAGE	1	256.60
OH Other	PLANNED OUTAGE	2	98.43
OH Other	PLANNED OUTAGE	8	2,070.93
OH Other	PLANNED OUTAGE	3	776.75
PLF	PLANNED OUTAGE	1	258.67
Switch 600 amp	PLANNED OUTAGE	1	50.07
Step Restoration	PLANNED OUTAGE	1,088	50,247.47
Circuit Out	PLANNED OUTAGE	531	743.40
PLF	PLANNED OUTAGE	1	13.65
OH Other	PLANNED OUTAGE	1	97.13
OH Other	PLANNED OUTAGE	7	2,360.63
OH Other	PLANNED OUTAGE	6	1,096.90
OH Other	PLANNED OUTAGE	4	660.13

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	6	73.60
OH Other	PLANNED OUTAGE	11	1,297.08
OH Other	PLANNED OUTAGE	7	1,315.88
OH Other	PLANNED OUTAGE	1	285.55
OH Other	PLANNED OUTAGE	5	1,156.83
OH Other	PLANNED OUTAGE	4	993.33
OH Other	PLANNED OUTAGE	39	1,090.05
OH Other	PLANNED OUTAGE	1	59.15
OH Other	PLANNED OUTAGE	4	650.47
OH Other	PLANNED OUTAGE	1	22.75
OH Other	PLANNED OUTAGE	5	105.25
OH Other	PLANNED OUTAGE	2	186.40
OH Other	PLANNED OUTAGE	4	294.93
Connections	PLANNED OUTAGE	1	183.30
OH Other	PLANNED OUTAGE	9	1,900.95
OH Other	PLANNED OUTAGE	3	111.40
OH Other	PLANNED OUTAGE	4	572.27
OH Other	PLANNED OUTAGE	10	1,432.67
OH Other	PLANNED OUTAGE	4	573.40
OH Other	PLANNED OUTAGE	8	596.67
OH Other	PLANNED OUTAGE	2	781.87
OH Other	PLANNED OUTAGE	8	2,407.47
URD Outage	PLANNED OUTAGE	13	2,163.85
OH Other	PLANNED OUTAGE	11	1,495.45
OH Other	PLANNED OUTAGE	2	209.30
OH Other	PLANNED OUTAGE	3	205.85
URD Outage	PLANNED OUTAGE	1	314.62
OH Other	PLANNED OUTAGE	1	181.17
OH Other	PLANNED OUTAGE	5	121.50
OH Other	PLANNED OUTAGE	1	61.97
OH Other	PLANNED OUTAGE	13	480.13
OH Other	PLANNED OUTAGE	11	1,540.00
UG Other	PLANNED OUTAGE	1	248.78
OH Other	PLANNED OUTAGE	1	19.13
OH Other	PLANNED OUTAGE	8	295.20
OH Other	PLANNED OUTAGE	12	5,501.80
OH Other	PLANNED OUTAGE	6	2,749.90
OH Other	PLANNED OUTAGE	10	1,937.50
OH Other	PLANNED OUTAGE	4	294.13
OH Other	PLANNED OUTAGE	1	229.13
OH Other	PLANNED OUTAGE	6	1,005.60
OH Other	PLANNED OUTAGE	12	3,379.00
URD Outage	PLANNED OUTAGE	1	206.68
OH Other	PLANNED OUTAGE	2	139.20
URD Outage	PLANNED OUTAGE	65	574.17
OH Other	PLANNED OUTAGE	1	105.37

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	2,899.52
OH Other	PLANNED OUTAGE	1	71.82
OH Other	PLANNED OUTAGE	3	261.05
URD Outage	PLANNED OUTAGE	8	1,156.27
OH Other	PLANNED OUTAGE	7	1,742.42
URD Outage	PLANNED OUTAGE	7	44.92
OH Other	PLANNED OUTAGE	7	268.33
OH Other	PLANNED OUTAGE	5	288.50
OH Other	PLANNED OUTAGE	103	42,432.57
OH Other	PLANNED OUTAGE	3	1,619.45
OH Other	PLANNED OUTAGE	2	1,040.90
OH Other	PLANNED OUTAGE	5	2,541.25
URD Outage	PLANNED OUTAGE	5	1,447.83
URD Outage	PLANNED OUTAGE	8	200.00
URD Outage	PLANNED OUTAGE	1	273.85
OH Other	PLANNED OUTAGE	12	3,001.00
OH Other	PLANNED OUTAGE	5	1,208.08
OH Other	PLANNED OUTAGE	8	2,513.20
OH Other	PLANNED OUTAGE	4	1,251.40
URD Outage	PLANNED OUTAGE	1	415.97
OH Other	PLANNED OUTAGE	4	1,531.27
OH Other	PLANNED OUTAGE	6	2,273.50
OH Other	PLANNED OUTAGE	15	4,214.50
OH Other	PLANNED OUTAGE	2	581.77
OH Other	PLANNED OUTAGE	3	580.75
OH Other	PLANNED OUTAGE	2	774.97
OH Other	PLANNED OUTAGE	6	2,303.40
URD Outage	PLANNED OUTAGE	10	512.67
URD Outage	PLANNED OUTAGE	73	5,358.20
URD Outage	PLANNED OUTAGE	1	174.28
UG Other	PLANNED OUTAGE	5	155.50
OH Other	PLANNED OUTAGE	1	50.45
UG Other	PLANNED OUTAGE	4	98.20
OH Other	PLANNED OUTAGE	7	841.28
PLF	PLANNED OUTAGE	1	79.95
OH Other	PLANNED OUTAGE	1	242.37
OH Other	PLANNED OUTAGE	5	474.75
OH Other	PLANNED OUTAGE	25	9,815.00
OH Other	PLANNED OUTAGE	8	2,839.87
OH Other	PLANNED OUTAGE	9	707.55
UG Other	PLANNED OUTAGE	1	182.78
PLF	PLANNED OUTAGE	22	1,038.40
UG Other	PLANNED OUTAGE	15	1,407.75
OH Other	PLANNED OUTAGE	18	4,820.40
OH Other	PLANNED OUTAGE	10	2,403.33
OH Other	PLANNED OUTAGE	3	722.85

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	1,139	2,334.95
OH Other	PLANNED OUTAGE	7	2,412.43
PLF	PLANNED OUTAGE	9	2,146.05
UG Other	PLANNED OUTAGE	2	588.77
UG Other	PLANNED OUTAGE	2	809.07
OH Other	PLANNED OUTAGE	6	862.40
UG Other	PLANNED OUTAGE	8	67.47
Circuit Out	PLANNED OUTAGE	2,504	4,674.13
Switch 600 amp	PLANNED OUTAGE	191	3,412.53
UG Other	PLANNED OUTAGE	7	214.55
OH Other	PLANNED OUTAGE	9	3,422.55
OH Other	PLANNED OUTAGE	7	2,661.98
OH Other	PLANNED OUTAGE	8	702.00
UG Other	PLANNED OUTAGE	4	400.07
UG Other	PLANNED OUTAGE	1	99.75
OH Other	PLANNED OUTAGE	7	495.48
PLF	PLANNED OUTAGE	7	150.73
URD Outage	PLANNED OUTAGE	1	34.62
URD Outage	PLANNED OUTAGE	10	1,305.83
OH Other	PLANNED OUTAGE	7	710.62
OH Other	PLANNED OUTAGE	8	1,065.60
OH Other	PLANNED OUTAGE	5	617.08
OH Other	PLANNED OUTAGE	10	2,902.17
OH Other	PLANNED OUTAGE	7	3,486.47
OH Other	PLANNED OUTAGE	6	418.50
OH Other	PLANNED OUTAGE	1	154.53
PLF	PLANNED OUTAGE	21	549.15
OH Other	PLANNED OUTAGE	9	619.95
OH Other	PLANNED OUTAGE	20	5,231.00
PLF	PLANNED OUTAGE	26	559.00
OH Other	PLANNED OUTAGE	7	671.77
OH Other	PLANNED OUTAGE	8	1,555.20
OH Other	PLANNED OUTAGE	5	962.92
Circuit Out	PLANNED OUTAGE	127	251.88
OH Other	PLANNED OUTAGE	6	746.50
URD Outage	PLANNED OUTAGE	2	857.20
OH Other	PLANNED OUTAGE	10	4,343.17
OH Other	PLANNED OUTAGE	7	841.28
OH Other	PLANNED OUTAGE	6	1,424.80
OH Other	PLANNED OUTAGE	6	1,645.80
OH Other	PLANNED OUTAGE	2	407.13
OH Other	PLANNED OUTAGE	9	658.95
OH Other	PLANNED OUTAGE	34	6,147.20
OH Other	PLANNED OUTAGE	5	397.75
OH Other	PLANNED OUTAGE	3	587.55
OH Other	PLANNED OUTAGE	19	7,186.75



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	748.65
URD Outage	PLANNED OUTAGE	5	866.67
OH Other	PLANNED OUTAGE	4	1,337.33
OH Other	PLANNED OUTAGE	5	2,676.58
OH Other	PLANNED OUTAGE	2	530.90
OH Other	PLANNED OUTAGE	1	283.13
OH Other	PLANNED OUTAGE	4	1,698.07
OH Other	PLANNED OUTAGE	2	507.60
OH Other	PLANNED OUTAGE	4	1,537.67
OH Other	PLANNED OUTAGE	32	17,897.07
Circuit Out	PLANNED OUTAGE	1,460	16,960.33
OH Other	PLANNED OUTAGE	11	5,944.03
OH Other	PLANNED OUTAGE	1	511.65
OH Other	PLANNED OUTAGE	6	2,878.30
OH Other	PLANNED OUTAGE	5	2,007.92
OH Other	PLANNED OUTAGE	7	1,550.73
OH Other	PLANNED OUTAGE	1	167.57
OH Other	PLANNED OUTAGE	3	1,045.00
OH Other	PLANNED OUTAGE	9	2,001.75
OH Other	PLANNED OUTAGE	2	371.90
OH Other	PLANNED OUTAGE	7	409.27
Circuit Out	PLANNED OUTAGE	1,447	49,463.28
OH Other	PLANNED OUTAGE	1	151.50
OH Other	PLANNED OUTAGE	10	1,981.50
URD Outage	PLANNED OUTAGE	1	337.25
OH Other	PLANNED OUTAGE	20	818.33
OH Other	PLANNED OUTAGE	2	606.87
OH Other	PLANNED OUTAGE	11	4,458.30
URD Outage	PLANNED OUTAGE	1	141.97
OH Other	PLANNED OUTAGE	11	5,057.43
OH Other	PLANNED OUTAGE	1	56.38
PLF	PLANNED OUTAGE	3	709.90
OH Other	PLANNED OUTAGE	4	579.47
OH Other	PLANNED OUTAGE	1	204.25
OH Other	PLANNED OUTAGE	14	3,637.20
PLF	PLANNED OUTAGE	70	12,974.50
OH Other	PLANNED OUTAGE	6	2,134.00
OH Other	PLANNED OUTAGE	17	3,911.13
OH Other	PLANNED OUTAGE	2	252.70
Circuit Out	PLANNED OUTAGE	893	1,905.07
OH Other	PLANNED OUTAGE	14	4,749.73
OH Other	PLANNED OUTAGE	2	343.87
OH Other	PLANNED OUTAGE	1	53.42
OH Other	PLANNED OUTAGE	10	1,140.50
URD Outage	PLANNED OUTAGE	8	284.40
OH Other	PLANNED OUTAGE	13	1,975.35

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	5	1,822.50
OH Other	PLANNED OUTAGE	9	2,798.10
OH Other	PLANNED OUTAGE	96	7,257.60
OH Other	PLANNED OUTAGE	6	692.40
OH Other	PLANNED OUTAGE	27	3,185.55
OH Other	PLANNED OUTAGE	1	65.02
OH Other	PLANNED OUTAGE	10	4,399.00
OH Other	PLANNED OUTAGE	1	76.25
Circuit Out	PLANNED OUTAGE	1,315	10,213.17
Circuit Out	PLANNED OUTAGE	672	4,995.20
Circuit Out	PLANNED OUTAGE	1,512	1,688.40
OH Other	PLANNED OUTAGE	4	1,570.60
OH Other	PLANNED OUTAGE	1	274.82
OH Other	PLANNED OUTAGE	3	1,050.55
URD Outage	PLANNED OUTAGE	10	1,239.00
OH Other	PLANNED OUTAGE	11	2,010.98
OH Other	PLANNED OUTAGE	1	151.98
OH Other	PLANNED OUTAGE	9	911.40
OH Other	PLANNED OUTAGE	3	1,439.50
OH Other	PLANNED OUTAGE	9	1,097.10
OH Other	PLANNED OUTAGE	6	2,655.80
OH Other	PLANNED OUTAGE	9	2,083.35
OH Other	PLANNED OUTAGE	6	1,199.00
OH Other	PLANNED OUTAGE	8	3,327.73
URD Outage	PLANNED OUTAGE	3	174.35
Step Restoration	PLANNED OUTAGE	4	923.73
OH Other	PLANNED OUTAGE	7	578.55
OH Other	PLANNED OUTAGE	9	1,797.75
URD Outage	PLANNED OUTAGE	2	998.83
OH Other	PLANNED OUTAGE	7	1,070.77
OH Other	PLANNED OUTAGE	3	829.40
OH Other	PLANNED OUTAGE	8	227.47
OH Other	PLANNED OUTAGE	6	1,253.50
Service - Crew	PLANNED OUTAGE	1	175.13
OH Other	PLANNED OUTAGE	2	779.07
OH Other	PLANNED OUTAGE	3	875.05
OH Other	PLANNED OUTAGE	42	12,694.50
URD Outage	PLANNED OUTAGE	22	2,616.53
URD Outage	PLANNED OUTAGE	8	264.40
URD Outage	PLANNED OUTAGE	7	305.32
URD Outage	PLANNED OUTAGE	1	253.42
UG Other	PLANNED OUTAGE	8	441.60
OH Other	PLANNED OUTAGE	7	870.80
OH Other	PLANNED OUTAGE	37	15,115.73
OH Other	PLANNED OUTAGE	5	1,790.08
OH Other	PLANNED OUTAGE	1	358.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	2,495.85
OH Other	PLANNED OUTAGE	8	2,752.80
OH Other	PLANNED OUTAGE	9	1,059.75
Connections	PLANNED OUTAGE	1	41.10
OH Other	PLANNED OUTAGE	7	302.40
OH Other	PLANNED OUTAGE	9	123.30
OH Other	PLANNED OUTAGE	12	3,257.60
Invalid	PLANNED OUTAGE	3	1,544.35
OH Other	PLANNED OUTAGE	1	38.18
OH Other	PLANNED OUTAGE	2	857.53
PLF	PLANNED OUTAGE	1	44.40
OH Other	PLANNED OUTAGE	1	188.40
OH Other	PLANNED OUTAGE	1	485.23
OH Other	PLANNED OUTAGE	6	2,204.00
URD Outage	PLANNED OUTAGE	72	3,957.60
OH Other	PLANNED OUTAGE	4	808.80
OH Other	PLANNED OUTAGE	2	195.20
URD Outage	PLANNED OUTAGE	2	575.83
OH Other	PLANNED OUTAGE	8	2,238.40
OH Other	PLANNED OUTAGE	9	2,607.60
URD Outage	PLANNED OUTAGE	4	581.93
OH Other	PLANNED OUTAGE	9	3,192.30
OH Other	PLANNED OUTAGE	3	745.80
URD Outage	PLANNED OUTAGE	1	266.62
OH Other	PLANNED OUTAGE	7	1,170.63
OH Other	PLANNED OUTAGE	9	439.20
URD Outage	PLANNED OUTAGE	18	3,302.40
URD Outage	PLANNED OUTAGE	3	108.30
URD Outage	PLANNED OUTAGE	8	361.87
OH Other	PLANNED OUTAGE	34	400.63
Circuit Out	PLANNED OUTAGE	1,452	3,533.20
OH Other	PLANNED OUTAGE	416	33,023.47
OH Other	PLANNED OUTAGE	17	935.00
OCR, Sec.	PLANNED OUTAGE	437	14,552.10
OH Other	PLANNED OUTAGE	41	2,327.43
URD Outage	PLANNED OUTAGE	10	774.83
OH Other	PLANNED OUTAGE	12	487.40
OH Other	PLANNED OUTAGE	1	94.63
URD Outage	PLANNED OUTAGE	5	700.00
OH Other	PLANNED OUTAGE	6	2,488.60
Circuit Out	PLANNED OUTAGE	943	1,257.33
OH Other	PLANNED OUTAGE	4	125.93
URD Outage	PLANNED OUTAGE	1	32.12
URD Outage	PLANNED OUTAGE	1	419.68
OCR, Sec.	PLANNED OUTAGE	2,263	197,597.62
OH Other	PLANNED OUTAGE	1	66.72

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	4	1,484.40
OH Other	PLANNED OUTAGE	9	850.95
Circuit Out	PLANNED OUTAGE	69	161.00
URD Outage	PLANNED OUTAGE	4	23.93
OH Other	PLANNED OUTAGE	8	3,925.60
OH Other	PLANNED OUTAGE	2	607.80
OH Other	PLANNED OUTAGE	9	475.35
OCR, Sec.	PLANNED OUTAGE	818	1,990.47
OH Other	PLANNED OUTAGE	3	509.75
OH Other	PLANNED OUTAGE	11	3,843.22
OH Other	PLANNED OUTAGE	10	3,482.50
OH Other	PLANNED OUTAGE	5	1,968.58
OH Other	PLANNED OUTAGE	7	2,367.98
Service - Crew	PLANNED OUTAGE	1	44.38
OH Other	PLANNED OUTAGE	2	364.33
URD Outage	PLANNED OUTAGE	2	829.13
OH Other	PLANNED OUTAGE	17	7,377.72
OH Other	PLANNED OUTAGE	5	502.75
OH Other	PLANNED OUTAGE	3	663.05
OH Other	PLANNED OUTAGE	12	1,488.60
OH Other	PLANNED OUTAGE	4	1,470.00
OH Other	PLANNED OUTAGE	6	1,153.50
Connections	PLANNED OUTAGE	1	80.23
OH Other	PLANNED OUTAGE	2	247.30
Connections	PLANNED OUTAGE	1	54.35
OH Other	PLANNED OUTAGE	4	869.60
OH Other	PLANNED OUTAGE	19	6,250.68
OH Other	PLANNED OUTAGE	9	3,295.35
OH Other	PLANNED OUTAGE	20	808.00
OH Other	PLANNED OUTAGE	5	1,009.17
OH Other	PLANNED OUTAGE	1	27.20
OH Other	PLANNED OUTAGE	1	694.77
OH Other	PLANNED OUTAGE	1	131.12
OH Other	PLANNED OUTAGE	9	160.35
Service - Crew	PLANNED OUTAGE	1	71.77
OH Other	PLANNED OUTAGE	20	8,696.33
OH Other	PLANNED OUTAGE	1	116.52
OH Other	PLANNED OUTAGE	2	229.57
OH Other	PLANNED OUTAGE	11	3,986.95
OH Other	PLANNED OUTAGE	7	5,349.52
OH Other	PLANNED OUTAGE	4	957.20
OH Other	PLANNED OUTAGE	3	717.40
OH Other	PLANNED OUTAGE	1	1,408.32
OH Other	PLANNED OUTAGE	11	2,751.65
OH Other	PLANNED OUTAGE	10	1,579.17
UG Other	PLANNED OUTAGE	1	34.57

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
UG Other	PLANNED OUTAGE	9	2,951.10
OH Other	PLANNED OUTAGE	1	45.65
OH Other	PLANNED OUTAGE	2	480.33
OH Other	PLANNED OUTAGE	3	511.50
OH Other	PLANNED OUTAGE	6	2,604.00
OH Other	PLANNED OUTAGE	6	1,479.10
PLF	PLANNED OUTAGE	1	229.43
OH Other	PLANNED OUTAGE	9	4,381.20
OH Other	PLANNED OUTAGE	6	1,705.50
OH Other	PLANNED OUTAGE	1	289.08
OH Other	PLANNED OUTAGE	8	1,969.60
TX Replaced (PM)	PLANNED OUTAGE	229	15,056.75
UG Other	PLANNED OUTAGE	152	41,919.07
UG Other	PLANNED OUTAGE	42	12,854.80
UG Other	PLANNED OUTAGE	87	26,627.80
OH Other	PLANNED OUTAGE	1	26.20
OH Other	PLANNED OUTAGE	4	1,041.87
OH Other	PLANNED OUTAGE	3	32.65
OH Other	PLANNED OUTAGE	38	611.17
PLF	PLANNED OUTAGE	179	1,429.02
UG Other	PLANNED OUTAGE	1	247.05
OH Other	PLANNED OUTAGE	1	202.32
UG Other	PLANNED OUTAGE	7	217.00
UG Other	PLANNED OUTAGE	14	3,596.83
PLF	PLANNED OUTAGE	3	257.00
PLF	PLANNED OUTAGE	237	6,260.75
Circuit Out	PLANNED OUTAGE	247	609.27
Circuit Out	PLANNED OUTAGE	247	197.60
OH Other	PLANNED OUTAGE	9	120.75
OH Other	PLANNED OUTAGE	3	1,172.00
OH Other	PLANNED OUTAGE	1	126.72
URD Outage	PLANNED OUTAGE	1	99.40
OH Other	PLANNED OUTAGE	12	3,223.80
OH Other	PLANNED OUTAGE	9	2,500.65
OH Other	PLANNED OUTAGE	4	1,108.47
OH Other	PLANNED OUTAGE	1	361.32
OH Other	PLANNED OUTAGE	15	2,162.25
URD Outage	PLANNED OUTAGE	3	928.05
Circuit Out	PLANNED OUTAGE	250	17,433.33
Step Restoration	PLANNED OUTAGE	454	20,081.93
OH Other	PLANNED OUTAGE	8	824.53
OH Other	PLANNED OUTAGE	11	738.47
OH Other	PLANNED OUTAGE	15	9,241.50
OH Other	PLANNED OUTAGE	6	74.30
OH Other	PLANNED OUTAGE	1	66.88
OCR, Sec.	PLANNED OUTAGE	61	4,060.57

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	228	67,947.80
Circuit Out	PLANNED OUTAGE	461	122,180.37
Service - Crew	PLANNED OUTAGE	1	296.32
OH Other	PLANNED OUTAGE	9	815.55
PLF	PLANNED OUTAGE	2	255.10
Oil Switch	PLANNED OUTAGE	325	5,752.50
OH Other	PLANNED OUTAGE	8	4,879.33
OH Other	PLANNED OUTAGE	7	1,328.02
OH Other	PLANNED OUTAGE	1	411.78
OH Other	PLANNED OUTAGE	7	2,472.28
URD Outage	PLANNED OUTAGE	8	2,566.40
OH Other	PLANNED OUTAGE	5	2,104.83
OH Other	PLANNED OUTAGE	8	2,196.53
OH Other	PLANNED OUTAGE	1	193.25
OH Other	PLANNED OUTAGE	1	71.07
Invalid	PLANNED OUTAGE	1	5.78
OH Other	PLANNED OUTAGE	2	383.93
OH Other	PLANNED OUTAGE	3	382.80
OH Other	PLANNED OUTAGE	1	135.73
OH Other	PLANNED OUTAGE	5	254.42
OH Other	PLANNED OUTAGE	7	425.48
Connections	PLANNED OUTAGE	1	26.55
OH Other	PLANNED OUTAGE	4	455.73
OH Other	PLANNED OUTAGE	39	666.90
OH Other	PLANNED OUTAGE	3	257.75
OH Other	PLANNED OUTAGE	11	2,349.78
URD Outage	PLANNED OUTAGE	10	1,338.17
OH Other	PLANNED OUTAGE	1	346.43
URD Outage	PLANNED OUTAGE	1	63.72
OH Other	PLANNED OUTAGE	40	2,450.00
URD Outage	PLANNED OUTAGE	1	224.47
Connections	PLANNED OUTAGE	1	24.90
URD Outage	PLANNED OUTAGE	2	1,001.10
OH Other	PLANNED OUTAGE	1	44.10
OH Other	PLANNED OUTAGE	1	117.97
OH Other	PLANNED OUTAGE	116	11,389.27
URD Outage	PLANNED OUTAGE	7	427.70
OH Other	PLANNED OUTAGE	6	3,991.60
Circuit Out	PLANNED OUTAGE	1,185	2,389.75
Circuit Out	PLANNED OUTAGE	686	1,383.43
OH Other	PLANNED OUTAGE	5	138.00
OH Other	PLANNED OUTAGE	6	921.20
Circuit Out	PLANNED OUTAGE	888	4,750.80
URD Outage	PLANNED OUTAGE	22	3,066.80
OH Other	PLANNED OUTAGE	18	1,576.20
OH Other	PLANNED OUTAGE	15	1,313.50

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	5	280.00
OH Other	PLANNED OUTAGE	72	9,346.80
OH Other	PLANNED OUTAGE	5	218.33
URD Outage	PLANNED OUTAGE	231	1,959.65
OH Other	PLANNED OUTAGE	1	245.30
OH Other	PLANNED OUTAGE	15	2,509.75
URD Outage	PLANNED OUTAGE	6	376.40
OH Other	PLANNED OUTAGE	6	1,920.30
OH Other	PLANNED OUTAGE	5	1,595.08
OH Other	PLANNED OUTAGE	10	3,329.50
OH Other	PLANNED OUTAGE	1	131.82
OH Other	PLANNED OUTAGE	7	832.18
OH Other	PLANNED OUTAGE	3	332.00
OH Other	PLANNED OUTAGE	1	92.90
OH Other	PLANNED OUTAGE	9	312.90
OH Other	PLANNED OUTAGE	9	634.35
OH Other	PLANNED OUTAGE	7	1,132.13
OH Other	PLANNED OUTAGE	5	902.17
OH Other	PLANNED OUTAGE	6	1,083.80
OH Other	PLANNED OUTAGE	4	696.93
OH Other	PLANNED OUTAGE	1	276.68
OH Other	PLANNED OUTAGE	5	470.25
OH Other	PLANNED OUTAGE	1	82.00
OH Other	PLANNED OUTAGE	3	591.20
OH Other	PLANNED OUTAGE	10	463.17
OH Other	PLANNED OUTAGE	9	646.65
URD Outage	PLANNED OUTAGE	31	606.57
OH Other	PLANNED OUTAGE	9	1,217.55
OH Other	PLANNED OUTAGE	6	261.10
OH Other	PLANNED OUTAGE	6	875.10
OH Other	PLANNED OUTAGE	1	191.93
OH Other	PLANNED OUTAGE	5	1,013.67
OH Other	PLANNED OUTAGE	1	64.98
OH Other	PLANNED OUTAGE	10	2,379.83
URD Outage	PLANNED OUTAGE	5	271.17
OH Other	PLANNED OUTAGE	6	2,546.10
OH Other	PLANNED OUTAGE	9	92.55
Circuit Out	PLANNED OUTAGE	890	23,481.17
Step Restoration	PLANNED OUTAGE	753	28,061.80
Circuit Out	PLANNED OUTAGE	448	1,478.40
OH Other	PLANNED OUTAGE	3	1,172.00
UG Other	PLANNED OUTAGE	2	1,229.40
OH Other	PLANNED OUTAGE	1	164.75
OH Other	PLANNED OUTAGE	12	4,927.20
URD Outage	PLANNED OUTAGE	5	415.83
OH Other	PLANNED OUTAGE	7	2,654.05

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	4	166.60
Service - Crew	PLANNED OUTAGE	10	1,427.50
OH Other	PLANNED OUTAGE	8	339.60
OH Other	PLANNED OUTAGE	5	4,106.92
OH Other	PLANNED OUTAGE	71	4,558.20
URD Outage	PLANNED OUTAGE	9	300.15
OH Other	PLANNED OUTAGE	1	758.93
OH Other	PLANNED OUTAGE	24	18,001.60
OH Other	PLANNED OUTAGE	84	31,547.60
OH Other	PLANNED OUTAGE	10	1,605.83
URD Outage	PLANNED OUTAGE	4	55.93
OH Other	PLANNED OUTAGE	4	2,616.47
Service - Crew	PLANNED OUTAGE	1	143.90
OH Other	PLANNED OUTAGE	5	435.08
OH Other	PLANNED OUTAGE	3	395.25
OH Other	PLANNED OUTAGE	1,617	3,773.00
URD Outage	PLANNED OUTAGE	1	473.47
OH Other	PLANNED OUTAGE	13	13,584.13
Service - Crew	PLANNED OUTAGE	1	63.78
OH Other	PLANNED OUTAGE	60	4,484.00
URD Outage	PLANNED OUTAGE	3	1,301.90
Circuit Out	PLANNED OUTAGE	3,277	703,626.52
OH Other	PLANNED OUTAGE	24	807.20
URD Outage	PLANNED OUTAGE	24	615.20
OH Other	PLANNED OUTAGE	7	156.80
OH Other	PLANNED OUTAGE	441	32,288.55
URD Outage	PLANNED OUTAGE	3	668.50
OH Other	PLANNED OUTAGE	1	47.50
OH Other	PLANNED OUTAGE	528	536.80
URD Outage	PLANNED OUTAGE	1	98.37
OH Other	PLANNED OUTAGE	4	555.13
OH Other	PLANNED OUTAGE	1,140	33,896.00
URD Outage	PLANNED OUTAGE	5	206.33
Service - Crew	PLANNED OUTAGE	3	266.05
OH Other	PLANNED OUTAGE	2	132.10
OH Other	PLANNED OUTAGE	26	3,813.77
OH Other	PLANNED OUTAGE	5	441.75
OH Other	PLANNED OUTAGE	3	1,118.25
OH Other	PLANNED OUTAGE	134	6,818.37
Circuit Out	PLANNED OUTAGE	1,659	4,977.00
Service - Crew	PLANNED OUTAGE	1	28.47
OH Other	PLANNED OUTAGE	6	1,972.20
URD Outage	PLANNED OUTAGE	79	10,668.95
URD Outage	PLANNED OUTAGE	10	3,941.83
OH Other	PLANNED OUTAGE	16	5,494.40
OH Other	PLANNED OUTAGE	2	442.33



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	63.80
OH Other	PLANNED OUTAGE	11	2,624.60
OH Other	PLANNED OUTAGE	3	670.65
OH Other	PLANNED OUTAGE	3	492.95
OH Other	PLANNED OUTAGE	1	109.77
OH Other	PLANNED OUTAGE	3	701.20
URD Outage	PLANNED OUTAGE	1	139.45
OH Other	PLANNED OUTAGE	7	2,169.18
OH Other	PLANNED OUTAGE	7	248.62
OH Other	PLANNED OUTAGE	6	520.60
OH Other	PLANNED OUTAGE	9	1,552.35
OH Other	PLANNED OUTAGE	5	47.83
OH Other	PLANNED OUTAGE	8	1,478.27
OH Other	PLANNED OUTAGE	2	457.73
URD Outage	PLANNED OUTAGE	24	1,044.40
OH Other	PLANNED OUTAGE	9	1,243.35
URD Outage	PLANNED OUTAGE	7	3.15
OH Other	PLANNED OUTAGE	7	633.97
Circuit Out	PLANNED OUTAGE	1,774	6,149.87
URD Outage	PLANNED OUTAGE	1,450	42,412.50
OH Other	PLANNED OUTAGE	11	3,563.27
OH Other	PLANNED OUTAGE	212	10,200.73
URD Outage	PLANNED OUTAGE	2	237.00
OH Other	PLANNED OUTAGE	7	2,912.70
OH Other	PLANNED OUTAGE	9	2,232.15
URD Outage	PLANNED OUTAGE	238	464.10
OH Other	PLANNED OUTAGE	1	346.25
OH Other	PLANNED OUTAGE	4	964.00
OH Other	PLANNED OUTAGE	2	324.40
OH Other	PLANNED OUTAGE	11	3,361.97
OH Other	PLANNED OUTAGE	1	85.55
OH Other	PLANNED OUTAGE	5	1,331.75
URD Outage	PLANNED OUTAGE	2	415.23
UG Other	PLANNED OUTAGE	30	7,030.00
OH Other	PLANNED OUTAGE	7	259.00
OH Other	PLANNED OUTAGE	8	437.20
OH Other	PLANNED OUTAGE	7	325.62
OH Other	PLANNED OUTAGE	6	2,494.30
OH Other	PLANNED OUTAGE	10	382.17
OH Other	PLANNED OUTAGE	12	4,440.20
OH Other	PLANNED OUTAGE	2	713.73
URD Outage	PLANNED OUTAGE	2	732.57
OH Other	PLANNED OUTAGE	17	3,441.93
UG Other	PLANNED OUTAGE	6	396.70
UG Other	PLANNED OUTAGE	1	66.12
PLF	PLANNED OUTAGE	18	362.40

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	36.33
OH Other	PLANNED OUTAGE	9	1,114.20
PLF	PLANNED OUTAGE	8	683.20
OH Other	PLANNED OUTAGE	6	429.50
PLF	PLANNED OUTAGE	9	429.60
OH Other	PLANNED OUTAGE	3	135.20
Service - Crew	PLANNED OUTAGE	1	313.23
OH Other	PLANNED OUTAGE	2	132.23
OH Other	PLANNED OUTAGE	9	2,251.20
OH Other	PLANNED OUTAGE	1	164.85
PLF	PLANNED OUTAGE	1	269.07
OH Other	PLANNED OUTAGE	1	13.77
OH Other	PLANNED OUTAGE	11	1,453.10
UG Other	PLANNED OUTAGE	1	37.08
OH Other	PLANNED OUTAGE	2	736.83
URD Outage	PLANNED OUTAGE	9	1,730.10
Circuit Out	PLANNED OUTAGE	928	1,809.60
URD Outage	PLANNED OUTAGE	673	19,674.03
URD Outage	PLANNED OUTAGE	673	34,861.40
OH Other	PLANNED OUTAGE	11	1,404.33
URD Outage	PLANNED OUTAGE	82	9,201.77
UG Other	PLANNED OUTAGE	16	624.27
OCR, Sec.	PLANNED OUTAGE	1,156	11,348.07
PLF	PLANNED OUTAGE	119	3,817.92
OH Other	PLANNED OUTAGE	2	772.13
URD Cable Cut	PLANNED OUTAGE	1	271.90
OH Other	PLANNED OUTAGE	14	2,677.97
OH Other	PLANNED OUTAGE	3	189.85
OH Other	PLANNED OUTAGE	1	183.75
OH Other	PLANNED OUTAGE	3	29.15
OH Other	PLANNED OUTAGE	5	1,204.58
PLF	PLANNED OUTAGE	2	182.13
OH Other	PLANNED OUTAGE	17	1,541.90
OH Other	PLANNED OUTAGE	4	446.93
OH Other	PLANNED OUTAGE	3	456.75
OH Other	PLANNED OUTAGE	5	639.33
Service - Crew	PLANNED OUTAGE	1	185.80
OH Other	PLANNED OUTAGE	3	202.25
PLF	PLANNED OUTAGE	29	913.02
UG Other	PLANNED OUTAGE	1	147.88
OH Other	PLANNED OUTAGE	765	79,228.50
OH Other	PLANNED OUTAGE	12	1,510.60
UG Other	PLANNED OUTAGE	7	476.58
OH Other	PLANNED OUTAGE	5	1,344.92
OH Other	PLANNED OUTAGE	5	550.58
UG Other	PLANNED OUTAGE	9	330.00

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	12	419.40
OH Other	PLANNED OUTAGE	1	18.28
UG Other	PLANNED OUTAGE	1	167.10
PLF	PLANNED OUTAGE	9	206.85
OH Other	PLANNED OUTAGE	5	724.58
PLF	PLANNED OUTAGE	7	469.23
OH Other	PLANNED OUTAGE	4	993.60
PLF	PLANNED OUTAGE	59	5,487.98
PLF	PLANNED OUTAGE	23	9,638.92
OH Other	PLANNED OUTAGE	1	90.85
Circuit Out	PLANNED OUTAGE	900	7,635.00
OH Other	PLANNED OUTAGE	7	1,483.18
OH Other	PLANNED OUTAGE	3	265.30
OH Other	PLANNED OUTAGE	14	241.97
OH Other	PLANNED OUTAGE	10	437.83
OH Other	PLANNED OUTAGE	10	372.33
OH Other	PLANNED OUTAGE	18	3,034.50
OH Other	PLANNED OUTAGE	6	976.10
OH Other	PLANNED OUTAGE	10	1,626.83
URD Outage	PLANNED OUTAGE	1	529.32
OH Other	PLANNED OUTAGE	7	539.82
OH Other	PLANNED OUTAGE	14	4,722.20
OH Other	PLANNED OUTAGE	3	443.10
OH Other	PLANNED OUTAGE	5	1,171.58
OH Other	PLANNED OUTAGE	6	493.30
PLF	PLANNED OUTAGE	18	1,608.90
OH Other	PLANNED OUTAGE	1	74.40
Circuit Out	PLANNED OUTAGE	783	6,864.30
Circuit Out	PLANNED OUTAGE	1,293	19,998.40
Circuit Out	PLANNED OUTAGE	662	26,491.03
OH Other	PLANNED OUTAGE	10	357.33
OH Other	PLANNED OUTAGE	4	883.60
UG Other	PLANNED OUTAGE	9	438.30
OH Other	PLANNED OUTAGE	7	1,778.23
OH Other	PLANNED OUTAGE	7	972.07
OH Other	PLANNED OUTAGE	10	743.33
OH Other	PLANNED OUTAGE	6	407.70
OH Other	PLANNED OUTAGE	6	491.30
OH Other	PLANNED OUTAGE	6	186.10
URD Outage	PLANNED OUTAGE	44	8,054.20
URD Outage	PLANNED OUTAGE	108	6,879.60
OH Other	PLANNED OUTAGE	120	18,848.00
OH Other	PLANNED OUTAGE	410	2,514.67
OH Other	PLANNED OUTAGE	1	218.07
OH Other	PLANNED OUTAGE	6	2,686.80
OH Other	PLANNED OUTAGE	8	1,240.93

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	1,870	22,190.67
OH Other	PLANNED OUTAGE	1	350.38
OH Other	PLANNED OUTAGE	11	574.57
TX Replaced (PM)	PLANNED OUTAGE	8	3,862.80
Step Restoration	PLANNED OUTAGE	10	1,352.83
Circuit Out	PLANNED OUTAGE	2,704	53,539.20
Circuit Out	PLANNED OUTAGE	487	3,116.80
Circuit Out	PLANNED OUTAGE	1,044	4,976.40
OH Other	PLANNED OUTAGE	686	33,316.73
Circuit Out	PLANNED OUTAGE	772	22,709.67
OH Other	PLANNED OUTAGE	6	378.10
URD Outage	PLANNED OUTAGE	13	1,053.43
OH Other	PLANNED OUTAGE	5	1,774.75
OH Other	PLANNED OUTAGE	6	1,330.80
OH Other	PLANNED OUTAGE	7	1,716.75
URD Outage	PLANNED OUTAGE	18	1,393.20
Circuit Out	PLANNED OUTAGE	770	564,037.83
OH Other	PLANNED OUTAGE	153	5,961.90
OH Other	PLANNED OUTAGE	9	410.85
OH Other	PLANNED OUTAGE	5	159.00
OH Other	PLANNED OUTAGE	1	63.73
OH Other	PLANNED OUTAGE	4	515.40
OH Other	PLANNED OUTAGE	10	2,915.00
OH Other	PLANNED OUTAGE	6	1,250.50
OH Other	PLANNED OUTAGE	5	847.83
OH Other	PLANNED OUTAGE	7	1,806.35
Service - Crew	PLANNED OUTAGE	1	163.27
URD Outage	PLANNED OUTAGE	1	70.35
URD Outage	PLANNED OUTAGE	1	437.58
URD Outage	PLANNED OUTAGE	2	662.97
OH Other	PLANNED OUTAGE	10	3,311.83
OH Other	PLANNED OUTAGE	12	3,974.20
OH Other	PLANNED OUTAGE	7	1,075.43
OH Other	PLANNED OUTAGE	1	143.05
OH Other	PLANNED OUTAGE	2	578.67
OH Other	PLANNED OUTAGE	2	662.90
OH Other	PLANNED OUTAGE	4	1,218.33
OH Other	PLANNED OUTAGE	12	944.40
OH Other	PLANNED OUTAGE	6	2,088.20
OH Other	PLANNED OUTAGE	7	2,436.23
OH Other	PLANNED OUTAGE	1	407.17
OH Other	PLANNED OUTAGE	27	9,047.70
OH Other	PLANNED OUTAGE	18	3,871.80
OH Other	PLANNED OUTAGE	4	1,216.27
OH Other	PLANNED OUTAGE	1	268.75
OH Other	PLANNED OUTAGE	21	9,511.25

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	6	2,698.60
OH Other	PLANNED OUTAGE	1	36.08
Circuit Out	PLANNED OUTAGE	1,467	1,589.25
OH Other	PLANNED OUTAGE	4	663.40
OH Other	PLANNED OUTAGE	8	1,327.07
OH Other	PLANNED OUTAGE	10	4,599.33
OH Other	PLANNED OUTAGE	1	45.43
URD Outage	PLANNED OUTAGE	1	243.00
OH Other	PLANNED OUTAGE	6	987.70
URD Outage	PLANNED OUTAGE	1	53.38
OH Other	PLANNED OUTAGE	7	1,336.88
OH Other	PLANNED OUTAGE	2	786.83
OH Other	PLANNED OUTAGE	5	742.25
OCR, Sec.	PLANNED OUTAGE	688	45,729.07
OH Other	PLANNED OUTAGE	119	10,081.28
OH Other	PLANNED OUTAGE	89	7,539.78
OH Other	PLANNED OUTAGE	43	10,439.68
OH Other	PLANNED OUTAGE	9	2,055.45
OH Other	PLANNED OUTAGE	12	3,155.60
URD Outage	PLANNED OUTAGE	13	3,045.68
OH Other	PLANNED OUTAGE	3	278.55
OH Other	PLANNED OUTAGE	58	505.57
OH Other	PLANNED OUTAGE	23	1,302.95
OH Other	PLANNED OUTAGE	35	209.42
OH Other	PLANNED OUTAGE	2	83.07
URD Outage	PLANNED OUTAGE	2	773.03
OH Other	PLANNED OUTAGE	8	1,941.33
URD Outage	PLANNED OUTAGE	852	229,031.80
UG Other	PLANNED OUTAGE	18	1,647.60
OH Other	PLANNED OUTAGE	5	849.58
PLF	PLANNED OUTAGE	8	3,038.80
OH Other	PLANNED OUTAGE	5	1,215.00
OH Other	PLANNED OUTAGE	182	4,170.83
OH Other	PLANNED OUTAGE	2	1,553.73
OH Other	PLANNED OUTAGE	6	320.70
OH Other	PLANNED OUTAGE	2	164.63
Circuit Out	PLANNED OUTAGE	1,137	8,205.35
OH Other	PLANNED OUTAGE	8	342.53
OCR, Sec.	PLANNED OUTAGE	122	41,974.10
OH Other	PLANNED OUTAGE	1	128.37
OH Other	PLANNED OUTAGE	2	524.17
PLF	PLANNED OUTAGE	1	196.95
OH Other	PLANNED OUTAGE	4	692.13
OH Other	PLANNED OUTAGE	17	6,292.27
OH Other	PLANNED OUTAGE	6	1,974.90
OH Other	PLANNED OUTAGE	2	444.30

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	210.82
OH Other	PLANNED OUTAGE	2	611.40
OH Other	PLANNED OUTAGE	1	1.02
OH Other	PLANNED OUTAGE	1	55.35
URD Outage	PLANNED OUTAGE	4	151.07
URD Outage	PLANNED OUTAGE	2	78.83
OH Other	PLANNED OUTAGE	6	1,457.70
OH Other	PLANNED OUTAGE	1	87.02
OH Other	PLANNED OUTAGE	1	131.72
OH Other	PLANNED OUTAGE	1	131.82
Connections	PLANNED OUTAGE	1	248.42
Circuit Out	PLANNED OUTAGE	1,526	107,455.83
OH Other	PLANNED OUTAGE	1	50.43
OH Other	PLANNED OUTAGE	6	273.20
OH Other	PLANNED OUTAGE	2	1,146.80
OH Other	PLANNED OUTAGE	3	212.15
Step Restoration	PLANNED OUTAGE	9	2,035.65
OH Other	PLANNED OUTAGE	16	2,096.80
OH Other	PLANNED OUTAGE	6	396.20
URD Outage	PLANNED OUTAGE	9	518.70
OH Other	PLANNED OUTAGE	1	517.93
URD Outage	PLANNED OUTAGE	33	6,577.45
URD Outage	PLANNED OUTAGE	8	792.53
URD Outage	PLANNED OUTAGE	6	204.00
URD Outage	PLANNED OUTAGE	12	1,007.60
OH Other	PLANNED OUTAGE	5	143.75
OH Other	PLANNED OUTAGE	21	2,745.40
OH Other	PLANNED OUTAGE	7	2,126.37
OH Other	PLANNED OUTAGE	250	9,416.67
OH Other	PLANNED OUTAGE	1	37.30
OH Other	PLANNED OUTAGE	5	1,335.17
URD Outage	PLANNED OUTAGE	10	443.50
URD Outage	PLANNED OUTAGE	1	77.15
URD Outage	PLANNED OUTAGE	2	56.10
OH Other	PLANNED OUTAGE	2	887.70
PLF	PLANNED OUTAGE	18	2,178.60
OCR, Sec.	PLANNED OUTAGE	194	26,878.70
OH Other	PLANNED OUTAGE	12	1,084.40
OH Other	PLANNED OUTAGE	1	1,164.42
OH Other	PLANNED OUTAGE	2	600.03
OH Other	PLANNED OUTAGE	5	291.33
OH Other	PLANNED OUTAGE	1	47.80
OH Other	PLANNED OUTAGE	10	1,453.50
OH Other	PLANNED OUTAGE	1	233.18
OH Other	PLANNED OUTAGE	7	1,119.77
OH Other	PLANNED OUTAGE	1	168.80

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	8	1,514.27
OH Other	PLANNED OUTAGE	32	11,545.07
OH Other	PLANNED OUTAGE	6	289.30
OH Other	PLANNED OUTAGE	5	725.75
OH Other	PLANNED OUTAGE	1	34.33
OH Other	PLANNED OUTAGE	9	1,088.10
OH Other	PLANNED OUTAGE	3	378.00
OH Other	PLANNED OUTAGE	13	788.67
OH Other	PLANNED OUTAGE	12	731.80
OH Other	PLANNED OUTAGE	11	338.07
OH Other	PLANNED OUTAGE	1	256.42
OH Other	PLANNED OUTAGE	3	699.15
OH Other	PLANNED OUTAGE	6	974.20
OH Other	PLANNED OUTAGE	1	358.77
PLF	PLANNED OUTAGE	1	109.02
UG Other	PLANNED OUTAGE	1	59.50
OH Other	PLANNED OUTAGE	8	466.93
OH Other	PLANNED OUTAGE	6	2,605.60
URD Outage	PLANNED OUTAGE	1	175.47
OH Other	PLANNED OUTAGE	2	1,340.03
OH Other	PLANNED OUTAGE	6	183.00
Circuit Out	PLANNED OUTAGE	792	36,630.00
OH Other	PLANNED OUTAGE	40	3,401.33
OH Other	PLANNED OUTAGE	1	26.93
UG Other	PLANNED OUTAGE	1	293.42
OH Other	PLANNED OUTAGE	6	1,289.60
OH Other	PLANNED OUTAGE	4	681.67
OH Other	PLANNED OUTAGE	7	696.03
OH Other	PLANNED OUTAGE	5	497.25
OH Other	PLANNED OUTAGE	2	414.50
OH Other	PLANNED OUTAGE	1	206.00
OH Other	PLANNED OUTAGE	6	250.60
OH Other	PLANNED OUTAGE	5	3,254.00
OH Other	PLANNED OUTAGE	4	362.40
OH Other	PLANNED OUTAGE	2	1,080.07
UG Other	PLANNED OUTAGE	1	258.03
URD Outage	PLANNED OUTAGE	782	15,249.00
OH Other	PLANNED OUTAGE	5	841.58
URD Outage	PLANNED OUTAGE	24	2,894.00
OH Other	PLANNED OUTAGE	12	621.40
OH Other	PLANNED OUTAGE	1	34.93
OH Other	PLANNED OUTAGE	416	69,888.00
OH Other	PLANNED OUTAGE	5	770.25
URD Outage	PLANNED OUTAGE	1	93.07
OH Other	PLANNED OUTAGE	1	238.37
URD Outage	PLANNED OUTAGE	2	1,370.90

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	7	2,221.68
URD Outage	PLANNED OUTAGE	25	1,685.00
OCR, Sec.	PLANNED OUTAGE	1,094	33,458.17
OH Other	PLANNED OUTAGE	6	895.40
URD Outage	PLANNED OUTAGE	1	395.07
TX Replaced (PM)	PLANNED OUTAGE	10	4,857.67
PLF	PLANNED OUTAGE	1	261.15
OH Other	PLANNED OUTAGE	2	126.67
OH Other	PLANNED OUTAGE	3	187.65
OH Other	PLANNED OUTAGE	7	434.23
OH Other	PLANNED OUTAGE	1	229.35
OH Other	PLANNED OUTAGE	4	168.93
OH Other	PLANNED OUTAGE	1	116.95
OH Other	PLANNED OUTAGE	2	239.33
OH Other	PLANNED OUTAGE	25	2,598.75
OH Other	PLANNED OUTAGE	13	1,529.88
OH Other	PLANNED OUTAGE	10	409.33
OH Other	PLANNED OUTAGE	5	1,355.50
OH Other	PLANNED OUTAGE	7	2,615.55
OH Other	PLANNED OUTAGE	1	49.27
OH Other	PLANNED OUTAGE	17	6,177.23
OH Other	PLANNED OUTAGE	3	714.75
OH Other	PLANNED OUTAGE	1	180.65
Service - Crew	PLANNED OUTAGE	1	370.75
OH Other	PLANNED OUTAGE	3	379.70
OH Other	PLANNED OUTAGE	6	1,011.40
OH Other	PLANNED OUTAGE	4	356.13
OH Other	PLANNED OUTAGE	11	3,329.15
URD Outage	PLANNED OUTAGE	20	3,445.00
OH Other	PLANNED OUTAGE	25	2,768.33
OH Other	PLANNED OUTAGE	4	1,444.47
OH Other	PLANNED OUTAGE	3	1,069.35
PLF	PLANNED OUTAGE	27	1,845.45
OH Other	PLANNED OUTAGE	4	236.80
OH Other	PLANNED OUTAGE	5	962.58
OH Other	PLANNED OUTAGE	17	1,250.35
PLF	PLANNED OUTAGE	9	3,131.40
PLF	PLANNED OUTAGE	131	13,038.87
TX Replaced (PM)	PLANNED OUTAGE	53	3,853.10
PLF	PLANNED OUTAGE	2	2,122.40
OH Other	PLANNED OUTAGE	3	453.15
UG Other	PLANNED OUTAGE	21	6,240.85
OH Other	PLANNED OUTAGE	1	77.28
OH Other	PLANNED OUTAGE	14	19,736.27
OH Other	PLANNED OUTAGE	1	185.67
OH Other	PLANNED OUTAGE	3	298.00



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	5	589.33
OH Other	PLANNED OUTAGE	3	301.40
OH Other	PLANNED OUTAGE	4	451.53
OH Other	PLANNED OUTAGE	8	693.60
OH Other	PLANNED OUTAGE	2	1,038.00
OH Other	PLANNED OUTAGE	55	2,100.08
URD Outage	PLANNED OUTAGE	7	253.28
OH Other	PLANNED OUTAGE	5	288.58
OH Other	PLANNED OUTAGE	8	1,958.27
OH Other	PLANNED OUTAGE	14	1,462.07
OH Other	PLANNED OUTAGE	9	2,040.30
URD Outage	PLANNED OUTAGE	10	2,268.33
OH Other	PLANNED OUTAGE	5	126.17
OH Other	PLANNED OUTAGE	4	99.80
URD Outage	PLANNED OUTAGE	1	76.20
OH Other	PLANNED OUTAGE	17	2,523.65
Primary Wire	PLANNED OUTAGE	2	1,441.20
OH Other	PLANNED OUTAGE	10	2,791.17
OH Other	PLANNED OUTAGE	19	4,883.00
URD Outage	PLANNED OUTAGE	1	21.05
OH Other	PLANNED OUTAGE	1	235.32
OCR, Sec.	PLANNED OUTAGE	235	955.67
URD Outage	PLANNED OUTAGE	6	1,817.20
OH Other	PLANNED OUTAGE	2	474.20
OH Other	PLANNED OUTAGE	3	171.50
OH Other	PLANNED OUTAGE	8	3,027.73
OH Other	PLANNED OUTAGE	1	276.02
OH Other	PLANNED OUTAGE	4	1,687.47
OH Other	PLANNED OUTAGE	2	380.13
Circuit Out	PLANNED OUTAGE	1,399	11,984.77
OH Other	PLANNED OUTAGE	1	75.63
URD Outage	PLANNED OUTAGE	9	796.65
URD Outage	PLANNED OUTAGE	86	25,610.80
OH Other	PLANNED OUTAGE	1	244.53
OH Other	PLANNED OUTAGE	1	101.53
PLF	PLANNED OUTAGE	25	714.58
OH Other	PLANNED OUTAGE	10	1,344.17
OH Other	PLANNED OUTAGE	6	1,017.70
OH Other	PLANNED OUTAGE	7	774.08
Connections	PLANNED OUTAGE	1	121.82
OH Other	PLANNED OUTAGE	3	266.70
Service - Crew	PLANNED OUTAGE	1	453.25
UG Other	PLANNED OUTAGE	23	6,554.23
OH Other	PLANNED OUTAGE	158	2,793.97
OH Other	PLANNED OUTAGE	765	1,211.25
OH Other	PLANNED OUTAGE	27	6,036.30

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	6	1,287.50
OH Other	PLANNED OUTAGE	1	42.07
OH Other	PLANNED OUTAGE	2	489.73
OH Other	PLANNED OUTAGE	8	2,947.47
OH Other	PLANNED OUTAGE	6	3,484.90
OH Other	PLANNED OUTAGE	5	1,133.25
URD Outage	PLANNED OUTAGE	6	456.30
OH Other	PLANNED OUTAGE	1	433.25
Circuit Out	PLANNED OUTAGE	300	630.00
Circuit Out	PLANNED OUTAGE	873	9,486.60
OH Other	PLANNED OUTAGE	10	1,971.00
OH Other	PLANNED OUTAGE	3	115.15
UG Other	PLANNED OUTAGE	7	743.52
OH Other	PLANNED OUTAGE	1	63.38
OH Other	PLANNED OUTAGE	1	124.28
Circuit Out	PLANNED OUTAGE	1,125	12,506.25
URD Outage	PLANNED OUTAGE	1	42.28
URD Outage	PLANNED OUTAGE	1	156.92
OH Other	PLANNED OUTAGE	3	334.25
OH Other	PLANNED OUTAGE	65	3,946.58
OH Other	PLANNED OUTAGE	16	2,783.47
OH Other	PLANNED OUTAGE	22	6,596.33
URD Outage	PLANNED OUTAGE	257	3,456.65
OH Other	PLANNED OUTAGE	33	8,591.00
URD Outage	PLANNED OUTAGE	1	231.50
OH Other	PLANNED OUTAGE	1	79.68
OH Other	PLANNED OUTAGE	9	2,118.00
OH Other	PLANNED OUTAGE	8	712.67
OH Other	PLANNED OUTAGE	7	157.50
Circuit Out	PLANNED OUTAGE	876	10,482.80
OH Other	PLANNED OUTAGE	3	258.20
OH Other	PLANNED OUTAGE	434	53,917.27
OH Other	PLANNED OUTAGE	9	2,966.70
OH Other	PLANNED OUTAGE	7	400.87
OH Other	PLANNED OUTAGE	6	113.30
URD Outage	PLANNED OUTAGE	14	1,267.47
URD Outage	PLANNED OUTAGE	14	441.23
OH Other	PLANNED OUTAGE	4	500.73
OH Other	PLANNED OUTAGE	5	279.42
OH Other	PLANNED OUTAGE	1	252.30
URD Outage	PLANNED OUTAGE	12	4,503.40
URD Outage	PLANNED OUTAGE	2	469.93
OH Other	PLANNED OUTAGE	10	5,312.17
OH Other	PLANNED OUTAGE	49	19,559.17
URD Outage	PLANNED OUTAGE	1	148.10
OH Other	PLANNED OUTAGE	11	221.47

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	401.05
OH Other	PLANNED OUTAGE	2	165.13
OH Other	PLANNED OUTAGE	1	523.43
OH Other	PLANNED OUTAGE	22	8,183.63
URD Outage	PLANNED OUTAGE	233	29,206.55
OH Other	PLANNED OUTAGE	13	4,714.23
OH Other	PLANNED OUTAGE	4	253.80
OH Other	PLANNED OUTAGE	49	11,519.90
OH Other	PLANNED OUTAGE	5	594.92
OH Other	PLANNED OUTAGE	153	9,103.50
Circuit Out	PLANNED OUTAGE	1,515	18,710.25
URD Outage	PLANNED OUTAGE	60	2,183.00
Circuit Out	PLANNED OUTAGE	415	2,884.25
PLF	PLANNED OUTAGE	28	3,285.33
OH Other	PLANNED OUTAGE	10	150.67
OH Other	PLANNED OUTAGE	36	10,622.40
OH Other	PLANNED OUTAGE	7	174.77
OCR, Sec.	PLANNED OUTAGE	736	4,182.93
Circuit Out	PLANNED OUTAGE	1,008	26,560.80
URD Outage	PLANNED OUTAGE	2	2,667.40
PLF	PLANNED OUTAGE	310	5,435.33
OH Other	PLANNED OUTAGE	4	339.93
OH Other	PLANNED OUTAGE	8	2,098.80
OH Other	PLANNED OUTAGE	9	1,150.20
OH Other	PLANNED OUTAGE	3	1,094.95
OH Other	PLANNED OUTAGE	15	278.50
OH Other	PLANNED OUTAGE	2	85.43
URD Outage	PLANNED OUTAGE	12	2,278.00
OH Other	PLANNED OUTAGE	1	330.33
OH Other	PLANNED OUTAGE	7	3,183.37
OH Other	PLANNED OUTAGE	3	1,072.50
OH Other	PLANNED OUTAGE	3	391.65
OH Other	PLANNED OUTAGE	7	911.75
OH Other	PLANNED OUTAGE	11	356.58
OH Other	PLANNED OUTAGE	11	523.60
URD Outage	PLANNED OUTAGE	2	595.17
URD Outage	PLANNED OUTAGE	12	172.60
OH Other	PLANNED OUTAGE	1	54.08
OH Other	PLANNED OUTAGE	28	11,963.93
OH Other	PLANNED OUTAGE	4	1,598.40
OH Other	PLANNED OUTAGE	11	2,949.28
OH Other	PLANNED OUTAGE	1	602.52
OH Other	PLANNED OUTAGE	3	1,803.20
OH Other	PLANNED OUTAGE	34	424.43
URD Outage	PLANNED OUTAGE	1	400.05
OH Other	PLANNED OUTAGE	9	2,356.20

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	30	5,249.00
OH Other	PLANNED OUTAGE	4	2,098.13
OH Other	PLANNED OUTAGE	4	64.73
Invalid	PLANNED OUTAGE	1	58.83
OH Other	PLANNED OUTAGE	13	702.00
Service - Crew	PLANNED OUTAGE	1	116.95
OH Other	PLANNED OUTAGE	3	236.65
OH Other	PLANNED OUTAGE	5	323.92
OH Other	PLANNED OUTAGE	9	1,399.65
OH Other	PLANNED OUTAGE	1	291.93
OH Other	PLANNED OUTAGE	23	789.67
Service - Crew	PLANNED OUTAGE	1	75.93
OH Other	PLANNED OUTAGE	9	3,636.45
URD Outage	PLANNED OUTAGE	1	39.20
OH Other	PLANNED OUTAGE	7	396.08
URD Outage	PLANNED OUTAGE	8	370.67
OH Other	PLANNED OUTAGE	3	1,520.10
OH Other	PLANNED OUTAGE	3	1,088.80
OH Other	PLANNED OUTAGE	10	3,486.00
OH Other	PLANNED OUTAGE	11	284.53
Invalid	PLANNED OUTAGE	1	35.05
OH Other	PLANNED OUTAGE	4	2,089.27
OCR, Sec.	PLANNED OUTAGE	152	258.40
OH Other	PLANNED OUTAGE	1	39.17
UG Other	PLANNED OUTAGE	1	13.22
UG Other	PLANNED OUTAGE	1	69.28
UG Other	PLANNED OUTAGE	1	105.42
URD Outage	PLANNED OUTAGE	1	316.22
OH Other	PLANNED OUTAGE	3	139.75
Circuit Out	PLANNED OUTAGE	1,016	9,059.33
OH Other	PLANNED OUTAGE	64	1,298.13
OH Other	PLANNED OUTAGE	4	816.00
OH Other	PLANNED OUTAGE	1	263.28
OH Other	PLANNED OUTAGE	6	798.40
OH Other	PLANNED OUTAGE	8	924.53
OH Other	PLANNED OUTAGE	1	242.75
OH Other	PLANNED OUTAGE	3	404.10
OH Other	PLANNED OUTAGE	5	1,044.33
OH Other	PLANNED OUTAGE	1	320.80
OH Other	PLANNED OUTAGE	6	1,805.90
URD Outage	PLANNED OUTAGE	1	235.02
OH Other	PLANNED OUTAGE	3	583.65
URD Outage	PLANNED OUTAGE	7	715.28
OH Other	PLANNED OUTAGE	2	478.37
OH Other	PLANNED OUTAGE	8	2,049.47
OH Other	PLANNED OUTAGE	4	416.33

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	104.25
OH Other	PLANNED OUTAGE	3	91.45
OH Other	PLANNED OUTAGE	10	1,095.67
OH Other	PLANNED OUTAGE	50	2,103.33
OH Other	PLANNED OUTAGE	6	2,208.20
OH Other	PLANNED OUTAGE	115	1,799.75
OH Other	PLANNED OUTAGE	5	860.42
OH Other	PLANNED OUTAGE	5	1,686.67
OH Other	PLANNED OUTAGE	18	6,021.90
URD Outage	PLANNED OUTAGE	519	158,243.10
URD Outage	PLANNED OUTAGE	10	901.17
OH Other	PLANNED OUTAGE	4	374.60
OH Other	PLANNED OUTAGE	6	1,313.60
OCR, Sec.	PLANNED OUTAGE	287	1,808.10
URD Outage	PLANNED OUTAGE	6	1,654.20
OH Other	PLANNED OUTAGE	14	2,079.23
OH Other	PLANNED OUTAGE	219	20,965.60
OH Other	PLANNED OUTAGE	5	1,730.67
OH Other	PLANNED OUTAGE	8	1,800.93
OH Other	PLANNED OUTAGE	402	536.00
Primary Wire	PLANNED OUTAGE	37	4,944.43
Primary Wire	PLANNED OUTAGE	451	13,996.03
OH Other	PLANNED OUTAGE	2	854.97
OH Other	PLANNED OUTAGE	10	4,033.33
OH Other	PLANNED OUTAGE	10	4,033.33
OH Other	PLANNED OUTAGE	10	4,367.00
Circuit Out	PLANNED OUTAGE	2,428	7,729.13
Switch 600 amp	PLANNED OUTAGE	1	334.12
Switch 600 amp	PLANNED OUTAGE	1	334.12
Circuit Out	PLANNED OUTAGE	1,602	5,446.80
URD Outage	PLANNED OUTAGE	67	8,182.93
OH Other	PLANNED OUTAGE	8	2,667.33
OH Other	PLANNED OUTAGE	1	237.08
OH Other	PLANNED OUTAGE	7	1,428.00
OH Other	PLANNED OUTAGE	5	906.42
OH Other	PLANNED OUTAGE	6	182.90
Circuit Out	PLANNED OUTAGE	580	18,608.33
URD Outage	PLANNED OUTAGE	8	3,446.40
OH Other	PLANNED OUTAGE	81	4,626.45
OH Other	PLANNED OUTAGE	9	4,574.40
OH Other	PLANNED OUTAGE	6	2,438.50
OH Other	PLANNED OUTAGE	10	2,704.83
OH Other	PLANNED OUTAGE	1	55.78
OH Other	PLANNED OUTAGE	1	357.92
OH Other	PLANNED OUTAGE	12	4,287.80
OH Other	PLANNED OUTAGE	3	1,339.55

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	96.12
OH Other	PLANNED OUTAGE	11	3,667.40
OH Other	PLANNED OUTAGE	47	6,051.25
OH Other	PLANNED OUTAGE	2	803.80
OH Other	PLANNED OUTAGE	24	8,525.20
PLF	PLANNED OUTAGE	37	6,694.53
Step Restoration	PLANNED OUTAGE	23	4,161.47
Step Restoration	PLANNED OUTAGE	4	1,579.67
OH Other	PLANNED OUTAGE	13	4,160.65
OH Other	PLANNED OUTAGE	2	410.73
UG Other	PLANNED OUTAGE	4	196.00
OH Other	PLANNED OUTAGE	1	727.23
OH Other	PLANNED OUTAGE	7	796.72
URD Outage	PLANNED OUTAGE	9	561.30
OH Other	PLANNED OUTAGE	4	2,859.87
OH Other	PLANNED OUTAGE	1	312.07
PLF	PLANNED OUTAGE	6	605.00
OH Other	PLANNED OUTAGE	3	1,425.85
URD Outage	PLANNED OUTAGE	1	430.10
OH Other	PLANNED OUTAGE	14	1,736.70
OH Other	PLANNED OUTAGE	4	2,316.40
OH Other	PLANNED OUTAGE	1	556.07
OH Other	PLANNED OUTAGE	13	1,678.52
OH Other	PLANNED OUTAGE	1	53.10
UG Other	PLANNED OUTAGE	1	100.37
URD Outage	PLANNED OUTAGE	9	758.25
OH Other	PLANNED OUTAGE	1	58.03
OH Other	PLANNED OUTAGE	4	850.87
OH Other	PLANNED OUTAGE	9	685.80
OH Other	PLANNED OUTAGE	2	1,888.53
Circuit Out	PLANNED OUTAGE	1,648	44,825.60
OH Other	PLANNED OUTAGE	31	1,035.40
OH Other	PLANNED OUTAGE	17	6,507.32
OH Other	PLANNED OUTAGE	7	625.10
OH Other	PLANNED OUTAGE	4	626.20
OH Other	PLANNED OUTAGE	1	156.58
OH Other	PLANNED OUTAGE	1	205.23
Connections	PLANNED OUTAGE	1	542.08
PLF	PLANNED OUTAGE	1	119.62
Service - Crew	PLANNED OUTAGE	1	138.60
OH Other	PLANNED OUTAGE	5	357.42
OH Other	PLANNED OUTAGE	3	215.15
PLF	PLANNED OUTAGE	2	382.53
OH Other	PLANNED OUTAGE	12	480.20
UG Other	PLANNED OUTAGE	1	61.27
PLF	PLANNED OUTAGE	1	77.52

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	383.52
PLF	PLANNED OUTAGE	1	383.42
PLF	PLANNED OUTAGE	3	83.20
PLF	PLANNED OUTAGE	6	564.20
PLF	PLANNED OUTAGE	5	310.17
OH Other	PLANNED OUTAGE	3	666.15
OH Other	PLANNED OUTAGE	6	1,137.80
Circuit Out	PLANNED OUTAGE	456	126,980.80
PLF	PLANNED OUTAGE	1	368.93
PLF	PLANNED OUTAGE	9	2,525.85
PLF	PLANNED OUTAGE	1	549.13
OH Other	PLANNED OUTAGE	3	382.00
Secondary Wire	PLANNED OUTAGE	1	110.98
OH Other	PLANNED OUTAGE	29	256.65
OH Other	PLANNED OUTAGE	6	1,590.30
OH Other	PLANNED OUTAGE	4	524.87
OH Other	PLANNED OUTAGE	6	3,238.20
OH Other	PLANNED OUTAGE	1	515.20
OH Other	PLANNED OUTAGE	10	932.33
UG Other	PLANNED OUTAGE	8	1,465.20
OH Other	PLANNED OUTAGE	11	4,032.60
OH Other	PLANNED OUTAGE	5	264.00
OH Other	PLANNED OUTAGE	6	325.20
OH Other	PLANNED OUTAGE	7	349.53
UG Other	PLANNED OUTAGE	6	309.40
Connections	PLANNED OUTAGE	1	58.10
OH Other	PLANNED OUTAGE	3	476.85
OH Other	PLANNED OUTAGE	1	66.78
Invalid	PLANNED OUTAGE	1	167.95
URD Outage	PLANNED OUTAGE	1	38.20
URD Outage	PLANNED OUTAGE	11	2,129.60
Service - Crew	PLANNED OUTAGE	1	522.23
OCR, Sec.	PLANNED OUTAGE	223	1,051.82
OH Other	PLANNED OUTAGE	6	3,523.30
OH Other	PLANNED OUTAGE	12	2,226.60
OH Other	PLANNED OUTAGE	2	93.00
OH Other	PLANNED OUTAGE	5	908.75
URD Outage	PLANNED OUTAGE	2	621.87
URD Outage	PLANNED OUTAGE	1	46.23
OH Other	PLANNED OUTAGE	1	181.80
URD Outage	PLANNED OUTAGE	770	249,942.00
OH Other	PLANNED OUTAGE	1	42.93
Service - Non Crew	PLANNED OUTAGE	1	15.53
OH Other	PLANNED OUTAGE	1	77.53
URD Outage	PLANNED OUTAGE	18	3,097.50
OH Other	PLANNED OUTAGE	1	150.45

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	864	1,353.60
OH Other	PLANNED OUTAGE	4	129.67
OH Other	PLANNED OUTAGE	4	1,501.87
OH Other	PLANNED OUTAGE	4	959.80
URD Outage	PLANNED OUTAGE	1	44.08
OH Other	PLANNED OUTAGE	8	1,491.20
OH Other	PLANNED OUTAGE	10	359.33
OH Other	PLANNED OUTAGE	6	469.30
OH Other	PLANNED OUTAGE	7	356.30
OH Other	PLANNED OUTAGE	4	393.53
OH Other	PLANNED OUTAGE	2	282.27
OH Other	PLANNED OUTAGE	9	2,640.45
OH Other	PLANNED OUTAGE	2	686.30
OH Other	PLANNED OUTAGE	1,577	4,520.73
URD Outage	PLANNED OUTAGE	23	1,146.55
OH Other	PLANNED OUTAGE	9	1,144.80
OH Other	PLANNED OUTAGE	15	1,938.75
OH Other	PLANNED OUTAGE	4	745.20
URD Outage	PLANNED OUTAGE	75	4,161.25
URD Outage	PLANNED OUTAGE	9	472.50
OH Other	PLANNED OUTAGE	5	1,201.58
OH Other	PLANNED OUTAGE	11	525.80
OH Other	PLANNED OUTAGE	1	145.87
OH Other	PLANNED OUTAGE	6	814.20
Service - Crew	PLANNED OUTAGE	1	312.85
Connections	PLANNED OUTAGE	1	34.83
OH Other	PLANNED OUTAGE	1	39.02
OH Other	PLANNED OUTAGE	10	569.67
OH Other	PLANNED OUTAGE	6	1,505.10
OH Other	PLANNED OUTAGE	59	548.70
OH Other	PLANNED OUTAGE	7	1,563.57
URD Outage	PLANNED OUTAGE	11	1,108.25
OH Other	PLANNED OUTAGE	15	3,004.50
OH Other	PLANNED OUTAGE	7	1,239.70
Meter Damaged	PLANNED OUTAGE	1	722.28
OH Other	PLANNED OUTAGE	6	1,033.30
OH Other	PLANNED OUTAGE	1	172.28
URD Outage	PLANNED OUTAGE	12	718.40
OH Other	PLANNED OUTAGE	1	89.95
OH Other	PLANNED OUTAGE	7	998.08
OH Other	PLANNED OUTAGE	1	245.12
OH Other	PLANNED OUTAGE	1	252.42
URD Outage	PLANNED OUTAGE	38	2,053.90
URD Outage	PLANNED OUTAGE	2	186.07
OCR, Sec.	PLANNED OUTAGE	847	90,713.70
OH Other	PLANNED OUTAGE	13	326.30



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
Circuit Out	PLANNED OUTAGE	2,949	3,194.75
OH Other	PLANNED OUTAGE	4	109.20
OH Other	PLANNED OUTAGE	14	11,490.03
PLF	PLANNED OUTAGE	50	7,196.67
OH Other	PLANNED OUTAGE	12	6,184.80
OH Other	PLANNED OUTAGE	2	424.20
URD Outage	PLANNED OUTAGE	10	311.00
OH Other	PLANNED OUTAGE	1	327.33
OH Other	PLANNED OUTAGE	9	790.50
OH Other	PLANNED OUTAGE	9	2,375.85
OH Other	PLANNED OUTAGE	3	1,220.50
OH Other	PLANNED OUTAGE	1	119.15
URD Outage	PLANNED OUTAGE	1	144.82
OH Other	PLANNED OUTAGE	142	19,536.83
OH Other	PLANNED OUTAGE	1	94.32
OH Other	PLANNED OUTAGE	1	254.20
OH Other	PLANNED OUTAGE	1	188.25
OH Other	PLANNED OUTAGE	6	2,309.90
UG Other	PLANNED OUTAGE	1	95.87
OH Other	PLANNED OUTAGE	6	2,482.40
OH Other	PLANNED OUTAGE	1	392.32
Circuit Out	PLANNED OUTAGE	284	544.33
OH Other	PLANNED OUTAGE	6	1,506.10
Circuit Out	PLANNED OUTAGE	1,236	8,569.60
OH Other	PLANNED OUTAGE	89	26,103.70
PLF	PLANNED OUTAGE	1	381.63
PLF	PLANNED OUTAGE	1	535.27
UG Other	PLANNED OUTAGE	6	170.30
OH Other	PLANNED OUTAGE	1	469.87
OH Other	PLANNED OUTAGE	11	5,128.57
OH Other	PLANNED OUTAGE	2	440.67
UG Other	PLANNED OUTAGE	4	208.40
OH Other	PLANNED OUTAGE	11	4,989.05
OH Other	PLANNED OUTAGE	11	4,244.72
OH Other	PLANNED OUTAGE	5	310.75
Circuit Out	PLANNED OUTAGE	1,507	4,144.25
OH Other	PLANNED OUTAGE	5	236.75
PLF	PLANNED OUTAGE	32	8,707.20
TX Replaced (PM)	PLANNED OUTAGE	3	1,668.15
Circuit Out	PLANNED OUTAGE	1,562	4,738.07
OH Other	PLANNED OUTAGE	1	495.48
OH Other	PLANNED OUTAGE	3	572.30
OH Other	PLANNED OUTAGE	16	7,301.33
OH Other	PLANNED OUTAGE	1	61.02
OH Other	PLANNED OUTAGE	9	2,019.75
OH Other	PLANNED OUTAGE	1	122.85

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	1	56.13
OCR, Sec.	PLANNED OUTAGE	328	12,704.53
OH Other	PLANNED OUTAGE	1	59.40
PLF	PLANNED OUTAGE	1	308.60
OH Other	PLANNED OUTAGE	3	1,698.15
OH Other	PLANNED OUTAGE	6	1,730.90
OH Other	PLANNED OUTAGE	3	792.20
OH Other	PLANNED OUTAGE	1	300.30
OH Other	PLANNED OUTAGE	16	3,016.53
URD Outage	PLANNED OUTAGE	2	167.80
OH Other	PLANNED OUTAGE	10	778.17
OH Other	PLANNED OUTAGE	5	1,935.50
URD Outage	PLANNED OUTAGE	32	1,448.53
OH Other	PLANNED OUTAGE	9	1,235.10
OH Other	PLANNED OUTAGE	1	387.08
OH Other	PLANNED OUTAGE	8	824.27
OH Other	PLANNED OUTAGE	5	1,770.92
OH Other	PLANNED OUTAGE	9	2,595.75
OH Other	PLANNED OUTAGE	7	568.52
OH Other	PLANNED OUTAGE	17	2,477.47
OH Other	PLANNED OUTAGE	4	394.27
OH Other	PLANNED OUTAGE	2	389.97
OH Other	PLANNED OUTAGE	11	4,430.43
Circuit Out	PLANNED OUTAGE	2,635	8,344.17
URD Outage	PLANNED OUTAGE	58	6,572.37
OH Other	PLANNED OUTAGE	12	1,265.00
OH Other	PLANNED OUTAGE	5	2,685.67
URD Outage	PLANNED OUTAGE	5	415.00
URD Outage	PLANNED OUTAGE	1	144.37
URD Outage	PLANNED OUTAGE	6	312.40
OH Other	PLANNED OUTAGE	4	1,900.80
OH Other	PLANNED OUTAGE	13	883.57
OH Other	PLANNED OUTAGE	7	1,179.27
OH Other	PLANNED OUTAGE	6	3,793.80
OH Other	PLANNED OUTAGE	6	350.10
OH Other	PLANNED OUTAGE	2	97.80
OH Other	PLANNED OUTAGE	1	269.28
OH Other	PLANNED OUTAGE	1	171.47
OH Other	PLANNED OUTAGE	1	157.10
OH Other	PLANNED OUTAGE	25	9,823.75
OH Other	PLANNED OUTAGE	75	18,366.25
OH Other	PLANNED OUTAGE	3	136.95
OH Other	PLANNED OUTAGE	9	1,272.30
OH Other	PLANNED OUTAGE	3	1,340.30
OH Other	PLANNED OUTAGE	11	2,294.60
OCR, Sec.	PLANNED OUTAGE	565	659.17

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	157.97
OH Other	PLANNED OUTAGE	21	947.45
OH Other	PLANNED OUTAGE	9	126.75
OH Other	PLANNED OUTAGE	1	107.68
Circuit Out	PLANNED OUTAGE	572	8,656.27
URD Outage	PLANNED OUTAGE	1	418.70
URD Outage	PLANNED OUTAGE	13	1,455.35
OH Other	PLANNED OUTAGE	1	39.68
Circuit Out	PLANNED OUTAGE	627	2,246.75
OH Other	PLANNED OUTAGE	1	148.63
OH Other	PLANNED OUTAGE	3	99.00
OH Other	PLANNED OUTAGE	1	43.72
OH Other	PLANNED OUTAGE	1,001	32,749.38
OH Other	PLANNED OUTAGE	4	521.53
URD Outage	PLANNED OUTAGE	6	315.50
OH Other	PLANNED OUTAGE	6	296.60
OH Other	PLANNED OUTAGE	5	1,236.75
OH Other	PLANNED OUTAGE	1	130.72
OH Other	PLANNED OUTAGE	13	2,660.45
OH Other	PLANNED OUTAGE	12	1,187.80
OH Other	PLANNED OUTAGE	1	100.83
OH Other	PLANNED OUTAGE	1	152.62
Step Restoration	PLANNED OUTAGE	212	16,578.40
URD Outage	PLANNED OUTAGE	1	323.33
OH Other	PLANNED OUTAGE	1	30.53
PLF	PLANNED OUTAGE	14	581.23
OH Other	PLANNED OUTAGE	7	2,506.12
PLF	PLANNED OUTAGE	43	2,805.03
OH Other	PLANNED OUTAGE	8	1,005.33
OH Other	PLANNED OUTAGE	3	371.10
OH Other	PLANNED OUTAGE	4	100.47
OH Other	PLANNED OUTAGE	4	131.33
UG Other	PLANNED OUTAGE	1	375.00
OH Other	PLANNED OUTAGE	4	401.33
OH Other	PLANNED OUTAGE	1	172.73
OH Other	PLANNED OUTAGE	8	2,018.93
OH Other	PLANNED OUTAGE	1	80.10
OH Other	PLANNED OUTAGE	12	1,296.60
OH Other	PLANNED OUTAGE	1	134.32
URD Outage	PLANNED OUTAGE	1	541.35
OH Other	PLANNED OUTAGE	2	700.43
OH Other	PLANNED OUTAGE	8	371.87
URD Outage	PLANNED OUTAGE	4	275.27
OH Other	PLANNED OUTAGE	9	2,235.00
OH Other	PLANNED OUTAGE	1	248.37
OH Other	PLANNED OUTAGE	1	152.73

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	2	250.80
URD Outage	PLANNED OUTAGE	13	1,961.05
OH Other	PLANNED OUTAGE	1	64.63
OH Other	PLANNED OUTAGE	8	467.73
OH Other	PLANNED OUTAGE	1	315.18
URD Outage	PLANNED OUTAGE	30	6,182.50
URD Outage	PLANNED OUTAGE	16	10,432.27
OH Other	PLANNED OUTAGE	9	1,453.20
URD Outage	PLANNED OUTAGE	9	576.90
URD Outage	PLANNED OUTAGE	13	4,407.00
OH Other	PLANNED OUTAGE	3	428.50
OH Other	PLANNED OUTAGE	4	373.40
Service - Crew	PLANNED OUTAGE	1	123.45
URD Outage	PLANNED OUTAGE	16	428.53
OH Other	PLANNED OUTAGE	1	284.02
OH Other	PLANNED OUTAGE	2	162.50
Service - Crew	PLANNED OUTAGE	1	145.75
OH Other	PLANNED OUTAGE	2	228.47
URD Outage	PLANNED OUTAGE	13	214.72
OH Other	PLANNED OUTAGE	5	72.33
UG Other	PLANNED OUTAGE	47	1,001.10
OH Other	PLANNED OUTAGE	8	2,055.20
OH Other	PLANNED OUTAGE	4	1,027.87
OH Other	PLANNED OUTAGE	2	443.50
OH Other	PLANNED OUTAGE	2	417.73
URD Outage	PLANNED OUTAGE	7	393.52
URD Outage	PLANNED OUTAGE	2	156.53
OH Other	PLANNED OUTAGE	1	44.08
URD Outage	PLANNED OUTAGE	7	253.75
OH Other	PLANNED OUTAGE	3	635.80
OH Other	PLANNED OUTAGE	2	611.30
OH Other	PLANNED OUTAGE	2	245.53
OH Other	PLANNED OUTAGE	1	119.60
OH Other	PLANNED OUTAGE	4	38.53
OH Other	PLANNED OUTAGE	3	139.30
OH Other	PLANNED OUTAGE	4	881.27
OH Other	PLANNED OUTAGE	1	167.35
URD Outage	PLANNED OUTAGE	6	344.60
OH Other	PLANNED OUTAGE	1	29.22
URD Outage	PLANNED OUTAGE	5	83.00
OH Other	PLANNED OUTAGE	5	2,904.92
URD Outage	PLANNED OUTAGE	21	871.85
OH Other	PLANNED OUTAGE	1	366.37
OH Other	PLANNED OUTAGE	9	949.80
OH Other	PLANNED OUTAGE	1	376.50
OH Other	PLANNED OUTAGE	1	216.33

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	1	132.93
OH Other	PLANNED OUTAGE	1	76.02
Service - Crew	PLANNED OUTAGE	1	97.67
URD Outage	PLANNED OUTAGE	1	114.07
OH Other	PLANNED OUTAGE	7	2,012.73
OH Other	PLANNED OUTAGE	6	1,607.80
OH Other	PLANNED OUTAGE	1	25.37
UG Other	PLANNED OUTAGE	12	995.60
OH Other	PLANNED OUTAGE	1	213.50
URD Outage	PLANNED OUTAGE	1	521.48
URD Outage	PLANNED OUTAGE	3	282.25
URD Outage	PLANNED OUTAGE	174	11,223.00
URD Outage	PLANNED OUTAGE	1	90.07
URD Outage	PLANNED OUTAGE	174	111,084.50
UG Other	PLANNED OUTAGE	1	639.25
OH Other	PLANNED OUTAGE	1	344.17
URD Outage	PLANNED OUTAGE	4	184.73
OH Other	PLANNED OUTAGE	8	1,776.53
OH Other	PLANNED OUTAGE	2	158.03
OH Other	PLANNED OUTAGE	1	263.12
OH Other	PLANNED OUTAGE	8	1,183.47
OH Other	PLANNED OUTAGE	1	22.63
OH Other	PLANNED OUTAGE	2	1,689.30
OH Other	PLANNED OUTAGE	7	1,021.77
OH Other	PLANNED OUTAGE	5	1,023.17
OH Other	PLANNED OUTAGE	4	449.40
OH Other	PLANNED OUTAGE	63	20,156.85
OH Other	PLANNED OUTAGE	7	1,435.35
URD Outage	PLANNED OUTAGE	1	134.28
OH Other	PLANNED OUTAGE	12	2,022.20
URD Outage	PLANNED OUTAGE	4	404.33
OH Other	PLANNED OUTAGE	5	611.25
URD Outage	PLANNED OUTAGE	23	3,885.47
OCR, Sec.	PLANNED OUTAGE	6	2,124.90
OH Other	PLANNED OUTAGE	7	1,427.30
OH Other	PLANNED OUTAGE	8	3,238.67
OH Other	PLANNED OUTAGE	4	611.07
Service - Crew	PLANNED OUTAGE	1	439.30
OH Other	PLANNED OUTAGE	1	21.98
URD Outage	PLANNED OUTAGE	6	263.00
OH Other	PLANNED OUTAGE	5	971.17
OH Other	PLANNED OUTAGE	1	134.53
OH Other	PLANNED OUTAGE	1	71.47
OH Other	PLANNED OUTAGE	13	867.10
OH Other	PLANNED OUTAGE	3	781.45
OH Other	PLANNED OUTAGE	8	1,763.73

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	9	1,978.95
OH Other	PLANNED OUTAGE	15	3,047.75
OH Other	PLANNED OUTAGE	19	3,859.85
OH Other	PLANNED OUTAGE	5	715.83
OH Other	PLANNED OUTAGE	12	869.40
URD Outage	PLANNED OUTAGE	8	890.40
URD Outage	PLANNED OUTAGE	51	98.60
UG Other	PLANNED OUTAGE	3	914.80
OH Other	PLANNED OUTAGE	6	1,744.30
OH Other	PLANNED OUTAGE	9	2,810.55
Circuit Out	PLANNED OUTAGE	2,337	102,905.90
Service - Crew	PLANNED OUTAGE	3	533.05
OH Other	PLANNED OUTAGE	10	2,317.50
Oil Switch	PLANNED OUTAGE	183	72,056.25
OH Other	PLANNED OUTAGE	12	766.80
URD Outage	PLANNED OUTAGE	6	687.90
URD Outage	PLANNED OUTAGE	94	37,184.83
URD Outage	PLANNED OUTAGE	73	28,854.47
OH Other	PLANNED OUTAGE	12	953.80
OH Other	PLANNED OUTAGE	68	18,615.00
OH Other	PLANNED OUTAGE	7	1,480.03
OH Other	PLANNED OUTAGE	1	67.83
OH Other	PLANNED OUTAGE	7	2,556.05
OH Other	PLANNED OUTAGE	6	206.10
OH Other	PLANNED OUTAGE	1	70.02
OH Other	PLANNED OUTAGE	6	3,179.50
Step Restoration	PLANNED OUTAGE	1	13.20
OH Other	PLANNED OUTAGE	4	1,601.33
URD Outage	PLANNED OUTAGE	1	126.85
OH Other	PLANNED OUTAGE	9	423.75
OH Other	PLANNED OUTAGE	4	995.67
OH Other	PLANNED OUTAGE	12	247.20
OH Other	PLANNED OUTAGE	5	93.33
OH Other	PLANNED OUTAGE	3	104.55
URD Outage	PLANNED OUTAGE	7	1,064.35
OH Other	PLANNED OUTAGE	1	65.55
OH Other	PLANNED OUTAGE	28	2,201.73
OH Other	PLANNED OUTAGE	3	1,080.45
OH Other	PLANNED OUTAGE	3	232.60
OH Other	PLANNED OUTAGE	1	252.35
OH Other	PLANNED OUTAGE	5	1,271.25
OH Other	PLANNED OUTAGE	2	506.03
OH Other	PLANNED OUTAGE	13	4,935.23
OH Other	PLANNED OUTAGE	1	369.83
OH Other	PLANNED OUTAGE	4	1,374.67
UG Other	PLANNED OUTAGE	134	87,872.73

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
UG Other	PLANNED OUTAGE	1	255.27
UG Other	PLANNED OUTAGE	2	1,198.57
URD Outage	PLANNED OUTAGE	14	3,416.23
OH Other	PLANNED OUTAGE	1	38.98
OH Other	PLANNED OUTAGE	10	458.33
OH Other	PLANNED OUTAGE	2	914.67
UG Other	PLANNED OUTAGE	1	198.55
OH Other	PLANNED OUTAGE	1	496.72
PLF	PLANNED OUTAGE	3	1,474.50
OH Other	PLANNED OUTAGE	1	117.97
OH Other	PLANNED OUTAGE	1	172.92
PLF	PLANNED OUTAGE	3	213.95
PLF	PLANNED OUTAGE	3	729.20
Circuit Out	PLANNED OUTAGE	744	11,110.40
OH Other	PLANNED OUTAGE	6	681.80
OH Other	PLANNED OUTAGE	1	37.20
OH Other	PLANNED OUTAGE	3	668.25
OCR, Sec.	PLANNED OUTAGE	293	634.83
OCR, Sec.	PLANNED OUTAGE	199	18,997.87
OH Other	PLANNED OUTAGE	1	127.83
UG Other	PLANNED OUTAGE	1	112.07
OH Other	PLANNED OUTAGE	8	1,970.40
UG Other	PLANNED OUTAGE	15	1,278.25
OH Other	PLANNED OUTAGE	1	514.27
PLF	PLANNED OUTAGE	23	12,823.65
PLF	PLANNED OUTAGE	11	6,134.70
PLF	PLANNED OUTAGE	11	2,417.43
Step Restoration	PLANNED OUTAGE	15	3,313.25
Step Restoration	PLANNED OUTAGE	9	1,986.75
OH Other	PLANNED OUTAGE	10	1,473.00
OH Other	PLANNED OUTAGE	8	1,177.87
PLF	PLANNED OUTAGE	25	1,482.92
OH Other	PLANNED OUTAGE	6	2,376.20
URD Outage	PLANNED OUTAGE	1	278.58
OH Other	PLANNED OUTAGE	68	37,400.00
TX Repaired (PM)	PLANNED OUTAGE	31	16,860.90
PLF	PLANNED OUTAGE	2	491.20
PLF	PLANNED OUTAGE	96	2,249.60
OH Other	PLANNED OUTAGE	1	17.28
OH Other	PLANNED OUTAGE	1	57.48
UG Other	PLANNED OUTAGE	10	4,229.67
OH Other	PLANNED OUTAGE	1	168.37
TX Repaired (OH)	PLANNED OUTAGE	6	2,295.30
PLF	PLANNED OUTAGE	11	829.95
OH Other	PLANNED OUTAGE	2	301.73
OH Other	PLANNED OUTAGE	1	30.92

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	4	9.80
OH Other	PLANNED OUTAGE	4	10.60
OH Other	PLANNED OUTAGE	21	4,347.35
OH Other	PLANNED OUTAGE	2	621.43
OH Other	PLANNED OUTAGE	1	107.87
OH Other	PLANNED OUTAGE	1	62.65
OH Other	PLANNED OUTAGE	6	2,417.10
OH Other	PLANNED OUTAGE	8	2,977.87
OH Other	PLANNED OUTAGE	4	733.73
OH Other	PLANNED OUTAGE	2	357.37
OH Other	PLANNED OUTAGE	1	144.45
OH Other	PLANNED OUTAGE	4	1,307.60
URD Outage	PLANNED OUTAGE	2	136.80
OH Other	PLANNED OUTAGE	8	1,027.33
OH Other	PLANNED OUTAGE	8	571.20
OH Other	PLANNED OUTAGE	5	1,298.58
OH Other	PLANNED OUTAGE	2	98.10
OH Other	PLANNED OUTAGE	5	615.08
OH Other	PLANNED OUTAGE	1	75.53
URD Outage	PLANNED OUTAGE	10	1,736.33
OH Other	PLANNED OUTAGE	7	1,618.63
OH Other	PLANNED OUTAGE	13	4,705.57
OH Other	PLANNED OUTAGE	1	216.70
OH Other	PLANNED OUTAGE	10	1,800.00
OH Other	PLANNED OUTAGE	16	2,588.27
URD Outage	PLANNED OUTAGE	3	2,680.20
OH Other	PLANNED OUTAGE	17	800.70
Service - Crew	PLANNED OUTAGE	1	115.93
OH Other	PLANNED OUTAGE	1	106.33
OH Other	PLANNED OUTAGE	5	1,120.58
OH Other	PLANNED OUTAGE	8	1,791.07
OH Other	PLANNED OUTAGE	4	669.67
OH Other	PLANNED OUTAGE	13	2,593.28
OH Other	PLANNED OUTAGE	2	266.03
OH Other	PLANNED OUTAGE	5	2,461.75
OH Other	PLANNED OUTAGE	5	48.42
OH Other	PLANNED OUTAGE	1	54.27
UG Other	PLANNED OUTAGE	1	227.17
OH Other	PLANNED OUTAGE	1,021	2,807.75
URD Outage	PLANNED OUTAGE	1	48.42
OH Other	PLANNED OUTAGE	3	103.65
OH Other	PLANNED OUTAGE	6	1,577.00
URD Outage	PLANNED OUTAGE	9	1,261.35
OH Other	PLANNED OUTAGE	40	10,655.33
URD Outage	PLANNED OUTAGE	1	229.68
OH Other	PLANNED OUTAGE	13	5,471.92



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	8	3,226.00
OH Other	PLANNED OUTAGE	12	1,832.80
OH Other	PLANNED OUTAGE	4	287.53
Step Restoration	PLANNED OUTAGE	4	640.47
OH Other	PLANNED OUTAGE	6	982.50
OH Other	PLANNED OUTAGE	6	502.60
OH Other	PLANNED OUTAGE	8	1,779.47
OH Other	PLANNED OUTAGE	10	2,765.67
OH Other	PLANNED OUTAGE	2	280.53
OH Other	PLANNED OUTAGE	1	190.57
OH Other	PLANNED OUTAGE	3	617.95
OH Other	PLANNED OUTAGE	7	2,135.82
OH Other	PLANNED OUTAGE	12	3,516.20
OH Other	PLANNED OUTAGE	21	5,837.30
UG Other	PLANNED OUTAGE	22	705.10
OH Other	PLANNED OUTAGE	1	433.58
OH Other	PLANNED OUTAGE	3	1,301.05
OH Other	PLANNED OUTAGE	57	860.70
OH Other	PLANNED OUTAGE	9	576.75
OH Other	PLANNED OUTAGE	3	825.10
OH Other	PLANNED OUTAGE	15	2,116.75
OH Other	PLANNED OUTAGE	11	235.58
OH Other	PLANNED OUTAGE	7	2,385.13
OH Other	PLANNED OUTAGE	9	1,851.15
Circuit Out	PLANNED OUTAGE	1,272	6,593.20
OH Other	PLANNED OUTAGE	4	817.67
OH Other	PLANNED OUTAGE	118	3,146.67
OH Other	PLANNED OUTAGE	1	163.77
OH Other	PLANNED OUTAGE	6	3,124.40
OH Other	PLANNED OUTAGE	6	428.20
OH Other	PLANNED OUTAGE	20	2,482.00
OH Other	PLANNED OUTAGE	4	1,322.07
OH Other	PLANNED OUTAGE	13	7,874.32
OH Other	PLANNED OUTAGE	14	7,866.37
OH Other	PLANNED OUTAGE	2	124.20
OH Other	PLANNED OUTAGE	1	230.57
URD Outage	PLANNED OUTAGE	2	182.30
OH Other	PLANNED OUTAGE	3	958.90
OH Other	PLANNED OUTAGE	11	5,222.43
URD Outage	PLANNED OUTAGE	1	147.18
OH Other	PLANNED OUTAGE	8	1,290.80
OH Other	PLANNED OUTAGE	1	378.15
OH Other	PLANNED OUTAGE	1	378.33
OH Other	PLANNED OUTAGE	14	787.27
OH Other	PLANNED OUTAGE	15	1,143.25
URD Outage	PLANNED OUTAGE	1	180.98

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	3	669.05
OH Other	PLANNED OUTAGE	8	1,520.27
OH Other	PLANNED OUTAGE	4	126.73
Service - Crew	PLANNED OUTAGE	1	221.98
OH Other	PLANNED OUTAGE	2	150.03
OH Other	PLANNED OUTAGE	6	372.90
OH Other	PLANNED OUTAGE	3	952.85
OH Other	PLANNED OUTAGE	6	3,029.40
URD Outage	PLANNED OUTAGE	10	2,806.67
OH Other	PLANNED OUTAGE	8	1,770.40
OH Other	PLANNED OUTAGE	9	2,285.25
URD Outage	PLANNED OUTAGE	8	464.53
URD Outage	PLANNED OUTAGE	10	1,355.83
OH Other	PLANNED OUTAGE	7	2,296.58
OH Other	PLANNED OUTAGE	4	1,305.20
OH Other	PLANNED OUTAGE	6	513.40
UG Other	PLANNED OUTAGE	1	48.32
Circuit Out	PLANNED OUTAGE	1,155	8,431.50
UG Other	PLANNED OUTAGE	10	5,783.00
OH Other	PLANNED OUTAGE	32	595.20
OH Other	PLANNED OUTAGE	2	262.20
OH Other	PLANNED OUTAGE	2	74.40
OH Other	PLANNED OUTAGE	3	1,258.25
OH Other	PLANNED OUTAGE	2	895.13
URD Outage	PLANNED OUTAGE	41	6,776.62
URD Outage	PLANNED OUTAGE	1	32.65
URD Outage	PLANNED OUTAGE	2	263.90
URD Outage	PLANNED OUTAGE	2	145.40
Meter Damaged	PLANNED OUTAGE	1	52.97
OH Other	PLANNED OUTAGE	1	389.27
Circuit Out	PLANNED OUTAGE	1,734	9,421.40
OH Other	PLANNED OUTAGE	8	420.13
OH Other	PLANNED OUTAGE	1,908	48,177.00
OH Other	PLANNED OUTAGE	6	338.80
OH Other	PLANNED OUTAGE	1	260.60
OH Other	PLANNED OUTAGE	1	10.10
OH Other	PLANNED OUTAGE	2	32.67
OH Other	PLANNED OUTAGE	4	263.00
OH Other	PLANNED OUTAGE	2	424.07
OH Other	PLANNED OUTAGE	9	605.25
OH Other	PLANNED OUTAGE	4	564.60
OH Other	PLANNED OUTAGE	4	1,572.87
OCR, Sec.	PLANNED OUTAGE	290	2,619.67
Primary Wire	PLANNED OUTAGE	1	494.60
URD Outage	PLANNED OUTAGE	30	2,465.50
UG Other	PLANNED OUTAGE	1	32.63

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
OH Other	PLANNED OUTAGE	3	223.55
OH Other	PLANNED OUTAGE	1	26.35
OH Other	PLANNED OUTAGE	1	374.15
URD Outage	PLANNED OUTAGE	10	1,341.17
OH Other	PLANNED OUTAGE	4	323.80
OH Other	PLANNED OUTAGE	20	1,871.67
OH Other	PLANNED OUTAGE	10	1,231.50
OH Other	PLANNED OUTAGE	10	1,744.50
OH Other	PLANNED OUTAGE	3	101.60
UG Other	PLANNED OUTAGE	1	42.18
OH Other	PLANNED OUTAGE	61	281.62
OH Other	PLANNED OUTAGE	6	2,878.80
OH Other	PLANNED OUTAGE	11	4,058.63
OH Other	PLANNED OUTAGE	2	899.37
URD Outage	PLANNED OUTAGE	4	361.00
OH Other	PLANNED OUTAGE	8	2,241.47
OH Other	PLANNED OUTAGE	7	1,455.65
OH Other	PLANNED OUTAGE	8	380.13
OH Other	PLANNED OUTAGE	9	421.35
OH Other	PLANNED OUTAGE	7	2,841.88
OH Other	PLANNED OUTAGE	5	2,026.33
OH Other	PLANNED OUTAGE	774	6,437.10
Step Restoration	PLANNED OUTAGE	5	47.25
Step Restoration	PLANNED OUTAGE	314	2,935.90
OH Other	PLANNED OUTAGE	1	41.70
OH Other	PLANNED OUTAGE	2	850.60
OH Other	PLANNED OUTAGE	4	1,546.73
OH Other	PLANNED OUTAGE	8	3,062.67
OH Other	PLANNED OUTAGE	3	202.50
OH Other	PLANNED OUTAGE	1	106.40
OH Other	PLANNED OUTAGE	22	2,148.67
OH Other	PLANNED OUTAGE	8	2,364.13
URD Outage	PLANNED OUTAGE	1	1,274.25
OH Other	PLANNED OUTAGE	57	627.95
OH Other	PLANNED OUTAGE	12	1,134.00
Service - Crew	PLANNED OUTAGE	1	93.98
URD Outage	PLANNED OUTAGE	4	419.07
OH Other	PLANNED OUTAGE	1	60.22
Service - Crew	PLANNED OUTAGE	1	41.20
OH Other	PLANNED OUTAGE	1	77.60
Step Restoration	PLANNED OUTAGE	1	129.52
OH Other	PLANNED OUTAGE	14	464.33
Step Restoration	PLANNED OUTAGE	1	95.92
OH Other	PLANNED OUTAGE	1	135.03
OH Other	PLANNED OUTAGE	8	1,278.40
OH Other	PLANNED OUTAGE	1	86.73

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Other Distribution Outage Events

Outage Events	Reason for Exclusion	CI Excluded	CMI Excluded
URD Outage	PLANNED OUTAGE	7	478.57
URD Outage	PLANNED OUTAGE	8	750.67
OH Other	PLANNED OUTAGE	13	207.35
URD Outage	PLANNED OUTAGE	1	61.72
URD Outage	PLANNED OUTAGE	1	147.88
OH Other	PLANNED OUTAGE	3	435.90
OH Other	PLANNED OUTAGE	4	6.73
OH Other	PLANNED OUTAGE	1	201.12
OH Other	PLANNED OUTAGE	3	157.65
OH Other	PLANNED OUTAGE	1	10.62
OH Other	PLANNED OUTAGE	3	113.35
UG Other	PLANNED OUTAGE	1	389.73
OH Other	PLANNED OUTAGE	2	790.53
OH Other	PLANNED OUTAGE	1	76.15
OH Other	PLANNED OUTAGE	1	74.53
OH Other	PLANNED OUTAGE	36	3,310.80
OH Other	PLANNED OUTAGE	2	122.90
UG Other	PLANNED OUTAGE	1	53.82
OH Other	PLANNED OUTAGE	11	4,164.23
OH Other	PLANNED OUTAGE	1	94.82
OH Other	PLANNED OUTAGE	2	347.07
OH Other	PLANNED OUTAGE	8	1,663.73
OH Other	PLANNED OUTAGE	7	446.25

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Substation Outage Events

Outage Events	Reason for Exclusion	Outage Date Time	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	1/8/2019 19:08	17621.10	189
Substation	FPSC Commission Rule 25-6.0455	1/8/2019 19:08	54447.28	787
Substation	FPSC Commission Rule 25-6.0455	1/8/2019 19:08	52000.47	673
Substation	FPSC Commission Rule 25-6.0455	1/8/2019 19:08	85919.23	1402
Substation	FPSC Commission Rule 25-6.0455	1/16/2019 16:50	135481.67	1850
Step Restoration	FPSC Commission Rule 25-6.0455	1/19/2019 9:05	48734.40	792
Step Restoration	FPSC Commission Rule 25-6.0455	1/19/2019 9:05	2833.78	41
Substation	FPSC Commission Rule 25-6.0455	1/19/2019 9:05	83171.55	1881
Substation	FPSC Commission Rule 25-6.0455	1/19/2019 9:05	48002.50	1055
Substation	FPSC Commission Rule 25-6.0455	2/5/2019 23:11	56576.00	1088
Substation	FPSC Commission Rule 25-6.0455	2/5/2019 23:11	19844.20	313
Substation	FPSC Commission Rule 25-6.0455	2/5/2019 23:11	6148.78	767
Substation	FPSC Commission Rule 25-6.0455	2/5/2019 23:11	15766.45	2247
Substation	FPSC Commission Rule 25-6.0455	2/28/2019 9:42	19541.25	1737
Substation	FPSC Commission Rule 25-6.0455	3/4/2019 4:28	8722.00	1246
Substation	FPSC Commission Rule 25-6.0455	3/9/2019 8:21	28089.60	672
Substation	FPSC Commission Rule 25-6.0455	3/9/2019 8:21	48524.83	811
Substation	FPSC Commission Rule 25-6.0455	3/9/2019 8:21	71272.90	881
Substation	FPSC Commission Rule 25-6.0455	3/9/2019 8:21	28406.58	385
Substation	FPSC Commission Rule 25-6.0455	3/9/2019 8:21	84039.22	1139
Substation	FPSC Commission Rule 25-6.0455	3/10/2019 0:25	748.93	274
Substation	FPSC Commission Rule 25-6.0455	3/10/2019 0:25	26265.07	1184
Substation	FPSC Commission Rule 25-6.0455	3/10/2019 0:25	11637.75	531
Substation	FPSC Commission Rule 25-6.0455	3/10/2019 0:25	25247.25	1145
Substation	FPSC Commission Rule 25-6.0455	3/12/2019 11:16	34535.50	867
Substation	FPSC Commission Rule 25-6.0455	3/12/2019 11:16	31726.57	1034
Substation	FPSC Commission Rule 25-6.0455	3/12/2019 11:16	22756.50	585
Substation	FPSC Commission Rule 25-6.0455	3/16/2019 18:12	5383.87	1084
Substation	FPSC Commission Rule 25-6.0455	3/21/2019 18:32	39371.10	789
Substation	FPSC Commission Rule 25-6.0455	3/21/2019 18:33	69084.50	1398
Substation	FPSC Commission Rule 25-6.0455	3/21/2019 18:33	47713.50	1242
Substation	FPSC Commission Rule 25-6.0455	3/21/2019 18:33	79880.67	1352
Substation	FPSC Commission Rule 25-6.0455	3/24/2019 7:52	693.00	11
Substation	FPSC Commission Rule 25-6.0455	3/24/2019 7:52	106659.00	1693
Substation	FPSC Commission Rule 25-6.0455	4/5/2019 5:53	46038.42	845
Substation	FPSC Commission Rule 25-6.0455	4/5/2019 5:53	47023.20	1296
Substation	FPSC Commission Rule 25-6.0455	4/13/2019 8:11	21110.93	1721
Substation	FPSC Commission Rule 25-6.0455	4/16/2019 1:07	1370.53	1082
Substation	FPSC Commission Rule 25-6.0455	4/19/2019 15:07	148375.47	886
Substation	FPSC Commission Rule 25-6.0455	4/20/2019 12:21	30998.53	1096
Substation	FPSC Commission Rule 25-6.0455	4/20/2019 12:21	2703.57	442
Substation	FPSC Commission Rule 25-6.0455	4/20/2019 12:21	54842.80	1336
Substation	FPSC Commission Rule 25-6.0455	4/20/2019 12:21	7875.50	285
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 9:06	57986.13	1408
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 21:46	48608.00	980

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Substation Outage Events

Outage Events	Reason for Exclusion	Outage Date Time	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 21:46	47144.40	1224
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 21:46	10298.75	165
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 21:50	263.80	3
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 21:51	129.03	2
Substation	FPSC Commission Rule 25-6.0455	4/21/2019 21:52	516.80	6
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:26	39446.87	548
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:26	119033.90	939
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:26	30832.67	280
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:27	119321.12	1861
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:27	62017.03	758
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:54	173558.33	1765
Substation	FPSC Commission Rule 25-6.0455	5/5/2019 13:54	155925.67	1303
Step Restoration	FPSC Commission Rule 25-6.0455	5/5/2019 13:54	93485.60	712
Substation	FPSC Commission Rule 25-6.0455	5/10/2019 22:01	47.25	1
Substation	FPSC Commission Rule 25-6.0455	5/10/2019 22:01	62275.50	1318
Substation	FPSC Commission Rule 25-6.0455	5/12/2019 23:31	85.58	79
Substation	FPSC Commission Rule 25-6.0455	5/13/2019 14:28	99083.75	775
Substation	FPSC Commission Rule 25-6.0455	5/14/2019 10:33	222952.53	2624
Substation	FPSC Commission Rule 25-6.0455	5/14/2019 10:33	94620.07	1118
Substation	FPSC Commission Rule 25-6.0455	5/31/2019 12:43	3561.60	96
Substation	FPSC Commission Rule 25-6.0455	5/31/2019 12:43	4014.93	128
Substation	FPSC Commission Rule 25-6.0455	5/31/2019 12:43	4915.80	108
Substation	FPSC Commission Rule 25-6.0455	5/31/2019 12:43	1712.00	40
Substation	FPSC Commission Rule 25-6.0455	5/31/2019 15:47	9812.60	2282
Substation	FPSC Commission Rule 25-6.0455	6/12/2019 14:18	75150.20	1581
Substation	FPSC Commission Rule 25-6.0455	6/12/2019 14:19	123354.00	2403
Substation	FPSC Commission Rule 25-6.0455	6/12/2019 14:20	27809.48	683
Substation	FPSC Commission Rule 25-6.0455	6/16/2019 11:27	386.17	331
Substation	FPSC Commission Rule 25-6.0455	6/18/2019 8:16	39901.20	738
Substation	FPSC Commission Rule 25-6.0455	6/18/2019 8:16	8410.00	600
Substation	FPSC Commission Rule 25-6.0455	6/18/2019 8:17	79313.50	1085
Substation	FPSC Commission Rule 25-6.0455	6/18/2019 8:18	90129.92	1255
Substation	FPSC Commission Rule 25-6.0455	6/20/2019 7:53	12382.30	399
Substation	FPSC Commission Rule 25-6.0455	6/20/2019 7:55	30977.80	763
Substation	FPSC Commission Rule 25-6.0455	6/20/2019 7:56	4116.00	112
Substation	FPSC Commission Rule 25-6.0455	6/20/2019 20:38	2837.50	2270
Substation	FPSC Commission Rule 25-6.0455	6/24/2019 10:59	54409.10	1047
Substation	FPSC Commission Rule 25-6.0456	6/25/2019 6:32	933.80	483
Substation	FPSC Commission Rule 25-6.0455	6/26/2019 7:15	119581.60	2328
Substation	FPSC Commission Rule 25-6.0455	6/26/2019 7:19	12964.00	840
Substation	FPSC Commission Rule 25-6.0455	6/26/2019 7:19	122910.67	1456
Substation	FPSC Commission Rule 25-6.0455	6/26/2019 7:19	49445.70	774
Substation	FPSC Commission Rule 25-6.0455	6/29/2019 21:06	612.00	408
Substation	FPSC Commission Rule 25-6.0455	7/1/2019 15:46	26298.85	361
Step Restoration	FPSC Commission Rule 25-6.0455	7/1/2019 15:46	22253.42	485
Substation	FPSC Commission Rule 25-6.0456	7/4/2019 14:08	3243.00	1035

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Substation Outage Events

Outage Events	Reason for Exclusion	Outage Date Time	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	7/4/2019 14:35	63700.33	1180
Substation	FPSC Commission Rule 25-6.0455	7/4/2019 14:37	42506.40	534
Substation	FPSC Commission Rule 25-6.0455	7/4/2019 14:39	10206.00	280
Substation	FPSC Commission Rule 25-6.0455	7/4/2019 14:39	22302.75	1135
Substation	FPSC Commission Rule 25-6.0455	7/7/2019 0:59	97641.50	1299
Substation	FPSC Commission Rule 25-6.0455	7/7/2019 0:59	11932.50	1665
Substation	FPSC Commission Rule 25-6.0455	7/7/2019 6:48	27317.75	339
Substation	FPSC Commission Rule 25-6.0456	7/7/2019 14:43	8758.40	1564
Substation	FPSC Commission Rule 25-6.0455	7/11/2019 4:31	106063.35	1299
Substation	FPSC Commission Rule 25-6.0455	7/17/2019 9:20	32372.27	1364
Substation	FPSC Commission Rule 25-6.0455	7/17/2019 9:20	24893.60	1073
Substation	FPSC Commission Rule 25-6.0455	7/17/2019 9:20	25083.93	1124
Substation	FPSC Commission Rule 25-6.0455	7/17/2019 9:20	25051.33	1060
Substation	FPSC Commission Rule 25-6.0455	7/20/2019 4:52	8841.00	1260
Substation	FPSC Commission Rule 25-6.0455	7/24/2019 8:44	1667.13	1471
Substation	FPSC Commission Rule 25-6.0456	7/26/2019 14:31	5586.00	1260
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 19:47	217398.07	1933
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 20:08	15411.00	2335
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 20:18	324253.67	2335
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 21:27	937.60	6
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 21:27	55975.15	1023
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 21:28	56236.63	734
Substation	FPSC Commission Rule 25-6.0455	7/28/2019 21:28	3760.35	53
Substation	FPSC Commission Rule 25-6.0456	7/30/2019 7:18	3392.70	774
Substation	FPSC Commission Rule 25-6.0455	7/31/2019 18:21	5567.27	1369
Substation	FPSC Commission Rule 25-6.0455	8/4/2019 10:46	14025.17	515
Substation	FPSC Commission Rule 25-6.0455	8/4/2019 10:46	6564.13	182
Substation	FPSC Commission Rule 25-6.0455	8/4/2019 10:46	16590.47	511
Substation	FPSC Commission Rule 25-6.0455	8/4/2019 10:46	24814.58	1385
Substation	FPSC Commission Rule 25-6.0455	8/5/2019 23:40	1005.67	862
Substation	FPSC Commission Rule 25-6.0455	8/12/2019 0:21	998.33	20
Substation	FPSC Commission Rule 25-6.0456	8/21/2019 19:53	75912.20	1204
Step Restoration	FPSC Commission Rule 25-6.0455	8/21/2019 19:53	52967.25	413
Substation	FPSC Commission Rule 25-6.0455	8/25/2019 1:45	1297.67	458
Substation	FPSC Commission Rule 25-6.0455	9/1/2019 21:50	3919.20	46
Substation	FPSC Commission Rule 25-6.0455	9/1/2019 21:50	41006.70	483
Substation	FPSC Commission Rule 25-6.0455	9/1/2019 21:50	118891.80	1074
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	11020.00	240
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	148.73	97
Substation	FPSC Commission Rule 25-6.0456	9/15/2019 17:08	191.67	125
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	923.07	602
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	705.33	460
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	196.27	128
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	165.60	108
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	64.40	42
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	61.33	40

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Substation Outage Events

<b>Outage Events</b>	<b>Reason for Exclusion</b>	<b>Outage Date Time</b>	<b>CMI Excluded</b>	<b>CI Excluded</b>
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	14305.80	452
Substation	FPSC Commission Rule 25-6.0456	9/15/2019 17:08	31521.00	798
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	6985.33	169
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	3471.00	89
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	29365.83	655
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 17:08	249.15	11
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 21:04	218.05	89
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 21:04	703.15	287
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 21:04	543.90	222
Substation	FPSC Commission Rule 25-6.0456	9/15/2019 21:04	3576.88	989
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 21:04	3757.72	1039
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 21:04	267.63	74
Substation	FPSC Commission Rule 25-6.0455	9/15/2019 21:04	3443.07	952
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	157.23	89
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	507.03	287
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	392.20	222
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	2510.53	991
Substation	FPSC Commission Rule 25-6.0456	9/16/2019 4:49	2632.13	1039
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	187.47	74
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	114.78	97
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	147.92	125
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	712.37	602
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	545.52	461
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	151.47	128
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	127.80	108
Substation	FPSC Commission Rule 25-6.0456	9/16/2019 4:49	49.70	42
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 4:49	47.33	40
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 15:02	3255.57	101
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 15:03	39461.65	1021
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 15:04	6017.50	166
Substation	FPSC Commission Rule 25-6.0455	9/16/2019 15:04	23498.20	484
Substation	FPSC Commission Rule 25-6.0455	9/17/2019 15:13	41319.78	15791
Substation	FPSC Commission Rule 25-6.0455	9/17/2019 15:13	11415.97	1721
Substation	FPSC Commission Rule 25-6.0456	9/17/2019 15:13	853.88	563
Substation	FPSC Commission Rule 25-6.0455	9/17/2019 15:13	11683.23	4354
Substation	FPSC Commission Rule 25-6.0455	9/17/2019 15:13	112736.33	2260
Substation	FPSC Commission Rule 25-6.0455	9/17/2019 15:13	36216.57	974
Substation	FPSC Commission Rule 25-6.0455	9/17/2019 15:13	11867.80	4844
Substation	FPSC Commission Rule 25-6.0455	10/1/2019 6:32	605.00	165
Substation	FPSC Commission Rule 25-6.0455	10/9/2019 0:03	105496.80	1556
Substation	FPSC Commission Rule 25-6.0455	10/11/2019 18:56	4294.77	26
Substation	FPSC Commission Rule 25-6.0456	10/14/2019 7:06	2270.67	1703
Substation	FPSC Commission Rule 25-6.0455	10/19/2019 13:21	46542.30	777
Substation	FPSC Commission Rule 25-6.0455	10/22/2019 8:28	67621.03	827
Substation	FPSC Commission Rule 25-6.0455	10/24/2019 11:58	6147.17	2395
Substation	FPSC Commission Rule 25-6.0455	11/2/2019 2:09	32208.10	354



## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Substation Outage Events

<b>Outage Events</b>	<b>Reason for Exclusion</b>	<b>Outage Date Time</b>	<b>CMI Excluded</b>	<b>CI Excluded</b>
Step Restoration	FPSC Commission Rule 25-6.0455	11/2/2019 2:09	72272.70	786
Step Restoration	FPSC Commission Rule 25-6.0455	11/2/2019 2:09	53120.00	415
Step Restoration	FPSC Commission Rule 25-6.0455	11/2/2019 2:09	30844.00	240
OH Other	FPSC Commission Rule 25-6.0456	11/2/2019 2:09	1091.80	12
Substation	FPSC Commission Rule 25-6.0455	11/9/2019 4:31	250682.85	2673
Step Restoration	FPSC Commission Rule 25-6.0455	11/9/2019 4:31	473.25	5
Substation	FPSC Commission Rule 25-6.0455	11/14/2019 2:44	99085.97	1039
Substation	FPSC Commission Rule 25-6.0455	11/14/2019 2:44	46295.17	1495
Substation	FPSC Commission Rule 25-6.0455	11/14/2019 2:44	20271.75	453
Substation	FPSC Commission Rule 25-6.0455	11/14/2019 2:44	72348.50	1470
Substation	FPSC Commission Rule 25-6.0455	11/24/2019 9:28	137655.50	1605
Substation	FPSC Commission Rule 25-6.0456	11/24/2019 9:29	50358.00	1386
Substation	FPSC Commission Rule 25-6.0455	11/24/2019 9:29	45026.67	880
Substation	FPSC Commission Rule 25-6.0455	12/2/2019 2:17	8116.80	1824
Substation	FPSC Commission Rule 25-6.0455	12/2/2019 2:17	10537.15	1247
Substation	FPSC Commission Rule 25-6.0455	12/2/2019 2:17	59917.45	1121
Substation	FPSC Commission Rule 25-6.0455	12/10/2019 9:35	36139.00	1527
Substation	FPSC Commission Rule 25-6.0455	12/10/2019 9:35	78857.07	1486
Substation	FPSC Commission Rule 25-6.0455	12/10/2019 9:35	19048.03	778
Substation	FPSC Commission Rule 25-6.0456	12/10/2019 9:35	66393.33	1732
Substation	FPSC Commission Rule 25-6.0455	12/10/2019 17:22	11141.20	2422
Substation	FPSC Commission Rule 25-6.0455	12/30/2019 7:54	124113.60	4563

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Transmission Outage Events

Outage Events	Reason for Exclusion	Outage Date Time	CMI Excluded	CI Excluded
Transmission	FPSC Commission Rule 25-6.0455	3/11/2019 0:35	1920.00	1600
Transmission	FPSC Commission Rule 25-6.0455	3/11/2019 0:35	4348.80	3624
Transmission	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	39916.92	1669
Transmission	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	82611.90	1302
Step Restoration	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	23562.07	1612
Step Restoration	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	12000.28	821
Transmission	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	29978.78	2051
Transmission	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	18007.73	1232
Step Restoration	FPSC Commission Rule 25-6.0455	3/23/2019 1:24	30914.25	2115
Step Restoration	FPSC Commission Rule 25-6.0455	3/23/2019 1:27	665.00	570
Step Restoration	FPSC Commission Rule 25-6.0455	3/23/2019 1:27	1725.50	1479
Transmission	FPSC Commission Rule 25-6.0455	3/23/2019 1:27	2377.67	2038
Transmission	FPSC Commission Rule 25-6.0455	4/19/2019 14:45	25976.17	631
Transmission	FPSC Commission Rule 25-6.0455	4/19/2019 14:45	22344.60	501
Transmission	FPSC Commission Rule 25-6.0455	4/19/2019 14:45	18338.00	692
Transmission	FPSC Commission Rule 25-6.0455	4/19/2019 14:45	53314.60	508
Transmission	FPSC Commission Rule 25-6.0455	4/19/2019 14:45	100367.52	1267
Step Restoration	FPSC Commission Rule 25-6.0455	5/5/2019 13:04	2995.20	2304
Step Restoration	FPSC Commission Rule 25-6.0455	5/5/2019 13:04	2568.80	1976
Step Restoration	FPSC Commission Rule 25-6.0455	5/5/2019 13:04	1792.70	1379
Step Restoration	FPSC Commission Rule 25-6.0455	5/5/2019 13:04	570.70	439
Step Restoration	FPSC Commission Rule 25-6.0455	5/5/2019 13:04	49.40	38
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:04	2626.00	2020
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	98875.80	1348
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	129295.00	1140
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	192309.33	1936
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	207863.25	2329
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	4014.00	669
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	12528.00	2088
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	7542.00	1257
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	8964.00	1494
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	7603.20	1152
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	4068.00	678
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:07	4639.48	1127
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:27	3548.00	887
Transmission	FPSC Commission Rule 25-6.0455	5/5/2019 13:27	2684.00	671
Transmission	FPSC Commission Rule 25-6.0455	6/2/2019 11:34	588.00	490
Transmission	FPSC Commission Rule 25-6.0455	7/19/2019 22:28	23.93	2
Transmission	FPSC Commission Rule 25-6.0455	7/19/2019 22:28	4.17	2
Transmission	FPSC Commission Rule 25-6.0455	7/19/2019 22:37	1259.20	2361
Transmission	FPSC Commission Rule 25-6.0455	7/19/2019 22:38	73706.15	1757
Transmission	FPSC Commission Rule 25-6.0455	7/19/2019 22:42	684.82	17
Transmission	FPSC Commission Rule 25-6.0455	7/19/2019 22:42	3294.20	84
Transmission	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	1603.47	859
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	1661.33	890
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	2340.80	1254
OH Other	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	2870.93	1538
Transmission	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	1168.53	626

## 2019 Storm Implementation Plan and Annual Reliability Reports

### 2019 Adjustments: Transmission Outage Events

Outage Events	Reason for Exclusion	Outage Date Time	CMI Excluded	CI Excluded
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	2096.27	1123
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	2070.13	1109
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	2637.60	1413
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	1233.87	661
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	3888.47	799
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	2157.87	1156
Step Restoration	FPSC Commission Rule 25-6.0455	8/5/2019 16:42	1706.13	914
Transmission	FPSC Commission Rule 25-6.0455	8/9/2019 8:49	8238.25	1063
Transmission	FPSC Commission Rule 25-6.0455	8/9/2019 8:49	9168.00	1146
Transmission	FPSC Commission Rule 25-6.0455	8/9/2019 8:49	15549.45	1757
Transmission	FPSC Commission Rule 25-6.0455	8/9/2019 8:49	3052.27	776
Step Restoration	FPSC Commission Rule 25-6.0455	8/9/2019 8:49	5829.20	1482
Step Restoration	FPSC Commission Rule 25-6.0455	8/9/2019 8:49	7268.80	1848
Transmission	FPSC Commission Rule 25-6.0455	11/18/2019 2:07	20092.75	2245
Transmission	FPSC Commission Rule 25-6.0455	11/18/2019 2:07	5591.68	667
Transmission	FPSC Commission Rule 25-6.0455	11/18/2019 2:07	9751.87	1199
Transmission	FPSC Commission Rule 25-6.0455	11/18/2019 2:07	19362.30	2493
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	1517.62	851
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	3532.78	1981
Transmission	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	1316.10	738
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	17.83	10
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	553.50	369
Transmission	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	747.00	498
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	445.50	297
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	112.50	75
Transmission	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	516.00	344
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	1197.00	798
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	142.80	84
OH Other	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	3077.00	1810
Transmission	FPSC Commission Rule 25-6.0455	12/4/2019 8:36	28.90	17
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:37	237.60	297
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:37	60.00	75
Transmission	FPSC Commission Rule 25-6.0455	12/4/2019 8:37	275.20	344
Step Restoration	FPSC Commission Rule 25-6.0455	12/4/2019 8:37	638.40	798

2019 Storm Implementation Plan and Annual Reliability Report

Appendix C) Annual Wood Pole Inspection Report

ORDER NO. PSC - 07 - 0918 - PAA - PU DOCKET NOS. 070634-EI, 070635-TL <b>TAMPA ELECTRIC COMPANY</b> <b>Annual Wood Pole Inspection Report</b> <b>2019</b>												
a	b	c	d	e	f	g	h	i	j	k	l	m
Total # of Wooden Poles in the Company Inventory	# of Pole Inspections Planned this Annual Inspection	# of Poles Inspected this Annual Inspection	# of Poles Failing Inspection this Annual Inspection	Pole Failure Rate (%) this Annual Inspection	# of Poles Designated for Replacement this Annual Inspection	Total # of Poles Replaced this Annual Inspection	# of Poles Requiring Minor Follow-up this Annual Inspection (Anchors/Guys)	# of Poles Overloaded this Annual Inspection	Methods(s) V = Visual E = Excavation P = Prod S = Sound B = Bore R = Resistograph	# of Pole Inspections Planned for Next Annual Inspection Cycle	Total # of Poles Inspected (Cumulative) in the 8-Year Cycle to Date	% of Poles Inspected (Cumulative) in the 8-Year Cycle to Date
Distribution and Transmission				Distribution Reinforcement 1.99%	Distribution Reinforcement 71	Distribution Reinforcement 775						
<b>CYCLE THREE WOOD POLE POPULATION</b>				Distribution Replacement 2.44%	Distribution Replacement 4,011	Distribution Replacement 3,376						
Distribution 285,000	Distribution 39,500	Distribution 38,940	Distribution 1,726	Distribution 4.43%	Distribution 4,082	Distribution 4,151	Distribution 11	Distribution Poles Overloaded 0	VESB	** Distribution 24,000	Distribution 240,499	Distribution 84.39%
*Transmission 5,100	Transmission 798	Transmission 808	Transmission 116	Transmission 14.36%	Transmission 120	Transmission 144	Transmission 0	Transmission 0	VESB	Transmission 702	Transmission 4,569	Transmission 89.59%
Total Poles 290,100	Total 40,298	Total 39,748	Total 1,842	Total 14.36%	Total 4,202	Total 4,295	Total 11	Total 0		Total 24,702	Total 245,068	Total 84.48%
Planned Distribution inspection goal was updated mid-year to 35,625 which is one-eighth of 285,000 distribution poles.												
If b - c > 0, provide explanation												
If d - g > 0, provide explanation												
Description of selection criteria for inspections												

**2019 Storm Implementation Plan and Annual Reliability Report**

**Appendix D) Storm Hardening Metrics**

**1) Initiative 1: Four-year Vegetation Management**

<b>2019 - System Vegetation Management Performance Metrics – SYSTEM</b>							
	<b>Feeders</b>			<b>Laterals</b>			<b>Total</b>
	<b>Unadjusted</b>	<b>Adjusted</b>	<b>Diff.</b>	<b>Unadjusted</b>	<b>Adjusted</b>	<b>Diff.</b>	
(A) Number of Outages							
(B) Customer interruptions							
(C) Miles Cleared		470.55			1,194.19		1,664.74
(D) Remaining Miles		1,289.19			3,293.30		4,582.50
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		268			3,715		3,983
(H) All Vegetation Management Costs							\$17,325,951
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							\$14,601,037
(L) Vegetation Goal (current year)							1,561.81
(M) Vegetation Budget (next year)							\$14,210,085
(N) Vegetation Goal (next year)							1,562.72
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs - SERVICE AREA - include ONLY contractor costs, All Vegetation Management Costs - SYSTEM - include ALL costs

(L) & (N) Vegetation Goal shown in miles

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary

## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - CSA							
	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		82.28			192.36		274.63
(D) Remaining Miles		261.98			503.76		765.74
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		45			886		931
(H) All Vegetation Management Costs							\$2,384,412
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs include ONLY contractor costs.

(L) & (N) Vegetation Goal shown in miles.

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.

## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - DCA							
	Feeders			Laterals			Total
(A) Number of Outages (B) Customer Interruptions							
(C) Miles Cleared		16.6			99.30		115.90
(D) Remaining Miles		38.13			217.0		255.18
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		12			149		161
(H) All Vegetation Management Costs							\$596,968
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

- (H) All Vegetation Management Costs include ONLY contractor costs.
- (L) & (N) Vegetation Goal shown in miles.
- (O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.

## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - ESA							
	Feeders			Laterals			Total
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		71.09			148.42		219.51
(D) Remaining Miles		225.18			391.22		697.40
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		25			578		603
(H) All Vegetation Management Costs							\$2,180,870
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs include ONLY contractor costs.

(L) & (N) Vegetation Goal shown in miles.

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.



## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - PCA							
	Feeders			Laterals			Total
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		53.12			285.88		339.00
(D) Remaining Miles		195.94			706.46		902.40
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		45			510		555
(H) All Vegetation Management Costs							\$2,491,713
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs include ONLY contractor costs.

(L) & (N) Vegetation Goal shown in miles.

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.

## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - SHA							
	Feeders			Laterals			Total
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		71.85			112.08		183.93
(D) Remaining Miles		136.55			405.65		542.20
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		69			315		384
(H) All Vegetation Management Costs							\$854,505
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs include ONLY contractor costs.

(L) & (N) Vegetation Goal shown in miles.

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.

## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - WSA							
	Feeders			Laterals			Total
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		106.28			193.46		299.74
(D) Remaining Miles		248.20			559.00		807.20
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		37			903		940
(H) All Vegetation Management Costs							\$3,686,852
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs include ONLY contractor costs.

(L) & (N) Vegetation Goal shown in miles.

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.

## 2019 Storm Implementation Plan and Annual Reliability Report

2019 - System Vegetation Management Performance Metrics - WHA							
	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		69.26			162.74		232.00
(D) Remaining Miles		183.20			510.16		693.36
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Mid-Cycle trims		22			387		409
(H) All Vegetation Management Costs							\$1,063,570
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							
(O) Trim-Back Distance							10'

**Notes:**

(H) All Vegetation Management Costs include ONLY contractor costs.

(L) & (N) Vegetation Goal shown in miles.

(O) 10' Represents an average, however, to comply with ANSI A300, actual trim distances may vary.

**2) Initiative 2: Joint-Use Pole Attachments Audit**

Describe the extent of the audit and results pertaining to pole reliability and NESC safety matters. The intent is to assure the Commission that utilities know the status of their facilities and that reasonable efforts are taken to address pole reliability and NESC safety matters.

- a) Percent of system audited: 100 percent feeders: N/A laterals: N/A
- b) Date audit conducted: Quarter four of 2018 through quarter one of 2020 (projected).
- c) Date of previous audit: Total system-wide audit completed 2013.
- d) List of audits conducted annually
  - Tampa Electric began the process for implementing a joint-use pole attachment audit in last quarter of 2018, with active field employees in the first quarter of 2019. The audit is projected be complete by the end of first quarter of 2020.
  - Through Tampa Electric's Pole Attachment Permit Application process, the company performed the following audits: attachment verification, NESC violation analysis and pole loading assessment.
- e) State whether pole rents are jurisdictional or non-jurisdictional. If pole rents are jurisdictional, then provide an estimate of lost revenue and describe the company's efforts to minimize the lost revenue.
  - Tampa Electric does not have any non-jurisdictional distribution poles.

## 2019 Storm Implementation Plan and Annual Reliability Report

### Joint-Use Attachment Data Table

(A) Number of company owned distribution poles.	275,067
(B) Number of company distribution poles leased.	13,379 <sup>(1)</sup>
(C) Number of owned distribution pole attachments	198,497
(D) Number of leased distribution pole attachments.	13,379 <sup>(2)</sup>
(E) Number of authorized attachments.	321,786
(F) Number of unauthorized attachments.	0 <sup>(3)</sup>
(G) Number of distribution poles strength tested.	116
(H) Number of distribution poles passing strength test.	111
(I) Number of distribution poles failing strength test (overloaded).	5
(J) Number of distribution poles failing strength test (other reasons).	1,726 <sup>(4)</sup>
(K) Number of distribution poles corrected (strength failure).	5 <sup>(5)</sup>
(L) Number of distribution poles corrected (other reasons).	775 <sup>(6)</sup>
(M) Number of distribution poles replaced.	3,366
(N) Number of apparent NESC violations involving electric infrastructure	0
(O) Number of apparent NESC violations involving 3rd party facilities	34

Note 1: These are the number of poles where Tampa Electric leases space on foreign owned poles.

Note 2: Each attachment is counted as one per pole on leased poles.

Note 3: Tampa Electric is finalizing the 2019-2020 attachment audit and will identify any unauthorized attachments upon the projected completion in the first quarter of 2020.

Note 4: These poles were identified for replacement during Tampa Electric's Pole Inspection Program and failed the strength test due to wood damage at ground line or other locations on the pole.

Note 5: These poles were re-guyed or re-configured to pass strength loading.

Note 6: The company reinforced these poles with trusses

**2019 Storm Implementation Plan and Annual Reliability Report**

**3) Initiative 3: Eight-Year Inspection Cycle for Transmission Structures**

**Transmission Circuit, Substation and Other Equipment Inspections**

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total transmission circuits.		216				
(B1) Planned transmission circuit inspections – Groundline (Poles)	17 (798)		\$55,000		20 (702)	\$83,108
(B2) Planned transmission circuit inspections – Above Ground (Poles).	17 (3,012)		\$40,000		20 (2,949)	\$10,000
(C1) Completed transmission circuit inspections – Groundline (Poles)		18 (808)		\$58,806		
(C2) Completed transmission circuit inspections – Above Ground (Poles)		18 (3,271)		\$6,212		
(D1) Percent of transmission circuit inspections completed – Groundline		100%				
(D2) Percent of transmission circuit inspections completed – Above Ground.		100%				
(E) Planned transmission substation inspections.	72				72	
(F) Completed transmission substation inspections		72				
(G) Percent transmission substation inspections completed.		100%				
(H) Planned transmission equipment inspections (other equipment). – Ground Patrol/ IR Patrol	209/ 209		\$132,635/ \$100,000		211/ 211	\$137,833/ \$100,000
(I) Completed transmission equipment inspections (other equipment) – Ground Patrol/ IR Patrol		209/209		\$144,025/ \$106,482		
(J) Percent of transmission equipment inspections completed (other equipment) – Ground Patrol/ IR Patrol		100%/ 100%				

## 2019 Storm Implementation Plan and Annual Reliability Report

### Transmission Pole Inspections

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of transmission poles		25,416 <sup>(1)</sup>				
(B) Number of transmission poles strength tested		0 <sup>(2)</sup>				
(C) Number of transmission poles passing strength test		N/A				
(D) Number of transmission poles failing strength test (overloaded)		N/A				
(E) Number of transmission poles failing strength test (other reasons)		N/A				
(F) Number of transmission poles corrected (strength failure)		0				
(G) Number of transmission poles corrected (other reasons)		0				
(H) Total transmission poles replaced (Structures)		144			120 <sup>(3)</sup>	

Note 1: The transmission pole count on the entire system is currently 25,416 this is a fluid number that will change as a function of time. Standards have been set to calculate this number based off of the Geographical Information System and provide an annual update prior to the submission of this report.

Note 2: The transmission pole strength test is budgeted as part of the ground line inspection. This information is included in the Transmission Circuit, Substation and Other Equipment Inspections section.

Note 3: The budget information for this table is included in the information supplied in the Hardening of Existing Transmission Structures section.



**4) Initiative 4: Storm Hardening Activities for Transmission Structures**

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Transmission structures scheduled for hardening.	120		\$4.3M		120	\$4.9M
(B) Transmission structures hardening completed.		149		\$4.7M		
(C) Percent transmission structures hardening completed.		124%				

**5) Initiative 5: Geographic Information System**

See Section I – Storm Preparedness Plans, item E) Initiative 5: Geographic Information System on pages 19 and 20 for a detailed discussion.

**6) Initiative 6: Post-Storm Data Collection**

See Section I – Storm Preparedness Plans, item F) Initiative 6: Post-Storm Data Collection on pages 20 through 25 for a detailed discussion

**7) Initiative 7: Outage Data – Overhead and Underground Systems**

See Section I – Storm Preparedness Plans, item G) Initiative 7: Outage Data – Overhead and Underground Systems on page 25 for a detailed discussion.

**8) Initiative 8: Increase Coordination with Local Governments**

See matrix below of Tampa Electric’s activities involving its coordination with local governments.

## 2019 Storm Implementation Plan and Annual Reliability Report

Government Entity	Municipal	Communication Efforts Presentations, Material, Etc.	Storm Workshop, Planning and Training With Local Gov't Officials and Fire and Police Personnel	Emergency Operation Centers Key Personnel Contact	Search and Rescue Teams Assistance to Local Gov't	Vegetation Management Tree Ordinances, Planting Guides, and Trim Procedures	Undergrounding Share Information, Estimates, and Materials
FEDERAL	---	MacDill Air Force Base Preparedness Fair - 8 hours					
	---	National Response Executive Committee (NREC) Situational Awareness Calls for Hurricane Dorian - 4 hours					
	---						
STATE	---	FDOT Safety Training - 6 hours	Earth Ex 2019 Exercise - 5 hours	Hurricane Dorian EOC Activation - 24 hours			
	---		Mock Storm Planning/Exercise - 16 hours				
			Statewide Mutual Assistance Assistance Workshop - 8 hours				
	---						
HILLSBOROUGH COUNTY	---	Storm Preparedness (Cousins Properties) - 7 hours	Community Outreach - 80 hours	CFI Meeting (Port) - 2 hours	Standby - Hurricane Dorian		
	---		Multi-Year Training and Exercise Plan (MYTEP) - 2 hours	Hurricane Dorian EOC Activation - 20 hours			
	---		Community Organization Active in Disaster (COAD)/Volunteer Organization Active in Disaster (VOAD) Committee meetings - 4 hours				
	---		TSAR Meeting - 3 hours				
	---		Critical Facility Working Group - 8 hours				
	---		LMS Working Group - 10 hours				
			Disaster Resiliency Workshop (USF) - 12 hours				
	---		Mock Storm Planning/Exercise - 80 hours				
	---		WebEOC Training - 12 hours				
	---		EOC Stakeholders Group Meetings - 8 hours				
	City of Tampa	Tampa Downtown Partnership/Annual Hurricane Meeting - 6 hours	Debris Clearing Exercise - 3 hours				
	City of Tampa						
	City of Plant City						
	City of Temple Terrace		Hurricane Briefing - 6 hours				
POLK COUNTY	Winter Haven		Community Outreach - 20 hours				
	Winter Haven		Critical Infrastructure Review - 4 hours				
	Winter Haven						
PASCO COUNTY	New Port Richey		Critical Infrastructure Review - 4 hours				
	New Port Richey		Multi-Year Training and Exercise Plan (MYTEP) - 3 hours				
	New Port Richey						
	San Antonio						
	St. Leo						
PINELLAS COUNTY	Largo		Annual Stakeholders Meeting - 3 hours				
	Largo		Hurricane Exercise - 12 hours				
	Largo		WebEOC Training - 8 hours				
	Largo		Critical Infrastructure Review - 8 hours				
	Oldsmar		Hurricane Exercise - 12 hours				
	Oldsmar						

## **2019 Storm Implementation Plan and Annual Reliability Report**

### **9) Initiative 9: Collaborative Research**

See Section I – Storm Preparedness Plans, item I - Initiative 9: Collaborative Research on pages 33 through 36 for a detailed description and related data.

### **10) Initiative 10: Disaster Preparedness and Recovery Plan**

The company's Disaster Preparedness and Recover Plan for 2019 was thoroughly reviewed and found to be appropriate; both the structure and operational functions did not change and are consistent with the document previously submitted to the Commission. For 2020, the Plan will undergo its customary annual review prior to storm season and any necessary updates or modifications will be made at that time.

### **11) Feeder Specific and Attached Laterals Data**

See attached pages 196 through 235.

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13001	SHA	N/A	12.532197	785	55588	533	N/A	4.52197	610	2712	12	2
13002	SHA	N/A	0.237689	17	0	0	N/A	0.580492	8	0	0	0
13003	SHA	N/A	23.675568	560	51111	384	N/A	2.577462	199	0	0	0
13004	DCA	N/A	10.894318	512	68488	1067	N/A	8.560227	501	11204	78	0
13005	DCA	N/A	6.16572	238	5406	48	N/A	1.537311	217	588	2	0
13006	DCA	N/A	23.038826	787	33710	238	N/A	10.360985	910	4722	25	12
13007	PCA	N/A	29.515909	457	59339	475	N/A	3.203788	63	0	0	2
13008	PCA	N/A	17.185417	424	22007	324	N/A	1.373295	17	62	1	0
13009	PCA	N/A	3.035417	64	2511	12	N/A	0.92178	42	0	0	0
13010	PCA	N/A	7.708712	462	96535	1200	N/A	11.826136	1097	56877	665	9
13011	PCA	N/A	27.223864	1511	127803	2661	N/A	1.058523	86	0	0	16
13012	WSA	N/A	0.481061	55	1111	15	N/A	0.100379	10	0	0	0
13013	WSA	N/A	0.224242	43	75	1	N/A	1.470833	188	12917	28	0
13016	WSA	N/A	0.834848	93	22278	137	N/A	0.760038	101	0	0	0
13017	SHA	N/A	9.261364	391	17564	186	N/A	21.438068	1999	4864	69	11
13019	SHA	N/A	15.165909	983	32930	726	N/A	9.808902	895	1316	3	15
13020	SHA	N/A	12.854356	892	22037	264	N/A	2.330303	273	1737	11	0
13021	CSA	N/A	3.250947	264	20077	253	N/A	4.724053	1028	11949	85	0
13022	CSA	N/A	3.285227	460	8703	20	N/A	0.704924	317	30338	153	2
13023	CSA	N/A	8.310038	982	34410	286	N/A	2.06553	358	9201	26	2
13024	CSA	N/A	7.537689	826	83702	621	N/A	1.196212	176	549	1	0
13026	CSA	N/A	3.032576	280	72474	783	N/A	4.937879	1561	121	1	0
13027	CSA	N/A	9.229356	695	89661	695	N/A	1.783712	309	2788	44	2
13028	CSA	N/A	5.416477	590	60754	398	N/A	4.395265	1345	4252	24	0
13029	CSA	N/A	5.93125	519	13172	69	N/A	3.10947	664	267	1	0
13030	WHA	N/A	29.359659	910	33242	244	N/A	12.562879	757	0	0	12
13031	WHA	N/A	14.12822	537	70643	430	N/A	3.622538	121	1049	5	0
13034	CSA	N/A	4.987121	1173	42741	277	N/A	0.735227	167	0	0	0
13035	CSA	N/A	8.788826	938	26858	203	N/A	2.181061	271	0	0	0
13036	CSA	N/A	5.4125	569	11723	110	N/A	1.663447	336	1771	13	0
13037	CSA	N/A	6.156303	357	33481	459	N/A	3.889015	215	1681	17	0
13038	ESA	N/A	7.295644	469	15014	76	N/A	8.015341	637	0	0	0
13039	ESA	N/A	0.287879	5	58180	441	N/A	13.487689	1099	34403	282	0
13040	ESA	N/A	5.632955	322	12650	131	N/A	14.711742	1013	12724	73	0
13041	ESA	N/A	8.147348	1132	5806	44	N/A	0.10322	4	0	0	4
13043	CSA	N/A	12.373485	1724	60449	344	N/A	1.278598	396	0	0	0
13044	CSA	N/A	12.339015	1735	52027	766	N/A	0.332576	94	0	0	1
13045	CSA	N/A	6.867235	963	44314	372	N/A	0.054167	12	0	0	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)
Number of Automatic Line Sectionalizing Devices on the Feeder	Feeder Looped?	Total Length of Feeder	Length of URD Portion of Feeder Circuit	Length of URD Portion of Feeder Circuit	Number of Customers Served by URD Feeders	CMI for URD Feeders	Length of Overhead Portion of the Feeder Circuit	Number of Customers Served by Overhead Feeders	CMI for Overhead Feeders	CI for Overhead Feeders	% Load Growth Since December 31, 2018	Recorded Peak Load Recorded through December 31, 2019
0	Yes	4.073674	0.098485	0	0	0	3.975189	129	11430	2816	-36%	6.77
1	Yes	3.1125	2.421023	0	0	0	0.691477	0	0	0	-20%	4.59
2	Yes	7.855113	0.028977	0	0	0	7.826136	99	1725	900	-54%	3.91
0	Yes	3.550758	0.00	0	0	0	3.550758	88	0	0	-53%	6.32
0	Yes	1.658712	0.505114	0	0	0	1.153598	34	130801	862	-30%	3.63
5	Yes	6.09697	0.165909	0	0	0	5.931061	101	137336	1581	-34%	6.72
5	Yes	3.562879	0.250758	0	0	0	3.312121	34	897	567	-48%	7.38
1	Yes	0.888826	0.014205	0	0	0	0.874621	1	50118	1051	-77%	2.77
0	Yes	2.22519	0.09072	0	0	0	2.13447	32	0	0	-82%	2.94
3	Yes	5.417992	0.823106	0	4.745	1095	4.594886	99	462718	8472	-27%	6.92
2	Yes	6.249432	0.536932	0	0	0	5.7125	76	22517	1811	-67%	7.42
0	Yes	0.531629	0.089962	0	0	0	0.441667	28	0	0	-94%	1.27
0	Yes	1.435228	0.807955	0	0	0	0.627273	47	0	0	-62%	3.73
0	Yes	1.223864	0.394697	0	0	0	0.829167	19	24668	427	-58%	4.31
0	Yes	4.816666	1.636174	0	0	0	3.180492	77	0	0	-1%	9.00
4	Yes	5.194129	1.07822	0	0	0	4.115909	67	36846	1259	-36%	10.18
0	Yes	3.815152	0	0	0	0	3.815152	109	0	0	-52%	5.03
0	Yes	3.479545	0.21553	0	0	0	2.964015	77	81943	2605	-39%	6.67
0	Yes	0.923296	0.106061	0	0	0	0.817235	18	0	0	-67%	2.47
1	Yes	2.479735	0.097538	0	0	0	2.382197	105	0	0	-39%	5.95
0	Yes	1.912311	0.12197	0	0	0	1.790341	91	0	0	-60%	4.55
0	Yes	1.307955	0.044697	0	0	0	1.263258	64	0	0	-82%	5.14
0	Yes	1.193182	0.455303	0	0	0	0.737879	35	118074	1052	-74%	4.68
0	Yes	1.812311	0.230682	0	0	0	1.581629	31	0	0	-71%	6.05
0	Yes	1.21894	0.291288	0	0	0	0.927652	30	49201	1228	-70%	5.02
2	Yes	5.228977	0.094886	0	0	0	5.134091	82	0	0	-17%	8.10
1	Yes	3.445265	0	0	0	0	3.445265	50	0	0	0%	3.31
0	Yes	1.919318	0.037879	0	0	0	1.881439	110	0	0	-82%	4.67
2	Yes	2.265909	0.019129	0	0	0	2.24678	111	0	0	-41%	5.49
0	Yes	3.080303	0.730492	0	0	0	2.349811	114	0	0	-32%	6.43
0	Yes	2.892424	0.078409	0	0	0	2.814015	163	0	0	-64%	4.52
0	Yes	2.130303	0.103598	0	0	0	2.026705	67	0	0	-63%	3.64
1	Yes	3.074243	0.072538	0	0	0	3.001705	54	0	0	-88%	5.68
0	Yes	2.422538	1.854924	0	2415	1115	0.567614	7	0	0	-45%	5.57
1	Yes	4.481629	0.155682	0	0	0	4.325947	107	3173	894	-39%	7.68
2	Yes	2.65625	0.055492	0	0	0	2.600758	179	54034	2692	-63%	5.04
0	Yes	2.034091	0.046212	0	0	0	1.987879	154	67241	2347	-24%	8.51
0	Yes	0.882196	0.028598	0	0	0	0.853598	60	0	0	-24%	7.83
0	Yes	1.970076	0.106061	0	0	0	1.864015	176	0	0	-82%	4.77

## 2019 Storm Implementation Plan and Annual Reliability Report

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13046	CSA	N/A	8.026894	1126	22653	169	N/A	0.111364	5	237	1	0
13047	CSA	N/A	3.686932	515	1315	5	N/A	0.267424	166	0	0	0
13048	CSA	N/A	8.331818	1247	30076	203	N/A	0.356061	27	3510	12	0
13049	CSA	N/A	5.664205	636	6441	50	N/A	2.084091	496	5029	18	0
13050	CSA	N/A	0.049811	0	0	0	N/A	0.925189	41	62	1	0
13051	CSA	N/A	1.412311	95	14622	142	N/A	4.315909	960	88144	1146	0
13052	CSA	N/A	0.651136	40	0	0	N/A	0.625379	136	0	0	0
13053	CSA	N/A	9.066288	1236	17416	149	N/A	1.993371	304	13472	28	0
13054	CSA	N/A	0.232955	0	0	0	N/A	1.037311	439	0	0	0
13055	CSA	N/A	0.123485	1	0	0	N/A	0.381439	26	0	0	0
13057	CSA	N/A	0.181061	4	70	1	N/A	0.816667	178	0	0	0
13059	WSA	N/A	6.475947	909	29856	333	N/A	0.638068	139	2293	7	0
13060	WSA	N/A	4.691288	766	32851	198	N/A	1.942992	563	89	1	0
13061	WSA	N/A	3.526515	447	23679	281	N/A	0.385606	32	0	0	0
13062	WSA	N/A	4.75322	535	44121	340	N/A	0.14697	15	0	0	0
13063	WSA	N/A	5.660985	469	75134	561	N/A	6.865909	1473	33642	135	0
13064	WSA	N/A	8.956818	995	25256	173	N/A	4.742992	783	13007	118	10
13065	WSA	N/A	8.9375	1045	26847	205	N/A	2.063447	464	0	0	0
13066	WSA	N/A	2.972727	443	4733	21	N/A	0	0	0	0	0
13067	WSA	N/A	5.210417	648	27466	323	N/A	0.423106	14	0	0	0
13068	WSA	N/A	5.464583	825	39896	305	N/A	1.405492	328	0	0	0
13069	WSA	N/A	3.908523	531	20550	84	N/A	0.838258	388	0	0	0
13070	WSA	N/A	13.330114	372	56525	707	N/A	5.716667	187	1674	17	0
13071	WSA	N/A	7.236364	183	49825	289	N/A	16.268939	1192	53618	266	0
13072	WSA	N/A	6.357008	655	53856	287	N/A	0.468939	41	1507	13	0
13073	WSA	N/A	3.457008	400	29215	179	N/A	6.914015	348	9100	54	4
13075	WSA	N/A	2.170644	99	234997	259	N/A	1.452462	125	1164	3	0
13077	WSA	N/A	8.182576	648	54887	257	N/A	1.773106	50	2612	6	0
13078	WSA	N/A	7.251705	971	254344	1012	N/A	0.308523	90	8827	21	0
13079	WSA	N/A	4.564394	553	339738	875	N/A	2.537121	766	739	14	0
13080	WSA	N/A	8.044318	1113	37391	328	N/A	1.360227	546	3312	12	7
13081	WSA	N/A	2.838826	419	41405	264	N/A	1.496023	597	386	6	3
13082	WSA	N/A	6.345833	791	29716	240	N/A	0.733333	305	68	1	0
13084	ESA	N/A	3.868939	166	4610	62	N/A	1.950379	84	17075	38	0
13085	ESA	N/A	2.144129	49	1964	25	N/A	0.235606	7	125	2	0
13086	ESA	N/A	3.329545	254	1335	17	N/A	1.505871	13	0	0	0
13087	ESA	N/A	4.243561	351	5784	38	N/A	2.479735	323	23062	199	0
13088	CSA	N/A	3.450379	357	4730	57	N/A	1.261553	312	0	0	0
13089	CSA	N/A	8.105871	723	40693	239	N/A	1.064962	335	0	0	0
13090	CSA	N/A	4.632008	629	8859	133	N/A	1.483144	349	11141	66	0
13091	CSA	N/A	10.029167	1543	250046	1332	N/A	0.298106	7	36264	1716	0

## 2019 Storm Implementation Plan and Annual Reliability Report

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Number of Sectionalizing Devices on the Feeder	Feeder Looped?	Total Length of Feeder	Length of URD Portion of Feeder Circuit	Number of Customers Served by URD Feeders	CMI for URD Feeders	CI for URD Feeders	Length of Overhead Portion of the Feeder Circuit	Number of Customers Served by Overhead Feeders	CMI for Overhead Feeders	CI for Overhead Feeders	% Load Growth Since December 31, 2018	Recorded Peak Load Recorded through December 31, 2019
0	Yes	3.07803	0	0	0	0	3.07803	256	50587	1419	-12%	8.05
0	Yes	1.4	0.071402	0	0	0	1.328598	108	0	0	-49%	3.06
0	Yes	2.452651	0.131818	0	0	0	2.320833	182	0	0	-27%	5.95
0	Yes	1.68447	0.051326	0	0	0	1.633144	129	12998	1262	-59%	4.47
0	Yes	1.901894	1.460227	0	0	0	0.441667	2	703	22	-11%	5.43
1	Yes	2.029167	0.148106	0	0	0	1.881061	48	124060	4493	-21%	4.21
0	Yes	1.763069	0.087311	0	0	0	1.675758	12	0	0	-30%	6.11
0	Yes	2.488826	0.125758	0	0	0	2.363068	151	0	0	-56%	6.47
0	Yes	1.78447	0.768182	0	0	0	1.016288	6	0	0	-62%	2.56
0	Yes	3.417046	1.485417	2	0	0	1.931629	9	0	0	-51%	3.17
0	Yes	1.527462	0.145644	0	0	0	1.381818	9	0	0	-10%	7.67
0	Yes	1.950379	0.088447	0	0	0	1.861932	160	30066	1214	-44%	5.01
0	Yes	1.923106	0	0	0	0	1.923106	132	0	0	-62%	5.20
0	Yes	2.18125	0	0	0	0	2.18125	188	53478	662	-81%	2.96
0	Yes	1.910417	0	0	0	0	1.910417	151	125658	1499	-65%	2.60
1	Yes	3.405114	0	0	0	0	3.405114	167	8043	2145	-1%	7.50
1	Yes	2.003598	0	0	0	0	2.003598	175	99199	2413	-1%	8.53
0	Yes	0.594318	0	0	0	0	0.594318	57	0	0	-51%	5.98
0	Yes	0.586742	0.050568	0	0	0	0.536174	72	0	0	-40%	2.05
0	Yes	1.691098	0.367992	0	0	0	1.323106	92	0	0	-31%	7.08
0	Yes	1.289962	0.028788	0	63863	1251	1.261174	58	0	0	-40%	5.11
0	Yes	2.088636	0.047538	0	0	0	2.041098	131	0	0	-77%	4.80
1	Yes	3.289394	0.315341	0	0	0	2.974053	22	2006	348	-38%	3.76
1	Yes	2.329356	0.059659	0	0	0	2.269697	21	0	0	-4%	8.47
0	Yes	0.551894	0.160983	0	0	0	0.390909	33	75145	665	-78%	5.74
0	Yes	2.011931	0.153598	0	0	0	1.858333	103	0	0	-42%	5.73
0	Yes	1.59697	0	0	0	0	1.59697	39	25990	300	-51%	5.05
0	Yes	3.179735	0.161174	0	0	0	3.018561	137	0	0	-79%	6.24
0	Yes	1.080682	0.058523	0	0	0	1.022159	9	19608	376	-5%	5.79
0	Yes	2.368371	0.131439	0	0	0	2.236932	127	355569	5900	-44%	6.32
2	Yes	2.185606	0.160227	0	0	0	2.025379	108	0	0	-70%	7.91
0	Yes	0.919887	0.194508	0	0	0	0.725379	60	0	0	-6%	5.25
1	Yes	0.439773	0.06572	0	0	0	0.374053	25	3949	1173	-45%	5.63
0	Yes	2.464015	0.205682	0	0	0	2.258333	38	0	0	-17%	4.30
0	Yes	1.225947	0.371023	0	0	0	0.854924	9	0	0	-23%	3.60
0	Yes	3.408902	0.371023	0	0	0	3.037879	50	0	0	-15%	5.33
0	Yes	2.795265	0.405682	0	0	0	2.389583	112	30080	800	-18%	6.00
0	Yes	1.211553	0.042424	0	0	0	1.169129	62	33738	775	-57%	2.59
0	Yes	0.507387	0.107576	0	0	0	0.399811	20	0	0	-52%	5.45
0	Yes	2.553977	0.392803	0	0	0	2.161174	109	32507	1112	-56%	4.83
0	Yes	2.646402	0.239394	0	0	0	2.407008	128	73894	1717	-43%	6.50

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13092	CSA	N/A	5.336742	629	44470	196	N/A	0.293561	55	0	0	0
13093	CSA	N/A	6.065152	981	59165	184	N/A	0.101894	89	0	0	0
13094	CSA	N/A	6.422727	710	161725	2192	N/A	2.089394	463	37033	406	0
13096	CSA	N/A	19.793939	681	179709	1263	N/A	11.291098	509	129293	1142	1
13097	CSA	N/A	14.344886	578	101912	569	N/A	19.369886	715	17193	125	0
13098	CSA	N/A	10.05947	534	75006	670	N/A	10.249053	550	14779	93	0
13099	CSA	N/A	11.32197	367	211244	2375	N/A	20.04072	799	3894	29	0
13100	CSA	N/A	5.723295	483	34122	371	N/A	1.017045	77	1417	36	0
13101	CSA	N/A	3.244129	373	2082	15	N/A	0.725947	188	0	0	0
13102	CSA	N/A	5.876326	846	41067	321	N/A	0.367803	30	130	1	0
13103	CSA	N/A	3.375568	581	17752	115	N/A	0.406629	12	0	0	0
13104	CSA	N/A	5.06572	528	42253	133	N/A	1.699811	281	275	1	0
13105	CSA	N/A	6.849053	657	47247	202	N/A	2.12803	416	40240	64	0
13106	CSA	N/A	3.541288	544	103780	194	N/A	5.517803	1978	99116	364	0
13107	CSA	N/A	3.807955	480	28351	323	N/A	5.962879	986	7395	39	0
13109	WSA	N/A	4.287311	689	229930	2021	N/A	3.851894	1674	235108	786	0
13110	WSA	N/A	0.984659	41	30	1	N/A	2.860606	367	0	0	0
13111	WSA	N/A	3.551515	523	193539	1718	N/A	1.3125	322	11961	170	0
13112	WSA	N/A	12.092992	1220	70204	427	N/A	5.663068	590	6345	50	15
13113	WSA	N/A	3.261364	472	27154	139	N/A	0.698485	218	0	0	0
13114	WSA	N/A	3.819697	300	10576	62	N/A	9.357576	2523	203	1	1
13115	WHA	N/A	6.54072	462	36774	233	N/A	2.820455	208	0	0	0
13117	WHA	N/A	15.369697	1068	9629	115	N/A	30.160417	1072	126347	600	0
13118	WHA	N/A	11.164962	775	28641	408	N/A	15.335606	1435	38655	644	12
13119	PCA	N/A	1.652273	25	415	2	N/A	2.100947	626	0	0	0
13120	PCA	N/A	2.686742	62	889	9	N/A	10.213068	952	64669	634	0
13121	PCA	N/A	3.217045	93	284650	826	N/A	7.318182	696	6774	71	0
13122	PCA	N/A	4.007765	354	13722	67	N/A	0.986364	70	2344	15	0
13123	PCA	N/A	7.341288	663	10977	134	N/A	1.343939	121	0	0	0
13124	PCA	N/A	7.474053	354	17138	129	N/A	3.173485	305	339	2	1
13125	PCA	N/A	4.00303	414	30057	252	N/A	2.862879	362	0	0	0
13126	PCA	N/A	8.020455	226	32837	171	N/A	2.750568	234	0	0	0
13127	ESA	N/A	5.575189	265	25062	181	N/A	20.096402	1390	16595	131	3
13128	ESA	N/A	9.416856	560	147575	629	N/A	7.866477	616	35799	197	0
13129	ESA	N/A	2.830303	245	12085	80	N/A	5.432576	424	19443	74	0
13130	ESA	N/A	5.805303	339	37459	127	N/A	4.130114	460	23194	108	0
13131	ESA	N/A	1.660795	38	2440	13	N/A	1.853788	109	606	2	1
13133	ESA	N/A	13.985227	1376	82522	1003	N/A	3.540152	446	4052	7	0
13134	ESA	N/A	2.170265	170	19014	119	N/A	2.621023	216	39971	172	0
13136	WSA	N/A	4.367992	438	26630	243	N/A	0.367803	9	0	0	0



## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019	
0	Yes	1.430493	0.186364	0	0	0	1.244129	120	0	0	0	-77%	2.69
0	Yes	1.626326	0.214394	0	59629	1219	1.411932	110	0	0	0	-61%	4.04
1	Yes	3.085795	0.616098	0	0	0	2.469697	115	53343	1125	1125	-73%	6.72
2	Yes	3.370455	0.098864	0	35595	739	3.271591	88	158224	3811	3811	-57%	7.99
1	Yes	5.824811	1.179167	0	0	0	4.645644	96	313515	1399	245	-29%	7.18
1	Yes	4.431439	0.074621	0	0	0	4.356618	112	20878	1399	245	-59%	7.01
1	Yes	6.380492	0.074242	0	0	0	6.30625	53	127051	1688	1688	-34%	7.66
0	Yes	2.635038	0.217235	0	0	0	2.417803	104	0	0	0	32%	9.63
0	Yes	1.212879	0	0	0	0	1.212879	101	0	0	0	-58%	3.55
0	Yes	3.801137	0.126705	0	0	0	3.674432	236	79288	1111	1111	-70%	4.65
1	Yes	1.910038	0.161932	0	0	0	1.748106	154	32587	771	771	-54%	3.59
0	Yes	2.064329	0.139583	0	34607	887	2.066856	83	0	0	0	-5%	5.15
1	Yes	1.618561	0	0	0	0	1.618561	44	0	0	0	-35%	6.11
0	Yes	1.267045	0.083712	0	0	0	1.183333	75	56860	5446	5446	-4%	6.24
0	Yes	3.225379	0.043182	0	0	0	3.182197	132	64356	3296	3296	-75%	7.23
0	Yes	2.310227	0.891477	0	0	0	1.418175	107	292590	6265	6265	-86%	5.11
0	Yes	2.135227	0.300568	0	0	0	1.834659	31	35109	1370	1370	-44%	5.05
0	Yes	1.880113	0.305871	0	0	0	1.574242	53	16712	210	210	-80%	4.25
0	Yes	4.66875	0.210417	0	0	0	4.458333	239	426377	10718	10718	-38%	8.04
1	Yes	1.038068	0.170076	0	0	0	0.867992	38	0	0	0	-59%	1.99
3	Yes	2.984659	1.49697	0	0	0	1.487689	88	199331	7787	7787	-34%	9.63
0	Yes	2.314962	0.123295	0	0	0	2.191667	65	46952	777	777	5%	5.38
2	Yes	7.170076	2.836553	0	100546	2307	4.333523	239	114044	1066	1066	2%	8.34
1	Yes	9.467046	1.557576	0	0	0	7.90947	137	187830	3648	3648	1%	9.56
0	Yes	2.270455	0.082197	0	0	0	2.188258	16	1759	668	668	-75%	4.80
0	Yes	2.914772	0.747348	0	0	0	2.167424	25	30495	1042	1042	-44%	6.44
0	Yes	3.163447	0.257955	0	0	0	2.905492	60	31118	1011	1011	-57%	8.69
0	Yes	1.423864	0.088447	0	0	0	1.335417	49	2731	482	482	-11%	6.56
0	Yes	2.376326	0	0	0	0	2.376326	88	0	0	0	-83%	3.60
0	Yes	4.05019	0.018182	0	0	0	4.032008	128	0	0	0	-32%	6.01
0	Yes	3.359659	0.867614	0	0	0	2.492045	119	0	0	0	-32%	6.11
0	Yes	4.592993	0.146591	0	0	0	4.446402	30	51867	1003	1003	-57%	3.08
1	Yes	4.046212	0	0	0	0	4.046212	111	0	0	0	-72%	8.51
1	Yes	3.364205	0.027652	0	0	0	3.336553	96	0	0	0	-71%	5.49
0	Yes	2.007576	0.130114	0	0	0	1.877462	48	0	0	0	-32%	4.97
0	Yes	3.569128	0.042045	0	0	0	3.527083	127	0	0	0	-42%	5.05
1	Yes	0.846023	0.111932	0	0	0	0.734091	18	0	0	0	-79%	2.17
1	Yes	2.575947	0	0	0	0	2.575947	57	100977	772	772	-23%	7.49
0	Yes	1.196023	0.122159	0	0	0	1.073864	49	0	0	0	-66%	1.80
0	Yes	1.430871	0.080682	0	0	0	1.350189	22	0	0	0	-87%	2.96

## 2019 Storm Implementation Plan and Annual Reliability Report

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13137	WSA	N/A	0.955114	149	22252	110	N/A	1.24678	532	22175	106	0
13138	WSA	N/A	4.087879	454	68427	700	N/A	2.50322	844	7086	124	0
13139	WSA	N/A	5.814205	533	16202	98	N/A	3.213068	891	4747	47	0
13140	WSA	N/A	3.597727	401	18891	222	N/A	1.808523	931	0	0	0
13141	WSA	N/A	2.669508	526	3824	63	N/A	0.950379	471	2016	9	1
13142	WSA	N/A	2.575568	543	14165	99	N/A	1.935417	1183	1593	46	0
13143	WSA	N/A	8.108144	1312	40333	204	N/A	0.715341	172	898	16	10
13146	PCA	N/A	28.313826	633	31166	156	N/A	1.829735	60	1227	6	0
13147	PCA	N/A	31.596212	1068	44655	302	N/A	9.038485	544	25166	84	3
13148	PCA	N/A	31.11553	689	30465	357	N/A	1.384091	47	156	2	0
13150	WHA	N/A	4.419697	360	5303	53	N/A	5.776326	214	9835	82	0
13151	WHA	N/A	1.841477	37	82	2	N/A	10.813068	1060	46683	254	0
13152	WHA	N/A	3.450568	317	18611	63	N/A	8.185417	562	53057	374	0
13153	WHA	N/A	7.303977	667	25985	253	N/A	4.143561	334	0	0	0
13154	WSA	N/A	3.604167	383	160566	1373	N/A	8.591098	1451	7008	32	0
13155	WSA	N/A	3.71572	381	25882	160	N/A	12.18428	1292	14671	117	0
13156	WSA	N/A	2.190909	209	2892	19	N/A	3.789394	859	18177	47	0
13157	WSA	N/A	0.852841	60	5955	77	N/A	10.131061	572	12222	72	0
13158	CSA	N/A	7.18125	738	55055	570	N/A	3.164015	854	0	0	0
13159	CSA	N/A	12.483333	1312	142582	553	N/A	2.013447	309	0	0	16
13160	CSA	N/A	4.952652	543	18484	132	N/A	2.036364	390	0	0	0
13161	WSA	N/A	3.418939	413	13687	101	N/A	0.183333	55	0	0	0
13162	WSA	N/A	5.667235	534	53977	331	N/A	1.047159	263	0	0	0
13163	WSA	N/A	5.50625	793	40197	381	N/A	0.439205	120	0	0	0
13164	WSA	N/A	5.835606	774	46761	290	N/A	0.868939	53	561	1	0
13165	WSA	N/A	1.784659	249	8245	75	N/A	0.470076	53	0	0	0
13166	WSA	N/A	2.901705	627	11238	123	N/A	1.092614	461	2946	51	0
13167	WSA	N/A	7.650947	1235	40437	88	N/A	0.820076	230	1019	9	0
13169	ESA	N/A	0.785795	4	19800	1733	N/A	6.660038	552	155966	2144	0
13170	ESA	N/A	0.292424	1	14136	744	N/A	20.669318	2248	12770	113	0
13171	ESA	N/A	9.405682	603	84461	305	N/A	10.664015	1027	18023	37	0
13172	ESA	N/A	5.401515	329	68086	532	N/A	2.329545	154	9637	63	0
13173	ESA	N/A	3.257765	451	19499	165	N/A	6.028409	1021	0	0	0
13174	ESA	N/A	1.72178	11	34956	397	N/A	19.496591	3643	33316	704	1
13175	CSA	N/A	17.050758	1794	31112	137	N/A	0.786174	40	0	0	4
13176	CSA	N/A	8.425758	838	23767	122	N/A	1.131629	49	0	0	0
13177	CSA	N/A	3.289205	305	15198	118	N/A	0.413068	51	0	0	0
13178	CSA	N/A	3.093939	104	1738	6	N/A	0.463068	39	0	0	0
13180	CSA	N/A	2.190152	252	214517	1115	N/A	0.550379	73	0	0	0
13181	CSA	N/A	3.726136	285	6613	94	N/A	1.360985	882	1174	2	0

## 2019 Storm Implementation Plan and Annual Reliability Report

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0	Yes	1.355681	0.161742	0	0	0	1.193939	97	51693	1564	-26%	4.14
0	Yes	1.248106	0.029735	0	0	0	1.218371	37	0	0	-60%	4.95
0	Yes	1.697349	0.043561	0	0	0	1.653788	64	0	0	-4%	7.95
0	Yes	0.432576	0.167424	0	0	0	0.265152	46	0	0	-8%	4.12
1	Yes	1.376326	0.376515	0	0	0	0.999811	139	0	0	-11%	5.90
0	Yes	1.206819	0.380114	0	0	0	0.826705	66	0	0	-8%	5.35
0	Yes	2.99375	1.252083	0	0	0	1.741667	89	350949	3521	-66%	7.93
0	Yes	9.905303	0.466098	0	0	0	9.439205	72	36029	589	7%	3.43
2	Yes	6.091856	0.017235	0	0	0	6.074621	67	0	0	-24%	7.49
1	Yes	4.278409	0	0	0	0	4.278409	27	108790	2322	-54%	3.23
0	Yes	3.520265	0.374621	0	0	0	3.145644	98	0	0	-56%	8.26
0	Yes	3.569507	0.052462	0	0	0	3.517045	22	0	0	-9%	5.73
0	Yes	3.076326	0.125947	0	0	0	2.950379	141	2092	1029	-48%	6.05
1	Yes	1.385417	0.039962	0	0	0	1.345455	49	1750	691	-37%	4.62
0	Yes	1.349811	0	0	0	0	1.349811	89	329382	3359	-21%	7.52
0	Yes	3.099621	1.036553	0	0	0	2.063068	64	0	0	-27%	7.26
0	Yes	2.141099	0.069129	0	0	0	2.07197	68	0	0	-41%	4.68
0	Yes	1.221402	0.342235	0	0	0	0.879167	69	0	0	-59%	3.57
0	Yes	2.099811	0.0625	0	0	0	2.037311	128	0	0	-25%	5.30
3	Yes	3.520454	0.093939	0	0	0	3.426515	185	3681	767	-42%	7.37
1	Yes	1.063826	0.2875	0	0	0	0.776326	23	0	0	-36%	6.16
0	Yes	0.507197	0.055303	0	0	0	0.451894	41	0	0	-64%	2.68
0	Yes	1.447538	0.019886	0	0	0	1.427652	167	0	0	-39%	7.41
0	Yes	1.657954	0.137689	0	0	0	1.520265	184	0	0	4%	6.87
0	Yes	1.730303	0.35625	0	0	0	1.374053	38	0	0	-5%	5.78
0	Yes	0.455871	0.276894	0	0	0	0.178977	4	0	0	1%	3.63
1	Yes	4.094508	0.731061	0	0	0	3.363447	219	43753	1134	-52%	7.00
0	Yes	1.495834	0.038826	0	0	0	1.457008	135	0	0	-12%	7.73
0	Yes	2.247728	0.859002	0	0	0	1.388826	4	0	0	-64%	6.41
1	Yes	5.620454	2.687689	0	1946	44	2.932765	10	238195	4198	-39%	10.66
0	Yes	4.10303	0.145833	0	0	0	3.957197	71	67978	1638	-37%	8.31
0	Yes	3.458901	0.017803	0	0	0	3.441098	55	38942	685	-91%	3.07
0	Yes	3.542235	1.008333	0	0	0	2.533902	27	0	0	-79%	4.19
2	Yes	3.748295	1.334848	0	0	0	2.413447	15	4	0	0	10.16
2	Yes	4.030682	0.226705	0	0	0	3.803977	147	0	0	-26%	9.13
0	Yes	3.756061	0.390341	0	0	0	3.36572	102	0	0	-27%	8.77
0	Yes	1.692993	0.196591	0	0	0	1.496402	110	1220	485	-33%	3.26
1	Yes	2.995265	0.383712	0	0	0	2.611553	53	0	0	-42%	6.15
0	Yes	1.439773	0.562879	0	0	0	0.876894	36	4853	1664	-42%	4.17
0	Yes	2.141287	0.168939	0	53237	1288	1.972348	94	90794	2560	-5%	6.72

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13183	CSA	N/A	6.692803	338	22786	136	N/A	0.59678	35	296	1	0
13184	CSA	N/A	1.575568	67	152	1	N/A	0.431061	30	332	2	0
13185	CSA	N/A	2.542992	219	7940	64	N/A	7.814394	1049	0	0	0
13186	CSA	N/A	3.943939	415	54210	277	N/A	0.395265	101	0	0	0
13187	CSA	N/A	6.004356	533	24117	202	N/A	4.866667	651	7783	35	0
13188	CSA	N/A	5.225379	437	3519	37	N/A	5.231629	593	0	0	0
13189	WSA	N/A	2.255492	146	2583	13	N/A	1.808333	76	2941	30	0
13190	WSA	N/A	7.905114	603	29085	247	N/A	8.41572	457	1153	6	0
13191	WSA	N/A	5.683144	489	9604	72	N/A	4.016667	279	1924	26	0
13192	WSA	N/A	4.242045	218	105672	378	N/A	7.774621	787	1613	8	0
13193	WSA	N/A	0	0	0	0	N/A	10.902652	904	8634	47	0
13194	WSA	N/A	6.131629	239	40653	372	N/A	1.927652	203	1544	30	0
13195	WSA	N/A	0.696212	70	1947	23	N/A	1.010417	18	428	1	0
13198	WSA	N/A	4.007765	547	30777	159	N/A	2.442992	196	0	0	0
13199	WSA	N/A	4.593182	830	8931	89	N/A	0.683144	137	2548	19	0
13200	WSA	N/A	0.35928	21	629	12	N/A	0.389962	5	0	0	0
13201	WSA	N/A	2.730492	369	34926	618	N/A	0.665909	472	0	0	0
13204	CSA	N/A	5.225189	546	3811	20	N/A	4.226894	1186	21409	164	0
13205	CSA	N/A	3.992803	340	14079	106	N/A	2.103977	442	59388	306	0
13206	WSA	N/A	10.330303	1405	52516	410	N/A	0.167045	29	3659	13	0
13207	WSA	N/A	9.502841	973	82487	790	N/A	0.524053	31	4905	33	0
13208	WSA	N/A	4.448485	456	25485	199	N/A	0.898864	47	4878	40	0
13210	WSA	N/A	7.255303	779	21459	98	N/A	0.286553	4	171	4	5
13211	ESA	N/A	1.959659	75	3197	15	N/A	6.964015	739	4824	30	0
13213	ESA	N/A	17.651515	719	190834	1016	N/A	10.670833	671	8213	78	2
13214	ESA	N/A	6.089205	426	8395	117	N/A	4.258712	232	299	3	0
13215	ESA	N/A	0.047159	2	0	0	N/A	0.27822	2	0	0	0
13217	WSA	N/A	2.960227	317	22332	80	N/A	1.85	192	0	0	0
13218	WSA	N/A	5.518182	570	40013	234	N/A	2.108333	770	7762	80	0
13219	WSA	N/A	8.799811	1218	24265	203	N/A	1.936553	366	46109	235	1
13220	WSA	N/A	4.628977	462	54418	198	N/A	1.533333	292	11729	76	0
13221	CSA	N/A	3.810606	126	11116	94	N/A	5.444129	1242	42200	330	0
13222	CSA	N/A	2.524621	182	1125	8	N/A	1.901515	35	347	4	0
13223	CSA	N/A	4.426326	300	10139	123	N/A	1.408144	87	649	4	0
13224	CSA	N/A	10.161174	953	18043	89	N/A	1.215341	261	20914	125	0
13225	ESA	N/A	5.830682	449	54422	257	N/A	4.584659	2637	375	32	0
13226	ESA	N/A	3.082008	299	10678	59	N/A	6.449811	924	11829	102	7
13227	ESA	N/A	6.244318	460	120592	632	N/A	9.797538	798	9374	55	0
13228	ESA	N/A	3.948106	257	22709	555	N/A	4.663826	758	23290	99	0
13229	ESA	N/A	8.033144	654	41493	281	N/A	4.371212	599	4075	22	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	1.219128	0.21553	0	0	0	1.003598	50	61014	1329	-43%	3.15
0	Yes	2.07272	0.39678	0	0	0	1.680492	61	23165	166	-10%	2.34
0	Yes	1.244318	0.061553	0	0	0	1.182765	71	0	0	-13%	4.02
0	Yes	2.311174	0	0	0	0	2.311174	151	0	0	-42%	2.94
0	Yes	2.300569	0.069508	0	0	0	2.231061	126	2766	1307	-41%	5.09
0	Yes	2.613068	0.018182	0	0	0	2.594886	107	115878	3147	-55%	5.60
0	Yes	1.866098	0.009659	0	0	0	1.856439	58	0	0	-15%	7.43
0	Yes	4.345076	0.471402	0	0	0	3.873674	128	170127	2353	-65%	7.62
0	Yes	3.102651	0.242992	0	0	0	2.859659	71	32923	875	-57%	7.11
0	Yes	4.333143	0.398295	0	0	0	3.934848	28	0	0	-20%	7.48
0	Yes	4.847727	1.770644	0	0	0	3.077083	2	0	0	-47%	3.85
0	Yes	1.348485	0.116856	0	12690	417	1.231629	19	0	0	-69%	2.66
0	Yes	1.387879	0.734659	0	0	0	0.65322	26	0	0	-70%	5.89
0	Yes	2.920075	0.360227	0	0	0	2.559848	175	27598	1836	-25%	4.72
0	Yes	0.623296	0.16572	0	0	0	0.457576	34	0	0	-34%	3.86
0	Yes	0.647728	0.054167	0	0	0	0.593561	47	0	0	-43%	3.40
0	Yes	2.502652	0.94697	0	0	0	1.555682	90	105603	2656	-17%	5.70
0	Yes	2.514773	0.237121	0	0	0	2.277652	121	0	0	-52%	4.31
0	Yes	1.107765	0.371212	0	0	0	0.736553	29	0	0	-49%	3.25
0	Yes	1.034849	0.151705	0	0	0	0.883144	85	115140	2499	-10%	7.15
0	Yes	0.697916	0.156818	0	0	0	0.541098	19	0	0	-57%	6.67
0	Yes	1.215151	0.213636	0	0	0	1.001515	81	22743	620	-24%	3.64
1	Yes	2.370265	0.273485	0	0	0	2.09678	103	0	0	-75%	5.37
2	Yes	2.238636	0.322348	0	0	0	1.916288	15	0	0	-10%	7.03
4	Yes	4.766477	1.301894	0	0	0	3.464583	114	366772	11658	0%	9.58
0	Yes	2.982955	0.271023	0	0	0	2.711932	63	0	0	53%	4.12
0	Yes	1.666098	0.993371	0	0	0	0.672727	6	0	0	-62%	2.60
0	Yes	2.893372	0.791667	0	0	0	2.101705	70	41229	1170	-61%	4.44
0	Yes	2.002462	0.16553	0	0	0	1.836932	75	0	0	-52%	4.61
1	Yes	2.69375	0.135985	0	0	0	2.557765	178	0	0	-64%	7.31
0	Yes	1.351326	0.076515	0	0	0	1.274811	22	5024	783	-56%	3.11
0	Yes	3.000379	0.168371	0	0	0	2.832008	41	254085	4121	-53%	5.34
0	Yes	2.377273	0.413258	0	0	0	1.964015	42	0	0	-35%	4.46
2	Yes	2.858712	0.105871	0	0	0	2.752841	59	1109	456	-65%	3.63
1	Yes	3.063636	0.819697	0	0	0	2.243939	61	0	0	-35%	7.06
0	Yes	0.586363	0.064015	0	0	0	0.522348	12	0	0	-32%	3.85
3	Yes	2.646591	0.126705	0	0	0	2.519886	38	0	0	-20%	7.97
0	Yes	2.95625	0.032955	0	0	0	2.923295	70	39824	1038	2%	6.91
0	Yes	3.501326	0.160417	0	0	0	3.340909	81	69613	1115	-68%	7.12
1	Yes	2.352841	0.107576	20	0	0	2.245265	101	108825	1358	-30%	5.92

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13230	ESA	N/A	3.716477	234	32272	174	N/A	5.139394	860	2167	19	0
13231	ESA	N/A	4.637689	446	38550	439	N/A	8.509659	759	17283	183	0
13233	SHA	N/A	6.661742	82	4024	28	N/A	9.37197	607	0	0	6
13235	SHA	N/A	0.005871	0	0	0	N/A	29.997727	2514	28512	224	0
13236	SHA	N/A	60.191477	575	34105	296	N/A	8.342424	359	1251	13	0
13237	SHA	N/A	0.560795	0	114	2	N/A	43.779924	2779	35186	455	0
13238	SHA	N/A	2.944697	40	1809	7	N/A	18.609091	1190	6229	212	0
13239	SHA	N/A	0.909091	12	255	2	N/A	24.325568	2186	10477	74	0
13241	PCA	N/A	11.367424	871	5334	45	N/A	4.837879	621	9821	36	0
13242	PCA	N/A	10.591098	318	11129	49	N/A	3.408902	372	10827	122	1
13243	PCA	N/A	10.741288	865	153896	1383	N/A	2.257765	385	0	0	0
13250	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13251	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13252	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13253	CSA	N/A	0.080492	0	0	0	N/A	0	0	0	0	0
13254	SHA	N/A	21.816667	670	107524	739	N/A	11.538258	963	13982	155	0
13256	SHA	N/A	21.671591	510	49012	383	N/A	7.061364	769	29936	128	0
13258	CSA	N/A	0	0	0	0	N/A	0.660795	14	148	1	0
13259	CSA	N/A	0	0	0	0	N/A	1.60947	15	0	0	0
13260	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13261	CSA	N/A	0	0	0	0	N/A	1.241856	5	0	0	0
13262	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13263	CSA	N/A	0	0	0	0	N/A	0.236174	0	0	0	0
13264	CSA	N/A	0	0	0	0	N/A	1.514394	900	0	0	0
13265	CSA	N/A	0	0	0	0	N/A	0.435985	9	0	0	0
13267	PCA	N/A	0.20322	1	0	0	N/A	1.057008	11	11	0	0
13268	PCA	N/A	29.298864	694	117366	612	N/A	5.203788	132	0	0	0
13270	WSA	N/A	0.385606	29	0	0	N/A	3.901705	464	3512	52	0
13275	WSA	N/A	0	0	0	0	N/A	1.186364	2	0	0	0
13276	WSA	N/A	0	0	0	0	N/A	2.451515	12	0	0	0
13278	WHA	N/A	7.838258	643	4014	14	N/A	1.019318	90	0	0	0
13279	WHA	N/A	9.137689	915	20825	149	N/A	1.69375	47	5468	45	0
13280	WHA	N/A	2.732576	83	0	0	N/A	0.659091	15	257	2	0
13281	WHA	N/A	0	0	0	0	N/A	0.053788	1	0	0	0
13282	WHA	N/A	0	0	0	0	N/A	0.10928	6	0	0	0
13283	WHA	N/A	0	0	0	0	N/A	0.122159	6	0	0	0
13288	WHA	N/A	1.106818	83	0	0	N/A	1.941288	116	0	0	0
13289	WHA	N/A	3.954735	250	5340	75	N/A	1.979924	289	12	1	0
13290	WHA	N/A	5.038258	552	11851	142	N/A	1.273485	336	0	0	0
13291	WHA	N/A	3.423106	282	10537	103	N/A	3.546402	466	10544	145	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	2.677462	0.261742	0	0	0	0	107	168224	4859	-80%	5.32
0	Yes	3.47197	0.173864	0	31839	0	643	89	3298106	665	-50%	6.48
0	Yes	4.386174	0.493939	0	0	0	0	11	3.892235	7	-83%	1.92
0	Yes	7.447348	4.259659	0	0	0	0	2	3.187689	0	-56%	8.46
3	Yes	7.466288	0.438447	0	0	0	0	53	7.027841	0	-83%	4.34
0	Yes	6.246402	4.732197	0	0	0	0	2	1.514205	0	-15%	12.02
0	Yes	5.949053	3.600379	0	0	0	0	1	2.348674	2188	-39%	6.92
0	Yes	5.861364	3.524811	0	0	0	0	5	2.336553	0	195%	8.27
0	Yes	2.353788	0	0	0	0	0	96	2.353788	0	-80%	6.71
0	Yes	3.583713	0.100758	0	0	0	0	83	3.482955	0	-57%	4.23
0	Yes	2.382955	0.171591	0	0	0	0	112	2.211364	1385	-52%	6.49
0	Yes	0	0	0	0	0	0	0	0	0	0%	0.00
0	Yes	0	0	0	0	0	0	0	0	0	0%	0.00
0	Yes	0	0	0	0	0	0	0	0	0	0%	0.00
0	Yes	0.456629	0.021212	0	0	0	0	0	0.435417	0	0%	5.59
3	Yes	12.765531	0.28447	0	9257	1663	12.481061	135	426217	10121	-33%	6.07
2	Yes	1.994697	0.280682	0	13697	295	1.714015	2	33331	2617	-53%	3.49
0	Yes	0.340152	0.340152	0	1571	15	0	0	0	0	-19%	5.44
0	Yes	0.738826	0.738826	0	0	0	0	0	0	0	-16%	4.96
0	Yes	0	0	0	0	0	0	0	0	0	-100%	0.00
0	Yes	0.704735	0.704735	0	0	0	0	0	0	0	-32%	2.85
0	Yes	0.683144	0.683144	0	0	0	0	0	0	0	0%	0.00
0	Yes	1.135038	1.135038	0	0	0	0	0	0	0	0%	0.00
0	Yes	1.53106	1.512121	0	0	0	0.018939	0	0	0	-60%	0.60
0	Yes	0.612311	0.612311	0	0	0	0	0	0	0	-32%	6.02
1	Yes	3.017235	0.383333	0	0	0	2.633902	6	0	0	-42%	2.79
0	Yes	6.374053	0.146212	0	0	0	6.227841	123	0	0	-71%	7.63
0	Yes	1.41875	0.390341	0	0	0	1.028409	6	0	0	-51%	4.57
0	Yes	2.277462	2.277462	0	0	0	0	0	0	0	-86%	1.40
0	Yes	1.670833	1.670833	0	0	0	0	0	0	0	-64%	2.70
0	Yes	4.0125	0.111553	0	0	0	3.900947	193	0	0	-11%	6.24
1	Yes	5.745834	0.923979	0	0	0	4.820455	202	4362	1223	-46%	4.99
0	Yes	2.672159	0.207576	0	0	0	2.464583	50	0	0	-48%	6.32
0	Yes	1.081061	1.075947	0	226	4	0.005114	0	0	0	-48%	5.55
0	Yes	0.946023	0.932576	0	0	0	0.013447	0	0	0	12%	8.60
0	Yes	1.056439	1.05303	0	0	0	0.003409	0	0	0	9%	7.51
0	Yes	1.345075	0.220833	0	0	0	1.124242	31	0	0	5%	7.14
0	Yes	2.957007	0.173674	0	0	0	2.783333	84	11152	820	-8%	5.60
1	Yes	2.995644	0.139394	0	0	0	2.85625	171	0	0	3%	3.72
0	Yes	1.804167	0	0	0	0	1.804167	21	0	0	-83%	3.92
											-25%	5.01

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13292	WHA	N/A	2.751136	286	60321	1165	N/A	1.716098	156	0	0	0
13293	WHA	N/A	8.416098	915	4567	16	N/A	4.109659	383	0	0	0
13294	WHA	N/A	13.831629	711	32548	307	N/A	3.102083	96	4102	20	0
13295	WHA	N/A	2.779924	274	305	4	N/A	11.081818	911	21382	172	0
13296	WHA	N/A	9.508523	431	14670	233	N/A	11.051515	1170	41479	173	0
13297	WHA	N/A	5.908902	546	3838	35	N/A	5.850947	727	1851	3	0
13298	WHA	N/A	131.416288	1067	35949	202	N/A	4.477841	48	8842	97	4
13299	WHA	N/A	18.186742	548	36238	362	N/A	14.154356	803	0	0	0
13302	SHA	N/A	2.811932	216	23676	1955	N/A	19.975189	1489	57480	487	0
13303	SHA	N/A	105.275758	1627	47158	352	N/A	5.157955	376	340	3	16
13304	SHA	N/A	0.749432	4	0	0	N/A	22.263068	1853	191	2	0
13305	SHA	N/A	24.251326	595	75508	544	N/A	19.461553	703	13681	91	0
13308	WHA	N/A	6.892045	639	63929	532	N/A	3.382765	529	0	0	0
13309	WHA	N/A	2.676515	259	5041	52	N/A	0.379735	43	288	1	0
13310	WHA	N/A	2.095833	289	7294	113	N/A	0.642424	112	0	0	0
13311	WHA	N/A	5.801894	600	9341	119	N/A	0.5125	103	501	3	0
13312	WHA	N/A	4.612311	462	15345	88	N/A	2.193182	384	44	1	0
13313	WHA	N/A	2.516667	313	887	7	N/A	1.219129	141	3089	50	0
13314	WHA	N/A	2.786553	137	736	10	N/A	2.120644	313	120	2	0
13315	WHA	N/A	0	0	0	0	N/A	0.292045	18	0	0	0
13317	WSA	N/A	0.846591	0	0	0	N/A	5.357008	1358	494	1	0
13318	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13319	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13320	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13321	WSA	N/A	0	0	0	0	N/A	1.71553	4	0	0	0
13322	WSA	N/A	0.017045	0	0	0	N/A	1.771591	505	0	0	0
13323	WSA	N/A	1.879167	238	36178	460	N/A	0.937879	49	0	0	0
13324	ESA	N/A	6.297917	225	14134	52	N/A	0.388258	10	0	0	0
13325	ESA	N/A	1.993939	15	0	0	N/A	0.617803	11	125	1	0
13326	ESA	N/A	8.491477	270	3519	19	N/A	3.182955	101	0	0	0
13327	ESA	N/A	2.679356	22	1163	2	N/A	1.210417	12	0	0	0
13328	DCA	N/A	6.260417	501	76973	907	N/A	0.665152	37	0	0	0
13329	DCA	N/A	8.107576	560	26062	233	N/A	0.549053	64	0	0	0
13330	DCA	N/A	35.411364	1222	202682	755	N/A	8.835038	461	14429	95	4
13331	DCA	N/A	27.402083	1163	70312	330	N/A	4.117424	149	5170	45	16
13332	WSA	N/A	2.666098	104	1153	5	N/A	8.347348	1584	15057	70	0
13333	WSA	N/A	1.529356	120	2293	38	N/A	2.961932	357	0	0	0
13334	WSA	N/A	4.332955	625	30063	259	N/A	0.938826	226	905	17	0
13335	WSA	N/A	1.422159	31	118	1	N/A	2.321212	26	0	0	0
13336	WSA	N/A	2.414205	52	4303	14	N/A	2.932008	203	0	0	0



## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019	
0	Yes	2.507766	0.113258	0	0	0	2.394508	119	0	48374	584	-65%	3.03
0	Yes	3.423485	0.071402	0	0	0	3.352083	136	0	0	0	-74%	4.75
2	Yes	5.410037	0.292045	0	0	0	5.117992	148	0	1261	309	-48%	6.51
0	Yes	4.0125	0.908333	0	0	0	3.104167	47	0	0	0	-10%	5.03
1	Yes	4.348296	0.176326	0	0	0	4.17197	102	0	15681	152	-2%	6.74
0	Yes	3.813637	0.118561	5	0	0	3.695076	165	0	24126	661	-39%	5.59
9	Yes	24.105492	0	0	0	0	24.105492	102	0	238221	2619	-28%	5.81
1	Yes	8.466288	3.185985	0	0	0	5.280303	52	0	0	0	-16%	6.67
0	Yes	3.10606	1.593371	0	0	0	1.512689	6	0	0	0	-44%	6.48
3	Yes	6.635606	0.203598	0	0	0	6.432008	50	0	312316	8393	-47%	8.60
0	Yes	4.774432	2.892424	0	0	0	1.882008	5	0	0	0	-61%	6.60
2	Yes	7.366856	2.289015	0	0	0	5.077841	53	0	0	0	-89%	4.94
0	Yes	3.295834	0.143561	0	0	0	3.152273	142	0	0	0	-76%	6.07
0	Yes	1.587311	0.039394	0	0	0	1.547917	44	0	0	0	-45%	3.96
0	Yes	1.361174	0.054356	0	0	0	1.306818	18	0	21020	231	-36%	3.06
0	Yes	3.033523	0.063826	0	0	0	2.969697	135	0	0	0	-65%	4.42
0	Yes	2.937122	0.116667	0	0	0	2.820455	71	0	0	0	0%	7.41
0	Yes	1.936364	0.420076	0	0	0	1.516288	34	0	60418	492	-5%	5.71
0	Yes	1.640909	0.315909	0	0	0	1.325	31	0	0	0	-4%	3.85
0	Yes	0.582008	0.582008	0	0	0	0	0	0	0	0	-8%	1.38
0	Yes	3.853219	2.928598	0	0	0	0.924621	6	0	0	0	-34%	4.65
0	Yes	1.2125	1.2125	0	0	0	0	0	0	0	0	0%	0.07
0	Yes	0.886553	0.886553	0	0	0	0	0	0	0	0	0%	0.07
0	Yes	1.141856	1.141856	0	0	0	0	0	0	0	0	0%	0.07
0	Yes	1.882765	1.882765	0	0	0	0	0	0	0	0	-61%	1.21
0	Yes	2.911742	2.56875	0	0	0	0.342992	1	0	0	0	-40%	3.94
0	Yes	1.764772	0.814383	0	0	0	0.950189	43	0	0	0	-80%	1.81
0	Yes	3.760228	0.096023	0	0	0	3.664205	36	0	0	0	2%	5.08
0	Yes	1.654167	0.109091	0	0	0	1.545076	10	0	0	0	-18%	5.98
1	Yes	5.969697	0.367235	0	0	0	5.602462	51	0	28694	434	-46%	7.66
1	Yes	1.273106	0.06553	0	0	0	1.207576	6	0	0	0	-61%	3.31
0	Yes	1.396022	0.066098	0	0	0	1.329924	29	0	0	0	-14%	3.35
0	Yes	2.885038	0.056061	0	0	0	2.828977	130	0	227138	1560	-80%	4.62
2	Yes	4.83125	0.202841	0	0	0	4.628409	161	0	0	0	-36%	6.72
2	Yes	3.892046	0.107576	0	0	0	3.78447	102	0	60448	2175	-57%	4.44
0	Yes	1.886174	0.056439	0	0	0	1.829735	57	0	0	0	-18%	5.03
0	Yes	2.281818	0.184659	0	0	0	2.097159	77	0	0	0	1%	4.32
0	Yes	2.381439	0.318371	0	0	0	2.063068	61	0	60216	936	-36%	5.88
0	Yes	1.647917	0.42822	0	0	0	1.219697	6	0	6728	66	-20%	4.97
0	Yes	1.57822	0.183523	0	0	0	1.394697	4	0	0	0	-18%	5.49

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13337	WSA	N/A	2.818371	208	7555	75	N/A	4.65928	1948	32140	118	0
13338	WSA	N/A	3.433712	131	15974	22	N/A	1.907576	216	0	0	0
13339	WSA	N/A	0.480303	3	0	0	N/A	5.330682	1268	83	1	0
13340	SHA	N/A	4.160795	37	15588	121	N/A	31.807197	2405	10316	112	0
13341	SHA	N/A	3.6	89	18213	169	N/A	6.501894	654	0	0	0
13342	SHA	N/A	8.831439	379	78111	677	N/A	7.953598	862	1848	46	0
13343	SHA	N/A	0.036364	0	0	0	N/A	22.878788	1615	3328	42	0
13344	SHA	N/A	2.707576	64	8214	124	N/A	11.941667	1580	5256	21	0
13346	SHA	N/A	2.726136	61	4342	39	N/A	14.21553	1415	9381	75	0
13348	CSA	N/A	3.753788	588	11140	108	N/A	5.633902	1767	54794	120	1
13349	CSA	N/A	0.661932	2	0	0	N/A	1.727273	359	6114	54	0
13350	CSA	N/A	0.150189	64	7754	116	N/A	1.68125	383	0	0	0
13351	CSA	N/A	2.97803	435	43082	287	N/A	5.030871	1450	4929	86	2
13352	CSA	N/A	1.034091	108	5410	42	N/A	5.189394	1508	6948	65	0
13353	CSA	N/A	0	0	0	0	N/A	0.438447	48	0	0	0
13354	CSA	N/A	0.895833	19	543	3	N/A	5.94697	1360	0	0	0
13355	CSA	N/A	0	0	0	0	N/A	0.144508	5	0	0	0
13358	WSA	N/A	4.224053	901	74464	786	N/A	1.374621	576	16327	62	0
13359	WSA	N/A	6.107955	662	67205	264	N/A	2.123864	177	974	2	3
13360	WSA	N/A	0.075947	7	0	0	N/A	0.018561	47	0	0	0
13362	CSA	N/A	0.003977	0	0	0	N/A	1.331629	58	0	0	0
13363	CSA	N/A	0	0	1523	68	N/A	0	0	4167	35	0
13364	CSA	N/A	0.092992	0	99127	1316	N/A	0.343182	301	0	0	0
13365	CSA	N/A	2.042235	342	25920	189	N/A	7.618371	907	53224	435	0
13366	CSA	N/A	0	0	0	0	N/A	0.532008	8	0	0	0
13367	CSA	N/A	0.006061	0	47492	301	N/A	0.063636	2	30208	212	0
13368	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13369	CSA	N/A	0	0	0	0	N/A	0.001515	0	0	0	0
13370	WHA	N/A	5.876894	400	1391	7	N/A	2.484848	304	6606	50	2
13371	WHA	N/A	7.028788	433	33484	163	N/A	6.808333	624	9370	81	0
13372	WHA	N/A	2.362879	236	1929	16	N/A	1.099621	53	112	1	0
13373	WHA	N/A	18.821023	1751	34792	283	N/A	2.376326	256	26374	97	0
13375	WSA	N/A	0	0	0	0	N/A	0.023485	0	0	0	0
13376	WSA	N/A	0	0	0	0	N/A	0.28428	6	0	0	0
13377	WSA	N/A	4.119318	930	34427	121	N/A	2.000379	169	0	0	6
13378	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13379	WSA	N/A	0	0	0	0	N/A	0.033712	0	0	0	0
13380	WSA	N/A	0	0	0	0	N/A	0.055492	0	0	0	0
13381	WSA	N/A	0	0	0	0	N/A	0.197538	2	0	0	0
13382	WSA	N/A	0	0	0	0	N/A	0.097348	0	0	0	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	2.68428	0.167992	0	0	0	2.516288	173	0	0	-36%	6.55
0	Yes	3.343371	0.136932	0	0	0	3.206439	32	56959	866	-77%	5.03
0	Yes	1.642045	1.232765	0	0	0	0.40928	0	0	0	2%	7.77
0	Yes	13.45	7.734091	0	0	0	5.715909	18	0	0	-28%	10.17
0	Yes	3.138257	0.452083	0	0	0	2.686174	27	0	0	-70%	3.58
0	Yes	5.6875	0.59072	0	0	0	5.09678	48	69747	1307	14%	7.66
0	Yes	4.552652	3.447538	0	0	0	1.105114	7	0	0	-26%	7.42
0	Yes	5.188636	1.499621	0	0	0	3.689015	12	0	0	-37%	10.09
0	Yes	7.220265	2.372727	0	0	0	4.847538	28	141356	1507	29%	10.44
1	Yes	2.693371	0.352462	0	0	0	2.340909	215	174289	2579	-37%	6.82
0	Yes	1.891478	0.715152	0	0	0	1.176326	12	0	0	-68%	2.29
0	Yes	0.694129	0.397159	0	0	0	0.29697	6	0	0	-39%	3.35
3	Yes	2.179166	1.144886	0	0	0	1.03428	28	0	0	-13%	5.55
0	Yes	1.895265	0.860038	0	0	0	1.035227	43	0	0	-53%	4.39
0	Yes	1.715909	1.715909	0	0	0	0	0	0	0	-83%	1.28
2	Yes	2.077652	0.083523	0	0	0	1.994129	36	35817	1633	-25%	7.21
0	Yes	1.024622	0.750758	0	0	0	0.273864	2	0	0	-26%	6.65
0	Yes	2.569318	0.78125	0	0	0	1.788068	184	0	0	-15%	8.49
2	Yes	3.474811	1.407008	0	0	0	2.067803	90	0	0	-17%	5.98
0	Yes	1.652273	0.804167	0	0	0	0.848106	2	0	0	-98%	0.11
0	Yes	1.373674	0.734848	0	0	0	0.638826	3	0	0	-9%	6.58
0	Yes	0.135417	0.077841	0	0	0	0.057576	0	0	0	-100%	0.00
0	Yes	0.386174	0.086174	0	0	0	0.3	2	157183	3067	-84%	0.91
1	Yes	5.258144	1.684091	0	637	11	3.574053	13	85035	2528	-66%	6.38
0	Yes	1.369886	0.977462	0	0	0	0.392424	4	0	0	-30%	6.26
0	Yes	0.330681	0.120833	0	22206	194	0.209848	0	422886	11118	-80%	1.53
0	Yes	0.088636	0.088636	0	0	0	0	0	0	0	-47%	2.53
0	Yes	0.149242	0.149242	0	0	0	0	0	0	0	-22%	4.54
1	Yes	1.798864	0.060038	0	0	0	1.738826	48	0	0	-47%	5.11
1	Yes	2.570643	0.123295	0	0	0	2.447348	53	139269	1204	-80%	4.89
0	Yes	1.340341	0.112689	0	0	0	1.227652	16	0	0	-14%	5.70
3	Yes	5.29678	0.849432	0	0	0	4.447348	208	0	0	4%	9.67
0	Yes	0.931439	0.931439	0	0	0	0	0	0	0	0%	0
0	Yes	0.853977	0.853977	0	0	0	0	0	0	0	-23%	1.54
3	Yes	3.005114	0.781629	0	165171	1203	2.223485	80	20837	343	-23%	1.93
0	Yes	0.014773	0.014773	0	0	0	0	0	0	0	-45%	5.83
0	Yes	0.634848	0.634848	0	0	0	0	0	0	0	0%	0.00
0	Yes	0.155114	0.155114	0	0	0	0	0	0	0	-14%	6.11
0	Yes	0.376136	0.376136	0	0	0	0	0	0	0	-94%	0.32
0	Yes	0.835985	0.835985	0	0	0	0	0	0	0	-14%	0.68

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13383	WSA	N/A	0	0	0	0	0	0.873485	8	0	0	0
13384	WSA	N/A	0	0	0	0	0	0.017424	5	0	0	0
13385	WSA	N/A	0	0	0	0	0	0	0	0	0	0
13388	PCA	N/A	17.488258	470	71509	447	N/A	7.918939	173	7380	17	0
13389	PCA	N/A	17.227841	897	44446	269	N/A	1.638826	54	639	2	0
13390	PCA	N/A	33.507008	1187	98004	530	N/A	4.732765	389	19292	200	22
13391	PCA	N/A	47.672538	1089	105200	664	N/A	6.54697	336	4322	14	10
13397	ESA	N/A	0.407386	44	15465	125	N/A	0.772159	187	0	0	0
13398	ESA	N/A	0.472727	14	0	0	N/A	0.829167	1150	0	0	0
13399	ESA	N/A	1.155114	48	74	2	N/A	0.632386	460	0	0	0
13400	ESA	N/A	2.192803	68	6386	105	N/A	1.713258	998	19122	253	0
13405	WSA	N/A	9.099242	182	45722	143	N/A	2.213068	113	0	0	0
13406	WSA	N/A	1.316288	30	13753	139	N/A	5.941477	264	12790	77	0
13412	PCA	N/A	4.099053	270	11708	74	N/A	1.344508	32	84	1	0
13414	PCA	N/A	9.475947	709	32397	278	N/A	1.705871	115	50	2	0
13417	ESA	N/A	4.819697	602	8065	125	N/A	1.341288	65	1229	13	0
13418	ESA	N/A	9.230871	1199	10967	97	N/A	1.05947	193	23501	136	0
13419	ESA	N/A	10.563826	1373	130620	1098	N/A	0.616477	68	0	0	0
13420	ESA	N/A	3.863068	401	9672	88	N/A	5.410985	1481	0	0	0
13422	PCA	N/A	29.270833	902	140513	526	N/A	8.788826	422	5006	30	0
13423	PCA	N/A	28.333712	631	46597	278	N/A	3.868561	560	51	1	0
13425	WSA	N/A	1.277652	9	0	0	N/A	14.014962	1596	28248	49	0
13426	WSA	N/A	5.751326	391	79298	841	N/A	11.994508	1339	12180	79	0
13427	WSA	N/A	0.00322	1	312	2	N/A	3.950758	288	0	0	0
13428	WSA	N/A	1.275379	51	24808	210	N/A	9.044129	1170	15505	93	0
13431	PCA	N/A	37.912311	692	190150	1116	N/A	11.479167	435	2441	17	0
13432	PCA	N/A	3.848295	54	3777	12	N/A	17.479167	670	15727	93	0
13433	ESA	N/A	9.05625	279	583	6	N/A	3.486174	243	0	0	0
13434	ESA	N/A	9.804356	809	76312	1191	N/A	4.337311	559	0	0	0
13435	ESA	N/A	8.198295	382	32844	137	N/A	1.929167	372	41492	465	0
13436	ESA	N/A	12.894697	662	27527	195	N/A	5.383902	484	75763	222	0
13438	SHA	N/A	1.006439	99	3441	12	N/A	22.489962	2975	67934	338	0
13439	SHA	N/A	2.817803	309	62338	529	N/A	7.194508	516	9787	126	0
13440	SHA	N/A	3.115909	9	450	5	N/A	14.619129	1052	9069	51	0
13442	WHA	N/A	13.726326	581	135777	2446	N/A	21.016288	1724	26751	198	0
13443	WHA	N/A	9.487121	580	161112	822	N/A	8.228598	895	62235	609	0
13444	WHA	N/A	4.036742	341	15192	116	N/A	1.607765	204	6110	43	0
13446	WSA	N/A	0.007008	4	0	0	N/A	0.677273	88	0	0	0
13447	WSA	N/A	1.636932	49	9749	59	N/A	1.094886	51	0	0	0
13448	WSA	N/A	1.381629	107	4159	34	N/A	2.01875	465	9273	141	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019	
0	Yes	1.175568	1.175568	0	0	0	0	0	0	0	0	11%	5.77
0	Yes	0.794697	0.794697	0	0	0	0	0	0	0	0	-40%	4.15
0	Yes	0.023864	0.023864	0	0	0	0	0	0	0	0	9%	4.24
0	Yes	4.917992	0.892424	0	48871	709	4.025568	102	137407	2381	0	0%	0.00
5	Yes	6.303598	0.035227	0	0	0	6.268371	174	0	0	0	-65%	5.41
5	Yes	6.489394	0.297159	0	0	0	6.192235	213	0	0	0	-84%	5.30
5	Yes	8.958144	0.238068	0	0	0	8.720076	180	87758	5703	0	-48%	6.35
1	Yes	1.066477	0.071591	0	0	0	0.994886	53	0	0	0	-75%	8.09
1	Yes	1.70947	1.467417	0	57976	1184	0.249053	3	0	0	0	-22%	2.42
0	Yes	0.735417	0.607576	0	0	0	0.127841	11	0	0	0	2%	3.86
0	Yes	2.889015	1.194886	0	0	0	1.694129	31	0	0	0	-10%	1.98
0	Yes	2.961743	0.533902	0	0	0	2.427841	23	0	0	0	-82%	3.93
0	Yes	5.38428	1.386174	0	0	0	3.998106	28	0	0	0	-85%	1.66
1	Yes	4.522917	0.053409	0	0	0	4.469508	67	0	0	0	-82%	4.75
1	Yes	2.716667	0.040341	0	0	0	2.676326	121	36208	969	0	-59%	7.59
0	Yes	3.230303	0.39072	0	0	0	2.839583	174	22515	871	0	-39%	5.29
0	Yes	1.842803	0.108333	0	0	0	1.73447	159	0	0	0	-76%	5.01
0	Yes	1.629545	0.142992	0	0	0	1.486553	146	146488	3234	0	-69%	5.99
0	Yes	2.103219	0.073674	0	0	0	2.029545	129	0	0	0	-14%	7.14
5	Yes	7.876894	0.145076	0	0	0	7.731818	113	314545	5235	0	-55%	6.29
2	Yes	2.713257	0.180871	0	0	0	2.532386	62	71008	1167	0	-62%	5.66
0	Yes	2.480303	0.918371	0	0	0	1.561932	7	0	0	0	-82%	4.38
0	Yes	1.148106	0.072348	0	0	0	1.075758	17	79263	1766	0	21%	7.63
0	Yes	0.164204	0.076136	0	0	0	0.088068	0	0	0	0	-8%	6.97
0	Yes	2.869697	0.353788	0	0	0	2.515909	67	0	0	0	-6%	1.31
3	Yes	5.103598	0.765909	0	0	0	4.337689	91	92797	1889	0	51%	4.74
0	Yes	2.388826	0.041667	0	0	0	2.347159	41	0	0	0	-68%	5.58
0	Yes	3.593371	0.36553	0	0	0	3.227841	56	0	0	0	-67%	5.87
1	Yes	4.251705	0.100379	0	0	0	4.151326	206	0	0	0	-10%	6.92
0	Yes	3.753409	0.100947	0	0	0	3.652462	56	0	0	0	-25%	6.91
2	Yes	4.639773	0.116667	0	0	0	4.523106	206	63777	1207	0	-24%	4.63
1	Yes	5.395076	3.537311	0	0	0	1.857765	12	0	0	0	-70%	6.37
0	Yes	4.142992	0.705492	0	8286	62	3.4375	159	251445	4384	0	-51%	8.49
0	Yes	7.818182	1.957576	0	0	0	5.860606	17	123140	2326	0	-81%	5.73
1	Yes	2.84375	0.13428	0	0	0	2.70947	75	70512	2331	0	-71%	6.50
0	Yes	3.140531	0.04697	0	0	0	3.093561	68	222167	6299	0	-45%	9.63
0	Yes	2.608334	0.193182	0	0	0	2.415152	126	0	0	0	-66%	7.06
0	Yes	1.356439	1.356439	0	0	0	0	0	4560	96	0	-80%	3.11
0	Yes	0.957765	0.132576	0	0	0	0.825189	16	289	124	0	-16%	2.93
0	Yes	1.147727	0.675189	0	0	0	0.472538	18	0	0	0	-35%	6.74

## 2019 Storm Implementation Plan and Annual Reliability Report

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13449	WSA	N/A	2.698864	230	8538	52	N/A	1.269318	171	0	0	0
13450	WSA	N/A	0.603409	24	129	1	N/A	1.774432	62	5124	13	0
13451	WSA	N/A	0.164394	0	551	2	N/A	2.469129	94	4009	34	0
13452	WSA	N/A	0.199811	7	0	0	N/A	0.184659	5	0	0	0
13453	WSA	N/A	0.15303	7	1149	9	N/A	4.750947	26	667	7	0
13454	ESA	N/A	4.244508	231	10815	102	N/A	12.262311	1416	26333	163	0
13455	ESA	N/A	2.901136	195	16959	305	N/A	3.158333	754	8042	86	0
13456	ESA	N/A	1.740152	144	87	2	N/A	3.005303	805	20519	124	0
13457	ESA	N/A	2.200189	105	6810	60	N/A	5.152652	683	48116	229	0
13458	ESA	N/A	15.161932	444	10212	88	N/A	4.269697	67	22837	577	2
13459	ESA	N/A	10.762689	357	40365	202	N/A	13.214773	502	9613	46	4
13460	ESA	N/A	37.595644	894	109803	1281	N/A	3.604545	228	0	0	25
13461	ESA	N/A	27.529924	970	223906	1068	N/A	9.180492	244	1796	22	20
13462	PCA	N/A	4.450189	228	6434	113	N/A	9.17822	724	22945	84	0
13463	PCA	N/A	1.514205	222	1731	23	N/A	0.198295	15	0	0	0
13464	PCA	N/A	3.769318	253	6971	70	N/A	1.128977	166	0	0	0
13466	CSA	N/A	2.196023	178	923	9	N/A	0.828977	133	97	1	0
13467	CSA	N/A	0	0	0	0	N/A	0.239015	3	0	0	0
13468	CSA	N/A	5.642803	673	34721	152	N/A	2.688636	728	3784	10	1
13469	CSA	N/A	2.016667	96	18939	79	N/A	7.867992	649	11525	110	0
13470	WHA	N/A	35.726326	1891	189164	935	N/A	5.166288	338	2788	23	0
13471	WHA	N/A	4.482008	430	17765	59	N/A	4.73428	463	16144	64	0
13473	WHA	N/A	13.312879	856	117901	759	N/A	3.502652	261	8358	56	0
13479	WHA	N/A	9.212689	420	38913	317	N/A	4.067992	305	0	0	0
13480	WSA	N/A	0.749242	9	3019	13	N/A	11.483712	1601	66098	294	0
13481	WSA	N/A	0	0	310	1	N/A	6.6375	751	327	24	0
13482	WSA	N/A	0.876326	10	3197	8	N/A	15.525379	1580	52179	294	0
13483	WSA	N/A	2.801326	355	5019	62	N/A	15.306818	1358	16192	91	0
13484	WSA	N/A	0.182197	4	77	1	N/A	10.54072	1390	20303	291	0
13485	WSA	N/A	2.995038	117	574	8	N/A	7.434848	760	727	1	0
13488	SHA	N/A	0.942614	82	1036	21	N/A	18.879735	2505	4555	20	0
13489	SHA	N/A	6.159091	253	2661	27	N/A	3.59072	185	0	0	0
13490	WSA	N/A	2.906629	420	6621	55	N/A	3.543371	414	0	0	0
13491	WSA	N/A	2.735985	97	13108	129	N/A	9.729356	162	18970	160	0
13492	WSA	N/A	5.233144	556	55103	320	N/A	2.514015	222	334	1	0
13493	WSA	N/A	2.162311	259	36902	107	N/A	3.497159	319	2424	29	0
13494	SHA	N/A	0.329356	2	0	0	N/A	3.465341	410	388	1	0
13495	ESA	N/A	2.541477	204	5159	39	N/A	4.858144	456	0	0	4
13496	CSA	N/A	1.094318	69	1436	16	N/A	1.850947	258	8472	29	0
13497	CSA	N/A	0	0	0	0	N/A	0.892614	125	0	0	0

## 2019 Storm Implementation Plan and Annual Reliability Report

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0	Yes	1.657955	0.892614	0	0	0	0.765341	25	0	0	0	-87%	3.42
0	Yes	2.196591	0.995265	0	0	0	1.201326	40	0	0	0	-68%	4.80
0	Yes	1.185985	0.30625	0	0	0	0.879735	12	0	0	0	-8%	6.57
0	Yes	0.761932	0.152652	0	0	0	0.60928	28	0	0	0	-22%	4.42
0	Yes	4.098485	3.629924	0	0	0	0.468561	12	1861	32	3403	-69%	1.22
0	Yes	2.328409	0.216098	0	0	0	2.112311	40	88953	0	0	-13%	6.83
0	Yes	2.114394	0.133712	0	0	0	1.980682	38	0	0	0	-34%	6.96
0	Yes	2.46572	0.695076	0	0	0	1.770644	37	0	0	0	-82%	3.84
0	Yes	2.559659	0.068318	0	0	0	2.490341	68	33418	868	0	-39%	4.00
0	Yes	8.287311	0.604356	0	0	0	7.682955	92	116933	2200	0	-13%	4.07
4	Yes	7.741288	3.027273	0	0	0	4.714015	103	226617	1371	341	-42%	3.41
5	Yes	7.272159	0.119886	0	0	0	7.152273	71	134818	1318	0	-61%	5.02
1	Yes	7.143182	0.412121	0	0	0	6.731061	108	0	0	0	-80%	5.37
0	Yes	3.942425	0.292614	0	0	0	3.649811	73	57883	1042	0	-39%	7.56
0	Yes	2.939772	0.02178	0	0	0	2.917992	66	0	0	0	-2%	9.66
0	Yes	1.748863	0.097348	0	0	0	1.651515	60	0	0	0	-85%	1.78
0	Yes	1.764962	0.124053	0	0	0	1.640509	69	0	0	0	-93%	2.32
0	Yes	1.891856	1.875947	0	0	0	0.015909	0	0	0	0	-42%	4.62
0	Yes	2.657008	0.096591	0	0	0	2.560417	88	0	0	0	-27%	2.20
0	Yes	4.042614	0.499432	0	0	0	3.543182	55	0	0	0	-24%	4.48
3	Yes	6.441478	0.263258	0	0	0	6.17822	133	58475	6787	0	-12%	7.25
0	Yes	4.002084	0.527652	0	0	0	3.474432	92	9054	986	0	-14%	8.47
1	Yes	2.448106	0.025758	0	0	0	2.422348	59	31210	678	0	-57%	3.93
1	Yes	4.750568	0.053409	0	0	0	4.697159	95	9999	701	0	-37%	5.13
0	Yes	0.960417	0.020644	0	0	0	0.939773	6	0	0	0	2%	5.69
0	Yes	5.618182	2.608523	0	0	0	3.009659	3	0	0	0	-47%	5.16
1	Yes	2.622159	0.746023	0	0	0	1.876136	6	0	0	0	-60%	3.66
0	Yes	1.970455	1.672538	0	0	0	0.297917	3	0	0	0	-12%	8.13
0	Yes	3.729734	0.673295	0	16814	560	3.056439	24	112981	1153	0	-15%	6.21
0	Yes	2.582765	0.188447	0	0	0	2.394318	19	0	0	0	-13%	5.02
0	Yes	3.435038	0.865909	0	0	0	2.569129	202	0	0	0	-13%	6.19
2	Yes	4.576136	0.81875	0	0	0	3.757386	68	81441	1432	0	-35%	6.66
0	Yes	1.930303	0.070265	0	0	0	1.860038	92	0	0	0	-8%	3.88
0	Yes	2.717424	0.067992	0	0	0	2.649432	51	0	0	0	-57%	4.29
0	Yes	2.010796	0.276326	0	0	0	1.73447	41	6634	838	0	-27%	5.28
0	Yes	2.095643	0.491098	0	0	0	1.604545	93	0	0	0	-43%	5.84
0	Yes	2.613447	1.026705	0	0	0	1.586742	8	0	0	0	-51%	2.97
0	Yes	2.033713	0.649811	0	0	0	1.383902	40	0	0	0	-66%	2.26
0	Yes	3.931628	2.081439	0	0	0	1.850189	12	0	0	0	-87%	2.31
0	Yes	2.80322	2.407576	0	0	0	0.395644	4	0	0	0	-42%	4.41

## 2019 Storm Implementation Plan and Annual Reliability Report

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13498	CSA	N/A	0	0	0	0	0	0.395265	1	0	0	0
13499	CSA	N/A	0.044886	0	367	1	N/A	0.598674	47	0	0	0
13500	FSA	N/A	0	0	0	0	0	0	0	0	0	0
13501	FSA	N/A	0.903409	14	218	1	N/A	2.020265	59	0	0	0
13502	FSA	N/A	3.909091	193	19761	346	N/A	9.216856	1521	17597	181	0
13504	FSA	N/A	0.135606	3	120	1	N/A	1.251894	12	0	0	0
13505	FSA	N/A	3.293182	183	3751	20	N/A	5.546591	846	1870	18	0
13506	FSA	N/A	2.560227	83	1930	15	N/A	4.875947	581	8095	26	0
13507	FSA	N/A	0.023485	0	0	0	N/A	1.733144	32	0	0	0
13509	FSA	N/A	6.729545	296	18452	143	N/A	11.202652	1317	26778	215	0
13510	WSA	N/A	3.469129	368	81812	941	N/A	8.214773	1107	53134	351	0
13511	WSA	N/A	3.347727	382	30813	219	N/A	4.00625	295	8451	57	0
13512	WSA	N/A	3.505114	433	38484	336	N/A	8.066856	1366	54505	280	0
13513	WSA	N/A	0.847348	25	16958	70	N/A	1.517614	247	11912	11	0
13514	WSA	N/A	1.888636	231	18857	168	N/A	3.556061	348	0	0	0
13516	WSA	N/A	4.040152	485	155285	767	N/A	3.757955	368	3826	14	0
13517	WSA	N/A	4.194129	441	303808	959	N/A	3.354735	1017	25858	171	0
13518	WSA	N/A	0.27197	22	1506	4	N/A	0.195644	2	0	0	0
13519	WSA	N/A	0.459091	8	0	0	N/A	0.119318	88	0	0	0
13520	WSA	N/A	1.335606	131	33420	343	N/A	2.65322	405	16252	222	0
13521	WSA	N/A	0.00625	0	0	0	N/A	1.710985	18	0	0	0
13522	WSA	N/A	10.645076	1336	79985	548	N/A	0.644129	181	7400	127	0
13523	WSA	N/A	7.096591	793	40170	451	N/A	0.605871	207	0	0	0
13524	WSA	N/A	0.935227	111	7182	12	N/A	1.248864	100	907	3	0
13526	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13530	WSA	N/A	5.447917	849	56660	345	N/A	0	0	0	0	0
13531	WSA	N/A	2.706629	61	17823	196	N/A	4.119886	144	1639	10	0
13532	WSA	N/A	4.220076	350	79224	871	N/A	1.018182	66	138	2	0
13533	WSA	N/A	2.326894	235	11951	58	N/A	6.223485	1488	26448	247	0
13535	WSA	N/A	5.25303	291	16253	134	N/A	15.019697	1819	6338	63	3
13538	WSA	N/A	0.233712	5	1603	3	N/A	13.599621	910	0	0	0
13539	WSA	N/A	0.725	9	2808	9	N/A	11.91572	1019	15896	114	0
13540	WSA	N/A	0.200379	4	0	0	N/A	6.732197	696	0	0	0
13541	WSA	N/A	0	0	0	0	N/A	15.080303	997	3030	51	0
13544	WSA	N/A	0.880871	58	25008	74	N/A	4.267235	655	52	1	0
13546	CSA	N/A	7.262689	310	5021	36	N/A	2.435038	46	0	0	0
13547	CSA	N/A	4.030303	299	16701	80	N/A	1.399242	22	102	1	0
13551	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13552	CSA	N/A	2.766856	48	1121	1	N/A	1.095076	21	201	1	0
13553	CSA	N/A	0	0	0	0	N/A	1.285985	0	0	0	0



## 2019 Storm Implementation Plan and Annual Reliability Report

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0	Yes	0.768182	0.768182	0	0	0	0	0	0	0	0	4.87
0	Yes	3.414015	1.779545	0	0	0	1.63447	3	3130	0	-41%	4.90
0	Yes	0	0	0	0	0	0	0	0	0	-8%	6.26
0	Yes	2.026704	0.209659	0	0	0	1.817045	9	0	0	0%	0.00
0	Yes	3.56269	1.126326	0	0	0	2.436364	61	0	0	-24%	6.74
0	Yes	1.885037	1.053598	0	0	0	0.831439	2	0	0	-54%	8.32
0	Yes	2.806629	1.360417	0	0	0	1.446212	43	0	0	-9%	4.39
0	Yes	4.357386	1.733144	0	45851	665	2.624242	22	4413	31	-41%	5.76
0	Yes	1.586363	1.41553	0	0	0	0.170833	0	0	0	-24%	5.01
0	Yes	4.152084	0.77197	0	0	0	3.380114	47	0	0	-45%	4.29
0	Yes	1.835796	0.070076	0	0	0	1.76572	35	62005	1521	-45%	7.19
0	Yes	2.320076	0.390341	0	0	0	1.929735	96	352	772	-67%	6.04
0	Yes	2.271591	0.287689	0	0	0	1.983902	36	0	0	-80%	5.45
0	Yes	0.944886	0.558333	0	0	0	0.386553	8	0	0	-53%	5.82
0	Yes	3.522727	0.210985	0	0	0	3.311742	39	0	0	-33%	4.18
0	Yes	1.883902	0.12197	0	0	0	1.761932	72	68080	920	-15%	4.25
0	Yes	1.754356	0.067992	0	0	0	1.686364	21	120897	2967	-7%	4.91
0	Yes	1.381818	0.374432	0	0	0	1.007386	58	0	0	-19%	6.47
0	Yes	1.019887	0.022917	0	0	0	0.99697	63	0	0	-51%	4.30
0	Yes	2.218182	0.516288	0	0	0	1.701894	50	11193	597	-61%	2.07
0	Yes	0.670833	0.253977	0	0	0	0.416856	9	0	0	-61%	4.33
1	Yes	1.715341	0.415909	0	0	0	1.299432	164	13187	1739	-5%	4.19
0	Yes	2.663826	0.226705	0	0	0	2.437121	273	0	0	-26%	6.55
0	Yes	1.25928	0.329356	0	0	0	0.929824	67	7123	288	-42%	5.53
0	Yes	0	0	0	0	0	0	0	0	0	-20%	7.06
0	Yes	0.851326	0.18447	0	0	0	0.666856	0	0	0	0%	0.00
0	Yes	3.063825	0.84053	0	0	0	2.223295	31	0	0	-55%	3.86
0	Yes	1.935606	0.037879	0	0	0	1.897727	51	94706	1926	-77%	4.07
0	Yes	2.927084	0.018561	0	0	0	2.908523	97	0	0	-49%	5.08
2	Yes	2.141098	0.07803	0	0	0	2.063068	100	0	0	-23%	5.65
0	Yes	2.415341	1.068182	0	0	0	1.347159	13	0	0	-15%	8.15
0	Yes	2.016099	0.115152	0	0	0	1.900947	10	0	0	-30%	6.47
0	Yes	1.948675	0.077652	0	0	0	1.871023	4	0	0	-18%	4.78
0	Yes	1.451705	1.451705	0	0	0	0	0	0	0	-78%	2.46
0	Yes	2.050947	0.062311	0	0	0	1.988636	10	0	0	-27%	5.54
0	Yes	4.466288	0.305871	0	0	0	4.160417	74	0	0	-23%	2.99
0	Yes	3.466667	0.152273	0	0	0	3.314394	77	0	0	-32%	8.03
0	Yes	0.368371	0.116098	0	0	0	0.252273	1	0	0	-44%	3.93
0	Yes	1.945644	0.058144	0	0	0	1.8875	4	0	0	-64%	0.53
0	Yes	0.588068	0.588068	0	0	0	0	0	0	0	-82%	4.27

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13554	CSA	N/A	0	0	0	0	0	0	0	0	0	0
13560	CSA	N/A	0	0	0	0	0	0.142803	2	0	0	0
13561	CSA	N/A	0	0	0	0	0	0.159659	1	0	0	0
13562	CSA	N/A	0	0	0	0	0	0.265341	1	0	0	0
13563	CSA	N/A	0	0	0	0	0	0.346023	6	0	0	0
13564	CSA	N/A	0	0	0	0	0	0.460417	3	0	0	0
13565	CSA	N/A	0	0	0	0	0	0.372727	9	0	0	0
13566	CSA	N/A	0	0	0	0	0	1.454924	409	0	0	0
13567	CSA	N/A	0	0	0	0	0	0.030871	N/A	0	0	0
13571	WSA	N/A	0.757765	68	11703	44	N/A	9.266477	939	8641	39	39
13572	WSA	N/A	0.532008	12	1262	3	N/A	10.266667	1047	173071	691	691
13574	WSA	N/A	2.983523	236	3912	34	N/A	5.49072	594	3062	34	34
13575	WSA	N/A	0.452462	14	6962	139	N/A	5.427273	139	8958	72	587
13576	WSA	N/A	2.898674	214	35148	639	N/A	13.90947	1414	17068	187	187
13577	WSA	N/A	2.911174	211	13350	57	N/A	9.049621	709	14178	123	123
13579	WSA	N/A	6.236932	184	93808	1337	N/A	17.608712	1375	28008	176	176
13582	WSA	N/A	5.861932	171	130900	860	N/A	15.322348	1099	43780	268	268
13583	WSA	N/A	4.583144	114	1454	17	N/A	6.872538	380	36977	176	176
13584	WSA	N/A	0.19072	1	8574	167	N/A	10.363447	948	115321	537	537
13585	WSA	N/A	0.506439	17	0	0	N/A	7.203977	1399	4057	35	35
13586	WSA	N/A	8.074811	227	14489	290	N/A	12.880114	1035	285349	1327	1327
13587	WSA	N/A	1.633144	7	8641	89	N/A	14.257386	2209	96843	883	883
13589	WSA	N/A	0.521402	8	3533	47	N/A	10.526705	1332	1483	33	33
13590	CSA	N/A	3.181061	347	9200	31	N/A	2.811553	1184	0	0	0
13591	CSA	N/A	8.096212	1048	27957	192	N/A	1.679356	504	0	0	0
13592	CSA	N/A	7.707765	1202	61078	510	N/A	0.641477	15	0	0	0
13593	CSA	N/A	5.551326	596	51244	228	N/A	1.226326	83	0	0	8
13600	CSA	N/A	6.126136	573	19362	214	N/A	1.712879	453	15429	45	45
13605	WSA	N/A	2.606439	340	6760	41	N/A	1.753409	290	0	0	0
13606	WSA	N/A	0.754167	34	203	3	N/A	0.386553	195	11333	91	91
13607	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13608	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13610	WSA	N/A	5.841098	629	11091	85	N/A	1.68428	657	4871	23	23
13611	WSA	N/A	3.242992	355	5255	59	N/A	0.24697	397	0	0	0
13612	WSA	N/A	1.842235	1005	44701	395	N/A	1.021591	319	0	0	0
13613	WSA	N/A	5.370455	714	34477	215	N/A	0.862311	282	6749	64	64
13614	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13621	WSA	N/A	16.006061	404	74935	852	N/A	4.061364	73	1393	4	2
13622	WSA	N/A	20.329924	758	27165	102	N/A	12.932008	671	22516	78	78
13624	WSA	N/A	16.357765	381	51859	272	N/A	10.330492	283	2869	14	14
13630	CSA	N/A	5.835038	670	114419	735	N/A	1.586364	302	13866	100	100

## 2019 Storm Implementation Plan and Annual Reliability Report

(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)
Number of Sectionalizing Devices on the Feeder	Feeder Looped?	Total Length of Feeder	Length of URD Portion of Feeder Circuit	Number of Customers Served by URD Feeders	CMI for URD Feeders	CI for URD Feeders	Length of Overhead Portion of the Feeder Circuit	Number of Customers Served by Overhead Feeders	CMI for Overhead Feeders	CI for Overhead Feeders	% Load Growth Since December 31, 2018	Recorded Peak Load Recorded through December 31, 2019
0	Yes	0.316098	0.316098	0	0	0	0	0	0	0	0	4.73
0	Yes	2.356061	2.356061	0	0	0	0	0	0	0	0	2.60
0	Yes	3.709848	3.709848	0	0	0	0	0	0	0	0	2.43
0	Yes	2.983902	2.983902	0	0	0	0	0	0	0	0	2.98
0	Yes	2.241856	2.241856	0	0	0	0	0	0	0	0	3.41
0	Yes	2.064015	2.064015	0	0	0	0	0	0	0	0	1.73
0	Yes	2.539962	2.539962	0	0	0	0	0	0	0	0	3.60
0	Yes	1.217992	1.217992	0	0	0	0	0	0	0	0	2.75
0	Yes	0.531439	0.531439	0	0	0	0	0	0	0	0	0.00
0	Yes	1.125569	0.205114	0	0	0	0.920455	9	0	0	0	0.74
0	Yes	1.027652	0.274432	0	0	0	0.753222	4	0	0	0	3.81
0	Yes	1.89678	0.159848	0	0	0	1.736932	51	78551	2260	0	4.25
0	Yes	1.03106	0.116098	0	0	0	0.914962	16	61150	624	0	3.98
0	Yes	4.793181	0.401136	0	0	0	4.392045	129	182290	3536	0	2.60
0	Yes	3.341099	0.013826	0	0	0	3.327273	90	9717	261	0	7.70
1	Yes	3.32803	0.154735	0	0	0	3.173295	86	0	0	0	4.63
0	Yes	6.575947	2.582197	0	0	0	3.99375	33	315315	5707	0	7.92
0	Yes	3.288257	0.223674	0	0	0	3.064583	10	8099	1709	0	9.40
0	Yes	2.136174	0.045076	0	0	0	2.091098	8	80235	1261	0	5.52
0	Yes	1.64697	0.440152	0	0	0	1.206818	11	0	0	0	4.89
0	Yes	3.345833	0.701136	0	0	0	2.644697	30	0	0	0	5.93
0	Yes	2.990152	1.133523	0	0	0	1.856629	6	94861	5109	0	6.94
0	Yes	5.122727	2.329924	0	0	0	2.792803	6	0	0	0	7.08
1	Yes	3.166288	0.030871	0	0	0	3.135417	166	0	0	0	5.95
0	Yes	4.461553	0.135417	0	0	0	4.326136	233	80598	2243	0	4.06
1	Yes	2.007387	0.125758	0	0	0	1.881629	87	57725	1081	0	11.61
1	Yes	2.562689	0.144318	0	0	0	2.418371	122	31910	527	0	5.41
0	Yes	1.526137	0.143182	0	0	0	1.382955	51	0	0	0	4.18
0	Yes	0.836553	0.196591	0	0	0	0.639962	17	0	0	0	6.89
0	Yes	1.436743	0.046023	0	0	0	1.39072	68	0	0	0	2.47
0	Yes	0.002652	0.002652	0	0	0	0	0	0	0	0	1.07
0	Yes	0.00322	0.00322	0	0	0	0	0	0	0	0	8.96
0	Yes	1.310796	0.226705	0	0	0	1.084091	52	0	0	0	18.41
0	Yes	0.907197	0.164583	0	0	0	0.742614	19	0	0	0	5.93
0	Yes	1.351326	0.139962	0	0	0	1.211364	41	0	0	0	2.44
0	Yes	1.490341	0.263068	0	0	0	1.227273	90	43865	1129	0	5.19
0	Yes	0	0	0	0	0	0	0	0	0	0	3.79
2	Yes	3.110795	0.01553	0	0	0	3.095265	31	780	520	0	0.00
2	Yes	2.072159	0.058333	0	0	0	2.013826	13	98331	1743	0	3.15
2	Yes	3.376515	0.04375	0	0	0	3.332765	42	0	0	0	9.18
1	Yes	3.702083	0.358144	0	0	0	3.343939	226	36792	1209	0	4.02

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13631	CSA	N/A	5.478409	426	1820	16	N/A	9.738447	939	17882	156	6
13632	CSA	N/A	5.278409	469	17273	130	N/A	0.563447	119	0	0	0
13633	CSA	N/A	2.352462	93	7567	44	N/A	6.511742	891	15677	70	0
13635	WSA	N/A	0.051894	0	0	0	N/A	2.447159	23	92	1	0
13636	WSA	N/A	0.042235	0	0	0	N/A	0.57803	9	0	0	0
13637	WSA	N/A	1.035985	36	4378	13	N/A	0.795644	92	0	0	0
13638	WSA	N/A	2.27178	214	23370	117	N/A	0.960417	127	13379	38	0
13639	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13640	WSA	N/A	0	0	0	0	N/A	2.654167	10	0	0	0
13641	WSA	N/A	0	0	0	0	N/A	1.060606	11	0	0	0
13642	WSA	N/A	0	0	0	0	N/A	0.222727	2	0	0	0
13643	WSA	N/A	0	0	0	0	N/A	0.787121	14	0	0	0
13645	SHA	N/A	4.05	100	1189	10	N/A	26.294886	2468	19188	174	4
13646	SHA	N/A	0.158902	0	0	0	N/A	16.496402	1553	2400	7	0
13647	SHA	N/A	1.195833	64	51274	926	N/A	22.216288	1897	5524	25	0
13648	SHA	N/A	25.328788	449	7355	64	N/A	8.94072	389	201	2	0
13649	SHA	N/A	4.929545	307	1764	16	N/A	2.649621	268	0	0	0
13650	SHA	N/A	0.686742	33	0	0	N/A	17.085417	1878	0	0	0
13651	SHA	N/A	3.181629	146	73447	862	N/A	14.528598	1651	20712	72	0
13652	SHA	N/A	4.145833	189	29420	422	N/A	26.834091	1646	9699	68	0
13655	PCA	N/A	7.354356	318	118545	360	N/A	7.100568	641	564	15	0
13656	PCA	N/A	39.360606	1103	182082	985	N/A	9.292803	576	5628	17	10
13657	PCA	N/A	20.580303	453	27184	147	N/A	6.798295	254	633	1	0
13659	WHA	N/A	4.668182	110	90405	1346	N/A	11.035227	869	5583	43	0
13660	WHA	N/A	1.557008	37	808	4	N/A	1.090909	140	9020	32	0
13661	WHA	N/A	7.782576	344	33110	286	N/A	16.747159	1192	37218	130	0
13668	PCA	N/A	9.141098	290	23291	90	N/A	16.851894	1198	3738	11	0
13669	WSA	N/A	2.500758	170	4796	41	N/A	10.56572	1109	25088	302	0
13670	WSA	N/A	1.20947	5	179	1	N/A	7.218939	611	18189	83	0
13671	WSA	N/A	0.105114	0	0	0	N/A	11.67197	1643	44771	220	0
13672	WSA	N/A	4.070265	264	40139	475	N/A	12.497159	2543	0	0	0
13673	WSA	N/A	1.068939	6	12358	108	N/A	10.40322	1018	58881	746	0
13674	WSA	N/A	1.043371	4	0	0	N/A	9.992992	1235	6418	145	0
13677	WSA	N/A	4.794318	86	43031	467	N/A	19.980871	866	10208	74	0
13678	WSA	N/A	4.913068	103	24621	162	N/A	17.194318	2198	24652	183	0
13679	WSA	N/A	9.348674	334	60235	512	N/A	16.102273	852	86	1	0
13685	ESA	N/A	2.49678	104	323469	972	N/A	17.636742	1276	0	0	0
13686	ESA	N/A	3.176515	87	43134	292	N/A	15.431629	1159	12333	108	1
13687	ESA	N/A	16.187879	533	263777	996	N/A	13.051326	910	8205	51	0
13690	ESA	N/A	1.756818	85	5938	75	N/A	11.608333	769	0	0	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
1	Yes	2.292046	0.32197	0	0	0	1.970076	91	13.1027	1461	-67%	5.97
1	Yes	2.151704	0.085795	0	0	0	2.065909	98	0	0	-14%	7.15
3	Yes	3.634849	0.154735	0	0	0	3.480114	120	0	0	-55%	2.76
0	Yes	2.538826	1.097159	0	2572	42	1.441667	9	610	28	-3%	6.19
0	Yes	1.874242	0.733712	0	0	0	1.14053	5	0	0	-6%	8.59
0	Yes	2.048106	0.279545	0	0	0	1.768561	26	0	0	-26%	5.06
0	Yes	1.858901	0.508712	0	0	0	1.350189	28	0	0	-67%	1.70
0	Yes	0.419886	0.419886	0	0	0	0	0	0	0	-57%	2.45
0	Yes	3.192614	3.192614	0	0	0	0	0	0	0	0%	0.00
0	Yes	3.537311	3.537311	0	0	0	0	0	0	0	-16%	8.50
0	Yes	3.14697	3.14697	0	0	0	0	0	0	0	-60%	1.69
0	Yes	3.377083	3.377083	0	0	0	0	0	0	0	-57%	2.45
0	Yes	6.4875	2.824621	0	0	0	3.662879	24	0	0	-59%	2.78
0	Yes	4.701516	1.567614	0	0	0	3.133902	7	0	0	-41%	11.41
0	Yes	4.886553	4.119129	0	0	0	0.767424	13	0	0	-20%	6.88
3	Yes	5.534091	0.046591	0	0	0	5.4875	106	0	0	3%	9.74
0	Yes	1.717613	0.120833	0	0	0	1.59678	42	0	0	-43%	6.17
0	Yes	4.248296	2.296591	0	0	0	1.951705	22	0	0	-16%	2.53
0	Yes	6.550379	1.569508	0	139354	1847	4.980871	49	184926	3553	-10%	4.50
0	Yes	6.67803	3.951894	0	0	0	2.726136	18	3986	598	-47%	8.19
0	Yes	3.206819	0.082955	0	0	0	3.123864	69	0	0	-51%	6.71
3	Yes	8.849621	0.341856	0	0	0	8.507765	153	367921	6777	4%	4.18
1	Yes	2.666856	0.168182	0	0	0	2.498674	87	17671	829	-9%	8.90
0	Yes	2.847348	0.049621	0	0	0	2.797727	59	0	0	-41%	3.86
0	Yes	2.883712	0.198106	0	0	0	2.685606	6	0	0	-49%	4.81
0	Yes	4.783902	1.162311	0	0	0	3.621591	46	0	0	-24%	2.60
1	Yes	3.12538	1.994318	0	0	0	1.12822	21	14074	303	-33%	8.36
0	Yes	2.298106	0.271023	0	14683	62	2.027083	50	63490	1329	-14%	7.28
0	Yes	0.898675	0.110417	0	0	0	0.788258	1	0	0	-78%	4.84
0	Yes	3.165341	1.726705	0	0	0	1.438636	20	99456	1672	-74%	2.93
1	Yes	4.337879	0.83447	0	0	0	3.503409	18	0	0	-49%	5.99
0	Yes	3.175757	1.029924	0	0	0	2.145833	9	187492	1048	-14%	8.35
1	Yes	4.273484	1.451136	0	0	0	2.822348	10	8680	1252	-47%	4.80
2	Yes	6.239015	3.505682	0	0	0	2.733333	15	0	0	-55%	5.94
0	Yes	3.107008	0.288447	0	0	0	2.818561	13	0	0	-61%	7.06
1	Yes	4.828977	0.474053	0	0	0	4.354924	69	24668	1046	-60%	7.44
0	Yes	4.657197	1.90303	0	0	0	2.754167	62	180508	4358	-32%	7.71
1	Yes	2.80644	0.125758	0	0	0	2.680682	73	0	0	-33%	8.40
1	Yes	6.421402	0.223485	0	0	0	6.197917	179	177601	2120	-31%	8.03
0	Yes	2.853977	1.291098	0	0	0	1.562879	27	0	0	-25%	8.00

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13691	ESA	N/A	0.897917	29	67850	322	N/A	10.999242	875	21584	186	0
13692	ESA	N/A	1.241667	23	16418	87	N/A	6.608902	630	13510	140	0
13693	ESA	N/A	4.832386	184	12264	118	N/A	7.497917	620	17024	84	0
13695	WHA	N/A	17.584091	1034	107887	807	N/A	3.869508	371	1692	13	0
13696	WHA	N/A	13.555303	1215	10293	151	N/A	1.767045	109	204	2	20
13697	WHA	N/A	0.487121	22	228	2	N/A	0.194697	3	0	0	0
13698	WHA	N/A	16.919129	992	212911	2169	N/A	2.367614	22	109	2	0
13699	WHA	N/A	5.798295	316	35383	125	N/A	9.827652	985	79592	427	0
13705	ESA	N/A	8.619697	495	53131	391	N/A	11.905303	943	35554	162	0
13706	ESA	N/A	3.7875	180	24451	321	N/A	10.84072	1469	2662	17	0
13707	ESA	N/A	1.306439	59	95	1	N/A	8.378977	1093	15273	126	0
13708	ESA	N/A	1.663258	58	1508	22	N/A	12.590341	1378	45	1	0
13709	ESA	N/A	6.211553	533	9007	59	N/A	8.153409	567	27068	182	0
13710	ESA	N/A	6.651136	302	29883	335	N/A	15.341477	2325	29377	153	1
13711	ESA	N/A	1.238826	5	85917	1363	N/A	17.567424	2659	20054	38	1
13712	ESA	N/A	8.456818	421	25643	283	N/A	6.06572	60	540	1	0
13713	CSA	N/A	0	0	0	0	N/A	0.039962	2	9224	103	0
13714	CSA	N/A	0.470455	8	3814	35	N/A	15.727652	3315	3624	34	0
13715	CSA	N/A	0.713636	21	1489	7	N/A	7.360417	2615	5602	378	0
13716	CSA	N/A	0.016098	0	0	0	N/A	7.105492	572	0	0	0
13717	CSA	N/A	1.861742	3	815	5	N/A	8.799053	537	0	0	0
13718	CSA	N/A	0.007955	0	0	0	N/A	19.079924	1066	0	0	0
13719	CSA	N/A	0.225568	1	0	0	N/A	25.270455	1375	0	0	0
13722	PCA	N/A	9.827652	417	52850	262	N/A	1.892803	66	0	0	0
13723	PCA	N/A	14.728788	407	76808	499	N/A	3.802462	193	46303	138	2
13724	PCA	N/A	28.602652	723	69250	749	N/A	11.881629	571	28206	131	0
13729	ESA	N/A	2.016856	35	7353	110	N/A	10.631818	913	47064	423	0
13731	ESA	N/A	0.075947	2	321	1	N/A	10.797159	893	8351	68	0
13732	ESA	N/A	0.105682	19	329	2	N/A	16.562311	1247	70189	652	0
13733	ESA	N/A	1.927652	4	1854	12	N/A	25.760227	1700	4581	29	0
13737	WSA	N/A	4.006439	492	1257	29	N/A	0.724621	112	0	0	0
13738	WSA	N/A	1.751894	158	0	0	N/A	2.132386	433	112312	316	0
13739	WSA	N/A	0.841098	42	3912	113	N/A	0.878977	118	0	0	0
13740	WSA	N/A	10.391477	1279	35825	318	N/A	0.180303	4	0	0	1
13745	WSA	N/A	1.593182	34	4996	13	N/A	16.614962	1217	36672	91	0
13747	WSA	N/A	1.454545	0	29	1	N/A	2.497727	0	0	0	0
13748	WSA	N/A	4.319508	0	22048	59	N/A	7.95	0	0	0	3
13749	WSA	N/A	1.769318	0	6885	175	N/A	9.718371	0	6812	69	0
13750	WSA	N/A	1.680682	0	3968	17	N/A	6.241667	0	14221	125	0
13753	WSA	N/A	3.881629	0	27791	226	N/A	0.089394	0	0	0	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	3.250758	0.725947	0	35846	825	2.524811	15	151712	2757	-69%	6.47
0	Yes	2.169128	0.162689	0	0	0	2.006439	14	0	0	-24%	5.47
0	Yes	3.679735	0.992614	0	1754	870	2.687121	59	15656	869	-69%	3.12
0	Yes	2.064394	0.039583	0	0	0	2.024811	78	46324	1558	-72%	5.44
3	Yes	4.569886	0.141856	0	0	0	4.42803	192	0	0	-47%	6.60
0	Yes	2.451136	0.434848	0	0	0	2.016288	39	30442	143	-66%	8.48
1	Yes	5.431439	0.656818	0	0	0	4.774621	97	64369	1170	-75%	0.50
0	Yes	2.120076	0.508902	0	0	0	1.611174	10	0	0	-36%	7.26
1	Yes	3.22803	0.143939	0	0	0	3.084091	55	0	0	-39%	4.40
0	Yes	2.791099	0.224811	0	0	0	2.566288	51	0	0	-4%	6.92
0	Yes	3.423106	0.923674	0	0	0	2.499432	23	0	0	-68%	7.62
2	Yes	4.04697	0.725947	0	0	0	3.321023	20	69298	1462	-6%	4.99
0	Yes	2.664962	0.120644	0	77494	1163	2.544318	48	0	0	-30%	7.73
2	Yes	3.166478	0.273864	0	0	0	2.892614	64	0	0	-49%	4.76
4	Yes	4.284659	1.028409	0	0	0	3.25625	13	57675	2487	-2%	10.04
0	Yes	5.738447	0.920076	0	0	0	4.818371	132	0	0	-29%	9.89
0	Yes	0.251704	0.071212	0	0	0	0.180492	0	0	0	-46%	5.58
1	Yes	5.003409	2.277083	0	0	0	2.726326	24	0	0	-100%	0.01
1	Yes	4.191099	1.170455	0	77846	1235	3.020644	20	0	0	28%	8.80
4	Yes	4.384659	0.783144	0	0	0	3.601515	58	0	0	-20%	6.35
0	Yes	5.370265	2.272773	0	0	0	3.092992	13	0	0	-78%	3.19
0	Yes	3.789962	2.701515	0	0	0	1.088447	0	0	0	-73%	4.72
0	Yes	4.225189	1.951515	0	0	0	2.273674	15	0	0	-6%	6.32
0	Yes	3.442045	0.018939	0	0	0	3.423106	84	0	0	-64%	3.80
2	Yes	4.498485	0.077273	0	0	0	4.421212	52	106555	2864	-51%	5.78
1	Yes	6.224811	0.072538	0	0	0	6.152273	132	232429	5595	-55%	3.61
0	Yes	2.63125	0.141288	0	0	0	2.489962	7	136967	2779	-11%	7.14
0	Yes	2.623296	1.192614	0	0	0	1.430682	3	0	0	-16%	5.46
0	Yes	2.160606	2.002462	0	1139	18	0.158144	0	93039	1249	-4%	4.32
0	Yes	7.090341	3.239962	0	0	0	3.850379	9	266085	4930	3%	7.61
0	Yes	2.410416	0.189583	0	0	0	2.220833	171	0	0	1%	9.18
0	Yes	2.383523	0.957197	0	0	0	1.426326	70	0	0	-49%	4.71
0	Yes	1.789773	0.790341	0	0	0	0.999432	16	0	0	-13%	6.37
0	Yes	1.386364	0.290341	0	0	0	1.096023	84	0	0	-8%	3.39
0	Yes	1.71231	0.047727	0	0	0	1.664583	15	0	0	-10%	6.13
0	Yes	1.567235	0.22178	0	0	0	1.345455	0	0	0	-35%	7.50
1	Yes	3.799811	0.393561	0	0	0	3.40625	0	0	0	3%	3.59
0	Yes	2.143372	0.308902	0	0	0	1.83447	0	0	0	-2%	7.28
0	Yes	1.700189	0.310227	0	0	0	1.389562	0	0	0	4%	5.83
0	Yes	1.851326	0.033144	0	0	0	1.818182	0	0	0	-7%	4.38

## 2019 Storm Implementation Plan and Annual Reliability Report

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13754	WSA	N/A	7.473864	0	94764	253	N/A	1.058712	0	10529	98	4
13756	WSA	N/A	2.896023	0	114156	580	N/A	1.474811	0	14986	48	0
13761	WSA	N/A	0.338258	0	16427	172	N/A	1.812311	0	32	1	0
13762	WSA	N/A	0.159659	0	1264	1	N/A	1.663068	0	0	0	0
13763	WSA	N/A	0	0	0	0	N/A	0.027462	0	0	0	0
13764	WSA	N/A	0.159091	0	247	1	N/A	1.442803	0	0	0	0
13765	WSA	N/A	0	0	0	0	N/A	0.546023	0	0	0	0
13766	WSA	N/A	0	0	0	0	N/A	1.204167	0	0	0	0
13769	WHA	N/A	16.611553	0	38523	411	N/A	18.781818	0	33035	140	0
13770	WHA	N/A	3.985985	0	73281	432	N/A	22.648674	0	294	1	0
13772	WHA	N/A	15.63428	0	1646	21	N/A	14.658333	0	441	2	0
13777	SHA	N/A	2.115341	0	8856	67	N/A	12.362311	0	122707	335	4
13780	SHA	N/A	7.03125	0	114686	1651	N/A	9.899053	0	9449	65	0
13781	SHA	N/A	1.906439	0	76530	1431	N/A	15.145455	0	11435	75	0
13785	PCA	N/A	28.45322	0	64656	294	N/A	7.778409	0	458	2	3
13786	PCA	N/A	43.639394	0	30766	193	N/A	3.409659	0	0	0	0
13787	PCA	N/A	41.412689	0	28742	1492	N/A	8.577652	0	181	1	0
13793	ESA	N/A	3.719318	0	31203	217	N/A	12.816477	0	25400	131	3
13795	ESA	N/A	4.337311	0	16042	188	N/A	16.094129	0	10254	27	0
13796	ESA	N/A	6.378598	0	5577	65	N/A	9.230492	0	11637	97	0
13797	ESA	N/A	4.289205	0	12102	116	N/A	16.21553	0	4220	26	0
13798	ESA	N/A	3.478977	0	22481	154	N/A	10.013636	0	12679	83	0
13799	ESA	N/A	2.646591	0	23376	156	N/A	11.539205	0	12353	153	0
13805	PCA	N/A	46.681818	0	316398	1197	N/A	4.785985	0	132	2	9
13807	PCA	N/A	35.311932	0	83627	861	N/A	2.83428	0	7998	27	0
13808	PCA	N/A	102.354924	0	125413	669	N/A	6.162879	0	11076	143	23
13813	DCA	N/A	44.396023	0	66950	269	N/A	7.625379	0	728	4	25
13815	DCA	N/A	38.628409	0	99587	853	N/A	7.676136	0	823	4	1
13817	SHA	N/A	18.731061	0	78642	1021	N/A	21.619318	0	12626	49	0
13818	SHA	N/A	1.531818	0	491	2	N/A	5.679545	0	0	0	0
13819	SHA	N/A	0.599053	0	186	2	N/A	0.949432	0	0	0	0
13820	SHA	N/A	2.746023	0	23545	193	N/A	0.835606	0	0	0	0
13825	CSA	N/A	7.098106	0	16526	211	N/A	2.107197	0	2202	24	0
13826	CSA	N/A	3.628977	0	739	12	N/A	6.094129	0	3309	55	4
13827	CSA	N/A	3.991098	0	107435	552	N/A	3.400758	0	12525	77	0
13828	CSA	N/A	5.748295	0	39777	1712	N/A	3.276894	0	1553	20	4
13829	CSA	N/A	1.033144	0	39777	451	N/A	8.411932	0	30771	144	0
13830	CSA	N/A	3.688068	0	26604	360	N/A	5.931061	0	6984	35	7
13831	CSA	N/A	0.613447	0	3807	44	N/A	5.461932	0	20497	251	0
13832	CSA	N/A	2.975947	0	49899	287	N/A	1.36572	0	2162	15	0



## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	0.742045	0.133333	0	0	0	0	0	0	0	0	4.75
0	Yes	1.19981	0.141477	0	95455	1899	1.058333	0	0	0	0	6.66
0	Yes	1.6	0.644697	0	0	0	0.955303	0	0	0	0	5.90
0	Yes	3.04678	2.025189	0	0	0	1.021591	0	0	0	0	3.06
0	Yes	0.525189	0.525189	0	0	0	0	0	0	0	0	6.20
0	Yes	0.878788	0.124432	0	0	0	0.754356	0	18096	483	0	2.83
0	Yes	0.860038	0.860038	0	0	0	0	0	0	0	0	5.13
0	Yes	2.432765	2.432765	0	0	0	0	0	0	0	0	1.76
1	Yes	7.192614	1.592803	0	0	0	5.599811	0	56387	998	0	1.19
0	Yes	4.0125	0.39697	0	0	0	3.61553	0	101938	1906	0	5.76
3	Yes	14.519508	6.430303	0	0	0	8.089205	0	5390	91	0	8.50
0	Yes	4.591099	2.236932	0	28524	341	2.354167	0	0	0	0	7.75
0	Yes	2.22727	0.549621	0	0	0	1.673106	0	0	0	0	8.02
1	Yes	5.098106	0.288068	0	0	0	4.810038	0	216981	2028	0	7.14
1	Yes	3.400569	0.392614	0	0	0	3.007955	0	0	0	0	5.92
2	Yes	5.549053	0.561174	0	0	0	4.987879	0	38303	1736	0	3.91
2	Yes	8.791477	0.207197	0	0	0	8.58428	0	8240	1710	0	3.73
1	Yes	3.163636	0.722348	0	9832	1005	2.441288	0	93252	2335	0	6.80
1	Yes	3.545644	0.141477	0	0	0	3.404167	0	0	0	0	7.08
0	Yes	3.566477	0.542045	0	0	0	3.024432	0	0	0	0	8.04
0	Yes	3.284091	0.056629	0	0	0	3.227462	0	0	0	0	5.32
1	Yes	2.093182	0.250758	0	0	0	1.842424	0	6197	1252	0	8.53
0	Yes	2.798674	0.285985	0	0	0	2.512689	0	59957	735	0	8.73
2	Yes	5.684281	0.024811	0	0	0	5.65947	0	0	0	0	6.50
1	Yes	6.444697	0.099242	0	0	0	6.345455	0	3320	1261	0	5.83
6	Yes	15.092803	0.241098	0	0	0	14.851705	0	207476	4205	0	6.03
3	Yes	5.12159	0.025568	0	0	0	5.096591	0	216601	4302	0	8.14
2	Yes	6.528409	0.262879	0	0	0	6.26553	0	371587	6138	0	3.42
1	Yes	8.33125	2.123295	0	0	0	6.207955	0	53904	12826	0	2.55
0	Yes	4.783902	1.217614	0	0	0	3.566288	0	0	0	0	9.78
0	Yes	2.589773	0.676705	0	0	0	1.913068	0	1679	29	0	2.98
0	Yes	2.572538	1.424053	0	0	0	1.148485	0	0	0	0	1.46
1	Yes	2.572538	0.017424	0	0	0	2.555114	0	0	0	0	1.04
1	Yes	4.218182	1.617803	0	0	0	2.600379	0	0	0	0	5.18
0	Yes	1.147348	0.03428	0	0	0	1.113068	0	98176	780	0	8.15
1	Yes	1.702841	0.146212	0	0	0	1.556629	0	19899	540	0	3.06
1	Yes	3.267993	0.046023	0	0	0	3.22197	0	110679	1656	0	6.12
3	Yes	2.95947	0	0	0	0	2.95947	0	0	0	0	3.61
0	Yes	1.425757	0.027083	0	0	0	1.398674	0	0	0	0	3.87
0	Yes	1.476136	0.854924	0	0	0	0.621212	0	30064	411	0	3.39

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13833	CSA	N/A	0	0	0	0	N/A	0.023864	0	0	0	0
13834	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13835	CSA	N/A	5.639705	9608	9608	85	N/A	2.928788	0	0	3546	21
13836	CSA	N/A	4.190341	9068	9068	42	N/A	12.55	0	0	8082	62
13837	CSA	N/A	4.0125	18769	18769	134	N/A	7.619697	0	0	9281	110
13838	CSA	N/A	9.298485	5144	5144	22	N/A	6.477273	0	0	5666	49
13839	CSA	N/A	6.702652	17756	17756	162	N/A	15.950758	0	0	19844	121
13840	CSA	N/A	7.22803	33050	33050	192	N/A	9.879167	0	0	36515	151
13843	CSA	N/A	0.220455	38298	38298	385	N/A	0.146402	0	0	120	1
13844	CSA	N/A	0.129735	0	0	0	N/A	2.723485	0	0	0	0
13845	CSA	N/A	0	0	0	0	N/A	3.708712	0	0	0	0
13850	P/CA	N/A	0.082576	855	855	1	N/A	13.989773	0	0	3862	241
13853	P/CA	N/A	2.11572	0	0	0	N/A	27.236174	0	0	30743	180
13854	P/CA	N/A	10.501705	8507	8507	100	N/A	15.375947	0	0	9163	72
13858	CSA	N/A	0	0	0	0	N/A	0.235795	0	0	0	0
13860	W/SA	N/A	1.817803	0	0	0	N/A	7.920455	0	0	0	0
13863	W/SA	N/A	0.763068	11779	11779	265	N/A	7.330682	0	0	20328	228
13864	W/SA	N/A	2.213447	9665	9665	79	N/A	1.827083	0	0	11556	79
13865	W/SA	N/A	2.754735	3043	3043	18	N/A	15.62197	0	0	8317	24
13866	W/SA	N/A	3.625189	1963	1963	11	N/A	4.324053	0	0	3802	40
13867	W/SA	N/A	1.870644	196	196	1	N/A	1.897727	0	0	51	1
13869	W/SA	N/A	0.160227	291	291	1	N/A	5.948674	0	0	0	0
13870	W/SA	N/A	3.499811	1174	1174	12	N/A	14.435795	0	0	9395	60
13871	W/SA	N/A	0.333144	0	0	0	N/A	8.086742	0	0	39578	191
13872	W/SA	N/A	0.00322	11076	11076	61	N/A	11.398485	0	0	63897	281
13873	W/SA	N/A	2.274242	74017	74017	131	N/A	15.267992	0	0	6829	53
13878	ESA	N/A	1.989773	28132	28132	493	N/A	8.802273	0	0	5226	54
13879	ESA	N/A	0.132008	5716	5716	28	N/A	8.630682	0	0	61659	432
13880	ESA	N/A	0.168371	0	0	0	N/A	8.135038	0	0	0	0
13881	ESA	N/A	0	0	0	0	N/A	1.618561	0	0	0	0
13882	ESA	N/A	0	0	0	0	N/A	1.101894	0	0	0	0
13883	ESA	N/A	1.224432	88760	88760	797	N/A	4.587879	0	0	0	0
13884	ESA	N/A	0.3125	31728	31728	689	N/A	11.478788	0	0	16180	168
13885	ESA	N/A	0.602462	1468	1468	16	N/A	9.960417	0	0	2224	16
13886	W/SA	N/A	0	0	0	0	N/A	11.730303	0	0	1009	17
13888	W/SA	N/A	0.835795	0	0	0	N/A	11.857197	0	0	58865	248
13889	W/SA	N/A	6.818561	34186	34186	220	N/A	13.60303	0	0	7952	79
13890	W/SA	N/A	0.689205	3595	3595	7	N/A	7.039962	0	0	8208	63
13891	W/SA	N/A	0.005682	50	50	1	N/A	17.102652	0	0	9009	47
13892	W/SA	N/A	1.660795	15020	15020	236	N/A	7.282197	0	0	27576	184

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	0.068182	0.068182	0	0	0	0	0	0	0	0	2.43
0	Yes	0.111364	0.111364	0	0	0	0	0	0	0	0	3.98
0	Yes	1.397538	0.017614	0	0	0	0	0	0	0	0	3.36
1	Yes	1.687311	0.072917	0	0	0	0	0	2574	739	0	5.01
0	Yes	2.6875	0.525189	0	0	0	0	0	0	0	0	5.13
1	Yes	4.574053	0.157955	0	0	0	0	0	0	0	0	5.10
1	Yes	5.586553	0.122917	0	0	0	0	0	0	0	0	6.74
0	Yes	4.82197	0.173485	0	0	0	0	0	0	6132	0	10.75
0	Yes	1.647159	1.223674	0	0	0	0	0	0	0	0	6.81
0	Yes	2.811363	0.772727	0	0	0	0	0	0	1809	0	5.30
0	Yes	0.639015	0.639015	0	0	0	0	0	0	0	0	6.07
1	Yes	1.86572	0.796212	0	0	0	0	0	0	0	0	3.95
0	Yes	4.434091	2.891477	0	0	0	0	0	0	0	0	4.00
2	Yes	5.307386	0.836553	0	0	0	0	0	0	0	0	8.12
0	Yes	0.425379	0.425379	0	0	0	0	0	0	0	0	8.37
0	Yes	1.544508	0.052273	0	0	0	0	0	0	0	0	5.52
0	Yes	1.527083	0.616288	0	0	0	0	0	0	0	0	5.48
0	Yes	2.618939	0.158144	0	0	0	0	0	0	0	0	3.52
0	Yes	4.641856	0.651515	0	0	0	0	0	0	0	0	4.88
0	Yes	3.353599	0.158523	0	0	0	0	0	0	0	0	8.83
0	Yes	2.130682	0.192803	0	0	0	0	0	0	0	0	7.17
0	Yes	1.11231	0.124242	0	0	0	0	0	0	0	0	5.39
0	Yes	2.4	0.089773	0	0	0	0	0	0	0	0	6.25
0	Yes	1.727462	0.327462	0	0	0	0	0	0	3633	0	6.25
0	Yes	1.520834	1.437311	0	0	0	0	0	0	985	0	7.12
0	Yes	0.741666	0.017045	0	0	0	0	0	0	0	0	3.86
0	Yes	2.616856	0.413068	0	0	0	0	0	0	921	0	3.67
0	Yes	2.856061	1.722917	0	0	0	0	0	0	1446	0	7.15
0	Yes	2.519508	1.350758	0	0	0	0	0	0	0	0	5.99
0	Yes	1.784281	1.183523	0	0	0	0	0	0	0	0	7.22
0	Yes	1.261364	1.261364	0	0	0	0	0	0	0	0	7.95
0	Yes	2.238068	0.526379	0	0	0	0	0	0	0	0	4.05
0	Yes	2.205304	0.277652	0	0	0	0	0	0	0	0	2.86
0	Yes	2.611174	0.8875	0	0	0	0	0	0	1617	0	6.70
0	Yes	2.025568	1.618182	0	0	3393	0	0	0	24293	0	6.70
1	Yes	2.574621	0.452273	0	0	0	0	0	0	0	0	4.81
3	Yes	3.286932	0.326379	0	0	0	0	0	0	0	0	4.74
0	Yes	1.178598	0.072727	0	0	0	0	0	0	0	0	4.79
0	Yes	2.209659	1.499621	0	0	0	0	0	0	732	0	10.65
0	Yes	2.70909	0.116098	0	0	0	0	0	0	0	0	5.22
0	Yes			0	0	0	0	0	0	0	0	6.73

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13895	WSA	N/A	0.765909	0	20951	117	N/A	2,162,689	0	10372	21	0
13896	SHA	N/A	7.778977	0	13943	135	N/A	6,809,659	0	205	1	0
13897	SHA	N/A	3.175189	0	3770	12	N/A	11,55303	0	180	1	0
13898	SHA	N/A	1.5	0	218	3	N/A	27,198,485	0	17817	113	0
13899	SHA	N/A	7.092045	0	31837	263	N/A	6,207,576	0	1960	6	0
13900	SHA	N/A	2.508333	0	13974	49	N/A	23,850,379	0	7124	83	0
13906	ESA	N/A	8.462311	0	253221	834	N/A	14,578,598	0	24962	108	0
13909	ESA	N/A	7.464394	0	105323	459	N/A	3,658,523	0	2339	6	7
13910	ESA	N/A	6.638447	0	37845	260	N/A	9,807,576	0	11098	54	8
13911	ESA	N/A	9.045076	0	139367	936	N/A	7,119,886	0	38435	78	1
13916	WHA	N/A	2.298106	0	24402	313	N/A	12,433,333	0	44250	302	0
13918	WHA	N/A	1.89678	0	2562	32	N/A	10,535,227	0	8091	98	0
13919	WHA	N/A	0.014583	0	0	0	N/A	1,034,28	0	0	0	0
13920	WHA	N/A	1.888826	0	39078	722	N/A	11,371,212	0	118131	519	0
13921	WHA	N/A	2.432197	0	128	2	N/A	6,112,311	0	1610	60	0
13922	WHA	N/A	0.372348	0	247	1	N/A	32,820,265	0	631	3	0
13924	WHA	N/A	46.819697	0	29054	161	N/A	2,23447	0	7124	0	0
13927	WHA	N/A	26.017424	0	15795	145	N/A	11,60303	0	68544	337	0
13928	WHA	N/A	0	0	0	0	N/A	0	0	0	0	0
13929	SHA	N/A	0	0	0	0	N/A	0	0	0	0	0
13930	SHA	N/A	0	0	0	0	N/A	0	0	0	0	0
13932	CSA	N/A	0.820644	0	19701	71	N/A	3,614,015	0	0	0	0
13934	CSA	N/A	1.431629	0	1549	8	N/A	8,865,152	0	3007	13	0
13935	CSA	N/A	1.85273	0	2618	24	N/A	4,446,402	0	0	0	0
13939	CSA	N/A	2.522538	0	19162	59	N/A	11,340,909	0	10508	132	1
13940	ESA	N/A	0	0	0	0	N/A	0	0	0	0	0
13942	CSA	N/A	0.20322	0	488	9	N/A	1,505,114	0	0	0	0
13943	CSA	N/A	0.967424	0	14538	68	N/A	1,590,53	0	813	1	0
13944	CSA	N/A	0	0	0	0	N/A	0.238826	0	0	0	0
13945	CSA	N/A	0	0	0	0	N/A	0	0	0	0	0
13946	CSA	N/A	8.04375	0	16474	151	N/A	0.138636	0	0	0	0
13947	CSA	N/A	6.485417	0	65029	681	N/A	0,050,568	0	0	0	0
13948	CSA	N/A	5.707765	0	20774	130	N/A	2,483,333	0	358	1	0
13951	ESA	N/A	0.998295	0	63	1	N/A	1,728,598	0	1181	3	0
13952	ESA	N/A	0.383902	0	77	1	N/A	2,673,674	0	554	1	0
13953	ESA	N/A	4.11572	0	22735	128	N/A	5,791,667	0	5086	36	0
13954	ESA	N/A	0.406629	0	8603	68	N/A	2,731,439	0	0	0	0
13955	ESA	N/A	0.69375	0	1009	9	N/A	0,429,356	0	218	2	0
13956	ESA	N/A	0	0	1735	24	N/A	2,674,242	0	11590	71	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	2.215531	0.076705	0	0	0	2.138826	0	82850	1984	-8%	6.52
0	Yes	5.109281	2.21572	0	0	0	2.893561	0	99879	3484	-48%	4.98
0	Yes	5.796781	3.181061	0	0	0	2.61572	0	29397	830	-48%	5.86
1	Yes	9.77216	5.300758	0	0	0	4.471402	0	0	0	-64%	3.49
0	Yes	3.95303	0.114583	0	0	0	3.838447	0	2970	1264	-71%	9.61
0	Yes	6.632765	1.545265	0	0	0	5.0875	0	0	0	6%	6.69
2	Yes	4.035227	0.112121	0	0	0	3.923106	0	212857	4430	-57%	8.20
1	Yes	3.075	0.592424	0	0	0	2.482576	0	35994	2056	16%	7.28
2	Yes	3.803788	0.083333	0	0	0	3.720455	0	23770	1219	-35%	5.81
1	Yes	3.732954	0.169886	0	0	0	3.563068	0	0	0	3%	5.85
0	Yes	1.46553	0.067045	0	0	0	1.398485	0	0	0	-35%	5.08
0	Yes	2.511363	0.182386	0	0	0	2.328977	0	0	0	-14%	5.79
0	Yes	0.838258	0.260038	0	0	0	0.57822	0	0	0	-72%	4.04
0	Yes	2.063257	0.320833	0	0	0	1.742424	0	0	0	-34%	1.46
0	Yes	1.702841	0.153977	0	0	0	1.548864	0	0	0	-26%	5.71
0	Yes	5.731818	2.092235	0	0	0	3.639583	0	0	0	-22%	2.88
4	Yes	30.211742	0.047727	0	0	0	30.164015	0	79448	2669	-11%	7.31
1	Yes	5.192803	0.321591	0	0	0	4.871212	0	44028	1941	-63%	5.20
0	Yes	0	0	0	0	0	0	0	0	0	-31%	7.43
0	Yes	0	0	0	0	0	0	0	0	0	0%	0.00
0	Yes	0	0	0	0	0	0	0	0	0	0%	0.00
1	Yes	1.626136	0.052462	0	0	0	1.573674	0	0	0	0%	0.00
0	Yes	2.358333	0.122727	0	0	0	2.235606	0	0	0	-62%	2.15
1	Yes	2.469129	0.288258	0	0	0	2.180871	0	15023	527	-13%	6.70
1	Yes	2.766856	0.07803	0	0	0	2.688826	0	202098	4879	-66%	3.10
0	Yes	0.017045	0.017045	0	0	0	0	0	0	0	-9%	6.08
0	Yes	1.417425	1.340152	0	0	0	0.077273	0	0	0	-29%	12.22
0	Yes	2.681818	1.812879	0	0	0	0.868939	0	34766	433	-57%	3.43
0	Yes	1.257386	1.025	0	0	0	0.232386	0	0	0	-13%	5.60
0	Yes	0.454356	0.454356	0	0	0	0	0	0	0	-46%	1.03
0	Yes	2.786553	0.060795	0	0	0	2.725758	0	0	0	0%	0.00
0	Yes	1.480114	0.118561	0	0	0	1.061553	0	0	0	-27%	4.38
0	Yes	2.782576	0.070265	0	0	0	2.712311	0	101752	1264	-100%	0.00
0	Yes	2.271023	0.625947	0	0	0	1.645076	0	13984	188	2%	6.80
0	Yes	1.139394	0.207765	0	0	0	0.931629	0	0	0	-5%	3.99
0	Yes	2.586932	0.220455	0	0	0	2.366477	0	0	0	-44%	3.27
0	Yes	2.358901	0.454924	0	0	0	1.903977	0	0	0	-29%	8.01
0	Yes	1.385795	0.222348	0	0	0	1.163447	0	7889	1522	-27%	4.84
0	Yes	2.085985	0.726326	0	0	0	1.359659	0	0	0	-90%	0.82

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
13957	ESA	N/A	0.149053	0	0	0	0	3.314583	0	0	0	0
13959	PFA	N/A	13.301136	0	107197	0	472	2.78125	0	0	306	3
13961	PFA	N/A	20.897538	0	115184	0	602	14.67803	0	0	23041	115
13962	PFA	N/A	18.966477	0	25035	0	507	6.399053	0	0	54200	764
13963	ESA	N/A	3.369886	0	8551	0	48	2.181629	0	0	997	10
13964	ESA	N/A	7.158333	0	6883	0	55	0.489583	0	0	0	0
13967	WHA	N/A	3.617614	0	2550	0	10	14.14697	0	0	6691	33
13968	WHA	N/A	5.277841	0	14535	0	142	15.00758	0	0	24154	56
13971	WHA	N/A	0.180871	0	0	0	0	1.171212	0	0	191	1
13972	WHA	N/A	3.928409	0	67326	0	426	21.231439	0	0	70100	382
13973	WHA	N/A	1.547348	0	8231	0	87	19.538068	0	0	97927	717
13980	PFA	N/A	0	0	0	0	0	0	0	0	0	0
13982	PFA	N/A	1.267045	0	49	0	1	0	0	0	0	0
13983	PFA	N/A	4.45303	0	25052	0	170	2.603977	0	0	318	2
13984	PFA	N/A	9.876705	0	9147	0	56	7.750947	0	0	1884	7
13985	CSA	N/A	0.015341	0	955	0	14	21.815909	0	0	42123	324
13986	CSA	N/A	1.129356	0	0	0	0	14.328409	0	0	19825	103
13987	CSA	N/A	0.029356	0	136	0	2	10.977841	0	0	3266	23
13988	CSA	N/A	0	0	215	0	1	14.35928	0	0	0	0
13989	CSA	N/A	0.003409	0	11589	0	128	19.539394	0	0	15221	150
13990	CSA	N/A	0.613068	0	76443	0	814	31.180682	0	0	45831	430
13991	CSA	N/A	0.472159	0	3870	0	38	11.688636	0	0	0	0
13993	CSA	N/A	0	0	10344	0	67	0	0	0	22043	201
13994	CSA	N/A	4.964962	0	0	0	0	14.169697	0	0	0	0
14000	PFA	N/A	16.496212	0	67969	0	646	6.525758	0	0	9602	70
14001	PFA	N/A	3.067992	0	3559	0	17	1.085227	0	0	0	0
14002	PFA	N/A	0.472159	0	4203	0	37	13.835038	0	0	36504	745
14004	PFA	N/A	0.052273	0	0	0	0	0.220455	0	0	0	0
14010	CSA	N/A	0.75928	0	63003	0	603	2.391477	0	0	0	0
14011	CSA	N/A	11.06553	0	44259	0	430	5.893561	0	0	15844	92
14012	CSA	N/A	0.735417	0	572	0	52	6.478409	0	0	136764	1481
14014	CSA	N/A	3.49053	0	10040	0	52	1.453977	0	0	11895	57
14020	SHA	N/A	8.082008	0	49320	0	539	18.575379	0	0	5395	48
14021	SHA	N/A	1.199811	0	794	0	794	11.431629	0	0	0	0
14022	SHA	N/A	13.306629	0	17473	0	82	13.360227	0	0	30445	236
14023	SHA	N/A	7.812311	0	22431	0	171	7.195455	0	0	240	3
14024	SHA	N/A	9.610038	0	31618	0	333	13.664394	0	0	5057	28
14025	SHA	N/A	3.378598	0	17114	0	146	31.789394	0	0	58715	697
14026	SHA	N/A	5.974621	0	36071	0	929	4.785227	0	0	14700	98
14030	WSA	N/A	7.4875	0	28215	0	131	27.422348	0	0	32655	251
14031	WSA	N/A	0	0	0	0	0	13.795076	0	0	9017	70

## 2019 Storm Implementation Plan and Annual Reliability Report

(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(X)	(Y)	(Z)
Number of Sectionalizing Devices on the Feeder	Feeder Looped?	Total Length of Feeder	Length of URD Portion of Feeder Circuit	Number of Customers Served by URD Feeders	CMI for URD Feeders	CI for URD Feeders	Length of Overhead Portion of the Feeder Circuit	Number of Customers Served by Overhead Feeders	CMI for Overhead Feeders	CI for Overhead Feeders	% Load Growth Since December 31, 2018	Recorded Peak Load Recorded through December 31, 2019
0	Yes	2.141667	1.657197	0	0	0	0.48447	0	0	0	-77%	2.76
0	Yes	6.05928	0.023295	0	0	0	6.035985	0	0	0	-3%	4.18
2	Yes	4.523379	0.043371	0	0	0	4.482008	0	69322	1185	-65%	3.11
2	Yes	4.821212	0.432765	0	0	0	4.388447	0	79165	1332	-6%	8.61
0	Yes	2.289583	0.592992	0	0	0	1.696591	0	0	0	3%	8.96
0	Yes	2.005682	0.2	0	0	0	1.805682	0	0	0	-49%	3.73
0	Yes	3.629924	0.060227	0	0	0	3.569697	0	0	0	-52%	4.32
0	Yes	2.971591	0.056439	0	0	0	2.915152	0	137037	3556	-32%	7.37
0	Yes	0.431629	0.20947	0	0	0	0.222159	0	0	0	-60%	3.60
1	Yes	3.340341	0.286174	0	0	0	3.054167	0	12546	3060	-73%	1.48
0	Yes	3.882197	1.450379	0	0	0	2.431818	0	0	0	-51%	7.90
0	Yes	0.920266	0.077652	0	0	0	0.842614	0	0	0	-41%	6.83
0	Yes	1.556061	0.24697	0	0	0	1.309091	0	761	14	-100%	0.00
0	Yes	2.242992	0.188636	0	0	0	2.054356	0	12392	393	-100%	0.00
0	Yes	6.325379	1.095644	0	0	0	5.229735	0	1140	866	-95%	1.51
2	Yes	8.577084	5.100758	0	0	0	3.476326	0	268912	2336	-14%	9.11
0	Yes	3.080303	2.002273	0	0	0	1.07803	0	40940	1107	-36%	10.06
0	Yes	6.113257	2.859848	0	0	0	3.253409	0	0	0	-64%	6.50
0	Yes	3.172727	3.166856	0	0	0	0.005871	0	0	0	-73%	4.93
0	Yes	4.048296	2.016288	0	0	0	2.032008	0	181945	3113	-43%	5.87
1	Yes	8.372727	5.851515	0	0	0	2.521212	0	0	0	-31%	6.59
0	Yes	1.802652	1.218561	0	0	0	0.584091	0	0	0	0%	11.70
1	Yes	0.65947	0	0	0	0	0.65947	0	62819	1314	-53%	4.32
0	Yes	4.964583	0.176515	0	0	0	4.788068	0	0	0	-61%	5.68
0	Yes	4.156439	0.474621	0	0	0	3.681818	0	69109	2057	0%	0.00
0	Yes	1.81269	0.129167	0	0	0	1.683523	0	0	0	-47%	6.18
0	Yes	3.485038	2.836932	0	0	0	0.648106	0	33542	582	-70%	2.39
0	Yes	0.430682	0.038258	0	0	0	0.392424	0	0	0	-61%	4.05
0	Yes	1.846591	1.846591	0	0	0	0	0	0	0	-37%	1.19
2	Yes	2.809281	2.301705	0	0	0	0.507576	0	0	0	-20%	6.38
4	Yes	7.575189	0.812689	0	0	0	6.7625	0	9891	206	1%	10.18
0	Yes	0.343182	0.065341	0	0	0	0.277841	0	0	0	-6%	7.45
1	Yes	4.832008	0.286553	0	0	0	4.545455	0	0	0	-69%	2.52
0	Yes	2.771023	0.05947	0	0	0	2.711553	0	0	0	-18%	9.34
0	Yes	2.614394	0.324811	0	0	0	2.289583	0	0	0	-24%	6.45
0	Yes	6.442235	0.221402	0	0	0	6.220833	0	0	0	14%	6.48
1	Yes	4.872917	0.143561	0	0	0	4.729356	0	0	0	-24%	5.65
1	Yes	8.089016	3.419508	0	0	0	4.669508	0	0	0	-17%	8.57
2	Yes	2.667803	1.027462	0	0	0	1.640341	0	27638	369	-11%	10.88
3	Yes	2.455492	0.397272	0	0	0	2.057765	0	76795	2393	-62%	2.44
0	Yes	2.607008	0.417235	0	0	0	2.189773	0	62737	3992	-2%	11.30

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
14032	WSA	N/A	2.668371	0	54286	846	N/A	8.326326	0	64950	178	0
14033	WSA	N/A	0.934659	0	88	1	N/A	2.2125	0	0	0	0
14035	WSA	N/A	0	0	0	0	N/A	0.806061	0	0	0	0
14037	WSA	N/A	0.781061	0	3681	36	N/A	18.943939	0	132133	2309	0
14040	CSA	N/A	5.089015	0	39077	290	N/A	11.975568	0	13077	156	0
14041	CSA	N/A	18.502462	0	79697	506	N/A	9.109848	0	8004	59	1
14042	CSA	N/A	4.794129	0	4289	79	N/A	14.280682	0	46580	279	5
14050	PFA	N/A	31.408144	0	178569	1057	N/A	5.00322	0	3742	24	4
14051	PFA	N/A	1.763447	0	0	0	N/A	0.066856	0	0	0	0
14059	CSA	N/A	0.066667	0	0	0	N/A	2.085606	0	0	0	0
14060	CSA	N/A	0	0	0	0	N/A	0.540909	0	0	0	0
14064	CSA	N/A	0	0	0	0	N/A	0.942614	0	0	0	0
14065	CSA	N/A	0	0	0	0	N/A	7.026705	0	7772	29	0
14066	CSA	N/A	0	0	0	0	N/A	0.5875	0	0	0	0
14069	WSA	N/A	4.063068	0	21333	56	N/A	20.92822	0	7922	31	0
14070	WSA	N/A	0.069508	0	6910	77	N/A	18.762311	0	2383	15	0
14071	WSA	N/A	8.281629	0	33702	175	N/A	23.082576	0	7901	24	0
14079	WSA	N/A	0.40625	0	19520	316	N/A	15.113636	0	393	3	0
14080	WSA	N/A	0.02803	0	0	0	N/A	16.427462	0	17666	87	0
14081	WSA	N/A	1.026894	0	8028	137	N/A	11.886174	0	15466	121	0
14082	WSA	N/A	0	0	0	0	N/A	13.691477	0	54483	481	0
14083	WSA	N/A	0	0	145	1	N/A	16.053598	0	69949	369	0
14084	WSA	N/A	0.114015	0	48	1	N/A	15.771402	0	25152	56	0
14089	CSA	N/A	0.080682	0	715	6	N/A	26.147348	0	18401	39	0
14090	CSA	N/A	0.122538	0	9282	37	N/A	8.945833	0	1511	5	0
14091	CSA	N/A	0.217424	0	0	0	N/A	11.53447	0	42031	77	0
14094	CSA	N/A	0.029356	0	0	0	N/A	10.243182	0	23900	104	0
14095	CSA	N/A	0	0	0	0	N/A	16.101326	0	31926	237	0
14096	CSA	N/A	0	0	0	0	N/A	14.031061	0	0	0	0
14099	CSA	N/A	2.601894	0	4631	14	N/A	10.444508	0	10880	93	0
14100	CSA	N/A	0	0	45028	247	N/A	20.188447	0	57393	196	0
14101	CSA	N/A	0	0	0	0	N/A	20.719697	0	0	0	0
14102	CSA	N/A	2.116477	0	14750	77	N/A	19.294886	0	82787	396	0
14109	ESA	N/A	0.446402	0	215	1	N/A	5.242424	0	50426	380	0
14110	ESA	N/A	3.728409	0	30931	288	N/A	14.389205	0	9370	89	0
14111	ESA	N/A	7.248295	0	37897	329	N/A	8.054924	0	12634	165	0
14112	ESA	N/A	3.236553	0	4590	17	N/A	12.946023	0	694	2	0
14114	ESA	N/A	6.024432	0	126194	923	N/A	13.080492	0	33112	196	0
14115	ESA	N/A	0.891098	0	60	1	N/A	3.296212	0	1626	26	0
14116	ESA	N/A	1.177462	0	3787	39	N/A	1.961932	0	4495	31	0



## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	2.498674	0.974432	0	0	0	1.524242	0	0	0	0	7.74
1	Yes	1.660228	0.949811	0	0	0	0.710417	0	0	0	0	6.28
0	Yes	1.307954	1.253977	0	0	0	0.053977	0	0	0	0	4.27
0	Yes	3.649243	2.194129	0	4710	0	1.455114	0	93593	2020	0	2.63
1	Yes	4.328409	0.126136	0	0	0	4.202273	0	31914	2072	0	8.07
1	Yes	5.281439	0.26875	0	23354	0	5.012689	0	34060	1900	0	6.77
1	Yes	4.737689	0.083333	0	0	0	4.654356	0	0	0	0	7.78
1	Yes	14.75625	4.876326	0	666	0	9.879924	0	20207	1092	0	10.92
0	Yes	0.03447	0	0	0	0	0.03447	0	0	0	0	3.51
0	Yes	2.154167	2.154167	0	0	0	0	0	61306	2283	0	0.00
0	Yes	0.836553	0.836553	0	0	0	0	0	0	0	0	5.77
0	Yes	2.311553	2.311553	0	0	0	0	0	0	0	0	3.85
0	Yes	1.522538	1.522538	0	0	0	0	0	0	0	0	8.06
0	Yes	1.542045	1.542045	0	0	0	0	0	0	0	0	4.94
1	Yes	6.482008	4.853788	0	0	0	1.62822	0	61286	2349	0	0.17
3	Yes	3.894129	1.539773	0	0	0	2.354356	0	52536	1199	0	7.14
2	Yes	8.21178	4.685606	0	0	0	3.536174	0	3339	1672	0	7.77
0	Yes	6.200947	4.057386	0	0	0	2.143561	0	3263	928	0	9.57
0	Yes	2.730303	2.154924	0	0	0	0.575379	0	0	0	0	7.01
0	Yes	3.579735	2.932576	0	0	0	0.647159	0	0	0	0	6.49
0	Yes	2.92178	2.92178	0	0	0	0	0	0	0	0	7.37
0	Yes	4.596401	4.333712	0	23156	0	0.262689	0	95683	1147	0	5.92
0	Yes	3.27216	1.352652	0	0	0	1.919508	0	5689	1303	0	7.73
0	Yes	7.264015	4.736932	0	0	0	2.527083	0	77977	2062	0	7.64
0	Yes	4.873864	3.580303	0	0	0	1.293561	0	0	0	0	10.21
0	Yes	4.026136	2.272348	0	0	0	1.753788	0	0	0	0	5.83
0	Yes	5.431818	3.847727	0	0	0	1.584091	0	71744	1489	0	4.14
0	Yes	2.941477	2.941477	0	0	0	0	0	0	0	0	7.90
0	Yes	4.993561	4.152273	0	0	0	0.841288	0	2220	1319	0	9.67
0	Yes	6.807386	2.460038	0	0	0	4.347348	0	35234	730	0	6.18
0	Yes	3.661932	3.661932	0	0	0	0	0	0	0	0	4.47
0	Yes	5.60947	5.60947	0	0	0	0	0	0	0	0	7.42
0	Yes	6.204356	4.302841	0	192369	0	1.901515	0	93342	1986	0	7.27
0	Yes	1.702273	0.273106	0	0	0	1.429167	0	0	0	0	9.16
0	Yes	2.532007	0.139583	0	0	0	2.392424	0	385187	2328	0	3.17
0	Yes	2.916856	0.035795	0	0	0	2.881061	0	3225	1173	0	7.19
0	Yes	3.053409	0.212879	0	0	0	2.84053	0	18133	881	0	6.68
1	Yes	2.99072	0.148106	0	0	0	2.842614	0	352389	6444	0	7.40
0	Yes	2.857008	1.557576	0	0	0	1.299432	0	0	0	0	7.14
0	Yes	1.938257	0.153598	0	0	0	1.784659	0	0	0	0	5.94

## 2019 Storm Implementation Plan and Annual Reliability Report

(A) Circuit	(B) Service Area	(C) Number of OH Lateral Lines	(D) Number of OH Lateral Miles	(E) Number of Customers Served on OH Lateral Lines	(F) CMI for OH Lateral Lines	(G) CI for OH Lateral Lines	(H) Number of URD Lateral Lines	(I) Number of URD Lateral Miles	(J) Number of Customers Served on URD Lateral Lines	(K) CMI for URD Lateral Lines	(L) CI for URD Lateral Lines	(M) Number of Automatic Line Sectionalizing Devices on the Lateral
14117	ESA	N/A	1.119886	0	2550	29	N/A	1.939394	0	4434	45	0
14119	PFA	N/A	0.167614	0	9747	57	N/A	29.887879	0	16480	124	0
14120	PFA	N/A	0.530871	0	0	0	N/A	14.377652	0	7403	23	0
14121	PFA	N/A	1.012121	0	0	0	N/A	11.550568	0	9340	89	0
14122	PFA	N/A	0	0	0	0	N/A	25.364205	0	31022	247	0
14123	PFA	N/A	5.754735	0	194299	788	N/A	14.596212	0	58	1	0
14124	PFA	N/A	4.70928	0	2524	15	N/A	11.200758	0	0	0	0
14144	SHA	N/A	6.918371	0	24117	183	N/A	15.188258	0	17523	100	0
14145	SHA	N/A	0.139015	0	0	0	N/A	21.03125	0	10467	61	0
14196	ESA	N/A	0	0	0	0	N/A	0.06875	0	0	0	0
14197	ESA	N/A	1.900189	0	139	1	N/A	0.714583	0	396	2	0
14198	ESA	N/A	1.961174	0	3304	25	N/A	3.383712	0	3206	38	0
14199	ESA	N/A	0.916098	0	0	0	N/A	0.550189	0	0	0	0
14200	SHA	N/A	0	0	0	0	N/A	0	0	0	0	0
14201	SHA	N/A	0	0	0	0	N/A	0	0	0	0	0
14202	SHA	N/A	1.04678	0	0	0	N/A	0.683333	0	0	0	0
14207	ESA	N/A	0.150758	0	0	0	N/A	0.047159	0	0	0	0
14208	ESA	N/A	0	0	0	0	N/A	0	0	0	0	0
14209	ESA	N/A	0	0	0	0	N/A	0	0	0	0	0
14210	N/A	N/A	0	0	0	0	N/A	0.00625	0	0	0	0
14216	ESA	N/A	6.751515	0	14796	94	N/A	20.898295	0	301877	1773	0
14217	ESA	N/A	5.215341	0	1377	10	N/A	6.773106	0	3420	38	0
14218	ESA	N/A	0.060606	0	0	0	N/A	33.202083	0	1969	13	0
14221	N/A	N/A	0	0	0	0	N/A	0	0	0	0	0
14227	N/A	N/A	0	0	0	0	N/A	0.009659	0	0	0	0
14266	ESA	N/A	2.165341	0	1890	6	N/A	9.819129	0	0	0	0
14267	ESA	N/A	0	0	46466	171	N/A	18.945455	0	46	1	0
14268	ESA	N/A	0	0	380	2	N/A	11.661932	0	9447	58	0
14274	WSA	N/A	29.366856	0	111009	1146	N/A	16.958523	0	13675	106	0
14275	WSA	N/A	2.415909	0	8667	29	N/A	23.782955	0	12924	177	0
14306	DCA	N/A	17.20322	0	55783	500	N/A	1.777462	0	124	1	0
14310	ESA	N/A	0	0	0	0	N/A	0	0	0	0	0
14341	ESA	N/A	6.420644	0	8556	32	N/A	0	0	0	0	0
14350	WSA	N/A	0	0	0	0	N/A	0	0	0	0	0
14355	ESA	N/A	2.185038	0	48392	523	N/A	9.307197	0	0	0	0
14356	ESA	N/A	1.1625	0	23717	182	N/A	5.944318	0	0	0	0
14358	ESA	N/A	0.169318	0	0	0	N/A	6.257955	0	0	0	0
14529	ESA	N/A	0	0	0	0	N/A	0	0	108	1	0
14837	SHA	N/A	0	0	0	0	N/A	0	0	0	0	0

## 2019 Storm Implementation Plan and Annual Reliability Report

(N) Number of Automatic Line Sectionalizing Devices on the Feeder	(O) Feeder Looped?	(P) Total Length of Feeder	(Q) Length of URD Portion of Feeder Circuit	(R) Number of Customers Served by URD Feeders	(S) CMI for URD Feeders	(T) CI for URD Feeders	(U) Length of Overhead Portion of the Feeder Circuit	(V) Number of Customers Served by Overhead Feeders	(W) CMI for Overhead Feeders	(X) CI for Overhead Feeders	(Y) % Load Growth Since December 31, 2018	(Z) Recorded Peak Load Recorded through December 31, 2019
0	Yes	1.846212	0.208333	0	0	0	1.637879	0	8843	212	-52%	3.87
0	Yes	5.07197	3.379735	0	0	0	1.692235	0	106895	2241	-83%	6.02
1	Yes	4.858712	3.045644	0	0	0	1.813068	0	0	0	4%	11.84
0	Yes	1.788636	0.388447	0	0	0	1.400189	0	0	0	-69%	9.58
0	Yes	3.382765	3.194697	0	66651	1232	0.188068	0	98626	1535	-41%	5.33
0	Yes	6.609848	2.980871	0	16458	413	3.628977	0	92866	1798	0%	10.03
0	Yes	5.589583	2.129735	0	0	0	3.459848	0	0	0	-78%	6.69
2	Yes	3.003788	0.246212	0	0	0	2.757576	0	0	0	-85%	4.22
0	Yes	5.635417	3.676326	0	0	0	1.959091	0	0	0	-53%	6.49
0	Yes	0.012689	0.012689	0	0	0	0	0	0	0	-69%	6.87
0	Yes	2.226137	0.136932	0	0	0	2.089205	0	0	0	-5%	5.89
0	Yes	3.510985	1.1125	0	0	0	2.398485	0	41434	329	-91%	2.54
1	Yes	2.632387	0.524811	0	0	0	2.107576	0	0	0	-81%	5.79
0	Yes	0.062879	0.062879	0	0	0	0	0	0	0	-1%	6.54
0	Yes	0.09375	0.09375	0	0	0	0	0	0	0	-73%	5.07
0	Yes	1.866288	1.172538	0	0	0	0.69375	0	0	0	44%	8.62
0	Yes	0.231061	0.045644	0	0	0	0.185417	0	0	0	-91%	0.79
0	Yes	0.326326	0.146402	0	0	0	0.179924	0	0	0	-32%	3.18
0	Yes	0.502841	0.081818	0	0	0	0.421023	0	0	0	-30%	2.54
0	Yes	0.187121	0.187121	0	0	0	0	0	0	0	-54%	2.23
0	Yes	4.441856	0.424242	0	0	0	4.017614	0	0	0	-29%	8.04
0	Yes	3.270833	1.204924	0	0	0	2.065909	0	224970	638	-80%	3.02
0	Yes	12.160984	8.635795	0	0	0	3.525189	0	0	0	-65%	6.85
0	Yes	0.019697	0	0	0	0	0.019697	0	0	0	0%	7.58
0	Yes	0	0	0	0	0	0	0	0	0	0%	6.41
1	Yes	4.330493	0.440152	0	0	0	3.890341	0	0	0	0%	3.73
0	Yes	4.397349	2.644697	0	0	0	1.752652	0	0	0	-78%	5.45
0	Yes	3.235227	1.898485	0	0	0	1.336742	0	0	0	-74%	7.48
1	Yes	5.813826	0.689205	0	0	0	5.124621	0	114259	1946	-90%	3.17
1	Yes	5.479735	3.088826	0	0	0	2.390909	0	5557	203	6%	12.24
1	Yes	3.635606	0.505682	0	0	0	3.129924	0	148191	519	0%	0.06
0	Yes	0.40322	0.114962	0	0	0	0.288258	0	0	0	0%	0.00
0	Yes	1.104167	0.088826	0	0	0	1.015341	0	0	0	0%	7.57
0	Yes	0.005303	0.005303	0	0	0	0	0	0	0	0%	7.47
0	Yes	2.217235	0.539705	0	0	0	1.67803	0	0	0	0%	5.77
0	Yes	3.549811	2.291288	0	0	0	1.258523	0	0	0	0%	0.00
0	Yes	2.421023	1.689962	0	0	0	0.731061	0	40166	1105	0%	0.00
0	Yes	0	0	0	0	0	0	0	0	0	0%	0.00
0	Yes	0.003598	0	0	0	0	0.003598	0	0	0	0%	0.00