



**2013  
STORM IMPLEMENTATION PLAN  
&  
ANNUAL RELIABILITY PERFORMANCE  
REPORTS**

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**EXECUTIVE SUMMARY**

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

Tampa Electric's Vegetation Management Program incorporates a balanced approach to electrical safety and reliability while adhering to the American National Standards Institute ("ANSI") A300 pruning standards. The company manages approximately 6,300 miles of distribution and 1,300 miles of transmission lines over five counties within Florida. Tampa Electric's current vegetation management plan calls for trimming its distribution system on a four-year cycle approved by the Commission in Docket No. 120038-EI, Order 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 2013, Tampa Electric conducted comprehensive loading analyses and continued to streamline processes to better manage attachment requests from attaching entities. A comprehensive loading analysis is being performed on 1,920 poles and all poles determined to be overloaded will be corrected. For 2014, Tampa Electric will continue conducting comprehensive load analyses where necessary. In the fourth quarter of 2013 Tampa Electric initiated a system wide pole attachment audit and has audited one-third of its poles. The pole attachment audit is set for completion by June 2014. In addition, Tampa Electric performed an internal audit of the Joint Use Department and the department was found to be operating in compliance.

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

The Tampa Electric transmission system inspection program is a multi-pronged approach that identifies potential transmission system issues. The remainder of the 2012 above ground inspections were completed in 2013, as well as a portion of the 2013 inspections. The remainder of the 2013 inspections will be spread across the remaining four years of the six year cycle, increasing the annual inspections from 17 to 19 percent of the transmission system. The aerial infrared inspections and ground patrol inspections were completed as scheduled. For 2014, the aerial infrared inspections and ground patrol are scheduled to meet program requirements. Since the first ground line inspection cycle was completed ahead of schedule in 2012, they were omitted from the 2013 inspection schedule. The second cycle of ground line inspections will begin in 2014.

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

Tampa Electric is hardening the existing transmission system in a prudent, cost-effective manner utilizing its inspection and maintenance program to systematically replace wood structures with non-wood structures. In 2013, Tampa Electric hardened 1,093 structures that included 866 pole replacements utilizing steel or concrete poles and 227 sets of insulators replaced with polymer insulators.

Additionally, as part of the LiDAR surveying (in response to NERC's October 7, 2010 alert) Tampa Electric performed corrective procedures by reconfiguring and hardening 88 structures consisting of 43 pole replacements and 29 sets of insulators. In addition to the structures that were replaced or reconfigured, 16 new poles were installed. With the



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installation of the new poles, span lengths were shortened between the existing poles thus reducing the wind loading on the structures.

Combining the totals from both programs Tampa Electric hardened 1,181 structures including 925 structure replacements and 256 sets of insulators.

For 2014, Tampa Electric's goal is to harden 805 transmission structures as part of the pole inspection and maintenance program. The company is also scheduled to review 26 circuits and perform corrective procedures on the structures as needed.

### **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. Development and improvement of the GIS continues. In 2013, an enhancement to GIS was implemented that expanded the use of Tampa Electric's legacy grid numbering system for facilities in the field. In 2013, a major upgrade of the system began, which will include updating the computing hardware running the system, updating the software version to the most current available and updating the database to the most current available. The upgrade is scheduled to be implemented in the first half of 2014.

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

Tampa Electric's process for post storm forensic data collection and analysis has been in place for approximately six years. The company has continued its relationship with its outside contractors to perform the multiple components of the plan that include the establishment of a field asset database, forensic measurement protocol, integration of forensics activity

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with overall system restoration, forensics data sampling and reporting format. Should a storm impact Tampa Electric's service area, the overall process will facilitate post-storm data collection and analysis that will be used to determine the root cause of damage occurring to the company's distribution system. As Tampa Electric's GIS continues to evolve, the forensics process will leverage that system through implementation of damage assessment.

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

Tampa Electric was not impacted by any storms in 2013. Should a major weather event occur in 2014, the company believes it has an established process in place for collecting post-storm data and forensic analysis. 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 2013, Tampa Electric's communication efforts focused on maintaining vital governmental contacts and continued participation on standing disaster recovery planning committees. Tampa Electric continued to participate in several Hillsborough County led initiatives, focusing on joint efforts to identify temporary housing, rebuilding infrastructure and reviving the area's economy in the aftermath of a disaster. In addition, Tampa Electric played a key role in a new strategic task force, the Hillsborough County Vulnerable Population Task Force, which has the goal of improving emergency response to vulnerable populations. Prior to the 2013 hurricane season, Tampa Electric also participated in joint mock exercises with Hillsborough County and City of Tampa Emergency Management personnel.

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

Tampa Electric is participating in a collaborative research effort with the state's other investor-owned electric utilities and several municipals and cooperatives 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.

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

TECO Energy and Tampa Electric Emergency Management plans address all hazards, including extreme weather events. In 2013, TECO Energy implemented a new TECO Policy for Emergency Management and Business Continuity which delineates the responsibility at employee, company and community levels. TECO Energy companies continued to participate in internal and external preparedness exercises, collaborating with government emergency management agencies, at local, State and Federal levels.

Specifically, 2013 preparedness included in-depth coordination with local, state and federal emergency management in the following areas:

- Hillsborough County Threat, Hazard, Identification Risk Assessment
- Continued to contribute to the Hillsborough County Post Disaster Redevelopment Plan ("PDRP") update; helping to

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align PDRP recovery support functions and emergency support functions

- Continued as a major contributor to the Florida Reliability Coordination Council committee on Crisis Response plan; plan development and ICS organization
- Supporting the Florida Department of Emergency Management Business and Industry Summit
- Coordinating with Tampa Port Authority on preparedness measures
- Principal member of the National Fire Protection Association 1600 - Committee on Business Continuity, Emergency management and Disaster Recovery
- Oil Spill response exercises
- Leadership role in Local Mitigation Strategy Committee, Citizen Corp Council, and Vulnerable Population Task Force

For 2014, Tampa Electric will continue in a leadership role in county and national preparedness groups: Hillsborough County PDRP, Hillsborough County Local Mitigation Strategy Group, Tampa Bay Regional Planning Council-small business preparedness, Edison Electric Institute, and the National Fire Protection 1600 Committee on Emergency Management, Business Continuity and Disaster Recovery.

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

Tampa Electric's Ground-line Inspection Program for its distribution, lighting, and transmission poles is based on the requirements of the National Electrical Safety Code ("NESC") and is designed to inspect 12.5 percent or

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one-eighth of the pole population each year. The company manages approximately 395,350 distribution and lighting poles and 25,700 transmission poles appropriate for inspection for a total pole population of approximately 421,050 over five counties within Florida. In 2013, Tampa Electric performed 49,362 pole inspections. For 2014, the company plans to inspect over 49,000 poles on its system.

### **SECTION I - Storm Preparedness Plans**

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

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

Tampa Electric's Vegetation Management Program 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 began ramping up its vegetation management program at the end of 2005, with an emphasis on critical trimming needed in areas identified by the company's reliability based methodology. For 2013, the company trimmed approximately one-fourth of the system. Results for the year, on a system-wide basis as well as by specific region, are provided in various tables contained in Section D of the Appendix.

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

In 2013, Tampa Electric's Vegetation Management Program utilized nine full time company employees and approximately 140 contracted tree trim personnel to manage the company's distribution tree trimming requirements. The company's Vegetation Management Program utilizes the American National Standards Institute ("ANSI") A300 standards which are implemented through Tampa Electric's Transmission and Distribution Line Clearance Specification. This comprehensive document covers

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specifications related to operations, notification guidelines, tree trimming and removal, chemical application, targeted completion dates, overtime, and non-compliance. In addition, Tampa Electric updated its Transmission Vegetation Management Program (“TVMP”) to address the North American Electric Reliability Corporation FAC-003-1 standard. In 2014, the Florida Reliability Coordinating Council will complete an audit of Tampa Electric’s compliance with FAC-003-1.

In 2013, Tampa Electric utilized approximately 24 contracted tree trim personnel to manage the company’s transmission tree trimming requirements.

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

During 2013, 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 vegetation management plan which optimizes activities from both a reliability based and cost-effective standpoint within the company’s overall plan. For 2014, Tampa Electric will continue to review current reliability-based information and pertinent field and customer information along with its annual trimming plan, in order to maximize the overall effectiveness of its vegetation management program.

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

Tampa Electric defines a “hazard tree” as any tree that is dead, diseased, or damaged with the potential to impact the distribution or transmission

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facilities. All reactive or “hot-spot” trimming is defined as any internal or external customer driven request for tree trimming. Therefore, all tree trim requests outside of full circuit trimming activities are categorized as hot-spot trims.

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

Tampa Electric’s Line Clearance and Inspection right-of-way supervisors, in conjunction with a contracted tree trim general foreman, evaluate whether or not to remove a tree, hot-spot trim, or execute full circuit trimming 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, if the trunk of the tree is growing underneath or nearly underneath the electrical conductor and cannot be trimmed in accordance with the ANSI A300 standard, the tree is removed. On occasion, Tampa Electric has replaced a tree with a more suitable tree at Tampa Electric’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 web site 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 within and outside utility easements and rights-of-way utilize a variety of methods to determine the corrective actions to be taken on a case-by-case basis. On private properties, where tree and/or brush removal is required to complete the maintenance activity, the contractor or company representative is required to make every

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reasonable effort to secure permission of property owners prior to removing and/or chemically treating any trees or brush.

Tampa Electric's tree trimming practices, for trees that abut or intrude into easements and authorized rights-of-way, also utilize a variety of methods to determine corrective actions to be taken on a case-by-case basis. Specific to trees that intrude into easements and authorized rights-of-way, the contractor is required to make every reasonable effort to secure permission to trim these trees.

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

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

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

Most external based requests for tree trimming are routed to representatives in the company's Customer Service - One Source Department for input into the work order management system. Work orders are received by line clearance personnel or assigned to tree trim contractors for a field inspection. Once the field review is complete, proper action is taken to satisfy the customer request. These actions include communicating directly with the customer on-site or leaving a door hanger with detailed tree trimming information. In 2013, approximately 71 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 they impacted other utilities.



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### **9) 2014 Projected Activities**

For 2014, Tampa Electric has 144 dedicated distribution tree trim personnel throughout its seven service areas. These dedicated resources are broken out into two categories: proactive and reactive tree trim crews. The proactive tree trim crews are utilized for circuit tree trimming activities and consist of 124 personnel. The reactive tree trim crews consist of 20 personnel and are employed for hot spot trims, customer requested work, and work orders associated with circuit improvement process.

### **10) Local Community Participation**

Tampa Electric has increased its efforts toward effective vegetation management as part of a coordinated plan with local governments and communities. The relationship between tree conservation and appropriate utility line clearance preservation is a delicate balance. Tampa Electric, in conjunction with its local government and community partners, has developed tree-planting guides, which minimizes company trim activities. Moreover, Tampa Electric's Line Clearance Department holds periodic meetings with local governments and communities related to vegetation management.

During the fourth quarter 2013, Tampa Electric submitted its renewal application to the National Arbor Day Foundation's Tree Line USA Program and received endorsement in the first quarter 2014. This is the sixth consecutive year Tampa Electric has received the National Arbor Day Foundation's Tree Line USA Program designation.

Tampa Electric participated in several Arbor Day events. More than 200 trees and plants were installed by way of joint tree plantings with Tinker Elementary, MacDill AFB, City of Tampa, and City of Temple Terrace.

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Another 200 tree seedlings were donated to local municipalities to promote Tampa Electric's Right Tree, Right Place Program. Tampa Electric also participated in the City of Tampa's Urban Forest Sustainability Steering Committee as well as the Hillsborough County Tree and Landscape Advisory Committee.

### **11) Hazard Tree Program and Related Information**

Data collection related to hazard tree and "top for removal" program was incorporated into Tampa Electric's work order management system effective January 2007 to enhance future reporting capabilities. During 2013, Tampa Electric evaluated 159 potential hazard trees and "top for removal," resulting in the trees either being removed or trimmed.

### **12) Comparison with a Three-Year Program**

Tampa Electric's Vegetation Management Program continued its transition from a three-year program to a four-year program in 2013. At this time, the comparison data found in Docket No. 120038-EI, Order No. PSC-12-0303-PAA-EI, issued June 12, 2012 remains applicable.

### **13) Conclusion**

Tampa Electric has set forth an aggressive program to effectively operate and manage its overall Vegetation Management Program. Tampa Electric has continued to enhance the level of communication and coordination with local governments and communities. In 2013, Tampa Electric trimmed approximately one-fourth of its system. For 2014, the company will continue to operate in agreement with its four-year program.

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

#### **1) Overview**

In 2013, Tampa Electric's Joint Use Department continued to streamline processes in order to better manage attachment requests from attaching entities. A comprehensive pole loading analysis on all poles with joint use attachments that failed an initial load screening is being performed on 1,920 poles. In addition, Tampa Electric started a system wide pole attachment audit that is set for completion by June 2014. The company performed an internal audit of the Joint Use department in 2012 and the department was found to be operating in compliance in 2013.

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

There is an opportunity for unknown foreign attachments to exist on facilities and thereby place additional loading on the facility which may, in fact, create an overload situation. To help mitigate 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 Tampa Electric 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 attaching any cable to its facilities. During 2013, Tampa Electric reviewed all known attachment records and verified that the company has joint use agreements with all attaching entities. Tampa Electric has a total of 31 joint use agreements with attaching entities.

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

The Joint Use Department streamlined processes to better manage attachment requests from attaching entities. The best way to mitigate storm related issues on poles with joint use attachments is to ensure the poles are not overloaded and meet the requirements of the NESC or Tampa Electric Standards, whichever is more stringent. All joint use agreements require attaching entities to apply for and gain permission to make attachments to Tampa Electric's poles. Tampa Electric implemented a process for receiving, reviewing and authorizing pole attachment applications in 2001. The company also made improvements in its notification processes through the National Joint Utilities Notification System. 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.

During 2013, the Joint Use Department processed 19 pole attachment applications for 193 poles. As a result, the company identified 33 distribution poles that were overloaded due to joint use attachments and no poles were overloaded due to Tampa Electric's attachments. Out of the 193 poles that were assessed through the pole attachment application process and the comprehensive loading analysis, there were 34 poles that had NESC violations due to joint use attachments and 24 poles with NESC violations due to Tampa Electric attachments. All poles with NESC

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violations were either corrected by adjustments to attachments, pole replacements or joint use entities' removal of the attachments in violation.

One area of concern has been the practice of over-lashed attachments (i.e., attaching to an existing attachment) being added to Tampa Electric's poles without prior engineering and authorization. In 2013, effort was made by third party "attachers" to notify Tampa Electric of poles planned for over-lashing. This is in alignment with the 2010 stipulation agreement, which continues in force today; between Tampa Electric and its attaching entities whereby the attaching entities agreed to submit notification of all proposed over-lashed attachments.

#### **4) Initiatives that Align with Tampa Electric's Pole Inspection Program**

In 2008, two initiatives associated with Tampa Electric's pole inspection program were implemented. These initiatives are the Comprehensive Loading Analysis and the Pole Attachment Audit. For 2013, poles were screened during the pole inspection program to identify those potentially overloaded. The poles screened included those with joint users attached. A comprehensive loading analysis will be performed by the engineering department to determine if overloading exists. If any pole is found overloaded, the engineering department will design and create a work request to make the necessary correction. Corrective actions to be taken include pole replacement, guying, or the pole could be upgraded to the appropriate strength level by installing an E-T Truss.

In the fourth quarter of 2013 Tampa Electric started a system wide pole attachment audit. The pole attachment audit is set to be completed by June 2014. The main benefit of performing the audit is the identification of unauthorized attachments. This allows Tampa Electric to perform the

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engineering and loading analysis on these poles to ensure that all loading requirements are met.

### **5) Conclusion:**

In 2013, Tampa Electric's Joint Use Department continued improving the processes necessary for attaching entities to attach to its poles as well as the Comprehensive Loading Analysis initiatives and initiated a Pole Attachment Audit.

## **C) Initiative 3: Six-Year Inspection Cycle for Transmission Structures**

### **1) Overview**

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

The 2014 budget for the ground line inspection, aerial infrared patrol, ground patrol, and above ground inspection is \$848,900.

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

Tampa Electric has implemented a ground line inspection program that complies with the Commission's order requiring ground line inspection of wooden transmission structures. In addition, Tampa Electric included provisions in the ground line inspection program to identify deficiencies with non-wood structures. Ground line inspections are performed on an eight-year cycle. At a minimum, each year approximately 12.5 percent of all transmission structures are scheduled for inspection.

Since the eight-year cycle for ground line inspections was completed ahead of schedule in 2012, no ground line inspections were performed in 2013.

The second cycle of ground line inspections will begin in 2014 and 3,216 transmission poles are scheduled to be inspected with a budget of \$116,300. This represents approximately 12.5 percent of the company's transmission system.

### **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 2013, all 230 kV, 138 kV and 69 kV circuits were patrolled by ground at least once. The cost for the 2013 ground patrol was \$229,800.

For 2014, 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

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completed by the end of 2014. Transmission circuits are typically scheduled to be patrolled by level of criticalness, with the most critical circuits patrolled first. The budget for the ground patrol inspections is \$326,700.

### **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. This inspection also identifies system deficiencies such as broken cross arms and visibly damaged poles. Since many of these structures are on limited access rights-of-way, this aerial inspection provides a frequent review of the entire transmission system and helps identify potential reliability issues in a timely manner.

In 2013, the infrared patrol was performed on 100 percent of the transmission circuits. The cost for the 2013 aerial infrared patrols was \$75,800.

For 2014, Aerial Infrared patrol is planned for all transmission circuits at a cost of \$77,000.

### **5) Above Ground Inspection**

Above ground inspections are performed on transmission structures on a six-year cycle; therefore, each year approximately 17 percent or one-sixth of transmission structures are inspected. This inspection is performed by a



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contractor specializing in above ground power pole inspection and may be performed by climbers, bucket truck or helicopter. 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 2013, above ground inspections were performed on 5,199 structures, or approximately 20 percent of the system, comprising 39 circuits. The cost for the 2013 above ground inspection was \$268,200.

Of the 20 percent inspected, 13 percent of the structures inspected were carryover inspections from 2012, with the remaining seven percent related to the scheduled 2013 inspections. At the end of 2013 Tampa Electric is approximately nine percent behind the cumulative above ground inspection cycle total. The plan is to spread this difference across the remaining four years left in the six year inspection cycle, raising the annual scheduled inspection percentage from 17 to 19 percent of the total transmission system.

For 2014, above ground inspections are planned for 5,100 transmission structures with a budget of \$ 344,000. This represents about 19 percent of the company's transmission system.

### **6) Substation Inspections**

Substation inspections consist at a minimum of an annual inspection of all transmission substations as well as dissolved gas analyses. These inspections identify equipment deficiencies and the information is entered

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into a maintenance database. The database is reviewed by management for prioritization and facilitation of the remediation process across Tampa Electric's system.

In 2013, substation inspections were performed on all transmission substations.

For 2014, 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 construction 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 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 its 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. The company is also actively replacing insulators that have deteriorated over time with new polymer insulators.

#### 2) 2013 Activity

In 2013, Tampa Electric hardened 1,093 structures at a cost of \$13.2 million. This included 866 pole replacements with steel or concrete poles and 227 sets of insulators replaced with polymer insulators.

Additionally, as part of the LiDAR surveying (in response to NERC's October 7, 2010 alert) Tampa Electric performed corrective procedures by reconfiguring and hardening 88 structures. This consisted of 43 pole replacements and 29 sets of insulators. In addition to the structures that were replaced or reconfigured, 16 new poles were installed. With the installation of the new poles, span lengths were shortened between the existing poles thus reducing the wind loading on the structures. The 2013 LiDAR corrective procedures were completed at a cost of \$ 2.4 million.

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### **3) 2014 Activity**

For 2014, Tampa Electric plans to harden 805 transmission structures as a part of the pole inspection and maintenance program with a budget of \$12.2 million. This includes 705 structure replacements with steel or concrete poles and 100 sets of insulators replaced with polymer insulators.

Tampa Electric also plans to review 26 circuits as a part of the LiDAR corrective maintenance program with a budget of \$3 million.

## **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 2013, a major upgrade of the system began and will include updating the computing hardware running the system, updating the software version to the most current available and updating the database to the most current available. The upgrade is scheduled to be implemented in the first half of 2014.

Technology that may be implemented to ensure compliance with FAC 003-2 is being evaluated based on how much integration into GIS is possible. 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.

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In 2013, an enhancement to GIS was implemented that expanded the use of Tampa Electric's legacy grid numbering system for facilities in the field. The original GIS vendor was engaged to perform this project.

Beginning in the fourth quarter of 2012, work began on a major upgrade of the GIS. The work in 2012 consisted of reviewing, analyzing and assessing the current system. The original GIS vendor was engaged to provide Tampa Electric with an assessment of the current GIS and environment and to assist in the overall upgrade.

An ongoing activity is the improvement of the functionality of the GIS. User improvement requests are forwarded to the GIS User's Group, which meets regularly to review, evaluate and recommend enhancements for implementation.

### **2) Conclusion**

Tampa Electric has fully integrated GIS into its 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 the first half of 2014, a major upgrade of the system is scheduled to be implemented.

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

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

Tampa Electric has continued its relationship with its outside consultant to perform the post-storm forensic analysis. Its purpose is to determine the root cause of storm damage after a major storm.

### 2) Establishment of Forensics Measurements

The consultant used the company's existing data sources and built a database of distribution and structures and facilities on a geographic basis (service areas). It was the responsibility of the consultant to collect the data, catalog and produce the database prior to Tampa Electric's 2007 storm season. This was needed to have 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. Therefore, 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 leaning and pole breaking. 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.

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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 2007, Tampa Electric and its consultant established a database of the company's distribution assets that will be used for post-storm forensic analysis. Tampa Electric provided initial raw data to the consultant for construction of the pole database.

The pole database 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, tree trimming cycles by area and a number of other important factors and variables used for forensic analysis.

The 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

As a severe storm approaches, typically the consultant will be put on notice when Tampa Electric activates its Incident Command System. 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 one day prior to landfall to be ready for data gathering as soon as it is safe after the storm passes. The decision to mobilize the consultant will be made by the company in conjunction with the decision to mobilize foreign crews for restoration work.

Prior to data collection, the consultant 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



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- Equipment - type of damage, overhead or underground, 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 PC 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 Electric's system to facilitate easy data entry for field personnel and ensure consistent information for later analysis.

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

Tampa Electric will work with the consultant to perform the initial 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 also direct the areas in which samples should be collected. The consultant will use weather reports and wind data from throughout the storm area to analyze the wind forces Tampa Electric facilities encountered during the storm.

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### **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 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**

Tampa Electric has developed a process to gather the necessary data following a significant storm. This data will be used to determine the root cause of damage after a storm event. In 2013, \$5,000 was spent using a contractor to improve the field data model. In 2014, 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 contractor.

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

**1) Overview**

Tampa Electric was not impacted by any storms in 2013. Should a major weather event occur in 2014, the company believes it has an established process in place for collecting post-storm data and forensic analysis. 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 2013 activities with local governments in support of ongoing programs, storm preparation and plans for 2014. This information is also represented in the matrix provided in the Appendix D.

**1) Communication Efforts**

Tampa Electric strives daily to maintain excellent communications with the local governments within its service territory. These communications are carried out by specifically assigned personnel from its Community Relations Department and TECO Emergency Management to each of the local governments served. These Tampa Electric representatives engage in ongoing discussions with local officials regarding critical issues such as storm restoration, underground conversions and vegetation management. Tampa Electric is committed to improving these relationships even further and will increase coordination in a number of key areas.

In 2013, Tampa Electric's communication efforts focused on working with local governments in preparing for emergency situations. Tampa Electric

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was invited to participate in several local government drills, as well as partnering in preparations for the International Indian Film Academy Awards in Tampa. Other communication topics in 2013 included updating governmental officials of the company's transmission line inspections, structural upgrades, and in new Federal NERC/FERC line clearance regulation changes.

Community focused communications for 2013 included hurricane season news releases at the beginning of hurricane season to all the major media outlets in the service area. All releases were also posted on Tampa Electric's web site. Hurricane guides were published in the major newspapers – the Tampa Tribune, Lakeland Ledger and Winter Haven News Chief.

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

For 2013, joint workshops and training with governmental officials and Tampa Electric included joint storm exercises with Hillsborough and Polk County's Emergency Management teams. Also, Tampa Electric participated with Hillsborough County in their Post Disaster Redevelopment Plan Project – involving both government and businesses who will have major roles in the areas recovery after a disaster. These committees cover topics such as temporary housing, economic recovery and infrastructure repair and replacement. In addition, the company played a key role in a new strategic task force that has the goal of improving emergency response to vulnerable populations.

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

There were no full Emergency Operations Center (“EOC”) activations in 2013, only a partial activation by Hillsborough County due to Tropical Storm Andrea. Tampa Electric continues to work with local governments to streamline the flow of information that is helpful to both the company’s and local government’s efforts to restore all services as quickly as possible. Prior to June 1 of each year, the company’s Emergency Response Plan is reviewed and updated to ensure that company representatives to local EOCs are in place and trained in the event of EOC activation.

### **4) Search and Rescue Teams – Assistance to Local Government**

There was no activity to report in 2013, but the company’s Emergency Response Team was briefly activated in June as a result of Tropical Storm Andrea. Tampa Electric, however, maintained a staff of lineman and vehicles ready to assist local Fire Departments with Search and Rescue Activities if called upon. The team was ready to support in advance of Tropical Storm Andrea.

### **5) Tree Ordinances, Planting Guides and Trim Procedures**

In 2013, Tampa Electric Line Clearance personnel communicated with municipal officials on several projects. Some of these projects included providing guidance to Plant City’s Planning Board on changes to their landscaping ordinance, and covered issues including Right-of-Ways landscaping issues as well as assisting in the production of public information shows for radio and television.

In 2014, the company’s Manager of Vegetation Management and Inspections will continue to work with Community Relations staff to offer

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meetings with local government's Public Works supervisory staff on how Tampa Electric can best work with city staff in pre- and post-storm events and to better coordinate the company's tree trimming procedures with governmental ordinances.

### **6) Underground Conversions**

In 2013, the Dana Shores Civic Association continued to work with Hillsborough County to create a Municipal Service Benefit Units Ordinance. The ordinance would allow for neighborhoods to set up self-elected taxing districts that would fund capital upgrade through annual ad valorem taxes. Employees of Tampa Electric attended several meetings with officers of the association, county officials, as well as regular association meetings to provide assistance. Estimates for the project have been presented jointly by the association's officers and Tampa Electric employees to the County Planning Commission Staff. Efforts are still underway with Hillsborough County to set up a special taxing district specifically for funding this project.

### **7) Planned Activities in 2014**

Tampa Electric will continue to train its EOC representatives and designated search and rescue personnel. In 2014, Tampa Electric will continue to focus its government communications efforts to provide governmental officials with the company's Emergency Response contacts and review the company Emergency Response Plan. Tampa Electric will continue communicating storm preparedness information to customers through the annual media pre-hurricane season press release. For 2014, workshops and open dialogue among stakeholders are planned.

**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

February 2014

**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 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 Project Sponsors) to

**Tampa Electric Company**

**March 2014**

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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). This MOU was recently extended by the Research Collaboration Partners through December 31, 2015.

PURC manages the work flow and communications, develops work plans, serves as a subject matter expert, conducts research, facilitates the hiring of experts, coordinates with research vendors, advises the Project Sponsors, and provides reports for Project activities. 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 2013.

### **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. Since the state has not been affected by any hurricanes since the database software was completed, there is



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currently no data. Therefore, future efforts to refine the undergrounding model will occur when such data becomes available.

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 wind speed and other environmental factors on utility equipment damage. PURC has also been contacted by engineering researchers at other universities with an interest in the model, though no additional relationships have been established. In addition to universities, PURC was contacted by researchers at the Argonne National Laboratory who expressed interest in modeling the effects of storm damage. The researchers ultimately chose to develop a deterministic model, but did use many of the factors that the Collaborative have attempted to quantify. Every researcher that contacts PURC cites the model as the only non-proprietary model of its kind.

The research discussed in last year's report on the relationship between wind speed and rainfall is still under review by the engineering press. Further results of this and related research can likely be used to further refine the model.

### **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

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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, the wind, temperature, and barometric pressure data being collected at these stations is being made available to the Project Sponsors on a complimentary basis.

### IV. Public Outreach

In last year's report we discussed the impact of Hurricane Sandy on greater interest in storm preparedness. PURC researchers discussed the collaborative effort in Florida with the engineering departments of the state regulators in Pennsylvania, Maryland, New York, and New Jersey. 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.

On April 15, 2013, the *Wall Street Journal* published a special section entitled 'Big Issues: Energy' which featured authors promulgating the "Yes" or "No" position to various questions surrounding the energy industry. One of those questions was "Should Utilities Be Required to Bury Power Lines to Protect Them?", and the editors of the *Journal* asked PURC Director of Energy Studies Ted Kury to contribute the "No" position. In October, Kury and Dr. Roger Anderson of Columbia University (who had provided the "Yes" position), revisited their print debate as the keynote session of the 2013 EEI/NRECA Utility Siting Workshop in Richmond, Virginia.

## V. 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) 2013 Emergency Management Summary

In 2013, Tampa Electric worked with the local governments it serves to further enhance dialogue and seek opportunities to partner in training. As in the past, the company provided its communities with public service information at the beginning of storm season via local news media. During the Hillsborough County storm exercise, the Tampa Electric Emergency Response and Corporate Public Information Officers tested the response and communication plan.

Prior to June 1, 2013, all emergency support functions were reviewed, personnel trained and ICS Logistics and Planning Section plans were tested.

In January 2014, the company Emergency Response Plan was reviewed.

#### 2) 2014 Emergency Management Activities & Budget

The 2014 Emergency Management budget of \$428,000 will be used to finance human capital and preparedness resources (i.e., emergency

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notification system, weather services, resilience management product, etc.), including internal and external training and exercises to test plans.

Tampa Electric will continue the following initiatives:

- Continue to hold a Tampa Electric Emergency Preparedness Fair with representation from government agencies, and support three additional external county fairs.
- Conduct an internal Emergency Management Summit
- Support the Florida Business and Industry Summit
- Lead the Florida Citizen and Business Response Teams (CERT/BERT) GIS project
- Continue training over 40 Tampa Electric certified emergency response team members
- Participate in local, state and national emergency management and business continuity forums
- Continue to participate in the Southeast Electric Exchange Logistics Committee
- Continue supporting Hillsborough County in communicating the national flood insurance to county residents
- Support the Hillsborough County Post Disaster Recovery Plan Exercise Planning Team and help facilitate the 2014 PDRP Leadership Exercise; State Division of Emergency Management and Department of Homeland Security (“DHS”) in participation
- Continue to participate in the DHS Protective Security Advisor Program by working through the local Urban Area Security Initiative; supporting the international Bollywood event, if it is held in Tampa (currently scheduled for April 24-26, 2014)

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- Host one of ten DHS Security Meetings regarding Electric Subsector physical security. (January 21, 2014)
- Support community preparedness through participation in various government committees (e.g., Maritime Security, Florida Department of Law Enforcement, Regional Domestic Security Task Force), and activate as necessary during major community events
- Continue planning with the Hillsborough County Department of Health on the Cities Readiness Initiative; pandemic and bio-terrorism emergency response
- Continue to provide leadership (Vice Chair) in the Hillsborough County Local Mitigation Strategy group
- Continue to chair the Hillsborough County PDRP Infrastructure Technical Advisory Committee
- Participate in public/ private storm related exercises
- Continue to conduct all-hazards internal preparedness exercises and training sessions using the company ICS model to test plans

Tampa Electric has not identified any barriers to success in the above mentioned areas.

### **3) 2013 Energy Delivery Emergency Management**

In 2013, the Energy Delivery department of Tampa Electric was involved in many activities throughout the entire storm season. The department facilitated training sessions in various locations to include roles and responsibilities before, during, and after storm activation. The Emergency Management Coordinator visited various safety meetings throughout Energy Delivery to discuss employee preparedness and storm assignments.

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In April 2013, Energy Delivery facilitated a decentralized functional exercise consisting of a review of functional requirements and three storm interval scenarios. The eight-hour event was based on a Category 3 hurricane with sustained winds of 100 - 115 mph with a storm surge of 11 feet which impacted Hillsborough County. Each scenario was preceded by an Energy Delivery conference call that included other key employees across the company. As a result of the exercise, 66 actions items were identified for follow-up and lessons learned. All action items were followed up on and implemented.

In 2013, Tampa Electric reviewed sites for incident bases and staging sites which ensure primary and backup locations for distribution, transmission, and materials. Throughout Tampa Electric's service territory, the company is constantly developing and maintaining relationships with property owners for potential incident bases and staging sites. Additionally, logistical needs and equipment requirements were reviewed for each incident base site.

Energy Delivery reviewed existing purchase orders and contacted contractors who would assist the company with restoration efforts.

In 2013, Energy Delivery participated in numerous conference calls with other Southeastern Electric Exchange utilities regarding rain, wind, and ice events. The company's participation in these calls was to offer mutual assistance to a requesting company needing restoration support. Tampa Electric resources were deployed through mutual assistance groups three times in 2013 to assist other electric utilities as a result of ice and wind events.

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

### **4) 2014 Planned Activities**

Energy Delivery will continue to pursue additional incident base and staging sites as backup locations. Service area managers and incident base leaders will maintain relationships with property owners of existing sites and locations.

Energy Delivery will conduct a mock storm drill in the second quarter of 2014 to include key employees across all levels of the company. The plan is to practice a hurricane making landfall on peninsular Florida. Various scenarios will be injected throughout the exercise. Follow-up items and lessons learned will be recorded.

Prior to hurricane season, 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.

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

Tampa Electric's 2013-2015 Storm Hardening Plan was approved by the Commission in Docket No. 130138-EI, Order No. PSC-13-0640-PPA-EI, issued December 3, 2013. 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

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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 so as 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 2013 a total of 14 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 mostly of 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 foot of office space. The Marion Street substation serves the downtown network with six underground distribution circuits.



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The downtown network consists of 361 manholes and 56 network vaults. Most contain two network transformers and two network protectors. In 2013, a total of 82 network protectors were tested and three units were replaced. 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) 4 kV Conversions**

Tampa Electric has converted all 4 kV distribution circuits as part of its hardening plan. The distribution system voltage is now uniform (13.2 kV), which reduces the amount of required inventory and removes any uncertainty about distribution voltages for operation personnel..

### **4) Extreme Wind Pilot Projects**

As part of Tampa Electric's previous storm hardening plans, the company upgraded the distribution systems for two critical facilities in its service area, namely, the Port of Tampa and Saint Joseph's Hospital. The Port of Tampa delivers 40 percent of the gasoline consumed in the State of Florida. Saint Joseph's Hospital is a Level 2 Trauma Center centrally located in Tampa. The upgrade activities for these two facilities were pilot projects designed to harden their distribution systems to extreme wind criteria.

In 2013, Tampa Electric hardened the two distribution circuits to the City of Tampa Tippins Water Treatment Plant. This plant serves 95 percent of the daily water consumed by the City of Tampa water customers. This activity included upgrading one circuit to extreme wind criteria, upgrading the other

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circuit to current standards and modifying the feed into the plant from overhead to underground. In addition, animal protection was added to the substations where the circuits originate and circuit breakers and relays for both circuits were replaced.

Tampa Electric will monitor the behavior of this hardened location before and after a hurricane event to determine the effectiveness of these types of hardening efforts and their appropriateness for broader system deployment.

### **5) Underground Equipment Construction Standard**

Tampa Electric's standard requires the use of stainless steel transformers and switchgear. Tampa Electric will continually evaluate and implement reliable and economical options that improve the performance of all underground installations exposed to saturated conditions.

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

Tampa Electric has met with third party attachers to discuss the hardening projects identified in the company's Three-Year Storm Hardening Plan. Meetings have taken place in the field and coordination discussions have been ongoing. Documentation and follow-up are integral to the process. Conflicts that have been brought to Tampa Electric's attention are being reviewed and addressed. Overall, the coordination with third party attachers has been positive and productive.

**SECTION II - Storm Season Ready Status**

**A) Storm Season Ready Status: 2013 Accomplishments**

**1) Transmission**

In 2013, 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 six-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.

Also in 2013, Tampa Electric hardened 1,035 structures that included 866 pole replacements utilizing steel or concrete poles and 227 sets of insulators replaced with polymer insulators.

Additionally, as part of the LiDAR surveying (in response to NERC's October 7, 2010 alert) Tampa Electric performed corrective procedures by reconfiguring and hardening 88 structures consisting of 43 pole replacements and 29 sets of insulators. In addition to the structures that were replaced or reconfigured, 16 new poles were installed. With the

## **2013 Storm Implementation Plan and Annual Reliability Reports**

installation of the new poles, span lengths were shortened between the existing poles thus reducing the wind loading on the structures.

Combining the totals from both programs Tampa Electric hardened 1,181 structures including 925 structure replacements and 256 sets of insulators.

### **2) Vegetation Management**

In 2013, Tampa Electric continued to maximize the effectiveness of its vegetation management efforts relative to storm season. All 230 kV and 138 kV transmission lines as well as priority 69 kV tie 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 2013, have better prepared Tampa Electric for future storm seasons.

### **3) Updated and Reviewed Circuit Priority**

In 2014, Tampa Electric will continue working with all the EOCs in the review and update of the restoration priorities following the established procedures. In 2013, the Hillsborough County Critical Facilities Index ("CFI") Working Group was reunited on a quarterly basis to review CFI and to include other key stakeholders (i.e., water, dams, etc.).

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### **4) Capacitor Maintenance Program**

In support of maintaining balanced voltage to both the transmission and distribution systems and in maintaining the interconnection with Tampa Electric's neighbors, the company continued its capacitor maintenance program in 2013. The company remotely monitored capacitor banks and when apparent problems were identified, a Tampa Electric field crew was dispatched to resolve any operational problems. In 2013, the company conducted field visits for 616 capacitor banks and made repairs as needed.

### **5) Increased Equipment Inventory**

The company reviewed and increased its storm inventory prior to the 2013 hurricane season. The stock increase secured a full four-day supply of overhead distribution materials such as splices, fuses, connectors, service clamps, brackets, wire, poles, transformers, etc. The company has procurement contracts in place that provide for additional supplies being delivered within four days of landfall and it will replenish required stock for the duration of a major restoration event.

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

In 2013, Tampa Electric continued its communication efforts focusing on maintaining vital governmental contacts and participation on standing disaster recovery planning committees. Tampa Electric was invited to participate in several Hillsborough County led initiatives, focusing on joint efforts to identify temporary housing, rebuild infrastructure and revive the area's economy in the aftermath of a disaster. These committees are standing committees and will continue to meet. Tampa Electric also participated in joint mock exercises with Hillsborough and Polk County Emergency Management personnel prior to the 2013 hurricane season.

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

Tampa Electric worked with local business owners and officials to make sure that the company had incident bases in each service area. In 2013, the company renewed existing agreements for primary sites and secured back-up locations as an additional contingency. Incident bases are needed to provide logistical bases for visiting crew operations including staging of material, trucks, meals, and work order assignments.

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

In April 2013, Energy Delivery facilitated a functional exercise which included key employees from all levels and departments across the company. The eight-hour event was based on a Category 3 hurricane with winds of 100-115 mph and a total surge of 11 feet which impacted Hillsborough County. As a result of the exercise, 66 action items were addressed and lessons learned were implemented.

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

In 2013, Tampa Electric continued its relationship with its outside consultant for performing post storm forensic analysis. 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) **Storm Hardening**

See Section K for update to this section.

### **B) Storm Season Ready Status: 2014 Planned Activities**

#### **1) Program Summary**

Tampa Electric's Storm Season Readiness preparation focuses on a number of areas including pre-storm transmission inspections and maintenance, wood pole inspections and replacements, vegetation management, capacitor maintenance, local government interaction, increased equipment inventory, circuit priority reviews and hurricane preparation exercises.

#### **2) Transmission Inspections and Maintenance**

In preparation for the 2014 storm season, Tampa Electric will perform above ground inspection of approximately 5,100 transmission structures. Additionally, all 230 kV, 138 kV and 69 kV circuits will be patrolled by ground at least once prior to the peak of hurricane season. Tampa Electric plans to change out approximately 705 wood transmission poles throughout the year with steel or concrete structures. Also, Tampa Electric intends to replace approximately 100 sets of insulators with polymer insulators with much of this work being completed prior to the peak of hurricane season.

Tampa Electric also plans to review 26 circuits as a part of the LiDAR corrective maintenance program. This work will consist of structure replacement and reconfiguration as well adding new structures as necessary. Due to the nature and variability of this work, it is difficult to provide an accurate estimate of structures that will be hardened as part of the LiDAR program.

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### **3) Pole Inspections**

The 2014 Ground-line Pole Inspection Program goal includes 49,000 distribution and lighting pole inspections. The future inspections coupled with the company's pole replacement program will enhance the storm resiliency of Tampa Electric's distribution system.

### **4) Capacitor Maintenance Program**

For 2014, the company will continue monitoring and maintaining capacitor banks. In preparation for summer peak loads, and in anticipation of the significant impact of summer storms on workforce availability and capacitor failure rates, Tampa Electric is taking an aggressive effort to make capacitor bank repairs during the spring of 2014. Repairs during the summer are generally limited to an as needed basis. Regularly scheduled repairs will continue in the fall as the need and weather permits. In 2014, the company estimates that approximately 650 capacitor banks will be field visited and repaired, as needed.

### **5) Communication with Local Governments**

Tampa Electric has and will continue to meet with various governmental agencies to enhance communication and coordination of emergency and vegetation management as well as provide education on coordinating and facilitating underground conversions to the extent that these inquiries occur.

### **6) Increase Equipment Inventory**

As was the case in 2013, the company will review and increase storm stock in 2014 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



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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**

In 2014, Tampa Electric will continue working with all the EOCs in the review and update of the restoration priorities for the areas the company serves.

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

Energy Delivery will conduct a mock storm drill in the second quarter of 2014 to include key employees across all levels of the company. The plan is to practice a hurricane making landfall on peninsular Florida. Various scenarios will be injected throughout the exercise. Follow-up items and lessons learned will be recorded.

### **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.

**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 Florida Public Service Commission for Florida investor-owned electric utilities to harden the electric system against severe weather and unauthorized and unnoticed non-electric pole attachments which affect the loadings on poles.

This inspection program complies with Order No. PSC-06-0144-PAA-EI, issued February 27, 2006 in Docket No. 060078-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 strength requirements of NESC.

**2) Inspection Cycle**

Tampa Electric performs inspections of all wood poles on an eight-year cycle. Tampa Electric has approximately 395,350 distribution and lighting poles and 25,700 transmission poles appropriate for inspection for a total pole population of approximately 421,050. 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.

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### 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 if required.

#### a) Inspection in Conjunction with Other Field Work

As part of day-to-day operations, personnel are sometimes required to climb poles to perform different types of field work. Prior to climbing any pole, personnel will make an assessment of 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.

#### b) 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 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 has passed the initial visual inspection, the balance of the required inspection method will be performed.

#### c) 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

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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.

### **d) 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 determined.

For a pole in concrete or pavement where excavation is not possible, Tampa Electric will utilize the Osmose Utility Services, Inc. shell boring technique. This will consist of boring two 3/8 inch holes at a 45-degree angle to a depth of 16 to 18 inches below ground level. The technician will determine the pole strength by the resistance while drilling. Upon withdrawing the drill bit, the technician will examine the condition of the wood shavings to determine whether decay is present. All borings shall be plugged as previously described.

### **e) Hardware Inspection**

The inspector shall inspect all of Tampa Electric's guying, grounding provisions, and hardware that is visible from the ground.

### **f) 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

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identifying any preservative treatments applied and the date of application.

### **g) Pole Attachment/Loading Analysis**

In some circumstances, Tampa Electric will conduct a pole loading data collection and analysis as part of the ground-line inspection. The analysis will ensure that the condition of the pole meets the requirements in Table 261-1A of the NESC. The analysis will not be performed on poles having only Tampa Electric attachments since these facilities were addressed in the original design.

### **h) Data Collection**

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

## **4) 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 reinforced. Poles with advanced decay shall fail the inspection and be replaced.

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### 5) Routing of Inspections

#### a) Distribution

Tampa Electric's distribution system is a radial system with many laterals and service drops. The company has determined the most cost-effective and reasonable approach for routing the work of the annual inspection program is by geographic location. Therefore, inspectors will be given an area that is defined by specific boundaries and distribution and lighting poles within that area will be systematically inspected.

#### b) Transmission

Tampa Electric's transmission system is primarily a network system with few laterals. 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.

### 6) 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.

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### **7) Standards Superseding NESC Requirements**

Tampa Electric's Wood Pole Ground-line Inspection Program complies with NESC requirements.

### **8) 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.

### **9) Reporting**

Tampa Electric will file an annual Pole Inspection Report by March 1 of each year in full accordance with the reporting requirements set forth in Docket No. 070634-EI, Order No. PSC-07-0918-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.

### **10) 2013 Accomplishments**

Tampa Electric's Ground-line Pole Inspection Program was conducted by three contracted crews and one supervisor who inspected a total of 49,362 poles which was 186 inspections above plan. The pole failure rate for distribution and lighting was 17.3 percent due to the vintage of poles inspected. Of these failures, 0.50 percent was reinforced; therefore, the

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overall distribution and lighting wooden pole replacement rate was 16.8 percent. Tampa Electric's spending levels for the Ground-line Pole Inspection Program, which included distribution and lighting pole reinforcements, exceeded \$1.4 million.

The 2013 Ground-line Pole Inspection Program results include:

- 49,176 planned distribution and lighting pole inspections with 49,362 completed.
- 0 planned transmission poles inspections with 0 completed.
- 49,176 planned distribution, lighting, and transmission ground-line pole inspections with a total of 49,362 completed.

Expenditures for the 2013 Ground-line Pole Inspection Program include:

- Distribution and lighting ground-line pole inspections - \$1.4 million.
- Transmission ground-line pole inspections - \$0.
- Distribution and lighting pole reinforcements - \$109,300.
- Inspection-related distribution and lighting maintenance - \$32,300.

### **11) 2014 Activities and Budget Levels**

For 2014, Tampa Electric will start the year with three contractor crews and one supervisor in place. Pole inspection targets by service area are established with a goal of completing approximately 12.5 percent of the system.

The 2014 Ground-line Pole Inspection Program goals include:

- 49,176 distribution and lighting pole inspections
- 3,216 transmission pole inspections



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- 52,392 total distribution, lighting, and transmission ground-line pole inspections

Established funding levels for the 2014 Ground-line Pole Inspection Program are:

- Distribution and lighting ground-line pole inspections - \$1.4 million.
- Transmission ground-line pole inspections - \$107,200.
- Distribution and lighting pole reinforcements - \$100,000.
- Inspection-related distribution and lighting maintenance - \$34,000.

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.

### **12) Chromated Copper Arsenate Pole Inspections**

In Docket No. 080219-EI, Order No. PSC-08-0615-PAA-EI, issued September 28, 2008 the Florida Public Service Commission approved a modification to Tampa Electric's Wood Pole Inspection 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.

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### SECTION IV - Rule 25-6.0455 F.A.C.

#### A) 2013 Reliability Performance

##### 1) Overview

Tampa Electric's 2013 distribution reliability indices, both adjusted and actual, represented mixed results in comparison to 2012. The company saw a diminished performance in the adjusted customer average interruption duration, the adjusted system average interruption duration, the adjusted and actual system average interruption frequency and in the adjusted and actual momentary average interruption frequency. However, there was an improvement for the actual system average interruption duration and the actual customer average interruption duration and the actual customer average interruption duration. CEMI5 measurements decreased for both the adjusted and actuals.

##### 2) Summary

Tampa Electric's Adjusted 2013 System Average Interruption Duration Index ("SAIDI") increased by 6.98 minutes over 2012 representing an 8.94 percent increase (7.91 minutes or 7.76 percent decrease – 2013 actual). Adjusted 2013 Customer Average Interruption Duration Index ("CAIDI") increased by 3.88 minutes over 2012 representing a 4.54 percent increase (9.52 minutes or 10.98 percent decrease – 2013 actual). Adjusted 2013 System Average Interruption Frequency Index ("SAIFI") increased by 0.03845 average events or 4.21 percent (0.04257 average events or 3.62 percent increase – 2013 actual). Adjusted 2013 Momentary Average Interruption Frequency Index Event ("MAIFIE") increased by 0.79544 events or 7.00 percent from 2012 (0.16492 events or 1.29 percent increase – 2013 actual).

## 2013 Storm Implementation Plan and Annual Reliability Reports

The modest fluctuations in the indices are attributed to Tampa Electric's use of its Schweitzer relays and controls in substations. During non-storm months these relays were temporarily disabled to reduce the number of momentary events customers would experience. However, this slightly increased the frequency of outages customers experienced due to faults being cleared by other protective fusing.

The primary causes associated with a total outage increase of 1,075 were attributed as follows:

- Lightning – 312
- Vegetation - 282
- Animals – 182
- Unknown – 113
- Electrical – 86
- Down Wire – 74
- Defective Equipment – 25
- Other Weather - 1

The primary causes associated with a total decrease of 105 attributed as follows:

- Bad Connection – 68
- All Remaining Causes – 28
- Vehicle - 9

When these primary causes are considered together, the net increase of 970 outages is realized.

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Overall outages increased in 2013 in comparison to 2012; the total number of outages in comparison to the last five-year average is also increased by 2.98 percent or 288 outage events. The 2013 outage causes in six of the eleven categories are up in comparison to the five-year average totals. Electrical, bad connection, other weather, defective equipment and all remaining causes decreased by 3.54 percent, 8.94 percent, 61.3 percent, 18.73 percent and 14.01 percent, respectively.

Tampa Electric currently tracks outage records in its outage database according to date, duration, customers affected, cause, equipment-type, associated field reports, breakers operations, etc., and uses this information to track and report inter-departmental, inter-company and external regulatory requests as required.

Tampa Electric management 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 MAIFIE and associated breaker operations, customer outages by system and region and major unplanned outages. In addition, management reviews the status of de-energized underground cables, oil circuit reclosers, online capacitor banks and street lights previously identified as needing maintenance.

In 2013, Tampa Electric management continued its increased focus on feeder restoration activity. As part of the semi-weekly review, feeder outage activity was reported and reviewed. Where outage duration exceeded acceptable thresholds, management reviewed incidents in pursuit of continued improvements with response time.

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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 2013, Tampa Electric customers experienced an increase in the number of outages, the system average interruption duration, customer average interruption duration, system average interruption frequency and the momentary average interruption frequency compared to previous years.

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

Tampa Electric experienced no outages due to generation events that would have impacted distribution reliability; as a result, there were no exclusions in the company's 2013 Annual Distribution Reliability Report related to generation outage events.

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

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

In 2013, there were 12 transmission outages that affected customers. This included five outages that were due to equipment failures, one outage due to vehicle collisions, three outages due to inclement weather and lightning, one outage do to vegetation, one outage with an unknown cause, and one outage due to animals. A total of 813,394 Customer Minutes of Interruption and 65,108 Customer Interruptions were excluded from the 2013 Annual Distribution Reliability Report per Rule 25-6.0455.

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### 2) **Equipment Failure Outages**

There were five outages attributed to insulator and cross arm failures. The repair or replacement of deficient insulators and cross arms has been identified and prioritized.

### 3) **Vehicle Collision Outages**

There was one outage attributed to structure failure due to vehicle collisions. No action items were identified.

### 4) **Human Error Outage**

There were no outages due to human error in 2013.

### 5) **Vegetation Related Outages**

There was one outage due to vegetation in 2013. The line patrolmen have been instructed to report vegetation growth that is in close proximity with the conductor. Once a location is identified, the Line Clearance department will be contacted to remove the overgrown vegetation.

### 6) **Clearance Outages**

There were no outages due to insufficient clearance in 2013.

### 7) **Cause Not Determined Outages**

There was one outage due to an undetermined cause in 2013. No action items were identified.

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### 8) Transmission Outage Detail

#### 69 KV Circuit

##### January 2013

**Date:** 1/31/2013

**Circuit:** 66016

**Customers Affected:** 6,738      **SAIDI Impact:** 4 seconds

**Discussion:** The cause of the outage was not determined. The circuit was returned to service.

**Event:** Localized

##### February 2013

**Date:** 2/7/2013

**Circuit:** 66095

**Customers Affected:** 4,164      **SAIDI Impact:** 1 second

**Discussion:** Service was interrupted when insulators broke. The damaged insulators were replaced and the circuit was returned to service.

**Event:** Localized

##### March 2013

**Date:** 3/12/2013

**Circuit:** 66095

**Customers Affected:** 4,204      **SAIDI Impact:** 2 seconds

**Discussion:** Service was interrupted when lightning struck the circuit. No damage was identified and the circuit was returned to service.

**Event:** Localized

##### April 2013

**Date:** 4/18/2013

**Circuit:** 66042

**Customers Affected:** 5,754      **SAIDI Impact:** 2 seconds

**Discussion:** A cross arm broke and the conductor fell causing an interruption in service. The structure was repaired and the circuit was returned to service.

**Event:** Localized





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### August 2013

**Date:** 8/14/2013

**Circuit:** 66019

**Customers Affected:** 6,456

**SAIDI Impact:** 1 second

**Discussion:** Service was interrupted when lightning struck the circuit. No damage was found and the circuit was returned to service.

**Event:** Localized

**Date:** 8/18/2013

**Circuit:** 66011

**Customers Affected:** 2,791

**SAIDI Impact:** 1 second

**Discussion:** Service was interrupted due to inclement weather in the area. There was no damage observed and the circuit was returned to service.

**Event:** Localized

### October 2013

**Date:** 10/5/2013

**Circuit:** 66426

**Customers Affected:** 7,913

**SAIDI Impact:** 5 seconds

**Discussion:** Service was interrupted when a set of insulators broke. The insulators were replaced and the circuit was returned to service.

**Event:** Localized

### December 2013

**Date:** 12/10/2013

**Circuit:** 66658

**Customers Affected:** 440

**SAIDI Impact:** 2 seconds

**Discussion:** Service was interrupted when a pole was hit by a vehicle. The damaged pole was replaced and the circuit was returned to service.

**Event:** Localized

### 138 kV Circuit

None

### 230 kV Circuit

None

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### D) Extreme Weather

Tampa Electric experienced two extreme weather events during 2013 which affected the customers in the service territory. A tornado touched down and impacted the company's electric system on February 26, 2013 at approximately 11:05 AM and continued to affect customers until approximately 4:51 PM that same day. Tropical Storm Andrea began impacting the company's electric system on June 5, 2013 at approximately 9:11 PM and continued to affect customers until June 7, 2013 at approximately 3:39 AM.

These weather systems caused 196 outage events resulting in 18,628 Customer Interruptions and 2,353,769 Customer Minutes of Interruption impacting the electric system over the one and two day periods.

Of the 196 outage events experienced, 191 were attributed to the overhead system and the balance of 5 were attributed to the underground system. System outage duration (L-Bar) during these events was 241.8 (234.32 and 527.4 overhead and underground, respectively).

Methods used to determine exclusions for the thunderstorm were the same used in the 2004, 2005, 2007, 2011 and 2012 Annual Distribution Reliability Reports.

See Appendix for specific data pursuant to Rule 25-6.0455.

### E) Other Distribution – Adjustments

In 2013, there were 613 Other Distribution outages that affected customers. A total of 3,955,532 Customer Minutes of Interruption and 168,431 Customer Interruptions were excluded from the 2013 Annual Distribution

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Reliability Report per Rule 25-6.0455. All outages were attributed to planned events as noted within the 2013 Adjustments: Other Distribution in Appendix.

### **F) Distribution Substation**

#### **1) 2013 Distribution Substation Adjustments**

In 2013, there were 173 Distribution Substation outages that affected customers. A total of 6,283,728 Customer Minutes of Interruption and 150,269 Customer Interruptions were excluded from the 2013 Annual Distribution Reliability Report per Rule 25-6.0455. All outages were attributed to substation equipment as noted within the 2013 Adjustments: Distribution Substation in Appendix.

#### **2) Patterns and Trends - Distribution Substation Reliability Performance**

In 2013, Substation transformer failures contributed the most to SAIDI. To ensure the highest possible reliability of the transformer fleet as it continues to age, Tampa Electric reviewed and modified its maintenance practices to include such metrics as equipment age, load history, duty cycles, and past maintenance history when developing transformer maintenance profiles. In addition, Tampa Electric has been evaluating new monitoring equipment that has the potential to alert potential problems before they become serious issues.

In 2013, disconnect switch failure was the second leading contributor to SAIDI. Visual inspections as well as infrared inspections are being used for early identification of possibly faulty switches. These switches are then maintained or replaced as needed.

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The third leading contributor to SAIDI can be attributed to breakers that mis-operate, but these issues continue to trend lower year over year, with 2013 being the lowest in the past five years. Breakers that miss-operate are inspected, cleaned, lubricated, tested, and returned to service. The breaker reclosing relays are then tested. The most common causes of breaker miss-operations have been sticky mechanisms, defective closing coils and faulty reclosing relays. Outage analysis has revealed intermittent reclosing problems in specific types of breaker mechanisms and as a result, a Breaker Reliability program has been initiated to remove unreliable breakers from the system.

Since 2008, the total number of 13 kV circuit breakers that have been replaced through the program is 149. In 2013, 46 breakers were replaced as part of the Breaker Reliability program.

### **3) Tracking Distribution Substation Reliability**

All major substation equipment nameplate data and maintenance activities are tracked in an asset management database. All work orders, findings and corrective actions related to substation outages are added to the asset management database. Substation operations supervisors review the maintenance and outage history of equipment involved in outages on a daily basis.

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

The following are used to determine the actions to promote substation reliability:

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- Quarterly inspections of all substations
- Root cause analysis of each outage
- Annual review of all substation outages

Tampa Electric findings support the following ongoing activities:

- Review of all breaker miss-operations
- Installation of animal protection in substations
- Change out breaker mechanisms identified with chronic problems
- 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 13kV circuit breakers that have been identified as problem breakers

In addition to the above activities, Tampa Electric has implemented automatic bus restoration schemes in select stations with multiple transformers.

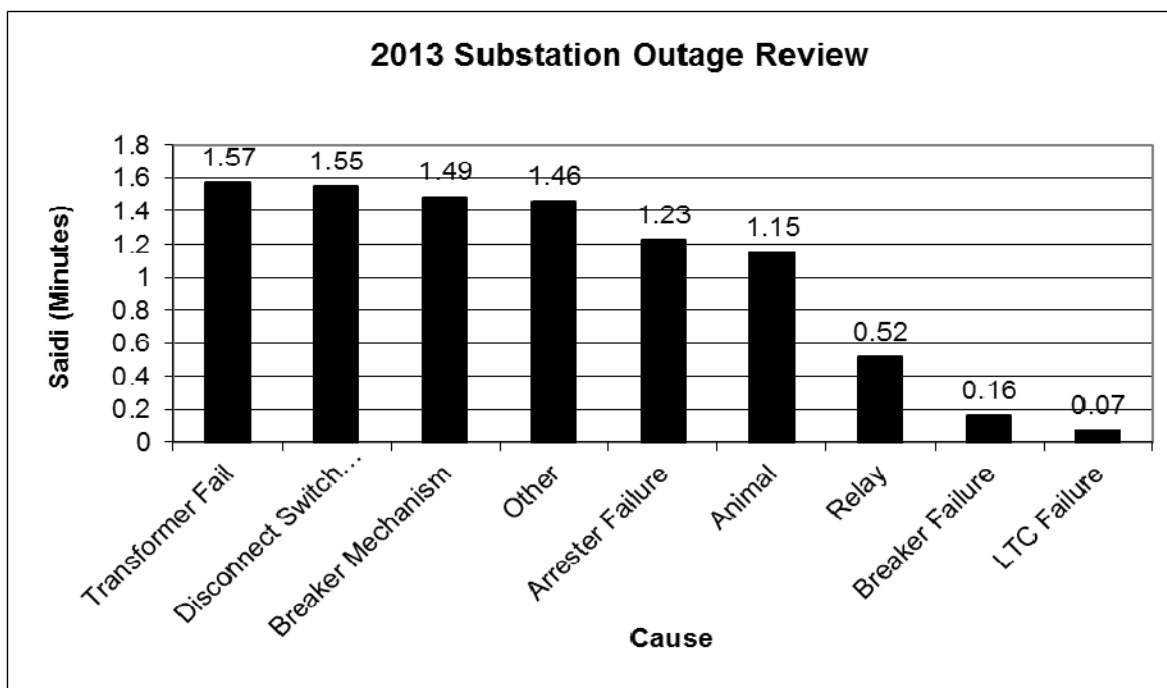
## 2013 Storm Implementation Plan and Annual Reliability Reports

The tables and exhibits that follow provide the performance results for distribution substations.

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

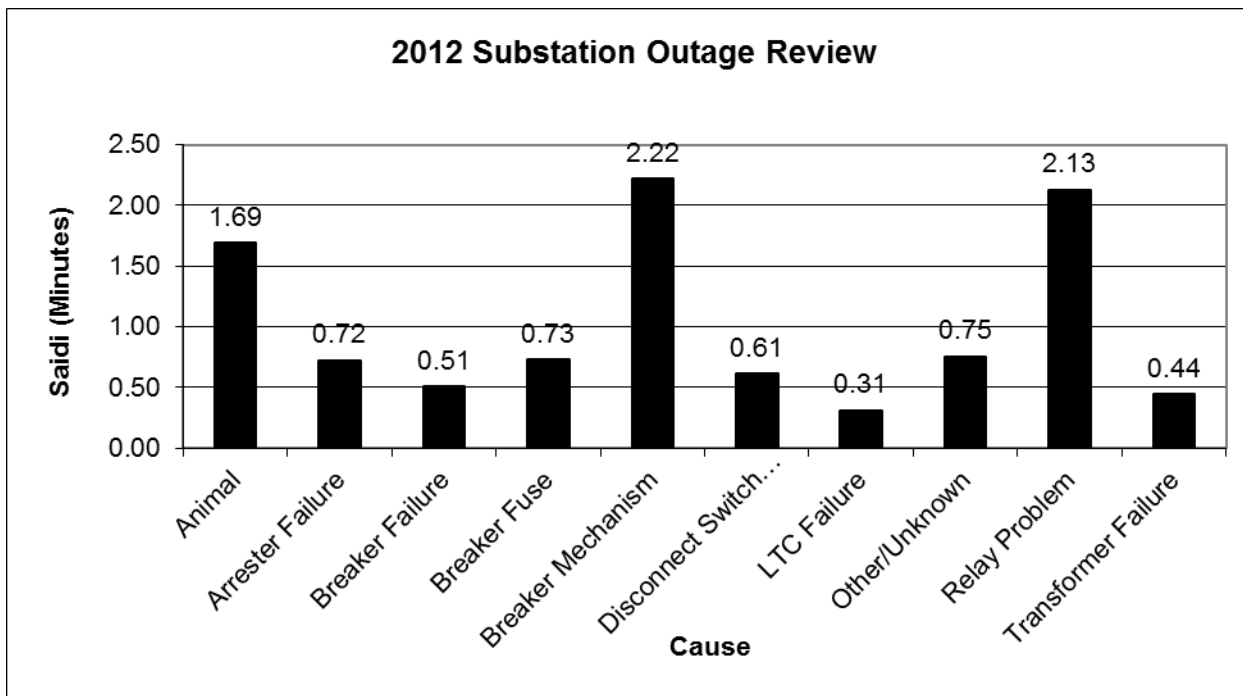
Year	Number of Distribution Substation Inspections
2009	389
2010	542
2011	271
2012	520
2013	527

**Exhibit 1: 2013 Distribution Substation Outages**

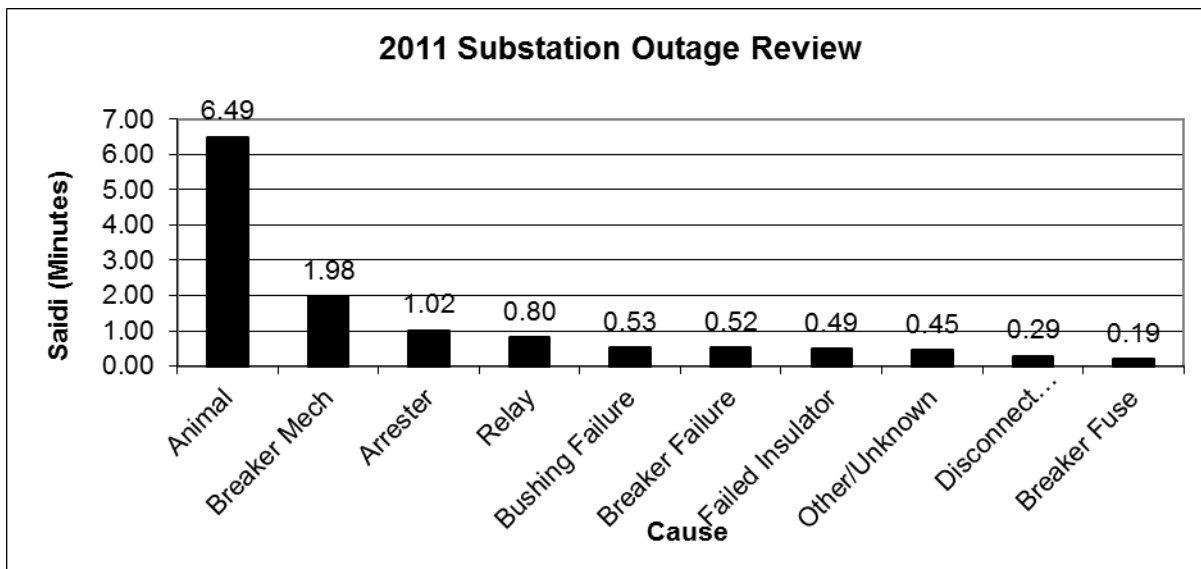


## 2013 Storm Implementation Plan and Annual Reliability Reports

### Exhibit 2: 2012 Distribution Substation Outages

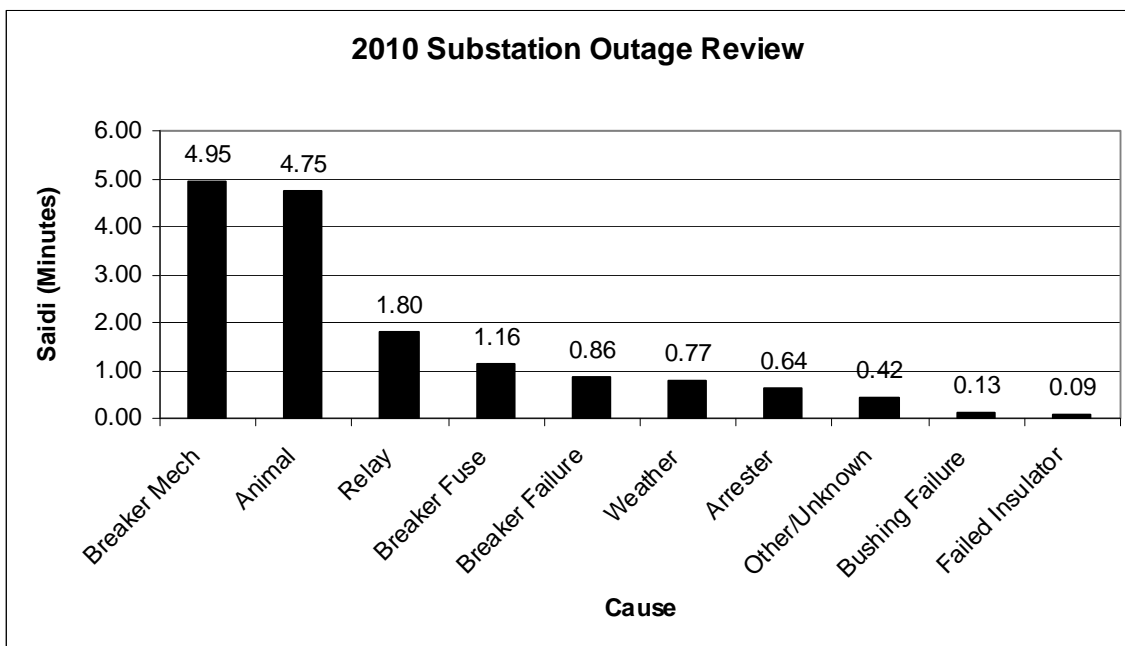


### Exhibit 3: 2011 Distribution Substation Outages



# 2013 Storm Implementation Plan and Annual Reliability Reports

## Exhibit 4: 2010 Distribution Substation Outages



## Exhibit 5: 2009 Distribution Substation Outages

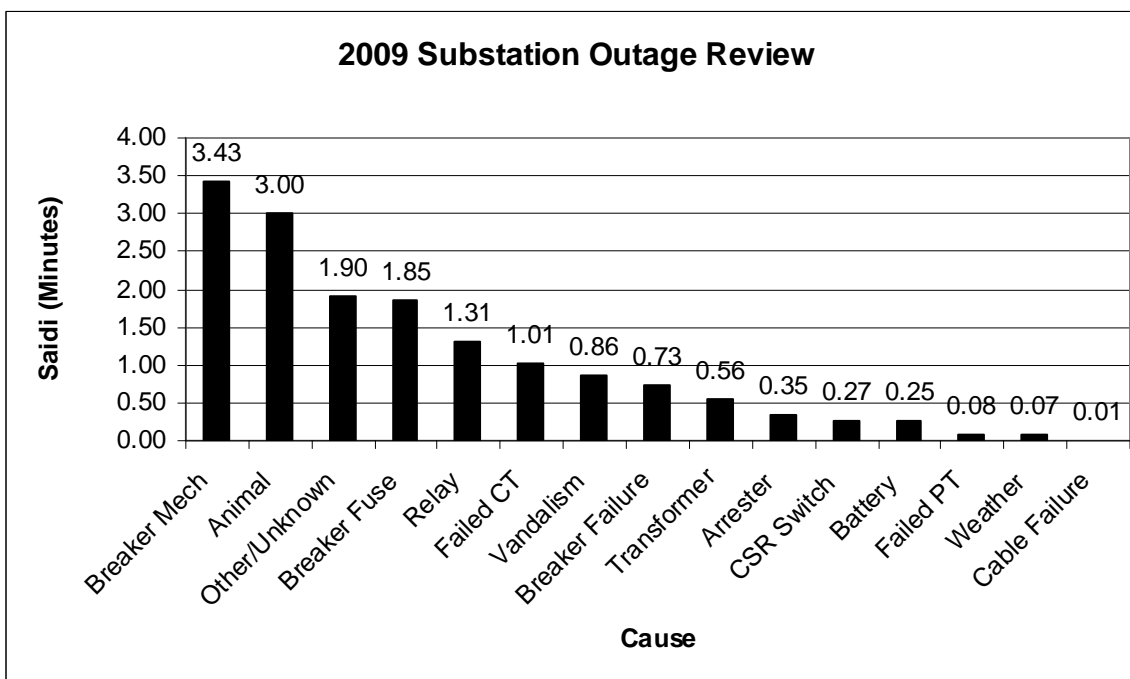




Exhibit 6: Substation Outages due to Animal Contact

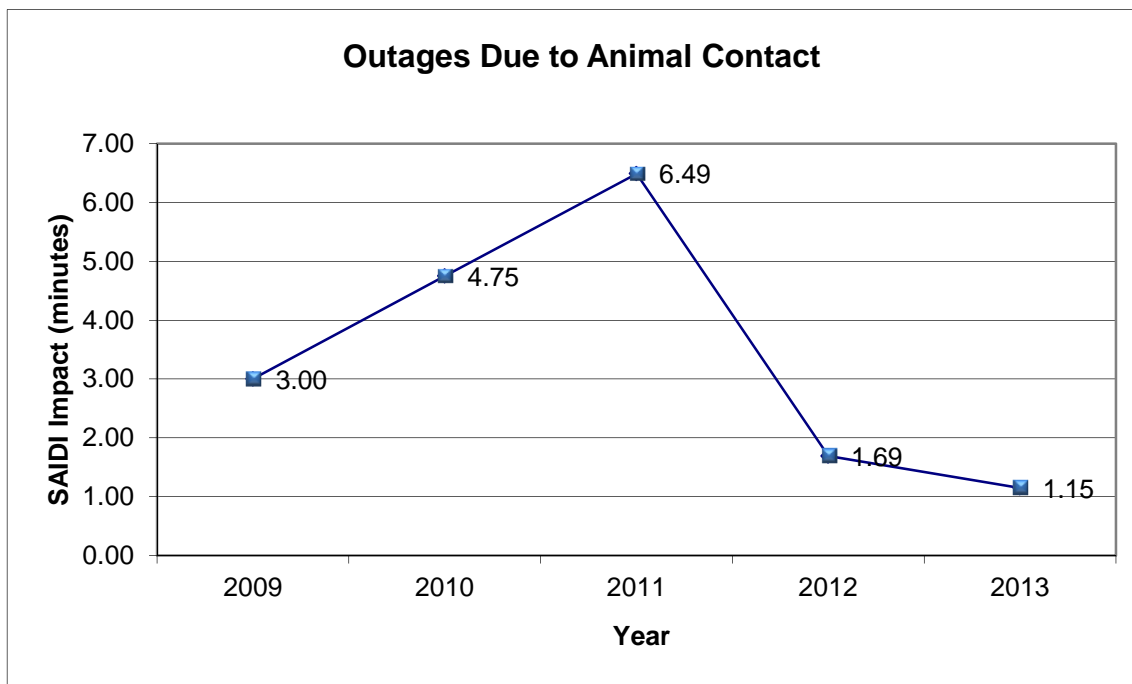


Exhibit 7: Substation Outages due to Breaker Mechanism Problem

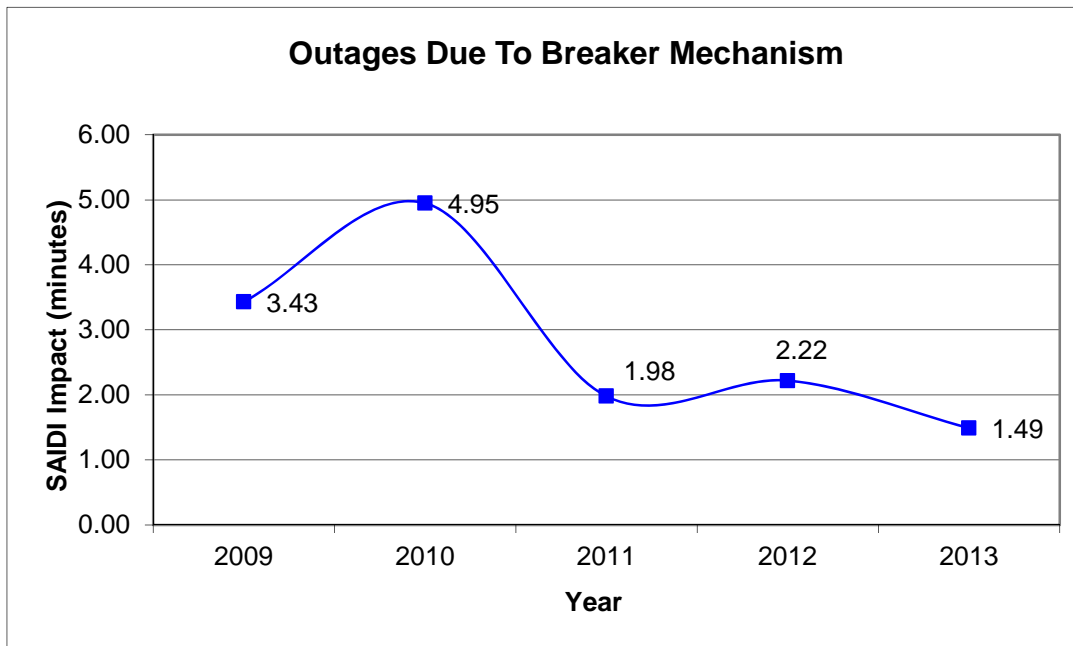
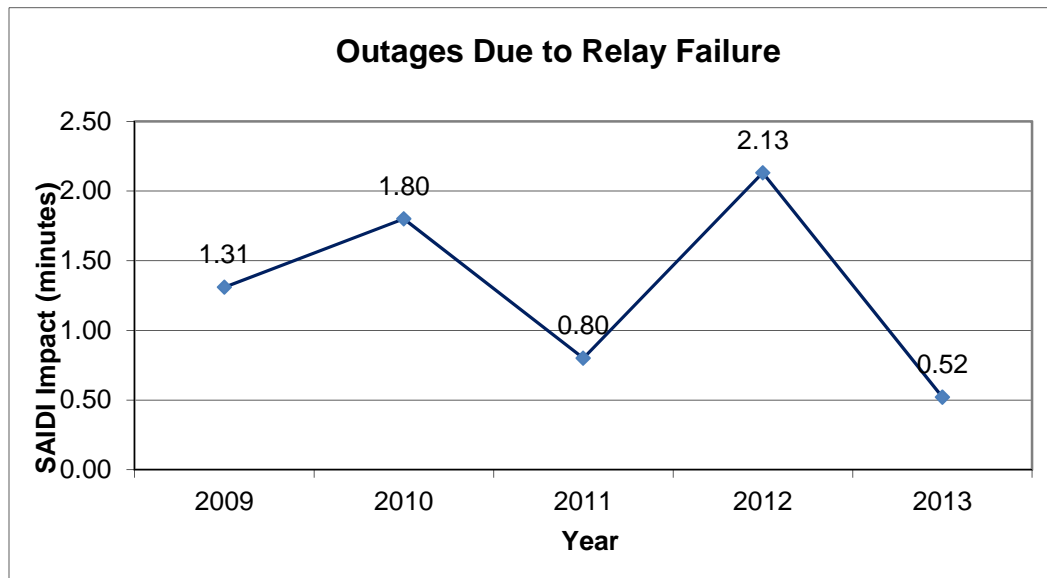


Exhibit 8: Substation Outages due to Relay Failure



## 2013 Storm Implementation Plan and Annual Reliability Reports

### G) 2013 Adjusted Distribution Reliability

#### 1) Causes of Outages

**Table 2: Cause of Outage Events by Year**

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Vegetation	2,059	1,975	1,806	1,677	1,959
Animals	1,555	2,040	2,157	1,736	1,918
Lightning	1,498	1,226	1,392	1,327	1,639
Electrical	1,204	1,380	1,172	1,068	1,154
Bad Connection	880	1,090	848	905	837
Unknown	721	753	849	779	892
Down Wire	301	336	325	525	599
Vehicle	234	245	285	315	306
Other Weather	636	727	222	260	261
Defective Equipment	396	245	196	181	206
All Remaining Causes	235	206	223	215	187
<b>System Totals</b>	<b>9,719</b>	<b>10,223</b>	<b>9,475</b>	<b>8,988</b>	<b>9,958</b>

#### 2) Three Percent Feeder

In reviewing both actual and adjusted Three Percent Feeder Lists (Forms 102 and 103, Part II) included within the Appendix of this report, eight circuits have been identified to have been listed once before in the past five years. These circuits include Fort King 13006, Gallagher Road 13723, 11<sup>th</sup> Avenue 13176, 30<sup>th</sup> Street 13160, Gulf City 13256, Kirkland 13389, Lake Region 13442 and Fort King 13004.

Actual events for Fort King 13006 included four circuit outages as reported. The company completed corrective activities on this circuit in 2013 including

## **2013 Storm Implementation Plan and Annual Reliability Reports**

tree trimming, pole replacement, replacing fused cutouts, replacing switches and replacing lightning arresters.

Actual events for Gallagher Road 13723 included four circuit outages as reported. The company completed corrective activities on this circuit in 2013 including hotspot tree trimming, the replacement of defective transformers and poles, replacing switches, the replacement of primary and the replacing lightning arresters.

Actual events for 11<sup>th</sup> Avenue 13176 included four circuit outages as reported. The company completed corrective activities on this circuit in 2013 including replacing lightning arresters, replacing poles, replacing switches, fixing bad connections and replacing fused cutouts.

Actual events for 30<sup>th</sup> Street 13160 included three circuit outages as reported. The company completed corrective activities on this circuit in 2013 including the replacement of lightning arresters, tree trimming, replacement of padmount equipment, replacement of poles, replacement of overhead transformers and replacing defective switches.

Actual events for Gulf City 13256 included three circuit outages as reported. The company completed corrective activities on this circuit in 2013 including the installation of avian protection, replacement of lightning arrester, tree trimming and the replacement of distribution poles.

Actual events for Kirkland 13389 included three circuit outages as reported. The company completed corrective activities on this circuit in 2013 including the replacement of poles, replacement of overhead transformers, tree

## **2013 Storm Implementation Plan and Annual Reliability Reports**

trimming, installation of avian protection, replacement of lightning arrester and the replacement of distribution poles.

Actual events for Lake Region 13442 included four circuit outages as reported. The company completed corrective activities on this circuit in 2013 including tree trimming, pole replacement, replacing fused cutouts, replacing switches and replacing lightning arresters.

Actual events for Fort King 13004 included four circuit outages as reported. The company completed corrective activities on this circuit in 2013 including the replacement of lightning arresters, tree trimming, replacement of padmount equipment, replacement of poles, replacement of overhead transformers and replacing defective switches.

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 at a regional level.

### **H) Regional Reliability Indices**

#### **1) Summary**

Table 3 represents customers by division over the period. Dade City, Plant City and South Hillsborough have the fewest customers and represent the most rural, lowest customer density per line mile in comparison to the other four Tampa Electric divisions. Actual reliability indices for the rural areas have varied from those of the more urban, densely populated areas for this

## **2013 Storm Implementation Plan and Annual Reliability Reports**

period. This is due to the much greater distance traveled for service restoration in rural areas.

In 2013, SAIDI by division increased over 2012 in all divisions except for Central, Western and Winter Haven as represented in Table 4. 2013 SAIDI performance for all divisions except Western and Winter Haven were above the five-year average. Actual results by division and year have varied for the five-year period.

Table 5 data represents a decrease in the 2013 CAIDI performance in comparison to 2012 for all divisions except Plant City, Eastern and Winter Haven. 2013 CAIDI performance for all divisions except South Hillsborough and Western, were above the five-year average. Actual results by division and year have varied for the five-year period.

In 2013, SAIFI performance for Central and Winter Haven improved over 2012 as noted in Table 6. SAIFI performance in the balance of the divisions declined over 2012 results. All divisions performed better than the five-year average except Central, South Hillsborough and Winter Haven.

In 2013, MAIFLe performance improved in 2013 over 2012 in Central and Plant City. All divisions had improved MAIFLe performance than the five-year average except for Dade City, Winter Haven and Plant City as noted in Table 7.

### **2) Improving Regional Reliability Trends**

Tampa Electric focuses on divisional reliability through its operational management structure, which includes a divisional Operations Manager and Engineer. Planned and corrective maintenance is engineered and

## **2013 Storm Implementation Plan and Annual Reliability Reports**

coordinated to completion by divisional operations staff. The divisional management teams receive daily reports on outage activity, including date and time of outage, duration, cause, and customers affected, etc., and identify any discrepancies in the data. This daily outage reporting also affords each divisional staff with key performance information and opportunities to identify and improve any trends that might have developed on feeders or laterals in their respective areas. It is expected that feeder and lateral performance will continue to be tracked in support of improving regional reliability.

## 2013 Storm Implementation Plan and Annual Reliability Reports

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

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	179,160	179,810	181,797	185,005	188,161
Dade City	13,686	13,692	13,700	13,822	13,965
Eastern	108,206	109,383	109,876	111,069	113,053
Plant City	54,103	54,470	54,725	55,472	56,438
South Hillsborough	60,356	61,530	62,761	64,530	67,071
Western	186,960	187,932	189,200	191,083	193,320
Winter Haven	66,979	67,560	67,222	67,735	68,529
System	669,450	674,377	679,281	688,716	700,537

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

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	61.53	64.06	54.40	75.88	69.51
Dade City	137.96	134.55	170.11	161.12	260.65
Eastern	63.53	66.90	60.95	56.76	92.53
Plant City	141.26	143.61	99.39	109.73	130.57
South Hillsborough	84.97	101.07	66.77	89.70	93.59
Western	79.31	88.91	91.22	77.48	75.24
Winter Haven	59.11	79.24	86.24	66.76	61.42
System	76.69	84.20	75.96	78.07	85.05



## 2013 Storm Implementation Plan and Annual Reliability Reports

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

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	74.59	87.48	85.32	88.10	87.53
Dade City	74.53	81.73	85.06	96.56	94.81
Eastern	70.22	96.07	75.93	78.07	106.37
Plant City	76.39	97.36	87.87	82.02	87.35
South Hillsborough	95.13	113.70	88.77	84.83	84.18
Western	78.30	99.23	93.92	95.79	87.84
Winter Haven	69.99	80.08	82.93	66.14	75.76
System	76.53	94.53	86.83	85.55	89.43

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

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	0.82	0.73	0.64	0.86	0.79
Dade City	1.85	1.65	2.00	1.67	2.75
Eastern	0.90	0.70	0.80	0.73	0.87
Plant City	1.85	1.48	1.13	1.34	1.49
South Hillsborough	0.89	0.89	0.75	1.06	1.11
Western	1.01	0.90	0.97	0.81	0.86
Winter Haven	0.84	0.99	1.04	1.01	0.81
System	1.00	0.89	0.87	0.91	0.95

## 2013 Storm Implementation Plan and Annual Reliability Reports

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

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	8.79	10.01	11.23	10.17	10.01
Dade City	13.41	16.51	15.64	15.76	17.42
Eastern	11.97	12.99	14.38	10.85	13.76
Plant City	19.93	14.78	17.61	19.84	17.80
South Hillsborough	13.28	14.20	13.56	11.21	12.87
Western	10.40	11.79	12.57	10.58	10.90
Winter Haven	11.16	11.55	14.47	9.98	12.56
System	11.39	12.04	13.25	11.36	12.16

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

	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Central	1.22%	0.37%	0.60%	0.44%	0.20%
Dade City	11.50%	0.58%	0.67%	3.66%	1.48%
Eastern	0.59%	1.60%	0.69%	0.37%	0.41%
Plant City	11.27%	1.22%	0.85%	0.90%	1.65%
South Hillsborough	2.47%	1.04%	0.30%	3.49%	0.84%
Western	1.74%	0.69%	0.58%	0.26%	0.33%
Winter Haven	1.69%	3.56%	0.80%	0.71%	0.01%
System	2.45%	1.11%	0.62%	0.79%	0.47%

## 2013 Storm Implementation Plan and Annual Reliability Reports

### I) Overhead – Underground Reliability

#### 1) Five-Year Trends - Reliability Performance

Examining a five-year trend from 2009 to 2013 in overall outages presented in Table 9, 2013 represented a higher than average number of total outages during the period. Overhead outages represented the majority of outages, 88.77 percent of the total outages for the period. Underground outages represented 11.23 percent in 2013 compared against total outages.

**Table 9: Outages per Year**

<b>System Totals</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Number of Outages Events (N)	9,719	10,223	9,475	8,988	9,958
System Average Duration (L-Bar)	159.00	172.51	169.47	177.24	175.85
Average Restoration Time (CAIDI)	76.53	94.53	86.83	85.55	89.43
<hr/>					
<b>Overhead</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Number of Outages Events (N)	8,484	8,495	8,226	7,838	8,840
Overhead Average Duration (L-Bar)	141.76	150.43	150.11	157.12	159.09
Average Restoration Time (CAIDI)	72.84	86.80	82.65	80.87	85.77
<hr/>					
<b>Underground</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Number of Outages Events (N)	1,235	1,728	1,249	1,150	1,118
Underground Average Duration (L-Bar)	277.38	281.08	296.94	314.37	308.38
Average Restoration Time (CAIDI)	210.33	237.89	246.51	277.23	261.46

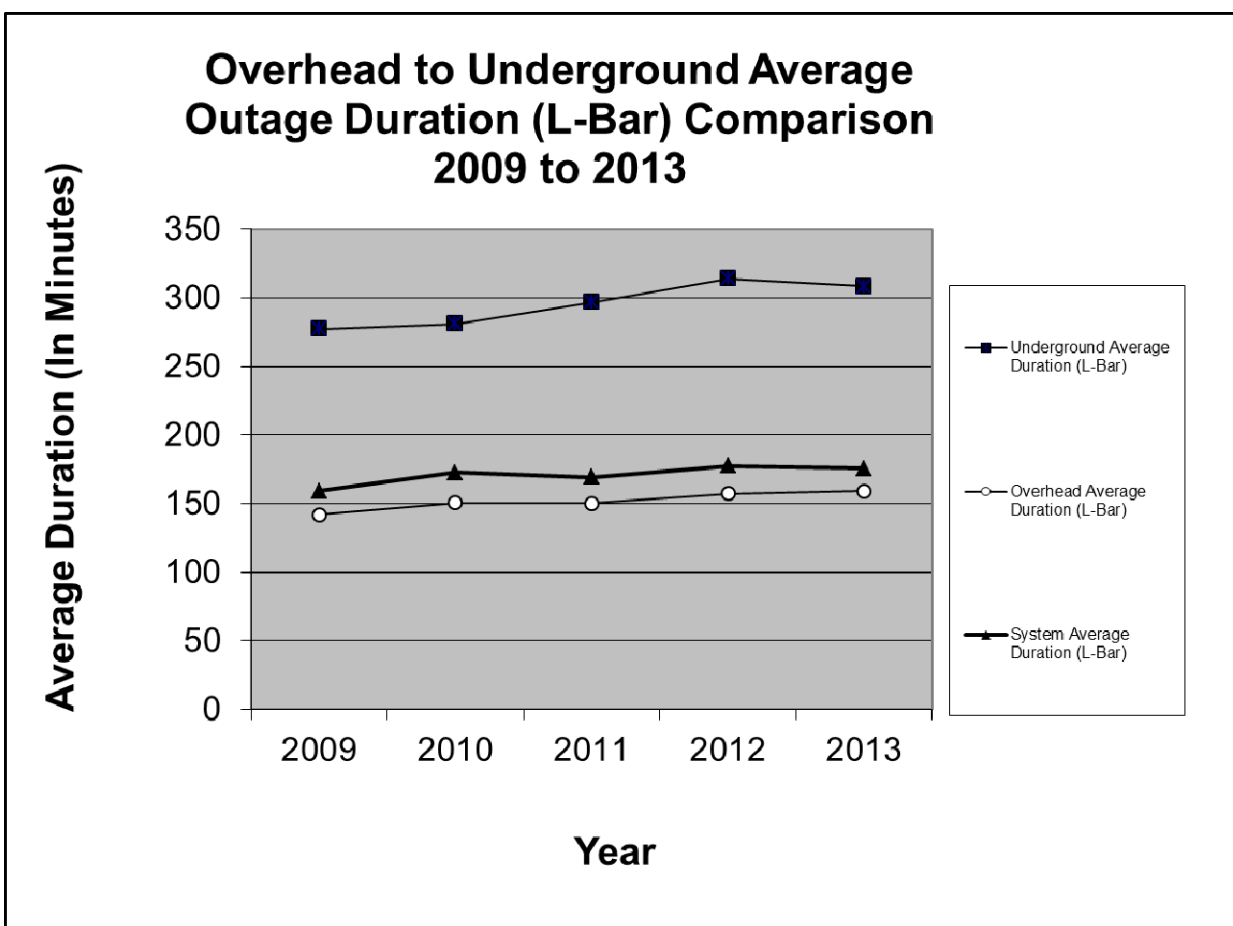
Tampa Electric miles of distribution through 2013 include 6,292 miles of overhead and 4,851 miles of underground for a total of 11,143 miles. The ratio of overhead and underground miles to total miles equates to 56.47

## 2013 Storm Implementation Plan and Annual Reliability Reports

percent and 43.53 percent, respectively.

The overhead distribution system characteristically provides advantages for quicker troubleshooting, fault identification and shorter outage duration. Exhibit 9 below represents average outage duration (L-Bar) for the past five years. Overhead L-Bar increased in 2013 and has a five-year average of 151.74 minutes, while underground L-Bar has a five-year average of 295.6 minutes which decreased in 2013 compared to 2012. The five-year system L-Bar average is 170.85 minutes.

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



## **2013 Storm Implementation Plan and Annual Reliability Reports**

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

Tampa Electric tracks outage records in its outage database 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 and whether it's associated with overhead or underground equipment as noted above, is not currently captured and cannot be reported.

The company currently measures CEMI5 through a query that is run through its OMS. There is no option to run the query for overhead or underground systems. Therefore, the company is not able to provide CEMI5 as previously requested by Commission Staff.

### **3) Underground Distribution System Conversions**

For 2013, there was no activity associated with underground distribution system conversions.

### J) Reliability-Related Customer Complaints

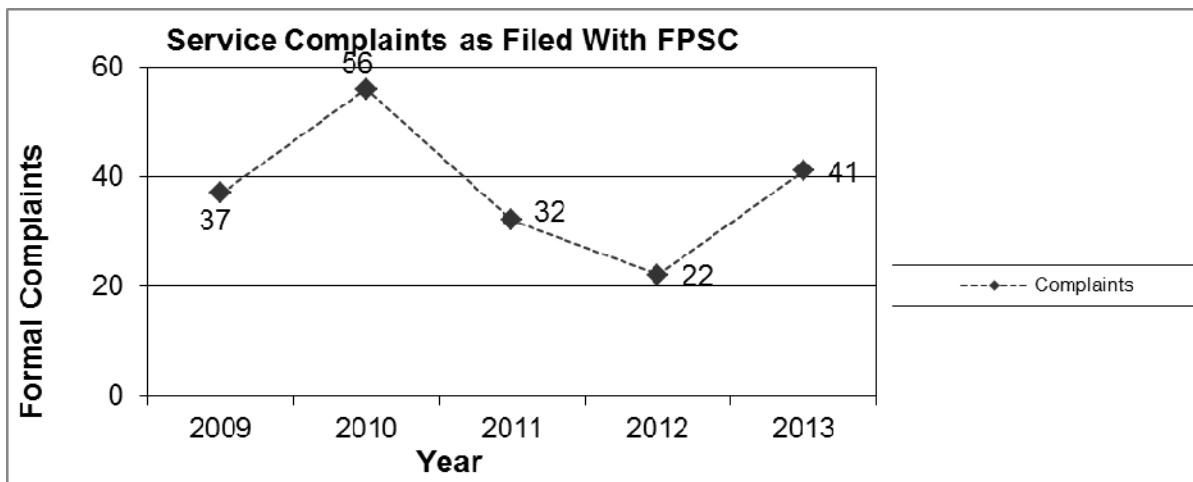
During 2013, Tampa Electric experienced an increase of 19 formal service-related complaints as logged by the Florida Division of Consumer Affairs and noted in Exhibit 10 below. In addition, service-related complaints as tracked by the company and including FPSC Formal, Three-Day, Transfer-Connect, eWarm Transfer and Executive Level increased by two complaints in 2013 as noted in Exhibit 11 below. In comparison to the five-year average, overall complaints were 3.45 percent less in 2013.

When comparing formal complaints logged against the company to reliability performance (Exhibits 12 and 13) over the last five years, it is apparent that as reliability performance has varied, complaints have tracked accordingly. The company believes that focused activity on vegetation management, circuit review activity and resulting line improvements and other maintenance activities will continue to contribute toward minimizing service-related complaints in 2014.

Tampa Electric's current process for responding to all service related complaints includes the central intake and coordination of complaint resolution through the 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 regional level affords the company an opportunity to be aware of any trends that may occur for a given feeder or lateral.

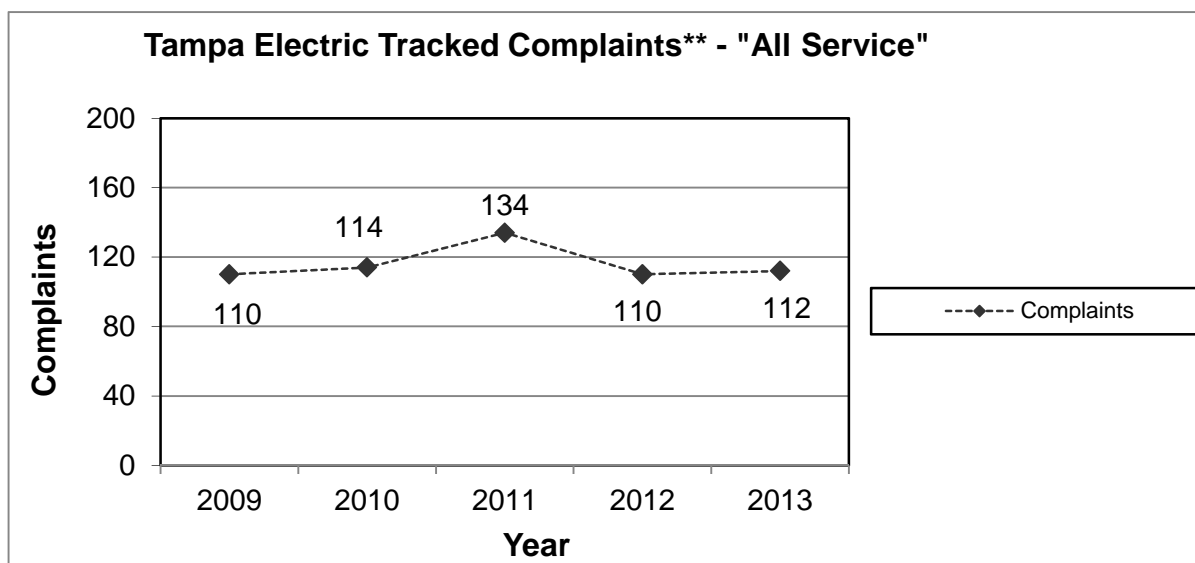
In addition, the group of Operations Engineers and System Reliability meet on a monthly basis to review common areas of concern across the system and identifies opportunities for improvement.

Exhibit 10: Tampa electric Service Formal Complaints Filed with the FPSC by Year



Source: FPSC Consumer Activity Reports

Exhibit 11: Tampa Electric Service Complaints by Year

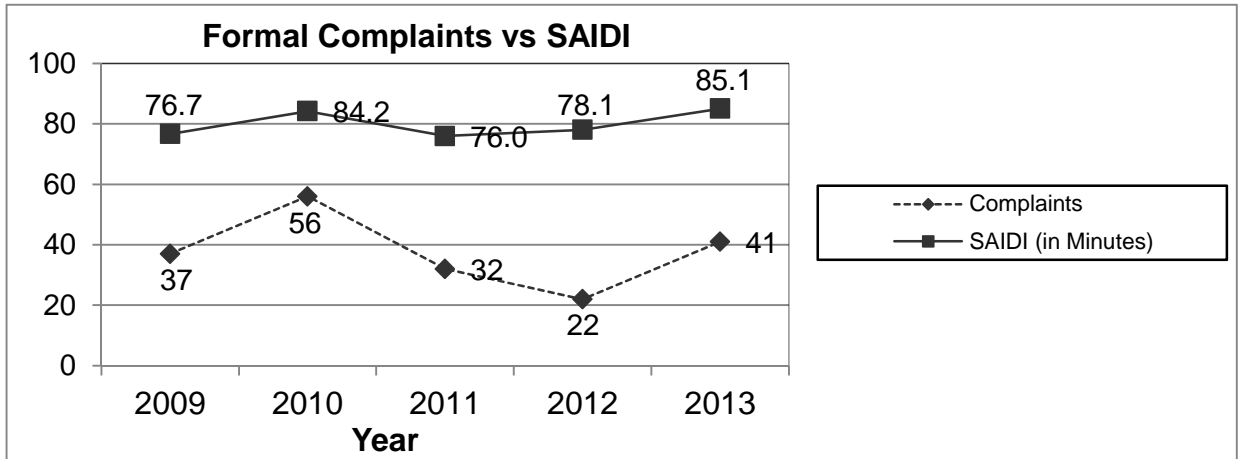


Source: Tampa Electric FPSC Tracking System Reports

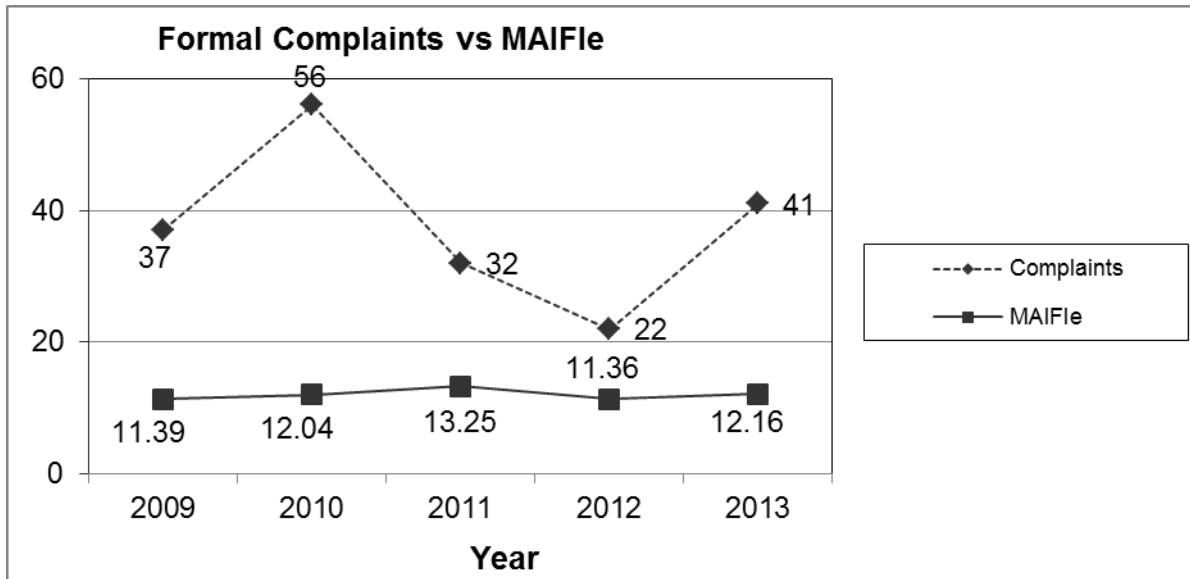
Notes: \*\*Consists of all “Service” complaints logged by the company including FPSC Formal, Three-day, Transfer-Connect, eWarm Transfer and Executive Level.

# 2013 Storm Implementation Plan and Annual Reliability Reports

## Exhibit 12: Formal Complaints vs. SAIDI by Year



## Exhibit 13: Formal Complaints vs. MAIFle by Year







## APPENDIX

# 2013 STORM IMPLEMENTATION PLAN & ANNUAL RELIABILITY PERFORMANCE REPORTS

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Appendix A) Form 102 – Part I –Actual

#### PART I

#### Primary Causes of Outage Events

Utility Name: Tampa Electric Year: 2013

Cause	Number of Outages Events (N)	Average Duration (L-Bar)	Average Restoration Time (CAIDI)
(a)	(b)	(c)	(d)
1. Vegetation	2,106	202.59	101.85
2. Animals	1,931	94.72	71.61
3. Lightning	1,652	214.29	122.14
4. Electrical	1,197	185.89	74.49
5. Unknown	895	142.99	84.56
6. Bad Connection	860	229.14	116.02
7. Down Wire	629	181.85	72.87
8. Planned Outage	338	101.70	21.45
9. Vehicle	331	207.33	74.54
10. Other Weather	294	193.72	123.60
All Remaining Causes	534	140.79	45.50
<b>System Totals</b>	<b>10,767</b>	<b>172.81</b>	<b>77.22</b>

Form PSC/ECR 102-1, Docket No. 011351-EI, Rule 25-6.0455(a)

Notes:

L-Bar and CAIDI are expressed in minutes.

2013 Storm Implementation Plan and Annual Reliability Reports

Form 102 – Part II –Actual

3 Percent Feeder List													Year: 2013	
Primary Circuit Id. No. or Name	Substation Origin (b)	Location (c)	Number of Customers				Outage Events "N" (i)	Avg. Duration "L-Bar" (j)	CAIDI (k)	Listed Last Year? (l)	Years in the Last 5 (m)	Action Completion Date (n)		
			Residential (d)	Commercial (e)	Industrial (f)	Other (g)								Total (h)
CB_13236	Caloosa	South Hillsborough	2,170	207	26		2,403	8	32.63	31.40	No	0	04/15/2013, 5/28/2013, 7/31/2013, 06/20/2013, 8/13/2013, 9/05/2013, 12/17/2013	
CB_13329	Dade City	Dade City	485	229	39		753	5	50.20	49.19	No	0	2/22/2013, 8/01/2013, 12/22/2013, 12/23/2013	
CB_13006	Fort King	Dade City	1,389	137	19		1,745	4	38.50	40.38	No	1	4/30/2013, 5/02/2013, 6/07/2013, 6/10/2013, 6/27/2013, 7/26/2013, 12/21/2013	
CB_13117	Lake Alfred	Winter Haven	1,113	117	8		1,298	4	14.25	14.32	No	0	1/28/2013, 3/08/2013, 6/06/2013, 9/27/2013, 10/15/2013, 11/24/2013	
CB_13176	11th Avenue	Central	777	107	56		940	4	40.25	40.41	No	2	1/8/2013, 8/30/2013, 10/23/2013, 11/05/2013	
CB_13214	Fairgrounds	Eastern	507	160	67		734	4	4.25	4.18	No	0	1/21/2013, 1/22/2013, 7/25/2013, 8/02/2013, 9/09/2013	
CB_13282	Ariana	Winter Haven	330	197	28		555	4	49.00	48.95	No	0	3/07/2013, 8/15/2013, 9/06/2013, 9/14/2013, 10/04/2013	
CB_13309	E. Winter Haven	Winter Haven	275	125	27		427	4	37.25	38.58	No	0	1/07/2013, 2/26/2013, 4/30/2013, 6/07/2013, 11/26/2013	
CB_13442	Lake Region	Winter Haven	1,735	69	7		1,811	4	23.75	23.63	Yes	1	2/24/2013, 2/28/2013, 4/30/2013, 5/15/2013, 5/17/2013, 7/10/2013, 9/02/2013	
CB_13461	Clarkwild	Eastern	985	102	28		1,115	4	58.75	36.87	No	0	1/23/2013, 2/27/2013, 6/27/2013, 8/5/2013, 8/16/2013, 10/10/2013, 11/20/2013	
CB_13584	Dale Mabry	Western	927	15	1		943	4	50.00	51.48	No	0	5/15/2013, 9/09/2013, 9/22/2013, 10/23/2013, 11/27/2013	
CB_13633	Pine Lake	Central	1,060	181	50		1,291	4	37.00	44.55	No	0	2/13/2013, 4/30/2013, 6/23/2013, 8/17/2013, 10/09/2013, 11/13/2013	
CB_13723	Gallagher Road	Plant City	1,186	115	16		1,317	4	36.00	37.00	No	2	2/19/2013, 6/14/2013, 7/18/2013, 7/19/2013, 8/22/2013, 11/21/2013	
CB_13724	Gallagher Road	Plant City	905	116	13		1,034	4	24.00	23.93	No	0	2/10/2013, 4/22/2013, 4/26/2013, 6/14/2013, 7/21/2013	
CB_14041	Harmy Rd	Central	729	189	31		949	4	158.75	133.62	No	0	6/04/2013, 6/29/2013, 7/23/2013, 8/13/2013, 8/21/2013	
CB_14198	Massaro	Eastern	122	119	63		304	4	16.50	16.65	No	0	1/04/2013, 3/08/2013, 4/29/2013, 6/18/2013, 9/12/2013, 11/07/2013, 12/03/2013	
CB_13007	Mulberry	Plant City	314	176	46		536	3	3.33	3.32	No	1	2/13/2013, 3/16/2013, 4/29/2013, 8/14/2013, 11/29/2013	
CB_13026	Temple Terrace	Central	1,394	194	42		1,680	3	8.33	8.23	No	0	3/29/2013, 7/10/2013, 11/10/2013, 11/11/2013, 11/22/2013	
CB_13041	Bloomington	Eastern	1,258	34	2		1,294	3	61.00	60.99	No	0	3/12/2013, 5/15/2013, 6/23/2013, 6/27/2013, 7/09/2013	
CB_13042	Fern Street	Central	1,571	124	16		1,711	3	31.00	30.96	No	0	3/30/2013, 5/09/2013, 8/15/2013, 10/22/2013, 12/06/2013	
CB_13044	Fern Street	Central	1,581	144	22		1,747	3	42.00	42.21	No	0	1/07/2013, 1/18/2013, 2/01/2013, 10/10/2013, 11/13/2013, 11/19/2013	
CB_13072	Lois Avenue	Western	578	133	36		747	3	17.00	16.91	No	1	1/17/2013, 5/01/2013, 7/28/2013, 12/06/2013	
CB_13097	Sunset Lane	Central	1,137	62	8		1,207	3	33.33	35.10	No	0	4/11/2013, 5/07/2013, 6/21/2013, 7/31/2013, 9/09/2013, 9/19/2013	
CB_13114	Manhattan	Western	2,673	146	35		2,854	3	18.00	18.04	No	0	1/22/2013, 6/24/2013, 7/12/2013, 8/19/2013	
CB_13123	Alexander Road	Plant City	543	142	22		707	3	53.67	58.95	No	0	2/16/2013, 4/16/2013, 8/02/2013, 8/29/2013, 9/27/2013, 10/04/2013	
CB_13160	30th Street	Central	795	12	3		810	3	33.33	33.35	Yes	1	6/28/201, 8/21/2013, 10/08/2013, 10/09/2013, 11/25/2013	
CB_13175	11th Avenue	Central	1,996	221	44		1,861	3	46.67	42.06	No	0	5/09/2013, 5/08/2013, 5/25/2013, 9/07/2013, 10/30/2013	

Form PSC/ECR 102-2, Docket No. 011351-EJ, Rule 25-6.0455(b)

Notes:

- L-Bar and CAIDI are based on the entire circuit.
- L-Bar and CAIDI are expressed in minutes
- Report DOES include PSC-approved exclusions

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Form 102 – Part III –Actual

#### ANNUAL DISTRIBUTION RELIABILITY REPORT - 2013

Utility Name: Tampa Electric

<b>SAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	65,889,519	94.06
Total number of Customers Served (C)	700,537	
<b>CAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	65,889,519	77.22
Total number of Customer Interruptions (CI)	853,304	
<b>SAIFI: System Average Interruption Frequency Index</b>		
= <u>Total number of Customer Interruptions (CI)</u>	853,304	1.22
Total number of Customers Served (C)	700,537	
<b>MAIFle: Momentary Average Interruption Event</b>		
= <u>Sum of All Customer Momentary Interruption Events (CME)</u>	9,095,552	12.98
Total number of Customers Served (C)	700,537	
<b>LBar:</b>		
= <u>Minutes of Interruption</u>	1,860,632	172.81
Total number of Outages	10,767	

District	C	CMI	CI	CME	# Cust > 5
Central	188,161	13,875,050	197,009	2,015,075	379
Dade City	13,965	3,716,117	43,234	281,167	207
Eastern	113,053	12,248,413	133,170	1,652,873	468
Plant City	56,438	8,298,329	103,928	1,076,958	974
South Hillsborough	67,071	7,272,808	96,793	923,803	566
Western	193,320	15,646,382	198,075	2,233,181	644
Winter Haven	68,529	4,832,420	81,095	912,495	122
System Totals	700,537	65,889,519	853,304	9,095,552	3,502

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Form 102 – Part III continued – Actual

#### PART III

##### Service Reliability Indices - Actual

Utility Name: Tampa Electric

Year: 2013

District or Service Area	SAIDI	CAIDI	SAIFI	MAIFle	CEMI5
(a)	(b)	(c)	(d)	(e)	(f)
Central	73.74	70.43	1.05	10.71	0.20%
Dade City	266.10	85.95	3.10	20.13	1.48%
Eastern	108.34	91.98	1.18	14.62	0.41%
Plant City	147.03	79.85	1.84	19.08	1.73%
South Hillsborough	108.43	75.14	1.44	13.77	0.84%
Western	80.94	78.99	1.02	11.55	0.33%
Winter Haven	70.52	59.59	1.18	13.32	0.18%
<b>System</b>	<b>94.06</b>	<b>77.22</b>	<b>1.22</b>	<b>12.98</b>	<b>0.50%</b>

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

Notes:

SAIDI and CAIDI are expressed in minutes

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Appendix B) Form 103 – Part I – Adjusted

#### PART I

Primary Causes of Outage Events - Adjusted			
Utility Name: Tampa Electric			Year: 2013
Cause	Number of Outages Events (N)	Average Duration (L-Bar)	Average Restoration Time (CAIDI)
(a)	(b)	(c)	(d)
1. Vegetation	1,959	202.03	98.81
2. Animals	1,918	94.85	76.41
3. Lightning	1,639	214.20	120.24
4. Electrical	1,154	186.40	78.91
5. Unknown	892	143.16	84.56
6. Bad Connection	837	229.23	118.21
7. Down Wire	599	187.48	82.44
8. Vehicle	306	214.82	79.17
9. Other Weather	261	189.84	127.43
10. Defective Equipment	206	164.15	89.69
All Remaining Causes	187	140.52	48.03
<b>System Totals</b>	<b>9,958</b>	<b>175.85</b>	<b>89.43</b>

Form PSC/ECR 102-1, Docket No. 011351-EI, Rule 25-6.0455(a)

Notes:

L-Bar and CAIDI are expressed in minutes.

# 2013 Storm Implementation Plan and Annual Reliability Reports

## FORM 103 - PART II - Adjusted

3 Percent Feeder List													Year: 2013
Primary Circuit Id. No. or Name	Substation Origin (b)	Location (c)	Number of Customers				Outage Events "N" (i)	Avg. Duration "L-Bar" (j)	CADI (k)	Listed Last Year? (l)	Years in the Last 5 (m)	Action Completion Date (n)	Year: 2013
			Residential (d)	Commercial (e)	Industrial (f)	Other (g)							
CB_13006	Fort King	Dade City	1,589	137	19	1,745	4	38.50	40.38	No	1	4/30/2013, 5/02/2013, 6/07/2013, 6/10/2013, 6/27/2013, 7/26/2013, 12/21/2013	
CB_13296	Calosa	South Hillsborough	2,170	207	26	2,403	4	42.25	43.68	No	0	04/15/2013, 5/28/2013, 7/31/2013, 06/20/2013, 8/13/2013, 8/19/2013, 9/05/2013, 12/17/2013	
CB_13382	Ariana	Winter Haven	330	197	28	555	4	49.00	48.95	No	0	1/04/2013, 3/16/2013, 7/05/2013, 8/16/2013	
CB_13329	Dade City	Dade City	485	229	39	753	4	57.25	56.12	No	0	2/22/2013, 8/01/2013, 12/22/2013, 12/23/2013	
CB_13723	Gallagher Road	Plant City	1,186	115	16	1,317	4	36.00	37.00	No	2	2/19/2013, 6/14/2013, 7/18/2013, 7/19/2013, 8/22/2013, 11/21/2013	
CB_14041	Henny Rd	Central	729	189	31	949	4	158.75	133.62	No	0	6/04/2013, 6/29/2013, 7/23/2013, 8/13/2013, 8/21/2013	
CB_13223	Alexander Road	Plant City	543	142	22	707	3	53.67	58.95	No	0	2/16/2013, 4/16/2013, 8/02/2013, 8/29/2013, 9/27/2013, 10/04/2013	
CB_13160	30th Street	Central	795	12	3	810	3	33.33	33.35	Yes	1	6/28/201, 8/21/2013, 10/08/2013, 10/09/2013, 11/25/2013	
CB_13175	11th Avenue	Central	1,596	221	44	1,861	3	46.67	42.06	No	0	5/09/2013, 5/08/2013, 5/25/2013, 9/07/2013, 10/30/2013	
CB_13176	11th Avenue	Central	771	107	56	940	3	51.67	54.61	No	2	1/8/2013, 8/30/2013, 10/23/2013, 11/05/2013	
CB_13181	11th Avenue	Central	785	120	46	951	3	63.67	69.33	No	0	4/18/2013, 4/26/2013, 8/16/2013, 10/28/2013	
CB_13256	Gulf City	South Hillsborough	992	242	16	1,250	3	55.67	55.80	No	1	1/03/2013, 2/08/2013, 4/04/2013, 8/20/2013, 10/17/2013, 12/27/2013	
CB_13389	Kirkland	Plant City	966	115	21	1,102	3	77.67	71.24	No	1	1/18/2013, 4/11/2013, 8/04/2013, 10/18/2013, 11/11/2013	
CB_13423	Fort King	Dade City	990	127	16	1,133	3	69.00	69.00	No	0	3/19/2013, 8/05/2013, 9/06/2013, 9/19/2013	
CB_13442	Lake Region	Winter Haven	1,735	69	7	1,811	3	23.00	23.02	Yes	1	2/24/2013, 2/28/2013, 4/30/2013, 5/15/2013, 5/17/2013, 5/17/2013, 7/10/2013, 9/03/2013	
CB_13461	Clarkwild	Eastem	985	102	28	1,115	3	77.33	53.67	No	0	2/25/2013, 4/15/2013, 7/18/2013, 8/01/2013, 9/11/2013	
CB_13462	Alexander Road	Plant City	595	175	85	855	3	44.33	44.83	No	0	3/03/2013, 3/15/2013, 8/07/2013, 10/04/2013, 10/08/2013	
CB_13492	Jackson Road	Westem	580	133	48	761	3	10.00	10.04	No	0	1/25/2013, 4/19/2013, 6/03/2013, 6/14/2013, 6/21/2013, 7/19/2013	
CB_13584	Dale Mabry	Westem	927	15	1	943	3	61.67	64.34	No	0	5/15/2013, 9/09/2013, 9/22/2013, 10/23/2013, 11/27/2013	
CB_13592	Seneca	Central	2,296	249	39	2,594	3	46.33	46.85	No	0	1/04/2013, 4/25/2013, 5/26/2013, 8/19/2013, 11/13/2013	
CB_13786	Pincrest	Plant City	716	71	10	797	3	34.33	34.33	No	0	1/04/2013, 1/11/2013, 1/18/2013, 2/08/2013, 8/2/2013, 8/08/2013, 8/16/2013	
CB_13787	Pincrest	Plant City	906	92	20	1,018	3	92.00	79.88	No	0	1/18/2013, 2/08/2013, 3/01/2013, 08/07/2013, 5/22/2013, 7/14/2013	
CB_13897	15T STREET	South Hillsborough	776	44	0	820	3	61.33	67.90	No	0	5/30/2013, 6/11/2013, 6/17/2013, 10/01/2013	
CB_13962	Terrace	Plant City	817	94	22	933	3	53.67	47.65	No	0	5/31/2013, 7/01/2013, 7/05/2013, 8/16/2013, 9/13/2013	
CB_14020	Riverview	South Hillsborough	1,113	112	38	1,263	3	37.33	37.35	No	0	6/27/2013, 7/18/2013, 8/25/2013, 11/04/2013, 12/16/2013	
CB_14098	Masaro	Eastem	122	119	63	304	3	20.33	20.78	No	0	1/04/2013, 3/08/2013, 4/29/2013, 6/08/2013, 9/12/2013, 11/07/2013, 12/03/2013	
CB_13004	Fort King	Dade City	861	123	13	997	2	41.00	41.00	No	1	5/01/2013, 6/23/2013, 9/03/2013, 9/09/2013, 10/03/2013	

Form PSC/ECR-102-2, Docket No. 011351-EI, Rule 25-6.0455(b)

Notes:

L-Bar and CADI are based on the entire circuit.

L-Bar and CADI are expressed in minutes

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Form 103 – Part III – Adjusted

#### PART III

#### ANNUAL DISTRIBUTION RELIABILITY REPORT - 2013

Utility Name: Tampa Electric

<b>SAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	59,580,218	85.05
Total number of Customers Served (C)	700,537	
<b>CAIDI: System Average Interruption Duration Index</b>		
= <u>Sum of All Customer Minutes Interrupted (CMI)</u>	59,580,218	89.43
Total number of Customer Interruptions (CI)	666,245	
<b>SAIFI: System Average Interruption Frequency Index</b>		
= <u>Total number of Customer Interruptions (CI)</u>	666,245	0.95
Total number of Customers Served (C)	700,537	
<b>MAIFle: Momentary Average Interruption Event</b>		
= <u>Sum of All Customer Momentary Interruption Events (CME)</u>	8,517,100	12.16
Total number of Customers Served (C)	700,537	
<b>LBar:</b>		
= <u>Minutes of Interruption</u>	1,751,112	175.85
Total number of Outages	9,958	

District	C	CMI	CI	CME	# Cust > 5
Central	188,161	13,078,861	149,430	1,882,669	367
Dade City	13,965	3,639,930	38,393	243,201	207
Eastern	113,053	10,460,376	98,338	1,555,643	463
Plant City	56,438	7,369,197	84,360	1,004,355	931
South Hillsborough	67,071	6,277,236	74,573	863,491	566
Western	193,320	14,545,742	165,596	2,106,829	636
Winter Haven	68,529	4,208,876	55,555	860,912	7
System Totals	700,537	59,580,218	666,245	8,517,100	3,307



## 2013 Storm Implementation Plan and Annual Reliability Reports

### Form 103 – Part III continued – Adjusted

#### PART III

#### Service Reliability Indices

Utility Name: Tampa Electric

Year: 2013

District or Service Area	SAIDI	CAIDI	SAIFI	MAIFle	CEMIS
(a)	(b)	(c)	(d)	(e)	(f)
Central	69.51	87.53	0.79	10.01	0.20%
Dade City	260.65	94.81	2.75	17.42	1.48%
Eastern	92.53	106.37	0.87	13.76	0.41%
Plant City	130.57	87.35	1.49	17.80	1.65%
South Hillsborough	93.59	84.18	1.11	12.87	0.84%
Western	75.24	87.84	0.86	10.90	0.33%
Winter Haven	61.42	75.76	0.81	12.56	0.01%
System	85.05	89.43	0.95	12.16	0.47%

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

Notes:

SAIDI and CAIDI are expressed in minutes

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Extreme Weather Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI	CI
			Excluded	Excluded
TX Repr (OH)	FPSC Commission Rule 25-6.0455	02/26/2013 11:05	220	1
Circuit Out	FPSC Commission Rule 25-6.0455	02/26/2013 11:15	7293	187
TX Repr (OH)	FPSC Commission Rule 25-6.0455	02/26/2013 11:10	1026	9
OH Other	FPSC Commission Rule 25-6.0455	02/26/2013 11:06	2232	9
TX Repr (OH)	FPSC Commission Rule 25-6.0455	02/26/2013 13:59	2745	45
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 11:21	1935	9
Circuit Out	FPSC Commission Rule 25-6.0455	02/26/2013 11:29	7885	415
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 11:26	8470	70
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 11:30	162	1
OH Other	FPSC Commission Rule 25-6.0455	02/26/2013 11:33	82	1
Prim. Wire	FPSC Commission Rule 25-6.0455	02/26/2013 11:33	6498	38
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 11:37	1932	14
Circuit Out	FPSC Commission Rule 25-6.0455	02/26/2013 11:49	6357	489
Tap/Riser	FPSC Commission Rule 25-6.0455	02/26/2013 11:30	2034	9
Cut Out 100 amp - Tx	FPSC Commission Rule 25-6.0455	02/26/2013 11:58	264	1
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 12:19	145	1
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 12:28	97	1
OH Other	FPSC Commission Rule 25-6.0455	02/26/2013 11:16	1853	17
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 13:22	68	1
PLF	FPSC Commission Rule 25-6.0455	02/26/2013 15:16	86	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	02/26/2013 15:18	102	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	02/26/2013 16:44	138	2
TX Repr (OH)	FPSC Commission Rule 25-6.0455	02/26/2013 16:51	68	2
PLF	FPSC Commission Rule 25-6.0455	06/05/2013 21:11	594	11
Circuit Out	FPSC Commission Rule 25-6.0455	06/05/2013 21:32	114246	1731
PLF	FPSC Commission Rule 25-6.0455	06/05/2013 22:28	218	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/05/2013 23:42	1475	5
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 00:24	67209	1563
Cut Out 100 amp - Tx	FPSC Commission Rule 25-6.0455	06/06/2013 00:26	1264	8
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 01:31	1138	2
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 03:43	192	4
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 04:04	835	5
Pole	FPSC Commission Rule 25-6.0455	06/06/2013 04:33	410	1
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 05:06	69224	1018

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Extreme Weather Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 04:32	11160	120
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 05:14	77350	1190
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 05:32	39960	108
Prim. Insulator	FPSC Commission Rule 25-6.0455	06/06/2013 05:07	13566	42
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 05:19	318	6
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 06:11	5858	58
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 06:25	3070	1535
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 06:20	89	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 06:16	96	1
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 00:23	203892	2614
Step Restore	FPSC Commission Rule 25-6.0455	06/06/2013 01:30	319	29
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 06:50	190	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 06:54	130	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 06:59	345	5
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 07:24	558	3
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 07:42	288	6
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 07:43	560	8
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 08:02	208	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 07:33	357	1
UG Other	FPSC Commission Rule 25-6.0455	06/06/2013 07:41	187	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 08:04	3205	5
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 08:57	948	6
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 09:07	1218	6
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 09:24	148	2
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 09:50	105	1
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 09:54	21045	345
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 09:58	1111	11
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 10:03	595	5
Tap/Riser	FPSC Commission Rule 25-6.0455	06/06/2013 10:04	165	1
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 10:15	239	1
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 10:31	46	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 06:09	4351	19
TX Repl (PM)	FPSC Commission Rule 25-6.0455	06/06/2013 09:51	3596	29
Service - Non Crew	FPSC Commission Rule 25-6.0455	06/06/2013 10:39	56	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 10:41	446	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Extreme Weather Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 10:42	4011	21
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 10:51	21252	84
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 10:53	7981	23
Service - Non Crew	FPSC Commission Rule 25-6.0455	06/06/2013 10:35	47	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 10:56	4617	9
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 10:47	1898	13
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 10:57	840	5
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 10:48	1974	7
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 11:19	2223	9
Connections	FPSC Commission Rule 25-6.0455	06/06/2013 11:28	2436	6
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 11:30	1143	3
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 11:28	604	4
Service - Non Crew	FPSC Commission Rule 25-6.0455	06/06/2013 11:41	72	1
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 11:41	22066	649
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 11:48	6702	6
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 11:29	4692	12
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 12:00	506	2
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 12:00	239	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 11:55	2748	12
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 12:00	29280	183
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 12:16	2430	15
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 12:19	94	2
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 12:18	11820	60
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 12:10	3290	7
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 12:10	925	5
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 12:19	34804	226
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 12:11	409	1
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 12:28	941754	1254
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 12:28	985	5
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 12:18	994	7
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 12:22	61422	58
Service - Non Crew	FPSC Commission Rule 25-6.0455	06/06/2013 12:44	130	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 12:58	360	1
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 12:39	1870	11
Cut Out 100 amp - PLF	FPSC Commission Rule 25-6.0455	06/06/2013 12:06	12376	56

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Extreme Weather Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 13:09	30951	181
Pole	FPSC Commission Rule 25-6.0455	06/06/2013 13:23	817	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 13:25	70	2
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 13:27	796	4
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 13:29	81	1
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 13:25	860	4
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 13:38	549	3
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 13:56	292	2
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 13:11	196	4
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 13:41	1417	13
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 12:59	345	1
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 13:45	927	9
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 14:00	348	2
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 14:05	628	2
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 14:03	267	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 14:09	672	7
Cut Out 100 amp - Tx	FPSC Commission Rule 25-6.0455	06/06/2013 14:06	2790	31
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 13:58	576	2
Pole	FPSC Commission Rule 25-6.0455	06/06/2013 14:09	519	1
Customer Breaker	FPSC Commission Rule 25-6.0455	06/06/2013 14:43	110	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 14:52	4351	19
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 14:55	6640	8
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 13:24	3585	15
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 15:09	40	1
Customer Breaker	FPSC Commission Rule 25-6.0455	06/06/2013 15:14	575	5
Tap/Riser	FPSC Commission Rule 25-6.0455	06/06/2013 13:52	15808	38
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 15:15	3564	44
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 15:17	3480	12
TX Repr (PM)	FPSC Commission Rule 25-6.0455	06/06/2013 15:16	854	1
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 15:46	84	1
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 15:02	882	1
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 15:57	102724	1684
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 16:10	376	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 15:58	111	1
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 16:13	170	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Extreme Weather Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 15:25	26910	39
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 16:29	412	2
Cross Arm	FPSC Commission Rule 25-6.0455	06/06/2013 16:36	294	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 16:39	24130	95
Sec. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 16:52	7744	8
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 17:00	177	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 16:28	34440	280
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 17:03	133	1
Service - Non Crew	FPSC Commission Rule 25-6.0455	06/06/2013 16:32	89	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 17:18	1040	8
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 17:22	5478	33
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 17:11	67	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 16:36	1496	11
Pole	FPSC Commission Rule 25-6.0455	06/06/2013 17:30	12000	10
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 17:32	2840	5
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 17:42	163	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 16:58	150	1
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 17:39	20280	60
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 16:51	11139	47
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 17:51	759	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 15:56	1512	7
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 17:46	290	10
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 17:34	2024	4
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 18:03	693	11
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 16:48	613	1
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 17:49	6480	36
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 18:06	6864	48
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 17:34	1688	2
Cross Arm Brace	FPSC Commission Rule 25-6.0455	06/06/2013 18:16	1855	5
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 17:27	48654	318
Pole	FPSC Commission Rule 25-6.0455	06/06/2013 17:45	555	1
Cut Out 100 amp - Tx	FPSC Commission Rule 25-6.0455	06/06/2013 16:53	4520	10
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 16:12	456	2
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 14:15	3184	4
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 18:55	245	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Extreme Weather Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 17:51	342	2
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 18:53	4024	8
Prim. Wire	FPSC Commission Rule 25-6.0455	06/06/2013 19:18	2886	3
Connections	FPSC Commission Rule 25-6.0455	06/06/2013 19:16	58	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 19:18	82	1
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 19:14	89	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 19:46	216	3
OH Other	FPSC Commission Rule 25-6.0455	06/06/2013 16:01	996	4
Service - Non Crew	FPSC Commission Rule 25-6.0455	06/06/2013 18:13	550	2
UG Other	FPSC Commission Rule 25-6.0455	06/06/2013 20:03	857	1
Service - Crew	FPSC Commission Rule 25-6.0455	06/06/2013 20:57	279	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 21:06	31	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 21:17	1975	5
Circuit Out	FPSC Commission Rule 25-6.0455	06/06/2013 21:58	10206	729
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 21:43	235	5
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 22:18	72	1
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 22:27	85	1
TX Repr (OH)	FPSC Commission Rule 25-6.0455	06/06/2013 23:00	82	2
PLF	FPSC Commission Rule 25-6.0455	06/06/2013 23:44	2120	20
URD Outage	FPSC Commission Rule 25-6.0455	06/07/2013 01:20	14760	24
TX Repl (OH)	FPSC Commission Rule 25-6.0455	06/07/2013 01:40	285	1
PLF	FPSC Commission Rule 25-6.0455	06/07/2013 03:39	4444	44

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	01/03/2013 13:49	59	1
Switch 600 amp	Planned Outage	01/06/2013 13:08	324	27
OH Other	Planned Outage	01/07/2013 14:49	89	1
OH Other	Planned Outage	01/08/2013 07:59	230	1
OH Other	Planned Outage	01/09/2013 07:08	198	1
OH Other	Planned Outage	01/10/2013 18:07	284	2
Switch 600 amp	Planned Outage	01/12/2013 04:36	11560	289
OH Other	Planned Outage	01/16/2013 18:08	177	1
OH Other	Planned Outage	01/18/2013 08:33	35	1
OH Other	Planned Outage	01/18/2013 13:57	47	1
OH Other	Planned Outage	01/18/2013 14:34	45	1
Circuit Out	Planned Outage	01/20/2013 06:24	4218	703
UG Other	Planned Outage	01/21/2013 13:40	128	1
Circuit Out	Planned Outage	01/22/2013 09:19	13428	3357
UG Other	Planned Outage	01/22/2013 11:27	155	1
OH Other	Planned Outage	01/22/2013 13:55	49	1
UG Other	Planned Outage	01/22/2013 14:36	118	1
TX Repl (PM)	Planned Outage	01/22/2013 17:20	2220	6
OH Other	Planned Outage	01/24/2013 06:56	535	5
OH Other	Planned Outage	01/24/2013 13:59	116	4
Service - Non Crew	Planned Outage	01/24/2013 15:25	117	1
OH Other	Planned Outage	01/25/2013 09:19	50	1
UG Other	Planned Outage	01/25/2013 12:38	211	1
Service - Non Crew	Planned Outage	01/25/2013 14:32	155	1
Service - Non Crew	Planned Outage	01/28/2013 12:21	48	1
Service - Non Crew	Planned Outage	01/28/2013 15:21	112	1
Service - Non Crew	Planned Outage	01/29/2013 08:52	210	1
PLF	Planned Outage	01/24/2013 18:14	2964	228
Customer Breaker	Planned Outage	01/29/2013 12:32	90	1
OH Other	Planned Outage	01/29/2013 15:56	63	1
Service - Non Crew	Planned Outage	01/30/2013 09:37	62	1
OH Other	Planned Outage	01/30/2013 09:49	61	1
Service - Crew	Planned Outage	02/01/2013 08:03	197	1
OH Other	Planned Outage	02/01/2013 10:23	94	1



## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	02/01/2013 10:54	208	4
TX Repl (PM)	Planned Outage	02/02/2013 19:03	327	1
OH Other	Planned Outage	02/04/2013 19:45	90	1
Connections	Planned Outage	02/04/2013 20:58	12570	1257
Service - Non Crew	Planned Outage	02/05/2013 13:52	423	1
Circuit Out	Planned Outage	02/05/2013 19:04	8976	1122
UG Other	Planned Outage	02/05/2013 13:24	938	14
OH Other	Planned Outage	02/06/2013 12:06	50	1
TX Repr (PM)	Planned Outage	02/06/2013 17:16	9452	34
OH Other	Planned Outage	02/06/2013 21:08	2324	28
PLF	Planned Outage	02/07/2013 07:00	3060	153
OH Other	Planned Outage	02/07/2013 07:46	40	1
OH Other	Planned Outage	02/07/2013 09:06	167	1
UG Other	Planned Outage	02/08/2013 08:28	1274	14
Service - Non Crew	Planned Outage	02/08/2013 08:41	72	1
Service - Non Crew	Planned Outage	02/08/2013 08:38	146	1
Service - Non Crew	Planned Outage	02/08/2013 09:16	114	1
Service - Non Crew	Planned Outage	02/08/2013 09:54	186	1
UG Other	Planned Outage	02/09/2013 18:43	157	1
Service - Non Crew	Planned Outage	02/10/2013 15:30	134	1
OH Other	Planned Outage	02/12/2013 15:04	54	1
Customer Breaker	Planned Outage	02/13/2013 12:35	47	1
Circuit Out	Planned Outage	02/14/2013 15:11	47550	951
Circuit Out	Planned Outage	02/16/2013 06:59	4025	805
Circuit Out	Planned Outage	02/16/2013 07:03	2218	1109
OH Other	Planned Outage	02/16/2013 10:18	9324	148
Service - Crew	Planned Outage	02/16/2013 11:31	342	1
Circuit Out	Planned Outage	02/17/2013 05:13	2136	534
Service - Non Crew	Planned Outage	02/17/2013 09:34	65	1
OH Other	Planned Outage	02/17/2013 21:25	462	154
OH Other	Planned Outage	02/16/2013 20:40	9073	211
OH Other	Planned Outage	02/18/2013 09:09	215	1
Service - Non Crew	Planned Outage	02/19/2013 13:47	139	1
Circuit Out	Planned Outage	02/20/2013 09:29	699	699
Circuit Out	Planned Outage	02/20/2013 11:01	1480	296

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Non Crew	Planned Outage	02/22/2013 13:40	49	1
OH Other	Planned Outage	02/25/2013 07:44	96	1
OH Other	Planned Outage	02/26/2013 08:46	38	1
OH Other	Planned Outage	02/27/2013 09:08	108	1
Service - Non Crew	Planned Outage	02/27/2013 12:23	41	1
TX Repr (PM)	Planned Outage	02/27/2013 17:25	574	2
Circuit Out	Planned Outage	02/28/2013 11:51	1528	1528
Circuit Out	Planned Outage	02/28/2013 11:51	1028	1028
Crab/Secondary	Planned Outage	02/28/2013 15:37	124	1
OH Other	Planned Outage	03/02/2013 13:28	18018	286
Circuit Out	Planned Outage	03/03/2013 01:05	1	1
Step Restore	Planned Outage	03/03/2013 03:16	6503	929
OH Other	Planned Outage	03/03/2013 15:18	48	1
Circuit Out	Planned Outage	03/04/2013 06:54	5325	1065
Circuit Out	Planned Outage	03/04/2013 07:58	2874	1437
OH Other	Planned Outage	03/04/2013 13:53	44	1
Service - Non Crew	Planned Outage	03/05/2013 11:06	36	1
Service - Non Crew	Planned Outage	03/05/2013 11:14	88	1
Circuit Out	Planned Outage	03/06/2013 06:57	5676	1892
Circuit Out	Planned Outage	03/06/2013 07:22	12810	2562
Service - Non Crew	Planned Outage	03/06/2013 09:10	25	1
OH Other	Planned Outage	03/06/2013 10:51	125	5
OH Other	Planned Outage	03/06/2013 12:51	36	1
UG Other	Planned Outage	03/08/2013 09:09	58	1
Circuit Out	Planned Outage	03/09/2013 10:35	2316	772
Service - Non Crew	Planned Outage	03/09/2013 13:37	78	1
OH Other	Planned Outage	03/10/2013 16:13	67	1
UG Other	Planned Outage	03/11/2013 10:49	88	1
OCR, Sec.	Planned Outage	03/12/2013 13:19	666	111
UG Other	Planned Outage	03/15/2013 20:30	90	1
Service - Crew	Planned Outage	03/19/2013 15:46	49	1
OH Other	Planned Outage	03/21/2013 10:47	147	1
Circuit Out	Planned Outage	03/21/2013 11:38	8040	1608
PLF	Planned Outage	03/21/2013 10:01	77686	434
Service - Non Crew	Planned Outage	03/21/2013 12:33	33	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Non Crew	Planned Outage	03/22/2013 08:34	70	1
OH Other	Planned Outage	03/23/2013 12:44	64	1
Circuit Out	Planned Outage	03/24/2013 14:40	102396	1113
OH Other	Planned Outage	03/25/2013 08:22	48	1
Circuit Out	Planned Outage	03/25/2013 10:59	3832	1916
Service - Non Crew	Planned Outage	03/25/2013 14:35	30	1
OH Other	Planned Outage	03/25/2013 15:09	105	1
Circuit Out	Planned Outage	03/28/2013 08:52	879	879
OH Other	Planned Outage	03/28/2013 13:08	136	1
OH Other	Planned Outage	03/28/2013 16:24	44	1
Circuit Out	Planned Outage	03/29/2013 02:47	18088	476
Circuit Out	Planned Outage	03/29/2013 04:43	3808	476
Circuit Out	Planned Outage	03/29/2013 08:50	1542	771
Circuit Out	Planned Outage	03/29/2013 10:28	1428	476
OH Other	Planned Outage	03/29/2013 13:42	31	1
Circuit Out	Planned Outage	03/30/2013 08:50	5070	1690
Customer Breaker	Planned Outage	03/30/2013 19:05	75	1
PLF	Planned Outage	04/01/2013 07:30	5040	105
Service - Non Crew	Planned Outage	04/01/2013 12:57	75	1
Service - Non Crew	Planned Outage	04/01/2013 13:16	97	1
OH Other	Planned Outage	04/01/2013 15:53	2356	38
Service - Non Crew	Planned Outage	04/01/2013 16:17	209	1
OH Other	Planned Outage	04/03/2013 08:43	171	1
OH Other	Planned Outage	04/03/2013 09:16	310	5
OH Other	Planned Outage	04/03/2013 09:21	58	1
Circuit Out	Planned Outage	04/04/2013 05:44	12509	1787
Circuit Out	Planned Outage	04/04/2013 10:36	988	494
OH Other	Planned Outage	04/04/2013 10:35	2992	44
Circuit Out	Planned Outage	04/04/2013 11:51	65296	1166
Circuit Out	Planned Outage	04/04/2013 14:27	3504	876
Circuit Out	Planned Outage	04/04/2013 16:34	14630	770
Circuit Out	Planned Outage	04/05/2013 12:32	882	294
OH Other	Planned Outage	04/06/2013 10:13	41	1
Circuit Out	Planned Outage	04/06/2013 20:20	16192	736
Step Restore	Planned Outage	04/08/2013 10:03	20220	60

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Step Restore	Planned Outage	04/08/2013 10:03	34594	98
Step Restore	Planned Outage	04/08/2013 10:03	17034	51
Step Restore	Planned Outage	04/08/2013 10:03	56935	193
TX Repl (PM)	Planned Outage	04/08/2013 21:53	3132	29
TX Repl (PM)	Planned Outage	04/08/2013 20:04	3132	29
OH Other	Planned Outage	04/09/2013 02:32	4235	11
Service - Non Crew	Planned Outage	04/10/2013 08:06	35	1
Customer Breaker	Planned Outage	04/11/2013 06:13	408	3
Circuit Out	Planned Outage	04/11/2013 11:45	2718	1359
Service - Non Crew	Planned Outage	04/12/2013 06:38	37	1
Circuit Out	Planned Outage	04/12/2013 09:45	1700	425
Circuit Out	Planned Outage	04/13/2013 09:23	741	741
OH Other	Planned Outage	04/14/2013 02:07	3036	276
OH Other	Planned Outage	04/15/2013 11:03	181	1
OH Other	Planned Outage	04/16/2013 07:55	407	1
Service - Non Crew	Planned Outage	04/16/2013 17:50	169	1
OH Other	Planned Outage	04/17/2013 07:30	53	1
Service - Non Crew	Planned Outage	04/17/2013 10:16	64	1
OH Other	Planned Outage	04/17/2013 08:11	8151	143
TX Pad	Planned Outage	04/18/2013 12:54	351	1
Service - Non Crew	Planned Outage	04/18/2013 13:42	40	1
Circuit Out	Planned Outage	04/19/2013 03:52	8466	1411
Customer Breaker	Planned Outage	04/19/2013 09:06	162	1
Service - Non Crew	Planned Outage	04/19/2013 09:16	319	1
Service - Non Crew	Planned Outage	04/19/2013 11:54	741	1
PLF	Planned Outage	04/20/2013 14:23	1260	45
Circuit Out	Planned Outage	04/20/2013 16:45	4442	2221
Service - Non Crew	Planned Outage	04/22/2013 16:39	110	1
OH Other	Planned Outage	04/23/2013 12:46	408	4
Service - Non Crew	Planned Outage	04/24/2013 07:53	102	1
Service - Non Crew	Planned Outage	04/24/2013 13:58	344	1
Circuit Out	Planned Outage	04/25/2013 07:51	294	49
Circuit Out	Planned Outage	04/25/2013 13:55	2368	592
OH Other	Planned Outage	04/26/2013 09:33	297	1
Service - Non Crew	Planned Outage	04/26/2013 14:34	32	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Non Crew	Planned Outage	04/27/2013 08:46	74	1
Service - Non Crew	Planned Outage	04/29/2013 10:27	68	1
Circuit Out	Planned Outage	04/30/2013 06:03	11207	1601
Circuit Out	Planned Outage	04/30/2013 06:51	37389	1133
Circuit Out	Planned Outage	04/30/2013 07:46	1080	1080
Circuit Out	Planned Outage	04/30/2013 07:47	3621	213
UG Other	Planned Outage	05/01/2013 07:22	231	1
Service - Non Crew	Planned Outage	05/03/2013 00:43	14	1
Circuit Out	Planned Outage	05/03/2013 00:51	2072	1036
OH Other	Planned Outage	05/03/2013 07:42	55	1
UG Other	Planned Outage	05/03/2013 09:23	237	1
OH Other	Planned Outage	05/03/2013 10:21	55	1
OH Other	Planned Outage	05/06/2013 14:30	27	1
UG Other	Planned Outage	05/07/2013 08:17	110	1
Service - Non Crew	Planned Outage	05/07/2013 13:18	108	1
TX Repr (PM)	Planned Outage	05/08/2013 07:49	894	3
OH Other	Planned Outage	05/08/2013 18:17	303	3
Circuit Out	Planned Outage	05/10/2013 10:28	1736	434
UG Other	Planned Outage	05/12/2013 20:22	21	1
Service - Crew	Planned Outage	05/13/2013 13:57	633	1
OH Other	Planned Outage	05/14/2013 10:48	61	1
Service - Non Crew	Planned Outage	05/16/2013 09:24	59	1
Circuit Out	Planned Outage	05/16/2013 17:24	4071	1357
Circuit Out	Planned Outage	05/16/2013 18:10	1713	571
Service - Non Crew	Planned Outage	05/17/2013 08:01	83	1
Circuit Out	Planned Outage	05/17/2013 10:31	90368	2824
Step Restore	Planned Outage	05/17/2013 10:31	3852	107
OH Other	Planned Outage	05/17/2013 23:48	66	1
Service - Non Crew	Planned Outage	05/18/2013 17:02	47	1
Circuit Out	Planned Outage	05/20/2013 17:22	1518	506
Circuit Out	Planned Outage	05/20/2013 18:56	4473	1491
Pole	Planned Outage	05/21/2013 10:36	13536	24
Step Restore	Planned Outage	05/21/2013 10:11	12322	122
Step Restore	Planned Outage	05/21/2013 09:54	14868	126
OH Other	Planned Outage	05/21/2013 07:29	22032	102

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	Planned Outage	05/21/2013 17:03	7830	783
Circuit Out	Planned Outage	05/21/2013 18:56	924	132
Service - Non Crew	Planned Outage	05/21/2013 19:09	83	1
Circuit Out	Planned Outage	05/21/2013 23:07	8829	981
UG Other	Planned Outage	05/22/2013 03:23	7095	15
OH Other	Planned Outage	05/23/2013 02:27	7420	530
UG Other	Planned Outage	05/23/2013 10:43	161	1
TX Repl (PM)	Planned Outage	05/24/2013 08:28	399	1
OH Other	Planned Outage	05/24/2013 09:44	181	1
OH Other	Planned Outage	05/24/2013 10:54	118	1
Service - Non Crew	Planned Outage	05/24/2013 11:06	82	1
OH Other	Planned Outage	05/27/2013 22:12	169	1
OH Other	Planned Outage	05/27/2013 23:06	24	1
Service - Non Crew	Planned Outage	05/28/2013 06:00	44	1
Service - Non Crew	Planned Outage	05/30/2013 08:34	211	1
Customer Breaker	Planned Outage	05/30/2013 11:57	137	1
Service - Non Crew	Planned Outage	05/31/2013 07:40	103	1
Service - Non Crew	Planned Outage	05/31/2013 08:49	114	1
Sec. Wire	Planned Outage	05/31/2013 16:58	56	1
Circuit Out	Planned Outage	06/01/2013 07:00	2424	808
Circuit Out	Planned Outage	06/01/2013 17:37	8304	1384
Circuit Out	Planned Outage	06/01/2013 21:30	2241	747
Service - Non Crew	Planned Outage	06/01/2013 21:50	67	1
Circuit Out	Planned Outage	06/02/2013 03:41	7810	710
Service - Non Crew	Planned Outage	06/02/2013 15:34	45	1
Circuit Out	Planned Outage	06/02/2013 19:16	14721	2103
Circuit Out	Planned Outage	06/02/2013 20:20	19472	2434
OH Other	Planned Outage	06/03/2013 08:44	208	1
Service - Non Crew	Planned Outage	06/03/2013 10:40	68	1
OH Other	Planned Outage	06/03/2013 15:23	79	1
OH Other	Planned Outage	06/04/2013 07:36	160	1
Service - Non Crew	Planned Outage	06/04/2013 10:08	121	1
OH Other	Planned Outage	06/04/2013 10:21	39	1
OH Other	Planned Outage	06/04/2013 15:00	61	1
Service - Non Crew	Planned Outage	06/05/2013 10:50	35	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Customer Breaker	Planned Outage	06/05/2013 14:40	54	1
Service - Crew	Planned Outage	06/07/2013 08:05	205	1
Service - Non Crew	Planned Outage	06/07/2013 15:27	65	1
OH Other	Planned Outage	06/08/2013 11:09	96	1
Circuit Out	Planned Outage	06/09/2013 01:34	11167	859
Service - Crew	Planned Outage	06/09/2013 14:22	206	1
Step Restore	Planned Outage	06/09/2013 16:51	512	16
Circuit Out	Planned Outage	06/09/2013 19:47	3264	1088
OH Other	Planned Outage	06/10/2013 07:03	202	1
Service - Non Crew	Planned Outage	06/10/2013 09:19	96	1
Circuit Out	Planned Outage	06/10/2013 15:50	4840	1210
Service - Non Crew	Planned Outage	06/10/2013 19:06	188	1
UG Other	Planned Outage	06/11/2013 08:11	48	1
OH Other	Planned Outage	06/11/2013 08:47	155	1
TX Repr (OH)	Planned Outage	06/12/2013 09:00	428	1
OH Other	Planned Outage	06/12/2013 13:49	130	1
UG Other	Planned Outage	06/13/2013 08:45	79	1
Service - Non Crew	Planned Outage	06/13/2013 09:54	168	1
OH Other	Planned Outage	06/14/2013 10:42	65	1
Switch 600 amp	Planned Outage	06/15/2013 09:58	8840	221
OH Other	Planned Outage	06/15/2013 20:32	833	119
OH Other	Planned Outage	06/16/2013 00:23	3213	119
OH Other	Planned Outage	06/16/2013 21:35	164	1
OH Other	Planned Outage	06/18/2013 08:29	137	1
OH Other	Planned Outage	06/18/2013 12:37	156	1
OH Other	Planned Outage	06/18/2013 16:35	72	1
Service - Non Crew	Planned Outage	06/20/2013 11:10	57	1
OH Other	Planned Outage	06/20/2013 11:29	70	1
OH Other	Planned Outage	06/20/2013 11:50	15912	136
OH Other	Planned Outage	06/20/2013 12:34	380	4
Circuit Out	Planned Outage	06/20/2013 18:49	28092	2341
OH Other	Planned Outage	06/20/2013 17:33	11110	55
Step Restore	Planned Outage	06/20/2013 17:33	7693	49
Circuit Out	Planned Outage	06/21/2013 16:15	14520	1210
Circuit Out	Planned Outage	06/21/2013 18:37	33891	2607

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
OH Other	Planned Outage	06/21/2013 18:32	466	2
Circuit Out	Planned Outage	06/22/2013 07:18	9176	1147
Service - Crew	Planned Outage	06/22/2013 17:39	543	1
Circuit Out	Planned Outage	06/22/2013 23:37	7260	363
Service - Non Crew	Planned Outage	06/24/2013 13:40	131	1
Circuit Out	Planned Outage	06/24/2013 14:42	1700	68
Service - Non Crew	Planned Outage	06/25/2013 07:06	42	1
Circuit Out	Planned Outage	06/26/2013 16:12	34229	2633
Circuit Out	Planned Outage	06/26/2013 17:23	7076	1769
UG Other	Planned Outage	06/27/2013 06:36	74	1
Service - Non Crew	Planned Outage	06/27/2013 11:40	310	1
Service - Non Crew	Planned Outage	06/28/2013 13:46	211	1
OH Other	Planned Outage	06/29/2013 08:24	42	1
Circuit Out	Planned Outage	06/29/2013 18:50	2714	1357
UG Other	Planned Outage	07/01/2013 03:46	31	1
OH Other	Planned Outage	07/01/2013 07:45	67	1
Service - Non Crew	Planned Outage	07/01/2013 09:39	73	1
Circuit Out	Planned Outage	07/02/2013 02:20	1295	1295
OH Other	Planned Outage	07/02/2013 10:09	35	1
UG Other	Planned Outage	07/02/2013 21:41	68	1
TX Repl (PM)	Planned Outage	07/03/2013 07:22	4608	16
Circuit Out	Planned Outage	07/04/2013 17:17	7553	1079
Circuit Out	Planned Outage	07/04/2013 18:29	1262	631
OH Other	Planned Outage	07/04/2013 20:08	242	1
Service - Non Crew	Planned Outage	07/05/2013 15:53	71	1
Service - Non Crew	Planned Outage	07/05/2013 19:13	224	1
Service - Non Crew	Planned Outage	07/06/2013 11:48	131	1
OH Other	Planned Outage	07/06/2013 16:52	110	1
Service - Non Crew	Planned Outage	07/06/2013 19:41	137	1
Circuit Out	Planned Outage	07/08/2013 04:28	3325	475
Service - Non Crew	Planned Outage	07/08/2013 10:57	35	1
Service - Non Crew	Planned Outage	07/09/2013 10:25	47	1
Circuit Out	Planned Outage	07/11/2013 08:14	2195	439
Customer Breaker	Planned Outage	07/11/2013 17:47	76	1
Service - Non Crew	Planned Outage	07/12/2013 08:06	81	1



## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Non Crew	Planned Outage	07/12/2013 08:15	53	1
Customer Breaker	Planned Outage	07/13/2013 11:27	33	1
OH Other	Planned Outage	07/13/2013 20:04	1470	6
Handhole	Planned Outage	07/15/2013 07:37	169	1
Service - Non Crew	Planned Outage	07/15/2013 08:04	37	1
UG Other	Planned Outage	07/15/2013 10:22	271	1
Service - Non Crew	Planned Outage	07/15/2013 14:41	50	1
UG Other	Planned Outage	07/16/2013 08:39	155	1
Sec. Wire	Planned Outage	07/16/2013 10:33	217	1
Service - Non Crew	Planned Outage	07/16/2013 17:57	32	1
Circuit Out	Planned Outage	07/17/2013 07:02	8169	1167
Service - Non Crew	Planned Outage	07/17/2013 16:29	170	1
Circuit Out	Planned Outage	07/17/2013 16:29	554400	1980
Connections	Planned Outage	07/17/2013 23:13	291	1
OH Other	Planned Outage	07/17/2013 23:40	132	1
OH Other	Planned Outage	07/18/2013 09:10	79	1
Service - Non Crew	Planned Outage	07/18/2013 10:47	99	1
Circuit Out	Planned Outage	07/19/2013 02:18	9360	780
Customer Breaker	Planned Outage	07/19/2013 09:39	113	1
Service - Non Crew	Planned Outage	07/19/2013 09:46	91	1
OH Other	Planned Outage	07/19/2013 16:26	155	1
Circuit Out	Planned Outage	07/20/2013 12:59	48160	1120
Circuit Out	Planned Outage	07/20/2013 13:45	116	116
Service - Crew	Planned Outage	07/20/2013 16:22	248	1
Service - Non Crew	Planned Outage	07/22/2013 11:25	39	1
TX Repl (PM)	Planned Outage	07/23/2013 08:32	6164	23
Customer Breaker	Planned Outage	07/24/2013 09:53	103	1
Service - Non Crew	Planned Outage	07/24/2013 10:38	33	1
UG Other	Planned Outage	07/24/2013 15:55	158	1
OH Other	Planned Outage	07/24/2013 20:27	54	1
Circuit Out	Planned Outage	07/25/2013 06:38	7728	1288
Customer Breaker	Planned Outage	07/25/2013 08:25	278	1
Service - Non Crew	Planned Outage	07/25/2013 09:18	155	1
Service - Crew	Planned Outage	07/25/2013 11:21	306	1
Service - Non Crew	Planned Outage	07/26/2013 08:27	308	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Non Crew	Planned Outage	07/26/2013 08:41	59	1
Service - Crew	Planned Outage	07/26/2013 09:08	792	1
Service - Crew	Planned Outage	07/26/2013 09:15	546	1
Service - Non Crew	Planned Outage	07/27/2013 04:57	73	1
Service - Non Crew	Planned Outage	07/29/2013 08:04	57	1
OH Other	Planned Outage	07/29/2013 13:27	60	10
OCR, Sec.	Planned Outage	07/20/2013 03:11	37387	763
Service - Non Crew	Planned Outage	07/30/2013 08:02	348	1
OH Other	Planned Outage	07/30/2013 09:19	293	1
OH Other	Planned Outage	07/30/2013 12:55	187	1
Service - Crew	Planned Outage	07/30/2013 13:27	183	1
UG Other	Planned Outage	07/30/2013 16:54	810	9
OH Other	Planned Outage	07/31/2013 13:13	88	1
OH Other	Planned Outage	07/31/2013 13:10	116	1
Circuit Out	Planned Outage	08/01/2013 05:35	3627	1209
OH Other	Planned Outage	08/01/2013 01:14	11487	547
OH Other	Planned Outage	08/01/2013 13:06	92	1
Service - Non Crew	Planned Outage	08/01/2013 14:50	52	1
Service - Non Crew	Planned Outage	08/02/2013 07:36	186	1
PLF	Planned Outage	08/03/2013 08:31	812	28
OCR, Sec.	Planned Outage	08/03/2013 14:58	1296	144
URD Outage	Planned Outage	08/04/2013 07:58	14826	42
Step Restore	Planned Outage	08/04/2013 09:45	7426	79
Switch 600 amp	Planned Outage	08/04/2013 18:49	21835	397
Circuit Out	Planned Outage	08/05/2013 12:29	16515	1101
Service - Crew	Planned Outage	08/05/2013 13:43	77	1
Customer Breaker	Planned Outage	08/05/2013 15:31	53	1
Service - Non Crew	Planned Outage	08/06/2013 09:20	33	1
Circuit Out	Planned Outage	08/06/2013 09:56	6696	279
Circuit Out	Planned Outage	08/06/2013 09:57	2244	44
Circuit Out	Planned Outage	08/06/2013 09:58	17664	384
Circuit Out	Planned Outage	08/06/2013 09:58	736	23
OCR, Sec.	Planned Outage	08/06/2013 10:46	3097	163
Circuit Out	Planned Outage	08/06/2013 16:43	2170	434
Circuit Out	Planned Outage	08/06/2013 16:53	433	433

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	Planned Outage	08/06/2013 17:02	496	62
OH Other	Planned Outage	08/06/2013 18:21	1043	7
UG Other	Planned Outage	08/07/2013 02:08	43	1
Service - Non Crew	Planned Outage	08/07/2013 19:05	188	1
Circuit Out	Planned Outage	08/07/2013 23:45	1926	642
Switch 600 amp	Planned Outage	08/08/2013 11:12	852	71
OH Other	Planned Outage	08/09/2013 08:08	26	1
TX Repr (PM)	Planned Outage	08/09/2013 17:02	4998	21
TX Repr (PM)	Planned Outage	08/11/2013 22:15	416	8
UG Other	Planned Outage	08/14/2013 01:38	81	1
OH Other	Planned Outage	08/14/2013 07:34	441	1
OH Other	Planned Outage	08/15/2013 08:43	43	1
OH Other	Planned Outage	08/15/2013 09:09	1704	8
UG Other	Planned Outage	08/15/2013 10:20	104	1
Prim. Wire	Planned Outage	08/15/2013 12:40	140	1
Service - Non Crew	Planned Outage	08/15/2013 15:37	93	1
Sec. Wire	Planned Outage	08/16/2013 08:07	49	1
TX Repl (PM)	Planned Outage	08/16/2013 14:45	26235	53
UG Other	Planned Outage	08/16/2013 22:39	103	1
Service - Non Crew	Planned Outage	08/17/2013 08:12	70	1
Service - Non Crew	Planned Outage	08/17/2013 12:39	4	1
Step Restore	Planned Outage	08/19/2013 05:40	2318	61
Service - Crew	Planned Outage	08/19/2013 06:37	103	1
Customer Breaker	Planned Outage	08/19/2013 08:34	122	1
OH Other	Planned Outage	08/19/2013 11:16	686	14
UG Other	Planned Outage	08/19/2013 17:05	13	1
Service - Non Crew	Planned Outage	08/19/2013 19:28	68	1
OH Other	Planned Outage	08/20/2013 11:27	1981	7
OH Other	Planned Outage	08/20/2013 14:23	582	6
OH Other	Planned Outage	08/20/2013 14:26	448	4
Circuit Out	Planned Outage	08/20/2013 18:51	675	135
Circuit Out	Planned Outage	08/20/2013 19:18	774	774
Service - Non Crew	Planned Outage	08/21/2013 16:50	218	1
Circuit Out	Planned Outage	08/22/2013 03:53	19142	1126
Service - Non Crew	Planned Outage	08/22/2013 10:11	34	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	Planned Outage	08/22/2013 16:40	15650	1565
Step Restore	Planned Outage	08/22/2013 16:11	355880	1148
Step Restore	Planned Outage	08/22/2013 16:11	117180	378
TX Repl (PM)	Planned Outage	08/24/2013 12:23	6648	24
Circuit Out	Planned Outage	08/24/2013 19:36	6617	509
OH Other	Planned Outage	08/25/2013 08:17	6946	302
Step Restore	Planned Outage	08/25/2013 15:18	33818	914
Circuit Out	Planned Outage	08/25/2013 15:31	11084	652
Step Restore	Planned Outage	08/26/2013 13:00	31616	494
Step Restore	Planned Outage	08/26/2013 13:04	12078	183
Step Restore	Planned Outage	08/26/2013 13:04	40194	609
Step Restore	Planned Outage	08/26/2013 13:18	21016	296
Service - Non Crew	Planned Outage	08/26/2013 13:42	58	1
Step Restore	Planned Outage	08/26/2013 16:11	136	68
Circuit Out	Planned Outage	08/26/2013 17:27	1158	193
Service - Non Crew	Planned Outage	08/27/2013 07:35	111	1
Service - Non Crew	Planned Outage	08/27/2013 08:23	72	1
Service - Non Crew	Planned Outage	08/27/2013 10:06	107	1
Service - Non Crew	Planned Outage	08/27/2013 12:27	243	1
OH Other	Planned Outage	08/27/2013 13:21	944	8
Circuit Out	Planned Outage	08/27/2013 22:36	985	985
Circuit Out	Planned Outage	08/27/2013 22:44	7707	1101
Customer Breaker	Planned Outage	08/28/2013 08:52	207	1
Service - Non Crew	Planned Outage	08/28/2013 11:37	102	1
Circuit Out	Planned Outage	08/29/2013 02:16	5646	941
Service - Non Crew	Planned Outage	08/29/2013 08:29	66	1
OH Other	Planned Outage	08/29/2013 15:24	262	1
Service - Non Crew	Planned Outage	08/30/2013 13:46	86	1
Service - Non Crew	Planned Outage	08/31/2013 07:52	164	1
Service - Crew	Planned Outage	08/31/2013 13:21	261	1
Circuit Out	Planned Outage	09/01/2013 09:19	8100	1350
Service - Non Crew	Planned Outage	09/03/2013 09:14	32	1
UG Other	Planned Outage	09/03/2013 09:54	81	1
OH Other	Planned Outage	09/04/2013 10:58	30	1
Service - Non Crew	Planned Outage	09/04/2013 18:18	72	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	Planned Outage	09/04/2013 18:52	2373	339
Circuit Out	Planned Outage	09/04/2013 19:05	25620	1220
OH Other	Planned Outage	09/04/2013 19:23	146	1
Service - Non Crew	Planned Outage	09/05/2013 11:57	94	1
OH Other	Planned Outage	09/05/2013 13:50	86	1
Circuit Out	Planned Outage	09/06/2013 03:56	3882	1294
OH Other	Planned Outage	09/06/2013 08:32	86	1
Circuit Out	Planned Outage	09/06/2013 19:59	36036	1386
OH Other	Planned Outage	09/07/2013 07:06	47	1
Service - Non Crew	Planned Outage	09/07/2013 08:11	41	1
UG Other	Planned Outage	09/09/2013 01:47	238	1
Step Restore	Planned Outage	09/06/2013 19:59	17520	365
OH Other	Planned Outage	09/09/2013 08:50	207	1
OH Other	Planned Outage	09/09/2013 13:34	101	1
Circuit Out	Planned Outage	09/09/2013 14:21	5046	2523
Circuit Out	Planned Outage	09/11/2013 12:49	72119	1759
OH Other	Planned Outage	09/11/2013 14:49	112	1
OH Other	Planned Outage	09/12/2013 08:36	77	1
Circuit Out	Planned Outage	09/12/2013 21:15	10692	972
Circuit Out	Planned Outage	09/12/2013 20:57	12168	507
Switch 600 amp	Planned Outage	09/12/2013 20:57	247570	1303
Customer Breaker	Planned Outage	09/14/2013 05:48	170	1
Circuit Out	Planned Outage	09/14/2013 06:03	19854	1103
Circuit Out	Planned Outage	09/14/2013 06:07	12201	1743
Customer Breaker	Planned Outage	09/15/2013 09:41	177	1
OH Other	Planned Outage	09/15/2013 11:52	54	1
Customer Breaker	Planned Outage	09/15/2013 16:49	2652	6
Circuit Out	Planned Outage	09/15/2013 21:38	1508	754
OH Other	Planned Outage	09/16/2013 07:30	88	1
TX Bushing	Planned Outage	09/19/2013 13:57	441	7
OH Other	Planned Outage	09/20/2013 11:50	108	1
UG Other	Planned Outage	09/20/2013 14:53	76	1
UG Other	Planned Outage	09/21/2013 09:52	216	1
Circuit Out	Planned Outage	09/22/2013 08:21	12915	861
UG Other	Planned Outage	09/23/2013 08:44	370	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
LBC Cabinet	Planned Outage	09/23/2013 20:26	1180	59
OH Other	Planned Outage	09/24/2013 14:54	77	1
Circuit Out	Planned Outage	09/25/2013 09:27	6372	1593
TX Repr (OH)	Planned Outage	09/25/2013 12:30	90	1
UG Other	Planned Outage	09/26/2013 10:37	94	1
OH Other	Planned Outage	09/26/2013 12:44	44	1
UG Other	Planned Outage	09/28/2013 10:20	41	1
OH Other	Planned Outage	09/28/2013 12:27	34	1
OH Other	Planned Outage	09/28/2013 20:15	111	1
OH Other	Planned Outage	09/30/2013 07:06	386	1
OH Other	Planned Outage	09/30/2013 09:32	26378	109
Circuit Out	Planned Outage	10/02/2013 07:03	4532	1133
Circuit Out	Planned Outage	10/03/2013 14:07	2290	1145
OH Other	Planned Outage	10/04/2013 14:05	60	2
Circuit Out	Planned Outage	10/04/2013 17:49	25908	1524
Circuit Out	Planned Outage	10/07/2013 08:34	36630	814
Circuit Out	Planned Outage	10/07/2013 08:39	1000	25
Circuit Out	Planned Outage	10/07/2013 08:41	36176	952
Circuit Out	Planned Outage	10/07/2013 08:44	52710	1506
Circuit Out	Planned Outage	10/07/2013 22:18	4802	2401
Switch 600 amp	Planned Outage	10/09/2013 12:08	3145	629
OH Other	Planned Outage	10/10/2013 08:14	56	1
Service - Non Crew	Planned Outage	10/11/2013 11:37	217	1
TX Repr (PM)	Planned Outage	10/11/2013 11:58	87	1
OH Other	Planned Outage	10/13/2013 08:18	645	5
OH Other	Planned Outage	10/15/2013 08:39	48	1
Switchgear, Manual	Planned Outage	10/16/2013 09:08	912	3
UG Other	Planned Outage	10/16/2013 10:45	43	1
OH Other	Planned Outage	10/16/2013 13:42	39	1
UG Other	Planned Outage	10/17/2013 12:59	27	1
OH Other	Planned Outage	10/18/2013 15:04	252	1
Connections	Planned Outage	10/18/2013 15:56	37	1
OH Other	Planned Outage	10/20/2013 08:46	756	9
UG Other	Planned Outage	10/21/2013 10:58	51	1
UG Other	Planned Outage	10/21/2013 15:50	56	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	10/22/2013 00:04	1036	1
Customer Breaker	Planned Outage	10/22/2013 07:44	68	1
OH Other	Planned Outage	10/22/2013 07:42	60	1
Sec. Wire	Planned Outage	10/22/2013 12:49	105	1
OH Other	Planned Outage	10/22/2013 13:02	120	1
OH Other	Planned Outage	10/23/2013 09:57	48	1
OH Other	Planned Outage	10/23/2013 10:01	249	1
Circuit Out	Planned Outage	10/24/2013 09:34	2266	1133
Switchgear, Manual	Planned Outage	10/16/2013 09:08	3132	261
Switchgear, Manual	Planned Outage	10/16/2013 09:20	3132	261
Circuit Out	Planned Outage	10/25/2013 02:08	165920	1220
OH Other	Planned Outage	10/26/2013 07:48	336	7
OH Other	Planned Outage	10/28/2013 08:46	73	1
UG Other	Planned Outage	10/30/2013 13:22	664	8
UG Other	Planned Outage	10/30/2013 18:00	71	1
OH Other	Planned Outage	10/31/2013 08:41	141	1
Switch 600 amp	Planned Outage	11/03/2013 01:15	3840	240
Switch 600 amp	Planned Outage	11/03/2013 16:28	8680	155
Cut Out 100 amp - PLF	Planned Outage	11/03/2013 16:28	231	77
OH Other	Planned Outage	11/05/2013 07:39	413	1
UG Other	Planned Outage	11/05/2013 10:31	75	1
OH Other	Planned Outage	11/06/2013 07:47	455	7
OH Other	Planned Outage	11/06/2013 10:03	612	4
Service - Non Crew	Planned Outage	11/06/2013 13:18	39	1
OH Other	Planned Outage	11/06/2013 13:18	139	1
UG Other	Planned Outage	11/06/2013 22:00	55689	57
Circuit Out	Planned Outage	11/07/2013 14:46	2447	2447
OH Other	Planned Outage	11/08/2013 12:02	1232	14
Load Break Elbow	Planned Outage	11/08/2013 15:03	54	2
Circuit Out	Planned Outage	11/08/2013 16:33	4956	708
OH Other	Planned Outage	11/09/2013 08:58	153	1
Circuit Out	Planned Outage	11/09/2013 12:34	11220	1122
OH Other	Planned Outage	11/12/2013 10:25	47	1
OH Other	Planned Outage	11/12/2013 12:34	33	1
Circuit Out	Planned Outage	11/13/2013 04:56	14994	1666

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	Planned Outage	11/13/2013 06:26	2584	646
Service - Crew	Planned Outage	11/14/2013 13:54	109	1
OH Other	Planned Outage	11/15/2013 21:33	990	45
OH Other	Planned Outage	11/15/2013 21:33	656	16
OH Other	Planned Outage	11/18/2013 14:28	98	1
OH Other	Planned Outage	11/19/2013 07:14	295	1
OH Other	Planned Outage	11/20/2013 07:51	163	1
Circuit Out	Planned Outage	11/20/2013 16:43	15612	1301
OH Other	Planned Outage	11/20/2013 17:57	48	1
OH Other	Planned Outage	11/21/2013 10:30	121	1
Service - Crew	Planned Outage	11/22/2013 07:45	300	1
TX Repl (PM)	Planned Outage	11/23/2013 07:09	365	1
OH Other	Planned Outage	11/23/2013 11:58	25	1
OH Other	Planned Outage	11/23/2013 12:52	41	1
OH Other	Planned Outage	11/26/2013 07:36	97	1
Circuit Out	Planned Outage	11/26/2013 07:43	4774	434
OH Other	Planned Outage	11/26/2013 09:03	147	3
OH Other	Planned Outage	11/27/2013 13:50	56	4
UG Other	Planned Outage	11/27/2013 14:46	135	1
OH Other	Planned Outage	12/02/2013 12:32	62	1
OH Other	Planned Outage	12/03/2013 12:51	32802	154
OH Other	Planned Outage	12/04/2013 14:02	212	1
OH Other	Planned Outage	12/06/2013 08:24	86	1
Circuit Out	Planned Outage	12/08/2013 07:26	5192	1298
Circuit Out	Planned Outage	12/09/2013 05:17	6	1
OH Other	Planned Outage	12/09/2013 11:35	348	6
UG Other	Planned Outage	12/09/2013 13:25	146	1
OH Other	Planned Outage	12/10/2013 07:40	200	1
Customer Breaker	Planned Outage	12/10/2013 12:57	48	1
OH Other	Planned Outage	12/10/2013 13:56	168	1
OH Other	Planned Outage	12/10/2013 13:58	112	1
Circuit Out	Planned Outage	12/10/2013 18:56	20664	1722
OH Other	Planned Outage	12/11/2013 08:15	207	1
UG Other	Planned Outage	12/12/2013 09:47	54	1
OH Other	Planned Outage	12/13/2013 10:26	74	1



## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Other Distribution Outage Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Crew	Planned Outage	12/13/2013 12:46	301	1
Circuit Out	Planned Outage	12/14/2013 01:00	18531	2059
OH Other	Planned Outage	12/15/2013 23:44	50	1
OH Other	Planned Outage	12/17/2013 09:22	43	1
Circuit Out	Planned Outage	12/10/2013 19:05	1923	641
OH Other	Planned Outage	12/19/2013 09:35	102	1
OH Other	Planned Outage	12/19/2013 12:00	209	1
OH Other	Planned Outage	12/19/2013 23:42	3588	26
OH Other	Planned Outage	12/20/2013 09:51	84	1
Customer Breaker	Planned Outage	12/21/2013 08:27	184	1
Circuit Out	Planned Outage	12/21/2013 09:30	3176	1588
Step Restore	Planned Outage	12/22/2013 12:11	5060	44
Step Restore	Planned Outage	12/22/2013 12:11	1122	17
Switch 600 amp	Planned Outage	12/22/2013 12:11	8820	294
OH Other	Planned Outage	12/23/2013 08:10	38	1
Circuit Out	Planned Outage	12/23/2013 10:59	15906	723
OH Other	Planned Outage	12/26/2013 09:10	78	1
UG Other	Planned Outage	12/26/2013 11:27	54	1
OH Other	Planned Outage	12/28/2013 14:17	31	1

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Substation Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	Substation Equipment	1/9/2013 6:47	2478	1239
Substation	Substation Equipment	1/9/2013 13:05	0	0
Substation	Substation Equipment	1/18/2013 9:35	32968	634
Substation	Substation Equipment	1/18/2013 9:35	53075	965
Substation	Substation Equipment	1/18/2013 9:35	80704	1552
Substation	Substation Equipment	1/18/2013 9:38	28766	757
Substation	Circuit Breaker	2/1/2013 7:49	45237	887
Substation	Substation Equipment	2/2/2013 15:52	17384	328
Substation	Substation Equipment	2/2/2013 15:54	33198	503
Substation	Substation Equipment	2/2/2013 15:54	18160	454
Substation	Substation Equipment	2/2/2013 15:58	110	1
Substation	Substation Equipment	2/2/2013 15:59	545	5
Substation	Substation Equipment	2/2/2013 15:59	981	9
Substation	Circuit Breaker	2/7/2013 20:30	0	0
Substation	Circuit Breaker	2/7/2013 20:30	37800	450
Substation	Circuit Breaker	2/10/2013 6:54	43005	915
Substation	Substation Equipment	2/10/2013 8:09	44264	1006
Substation	Substation Equipment	2/10/2013 8:10	19085	347
Substation	Substation Equipment	2/10/2013 8:10	20160	288
Substation	Substation Equipment	2/10/2013 8:11	39800	995
Substation	Planned Outage	2/10/2013 9:18	1588	794
Substation	Substation Equipment	2/14/2013 10:17	153	153
Substation	Substation Equipment	2/16/2013 10:39	35880	598
Substation	Substation Equipment	2/16/2013 10:39	70208	1097
Substation	Substation Equipment	2/16/2013 10:39	163584	2304
Substation	Relay and Controls	3/4/2013 6:41	32960	320
Substation	Relay and Controls	3/4/2013 6:41	79581	647
Substation	Relay and Controls	3/4/2013 6:41	233103	1677
Substation	Unknown	3/7/2013 4:58	1442	206
Substation	Unknown	3/7/2013 4:58	1918	274
Substation	Unknown	3/7/2013 4:58	5390	770
Substation	Rain	3/12/2013 8:33	903	903
Substation	Unknown	4/4/2013 5:16	15007	349
Substation	Bird or Nest - Sub\Ckt	4/4/2013 6:49	34104	1421

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Substation Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	Other Substation	4/13/2013 17:07	8007	157
Substation	Other Substation	4/13/2013 17:07	33372	412
Substation	Other Substation	4/13/2013 17:07	67588	1108
Substation	Substation Equipment	4/15/2013 8:28	1265	23
Substation	Substation Equipment	4/15/2013 8:28	24948	396
Substation	Substation Equipment	4/15/2013 8:28	16092	298
Substation	Unknown	4/17/2013 10:27	3051	1017
Substation	Substation Equipment	4/20/2013 10:21	26240	640
Substation	Substation Equipment	4/25/2013 10:22	37378	1699
Substation	Substation Equipment	4/25/2013 10:22	76405	2065
Substation	Substation Equipment	4/25/2013 17:14	89496	1017
Substation	Substation Equipment	4/25/2013 17:58	66924	468
Substation	Bus Fault\69KV	4/25/2013 17:58	1012	506
Substation	Bus Fault\69KV	4/25/2013 17:58	1406	703
Substation	Substation Equipment	4/25/2013 17:58	1468	734
Substation	Bus Fault\69KV	4/25/2013 17:58	1490	745
Substation	Bus Fault\69KV	4/25/2013 17:58	1764	882
Substation	Substation Equipment	4/25/2013 17:58	110085	895
Substation	Bus Fault\69KV	4/25/2013 17:58	2586	1293
Substation	Bus Fault\69KV	4/25/2013 17:58	144780	1524
Substation	Bus Fault\69KV	4/25/2013 17:58	3282	1641
Substation	Bus Fault\69KV	4/25/2013 17:58	4108	2054
Substation	Bus Fault\69KV	4/25/2013 17:58	5188	2594
Substation	Bus Fault\69KV	4/25/2013 17:58	5238	2619
Substation	Substation Equipment	4/25/2013 18:49	58800	735
Substation	Substation Equipment	4/25/2013 18:49	59600	745
Substation	Substation Equipment	5/1/2013 9:41	0	0
Substation	Substation Equipment	5/1/2013 9:41	0	0
Substation	Substation Equipment	5/1/2013 9:41	378	7
Substation	Substation Equipment	5/1/2013 9:41	11542	199
Substation	Substation Equipment	5/1/2013 9:41	78192	1448
Substation	Substation Equipment	5/1/2013 9:41	126711	2223
Substation	Lightning	6/1/2013 23:50	141564	753
Substation	Lightning	6/1/2013 23:50	208402	1319
Substation	Lightning	6/1/2013 23:50	173145	1455

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Substation Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	Lightning	6/1/2013 23:50	404244	1773
Substation	Substation Equipment	6/4/2013 9:17	28	7
Substation	Vandalism	6/11/2013 19:14	830	415
Substation	Vandalism	6/11/2013 19:14	1534	767
Substation	Vandalism	6/11/2013 19:14	3218	1609
Substation	Switch	6/26/2013 14:22	2448	153
Substation	Short\Primary	6/29/2013 16:57	0	0
Substation	Short\Primary	6/29/2013 16:57	0	0
Substation	Short\Primary	6/29/2013 16:57	0	0
Substation	Short\Primary	6/29/2013 16:57	4773	111
Substation	Short\Primary	6/29/2013 16:57	8967	183
Substation	Short\Primary	6/29/2013 16:57	10640	266
Substation	Bus Fault\69KV	7/4/2013 4:46	2928	732
Substation	Bus Fault\69KV	7/4/2013 4:46	5860	1465
Substation	Bus Fault\69KV	7/4/2013 4:46	11140	2785
Substation	Bus Fault\69KV	7/4/2013 4:47	960	320
Substation	Bus Fault\69KV	7/4/2013 4:47	1443	481
Substation	Bus Fault\69KV	7/4/2013 4:47	2541	847
Substation	Bus Fault\69KV	7/4/2013 4:47	2874	958
Substation	Bus Fault\69KV	7/4/2013 4:47	3219	1073
Substation	Bus Fault\69KV	7/4/2013 4:47	4461	1487
Substation	Bus Fault\69KV	7/4/2013 4:47	4734	1578
Substation	Bus Fault\69KV	7/4/2013 4:50	45346	1106
Substation	Bus Fault\69KV	7/4/2013 4:51	87932	1691
Substation	Bus Fault\69KV	7/4/2013 4:53	41323	961
Substation	Bus Fault\13KV	7/10/2013 20:18	53768	611
Substation	Bus Fault\13KV	7/10/2013 20:18	120384	1216
Substation	Bus Fault\13KV	7/10/2013 20:20	136719	1381
Substation	Bus Fault\13KV	7/10/2013 20:20	77400	1032
Substation	Bus Fault\13KV	7/17/2013 9:58	20034	371
Substation	Bus Fault\13KV	7/17/2013 9:58	53550	1071
Substation	Bus Fault\13KV	7/17/2013 9:58	82000	1640
Substation	Bus Fault\13KV	7/17/2013 9:58	15318	333
Substation	Squirrel - Sub\Ckt	7/19/2013 9:27	55564	958
Substation	Squirrel - Sub\Ckt	7/19/2013 9:27	200900	2870

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Substation Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	Squirrel - Sub\Ckt	7/19/2013 9:28	19350	450
Substation	Human Switching	7/22/2013 8:30	1330	665
Substation	Human Switching	7/22/2013 8:30	3340	1670
Substation	Human Switching	7/24/2013 8:39	3039	1013
Substation	Bus Fault\13KV	7/25/2013 22:56	93870	1341
Substation	Bus Fault\13KV	7/25/2013 22:56	76736	1199
Substation	Bus Fault\13KV	7/25/2013 22:56	27700	554
Substation	Bus Fault\13KV	7/25/2013 22:57	71001	1029
Substation	Substation Equipment	7/31/2013 18:16	39522	941
Substation	Substation Equipment	7/31/2013 18:17	82260	914
Substation	Substation Equipment	7/31/2013 18:45	17577	279
Substation	Substation Equipment	7/31/2013 18:52	10326	1721
Substation	Substation Equipment	7/31/2013 19:26	32725	275
Substation	Substation Equipment	7/31/2013 19:26	76752	656
Substation	Substation Equipment	7/31/2013 19:26	5880	49
Substation	Substation Equipment	7/31/2013 19:27	0	0
Substation	Circuit Breaker	8/6/2013 0:59	894	894
Substation	Lightning	8/7/2013 18:32	6060	303
Substation	Lightning	8/7/2013 18:32	2352	84
Substation	Lightning	8/7/2013 18:33	96	1
Substation	Lightning	8/7/2013 18:33	3330	90
Substation	Other Transmission	8/14/2013 15:25	119	119
Substation	Other Transmission	8/14/2013 15:25	805	805
Substation	Other Transmission	8/14/2013 15:25	991	991
Substation	Other Transmission	8/14/2013 15:25	1114	1114
Substation	Other Transmission	8/14/2013 15:25	1132	1132
Substation	Other Transmission	8/14/2013 15:25	1267	1267
Substation	Other Transmission	8/14/2013 15:25	1270	1270
Substation	Other Transmission	8/14/2013 15:25	1326	1326
Substation	Other Transmission	8/14/2013 15:25	1462	1462
Substation	Other Transmission	8/14/2013 15:25	1698	1698
Substation	Other Transmission	8/14/2013 15:25	2239	2239
Substation	Bus Fault\13KV	8/20/2013 17:49	9520	280
Substation	Bus Fault\13KV	8/20/2013 17:50	21010	382
Substation	Bus Fault\13KV	8/20/2013 17:54	2385	45

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Substation Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	Bus Fault\13KV	8/20/2013 17:54	897	23
Substation	Substation Equipment	8/21/2013 16:18	2961	987
Substation	Substation Equipment	8/21/2013 16:21	2218	2218
Substation	Bus Fault\13KV	8/23/2013 18:49	0	0
Substation	Bus Fault\13KV	8/23/2013 18:49	0	0
Substation	Bus Fault\69KV	8/23/2013 18:49	0	0
Substation	Bus Fault\69KV	8/23/2013 18:49	0	0
Substation	Substation Equipment	8/23/2013 18:49	0	0
Substation	Substation Equipment	8/23/2013 18:49	0	0
Substation	Substation Transformer Failure	8/23/2013 18:49	0	0
Substation	Substation Transformer Failure	8/23/2013 18:49	0	0
Substation	Substation Equipment	8/23/2013 18:49	5800	145
Substation	Bus Fault\13KV	8/23/2013 18:49	15160	379
Substation	Substation Transformer Failure	8/23/2013 18:49	23640	591
Substation	Bus Fault\69KV	8/23/2013 18:49	29160	729
Substation	Relay and Controls	8/29/2013 16:00	5852	133
Substation	Relay and Controls	8/29/2013 16:00	80564	1831
Substation	Relay and Controls	8/29/2013 16:01	23936	544
Substation	Substation Equipment	8/30/2013 21:45	124740	1134
Substation	Substation Equipment	9/1/2013 15:11	13600	160
Substation	Substation Equipment	9/5/2013 18:36	12690	282
Substation	Underfrequency Relay	9/9/2013 5:46	104544	968
Substation	Underfrequency Relay	9/9/2013 5:46	71755	635
Substation	Substation Equipment	9/12/2013 12:46	43164	981
Substation	Substation Equipment	9/12/2013 12:48	97822	1658
Substation	Substation Equipment	9/12/2013 12:48	60947	1033
Substation	Unknown	9/19/2013 9:44	6942	2314
Substation	Substation Equipment	9/29/2013 20:32	3378	1689
Substation	Circuit Breaker	10/1/2013 7:04	17314	787
Substation	Circuit Breaker	10/1/2013 7:04	36333	1101
Substation	Circuit Breaker	10/1/2013 7:04	66963	1313
Substation	Circuit Breaker	10/1/2013 7:04	47158	1387
Substation	Substation Equipment	10/7/2013 8:33	18676	406

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Substation Events

#### Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	Substation Equipment	10/7/2013 8:36	0	0
Substation	Animal (Other) - Sub\Ckt	10/8/2013 2:51	84952	1036
Substation	Animal (Other) - Sub\Ckt	10/8/2013 2:51	153500	1535
Substation	Animal (Other) - Sub\Ckt	10/8/2013 2:51	66880	1760
Substation	Substation Equipment	10/12/2013 8:44	1782	891
Substation	Circuit Breaker	10/15/2013 9:13	10934	994
Substation	Bus Fault\13KV	10/20/2013 10:27	8052	244
Substation	Bus Fault\13KV	10/20/2013 10:27	17168	296
Substation	Bus Fault\13KV	10/20/2013 10:27	79351	1087
Substation	Bus Fault\13KV	10/20/2013 10:27	51885	1153
Substation	Substation Equipment	10/31/2013 7:18	396	12
Substation	Substation Equipment	11/6/2013 1:13	250	250
Substation	Substation Equipment	11/8/2013 15:09	0	0
Substation	Short\Primary	12/10/2013 17:49	0	0
Substation	Short\Primary	12/10/2013 17:49	33000	500
Substation	Substation Equipment	12/10/2013 17:49	19920	415
Substation	Substation Equipment	12/10/2013 17:49	41949	531
Substation	Circuit Breaker	12/17/2013 7:08	0	0
Substation	Circuit Breaker	12/17/2013 7:08	0	0
Substation	Circuit Breaker	12/17/2013 7:08	1584	16
Substation	Circuit Breaker	12/17/2013 7:08	2790	30
Substation	Circuit Breaker	12/17/2013 7:08	43355	667
Substation	Electrical (Other)	12/22/2013 19:17	70587	759
Substation	Electrical (Other)	12/22/2013 19:17	84724	1436
Substation	Unknown	12/22/2013 19:17	139515	1965

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Transmission Events

#### Outage Event Description

Outage Event	Reason for Exclusion	Outage Date	CMI Excluded	CI Excluded
Transmission	Other Transmission	1/31/2013 15:29	4326	721
Transmission	Other Transmission	1/31/2013 15:29	8328	1388
Transmission	Other Transmission	1/31/2013 15:29	5928	988
Transmission	Other Transmission	1/31/2013 15:29	3876	646
Transmission	Other Transmission	1/31/2013 15:29	3780	630
Transmission	Other Transmission	1/31/2013 15:29	150	25
Transmission	Other Transmission	1/31/2013 15:29	7374	1229
Transmission	Other Transmission	1/31/2013 15:29	6666	1111
Transmission	Other Transmission	2/7/2013 14:58	2144	1072
Transmission	Other Transmission	2/7/2013 14:58	3134	1567
Transmission	Other Transmission	2/7/2013 14:58	3050	1525
Transmission	Rain	3/12/2013 5:37	7870	1574
Transmission	Rain	3/12/2013 5:37	5425	1085
Transmission	Rain	3/12/2013 5:37	7725	1545
Transmission	Other Transmission	4/18/2013 15:04	152	38
Transmission	Other Transmission	4/18/2013 15:04	268	67
Transmission	Other Transmission	4/18/2013 15:04	420	105
Transmission	Other Transmission	4/18/2013 15:04	7776	1944
Transmission	Other Transmission	4/18/2013 15:04	2284	571
Transmission	Other Transmission	4/18/2013 15:04	3716	929
Transmission	Other Transmission	4/18/2013 15:04	1716	429
Transmission	Other Transmission	4/18/2013 15:04	460	115
Transmission	Other Transmission	4/18/2013 15:04	440	110
Transmission	Other Transmission	4/18/2013 15:04	312	78
Transmission	Other Transmission	4/18/2013 15:04	176	44
Transmission	Other Transmission	4/18/2013 15:04	2340	585
Transmission	Other Transmission	4/18/2013 15:04	732	183
Transmission	Other Transmission	4/18/2013 15:04	1728	432
Transmission	Other Transmission	4/18/2013 15:04	496	124
Transmission	Other Transmission	4/18/2013 23:03	228	57
Transmission	Other Transmission	6/6/2013 3:49	0	0
Transmission	Tree\Vines	6/8/2013 18:01	90691	1019
Transmission	Tree\Vines	6/8/2013 18:01	118773	2241
Transmission	Tree\Vines	6/8/2013 18:01	105178	1223
Transmission	Tree\Vines	6/8/2013 18:01	88717	1123



## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Transmission Events

#### Outage Event Description

Outage Event	Reason for Exclusion	Outage Date	CMI Excluded	CI Excluded
Transmission	Tree\Vines	6/8/2013 18:01	139200	1600
Transmission	Tree\Vines	6/8/2013 18:01	40478	547
Transmission	Tree\Vines	6/8/2013 18:01	1658	829
Transmission	Tree\Vines	6/8/2013 18:01	1470	735
Transmission	Tree\Vines	6/8/2013 18:01	582	291
Transmission	Tree\Vines	6/8/2013 18:01	3036	1518
Transmission	Tree\Vines	6/8/2013 18:01	3176	1588
Transmission	Tree\Vines	6/8/2013 18:01	2088	1044
Transmission	Tree\Vines	6/8/2013 18:01	1228	614
Transmission	Tree\Vines	6/8/2013 18:01	0	0
Transmission	Tree\Vines	6/8/2013 18:01	2040	1020
Transmission	Tree\Vines	6/8/2013 18:01	1686	843
Transmission	Tree\Vines	6/8/2013 18:01	896	448
Transmission	Tree\Vines	6/8/2013 18:01	134	67
Transmission	Tree\Vines	6/8/2013 18:01	3480	1740
Transmission	Tree\Vines	6/8/2013 18:01	2790	1395
Transmission	Other Transmission	7/23/2013 16:51	1808	904
Transmission	Other Transmission	7/23/2013 16:51	4338	2169
Transmission	Other Transmission	7/23/2013 16:51	2154	1077
Transmission	Other Transmission	7/23/2013 16:51	2226	1113
Transmission	Other Transmission	7/23/2013 16:51	1544	772
Transmission	Other Transmission	7/23/2013 16:51	1342	671
Transmission	Other Transmission	8/14/2013 15:25	476	476
Transmission	Other Transmission	8/14/2013 15:25	196	196
Transmission	Other Transmission	8/14/2013 15:25	157	157
Transmission	Other Transmission	8/14/2013 15:25	1391	1391
Transmission	Other Transmission	8/14/2013 15:25	758	758
Transmission	Other Transmission	8/14/2013 15:25	903	903
Transmission	Other Transmission	8/14/2013 15:25	959	959
Transmission	Other Transmission	8/14/2013 15:25	1616	1616
Transmission	Other Transmission	8/18/2013 17:00	3212	1606
Transmission	Other Transmission	8/18/2013 17:00	1532	766
Transmission	Other Transmission	8/18/2013 17:00	838	419
Transmission	Wire Down	10/5/2013 16:00	9790	979
Transmission	Wire Down	10/5/2013 16:00	19840	1984
Transmission	Wire Down	10/5/2013 16:00	5690	1138

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 Adjustments: Transmission Events

#### Outage Event Description

<b>Outage Event</b>	<b>Reason for Exclusion</b>	<b>Outage Date</b>	<b>CMI Excluded</b>	<b>CI Excluded</b>
Transmission	Wire Down	10/5/2013 16:00	6690	669
Transmission	Wire Down	10/5/2013 16:00	5905	1181
Transmission	Wire Down	10/5/2013 16:00	9700	1940
Transmission	Static Wire	10/5/2013 16:00	2288	22
Transmission	Fire\Pole	12/10/2013 5:31	27720	440

## **2013 Storm Implementation Plan and Annual Reliability Reports**

### **Appendix C) Pole Inspection Summary**

The following page contains the Annual Wood Pole Inspection Report.

## 2013 Storm Implementation Plan and Annual Reliability Reports

ATTACHMENT 1												
TAMPA ELECTRIC COMPANY Annual Wood Pole Inspection Report 2013												
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 Falling 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 / Guy s)	# 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 249 0.50%	Distribution Reinforcement 249						
* TOTAL POLE POPULATION					Distribution Replacement 8,543 17.31%	Distribution Replacement 8,543						
Distribution 395,350	Distribution 49,176	Distribution 49,362	Distribution 8,792	Distribution 17.81%	Distribution 8,792	Distribution 6,572	Distribution 527	Distribution Poles Overloaded 1,727	Visual Sound Bore	Distribution 49,176	Distribution 341,450	Distribution 96.60%
Transmission 25,700	Transmission 0	Transmission 0	Transmission 0	Transmission 0.00%	Transmission 0	Transmission 886	Transmission 0	Transmission 0	Excavation	Transmission 3,216	Transmission 23,958	Transmission 100.00%
Total Poles 421,050	Total 49,176	Total 49,362	Total 8,792		Total 8,792	Total 7,438	Total 527	Total 1,727		Total 52,392	Total 365,408	Total 96.82%
If b - c > 0, provide explanation												
If d - g > 0, provide explanation												
Description of selection criteria for inspections												

\* Total Pole Population Includes Concrete, Steel and Wood.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Appendix D) Storm Hardening Metrics

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

##### 2013 - System Vegetation Management Performance Metrics - SYSTEM

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer interruptions							
(C) Miles Cleared		373.9			1098.0		1471.9
(D) Remaining Miles		1336.1			3493.0		4829.0
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		109			3351		3460
(H) All Vegetation Management Costs							\$10,748,829
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							\$10,293,112
(L) Vegetation Goal (current year)		425.3			1150.0		1575.3
(M) Vegetation Budget (next year)							10,797,572
(N) Vegetation Goal (next year)		429.8			1143.0		1572.8
(O) Trim-Back Distance							10'

**Notes:**

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

(H) 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

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - 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		47.8			120.5		168.3
(D) Remaining Miles		286.9			594.2		881.0
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		21			831		852
(H) All Vegetation Management Costs							\$1,335,602
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		70.8			191.5		262.3
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		83.9			177.6		261.6
(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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - System Vegetation Management Performance Metrics - DCA

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		17.2			100.9		118.1
(D) Remaining Miles		37.0			214.3		251.3
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		0			80		80
(H) All Vegetation Management Costs							\$405,666
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		24.9			67.5		92.4
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		13.6			78.7		92.3
(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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - System Vegetation Management Performance Metrics - ESA

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		55.2			128.3		183.5
(D) Remaining Miles		236.5			423.3		659.8
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		26			569		595
(H) All Vegetation Management Costs							\$1,258,148
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		56.9			153.9		210.8
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		73.0			137.6		210.6
(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.



## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - System Vegetation Management Performance Metrics - PCA

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		53.1			259.7		312.8
(D) Remaining Miles		186.6			739.1		925.7
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		12			405		417
(H) All Vegetation Management Costs							\$1,381,746
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		83.6			226.0		309.6
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		61.3			248.7		310.1
(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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - System Vegetation Management Performance Metrics - SHA

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		31.1			120.0		151.1
(D) Remaining Miles		160.5			436.5		597.0
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		9			180		189
(H) All Vegetation Management Costs							\$889,747
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		50.5			136.6		187.1
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		48.0			138.4		186.4
(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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - System Vegetation Management Performance Metrics - WSA

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions							
(C) Miles Cleared		96.2			189.5		285.6
(D) Remaining Miles		257.1			578.9		836.0
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		23			993		1016
(H) All Vegetation Management Costs							\$2,109,507
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		75.7			204.7		280.4
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		88.2			191.6		279.8
(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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 2013 - 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		73.4			179.2		252.6
(D) Remaining Miles		171.5			506.7		678.2
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		18			293		311
(H) All Vegetation Management Costs							\$624,887
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)		62.8			169.9		232.7
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)		61.8			170.4		232.2
(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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 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.  
33% feeders: \_N/A\_ laterals: \_N/A\_
- b) Date audit conducted? Start 4<sup>th</sup> quarter 2013.
- c) Date of previous audit? Total system-wide audit completed 2008.
- d) List of audits conducted annually
  - Through Tampa Electric's Pole Attachment Audit 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.

## 2013 Storm Implementation Plan and Annual Reliability Reports

Joint-Use Attachment Data Table

(A) Number of company owned distribution poles.	307,413
(B) Number of company distribution poles leased.	13,184 <sup>(1)</sup>
(C) Number of owned distribution pole attachments	199,940
(D) Number of leased distribution pole attachments.	13,184 <sup>(2)</sup>
(E) Number of authorized attachments.	342,679
(F) Number of unauthorized attachments.	Unknown <sup>(3)</sup>
(G) Number of distribution poles strength tested.	1,920
(H) Number of distribution poles passing strength test.	160
(I) Number of distribution poles failing strength test (overloaded).	33
(J) Number of distribution poles failing strength test (other reasons).	8,543 <sup>(4)</sup>
(K) Number of distribution poles corrected (strength failure).	535 <sup>(5)</sup>
(L) Number of distribution poles corrected (other reasons).	255 <sup>(6)</sup>
(M) Number of distribution poles replaced.	6,587
(N) Number of apparent NESC violations involving electric infrastructure.	24
(O) Number of apparent NESC violations involving 3 <sup>rd</sup> party facilities.	34

**Notes:**

- (1) These are the number of poles where Tampa Electric leases space on foreign owned poles.
- (2) Each attachment is counted as one per pole on leased poles.
- (3) Tampa Electric started a pole attachment audit in 4<sup>th</sup> Qtr. 2013 and will identify unauthorized attachments at the completion of the audit in June 2014.
- (4) These 8,543 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.
- (5) These poles were re-guyed or re-configured to pass strength loading.
- (6) The company reinforced these poles with trusses.

## 2013 Storm Implementation Plan and Annual Reliability Reports

### 3) Initiative 3: Six-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.		187			187	
(B1) Planned transmission circuit inspections – Groundline (Structures)	0		0		14 (3,216)	\$116,332
(B2) Planned transmission circuit inspections – Above Ground (Structures).	54 (7,727)		\$314,000		19% Of System	\$344,000
(C1) Completed transmission circuit inspections – Groundline (Poles)		0		0		
(C2) Completed transmission circuit inspections – Above Ground (Structures)		39 (5,199)		\$268,242		
(D1) Percent of transmission circuit inspections completed - Groundline		N/A				
(D2) Percent of transmission circuit inspections completed – Above Ground.		72%				
(E) Planned transmission substation inspections.	71				71	
(F) Completed transmission substation inspections		71				
(G) Percent transmission substation inspections completed.		100%				
(H) Planned transmission equipment inspections (other equipment). – Ground Patrol/ IR Patrol	187/187				187/187	
(I) Completed transmission equipment inspections (other equipment) – Ground Patrol/ IR Patrol		187/187		\$229,816/ \$75,841		\$326,744/ \$81,800
(J) Percent of transmission equipment inspections completed (other equipment) – Ground Patrol/ IR Patrol		100%				

## 2013 Storm Implementation Plan and Annual Reliability Reports

### Transmission Pole Inspections

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of transmission poles		25,724 <sup>1</sup>				
(B) Number of transmission poles strength tested		0				Note 2
(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)		909 <sup>4</sup>			705	Note 3

Note 1: The transmission pole count on the entire system is currently 25,724 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 groundline 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.

Note 4: This number does not include the 16 additional poles added in 2013 as a part of LiDAR work.



## 2013 Storm Implementation Plan and Annual Reliability Reports

### 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.		973 <sup>1</sup>	\$16.5M		705	\$15.2 M <sup>2</sup>
(B) Transmission structures hardening completed.		1,181		\$15.6M		
(C) Percent transmission structures hardening completed.		120%				

Note 1: Includes estimated structures to harden as part of LiDAR program.

Note 2: \$12.2 M is associated with the pole replacement program, an additional \$3 M is allocated for the LiDAR correction activities.

### 5) Initiative 5: Geographic Information System

See Section I – Storm Preparedness Plans, item E) Initiative 5: See Geographic Information System on pages 27 through 28 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 28 through 33 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 34 for a detailed discussion.

## **2013 Storm Implementation Plan and Annual Reliability Reports**

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

See attached page 154 for a matrix of Tampa Electric's activities involving its coordination with local governments.

## 2013 Storm Implementation Plan and Annual Reliability Reports

Gov't Entities		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		Cyber Security for the IT Professional - DHS Presentation	NFPA 1600 Committee meeting - Emergency Management, Business Continuity, and Disaster Recovery Standard, including Cyber Security NERC Grid Ex II				
			DHS Training on Secret Clearance				
STATE		State Business and Industry Summit	FRCC - Crisis Response Task Force			Advised area State Gov't officials on new NERC/FERC trimming standards	
		FEPA Business and Industry Summit				Florida Urban Forestry Conference	
			Oil Spill Exercise in conjunction with Coast Guard and local environmental agencies				
Hillsborough County		Tampa Port Authority meeting	Operations Committee meetings	One partial activation for TS Andrea		Advised Gov't officials on new NERC/FERC trimming standards	Dana Shores Community Association undergrounding
			GIS training for HURREVAC			Participated on the county's Tree and Landscaping Advisory Committee	
			PDRP planning			Meeting with county's Environmental Mgr regarding vegetation management activities around Avila community	
			Critical Facility Index Working Group			Met with Tampa Palms HOAs on new NERC/FERC trimming standards	
			HC EOC training			Met with Tampa Avila HOA on new NERC/FERC trimming standards	
			Vulnerable Population task force				
			LMS governance meeting - mitigation				
			Citizen Corp Council				
			THIRA Meeting			Advised School Board officials on new NERC/FERC trimming standards (Leto HS)	
	Tampa		Participated in EOC pre-storm season orientation			Advised Gov't officials on new NERC/FERC trimming standards	
						7th Ave Palm planting review meeting	
						City of Tampa Urban Forest Sustainability committee	
	Plant City			No activations in 2013			
	Temple Terrace			No activations in 2013			
				No activations in 2013			
	Auburndale					Vegetation management meeting regarding the Auburndale Trail	
Polk County			WEBEOC Exercise from Polk Co. EOC	No activations in 2013			
Pasco County		Meeting w/Pasco EOC Coordinator	Participated in Pasco County WebEOC Training				
	Dade City			No activations in 2013			North 8th street parking lot lighting cost estimate for UG
	San Antonio			No activations in 2013			During electric franchise discussions, spoke with city attorney on company hardening maintenance
	St. Leo			No activations in 2013			
Pinellas County	Oldsmar		EOC Leadership meeting	No activations in 2013		Advised Gov't officials on new NERC/FERC trimming standards	

## 2013 Storm Implementation Plan and Annual Reliability Reports

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

See Section I – Storm Preparedness Plans, item I) Initiative 9: Collaborative Research on pages 38 through 42 for a detailed description and related data.

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

The company's Disaster Preparedness and Recovery Plan for 2013 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 2014, the Plan will undergo its customary annual review prior to storm season and any necessary updates or modifications will be made at that time.

## **2013 Storm Implementation Plan and Annual Reliability Reports**

- 11) Feeder Specific and Attached Laterals Data**  
See attached pages 157 through 202.

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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	(N) Number of Automatic Line Sectionalizing Devices on the Feeder
13001	SH	N/A	13.00	828	97953	505	N/A	4.46	534	63152	326	0	0
13002	SH	N/A	5.51	412	3056	16	N/A	4.44	444	3292	17	0	0
13003	SH	N/A	27.00	683	161197	1585	N/A	3.53	239	56322	554	0	0
13004	DC	N/A	11.00	668	147072	2019	N/A	8.48	315	69237	950	0	0
13005	DC	N/A	6.39	292	9238	54	N/A	1.61	206	6506	38	0	0
13006	DC	N/A	22.82	1181	187381	3477	N/A	9.81	1029	163387	3032	0	0
13007	PC	N/A	31.22	507	177434	1326	N/A	2.95	51	17995	134	0	0
13008	PC	N/A	17.32	383	31841	245	N/A	1.38	20	1626	13	0	0
13009	PC	N/A	3.33	100	6292	98	N/A	0.99	42	2659	42	0	0
13010	PC	N/A	7.62	578	38438	299	N/A	9.58	1023	68054	529	0	0
13011	PC	N/A	27.61	1482	136951	1878	N/A	4.25	333	30792	422	0	0
13012	WSA	N/A	0.80	107	6978	118	N/A	0.52	11	738	13	0	0
13013	WSA	N/A	0.24	64	392	4	N/A	1.39	190	1170	11	0	0
13016	WSA	N/A	0.78	91	1620	8	N/A	0.45	98	1749	9	0	0
13017	SH	N/A	9.40	377	9042	69	N/A	12.39	1090	26116	200	0	0
13019	SH	N/A	15.55	1191	289515	1011	N/A	6.21	216	52503	183	0	0
13020	SH	N/A	12.97	941	24702	118	N/A	1.32	78	2052	10	0	0
13021	CSA	N/A	3.88	298	32176	408	N/A	4.64	1029	111064	1408	0	0
13022	CSA	N/A	4.03	451	4055	58	N/A	0.71	247	2217	31	0	0
13023	CSA	N/A	8.35	1030	95845	1242	N/A	1.85	347	32235	418	0	0
13024	CSA	N/A	8.43	837	38922	271	N/A	1.30	182	8463	59	0	0
13026	CSA	N/A	3.01	291	36401	470	N/A	4.80	1320	165154	2134	0	0
13027	CSA	N/A	9.26	735	261136	1344	N/A	1.79	264	93863	483	0	0
13028	CSA	N/A	5.58	562	5844	54	N/A	4.60	1399	14556	135	0	0
13029	CSA	N/A	6.14	603	80461	751	N/A	3.08	566	75518	705	0	0
13030	WH	N/A	30.95	1036	10610	83	N/A	9.78	629	6448	50	0	0
13031	WH	N/A	14.23	560	14445	84	N/A	1.85	91	2332	14	0	0
13034	CSA	N/A	9.71	1193	55766	260	N/A	0.74	164	7644	36	0	0
13035	CSA	N/A	5.19	562	6291	48	N/A	0.73	92	1025	8	0	0
13036	CSA	N/A	9.28	933	32116	170	N/A	1.99	245	8427	45	0	0

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13037	CSA	N/A	5.87	619	12026	46	N/A	1.65	347	6732	26	0	0
13038	ESA	N/A	6.20	395	8300	29	N/A	3.06	162	3415	12	0	0
13039	ESA	N/A	7.42	479	27076	102	N/A	5.84	543	30678	116	0	0
13040	ESA	N/A	0.30	10	1114	12	N/A	14.41	1115	120743	1314	0	0
13041	ESA	N/A	5.79	367	73010	754	N/A	13.94	920	183035	1889	0	0
13042	CSA	N/A	12.55	796	112545	1882	N/A	0.05	5	727	12	0	0
13043	CSA	N/A	12.21	1731	63307	435	N/A	1.23	353	12902	89	0	0
13044	CSA	N/A	11.76	1659	259129	3736	N/A	0.26	9	1446	21	0	0
13045	CSA	N/A	7.16	1016	59072	1164	N/A	0.05	21	1196	24	0	0
13046	CSA	N/A	7.91	1198	139462	464	N/A	0.05	4	479	2	0	0
13047	CSA	N/A	3.86	557	3664	15	N/A	0.27	175	1149	5	0	0
13048	CSA	N/A	8.05	1230	206876	2665	N/A	0.32	4	692	9	0	0
13049	CSA	N/A	5.50	623	11227	71	N/A	2.06	514	9263	59	0	0
13050	CSA	N/A	0.22	5	531	2	N/A	0.91	60	6159	28	0	0
13051	CSA	N/A	1.32	198	12233	264	N/A	4.16	863	53177	1146	0	0
13052	CSA	N/A	0.90	42	149	2	N/A	0.62	72	254	4	0	0
13053	CSA	N/A	9.25	1250	23008	217	N/A	1.98	309	5681	54	0	0
13054	CSA	N/A	0.27	7	0	0	N/A	1.10	440	0	0	0	0
13055	CSA	N/A	0.15	7	0	0	N/A	0.64	30	0	0	0	0
13057	CSA	N/A	4.19	176	4289	50	N/A	1.03	198	4841	56	0	0
13059	WSA	N/A	7.08	921	176059	1326	N/A	0.70	126	24169	182	0	0
13060	WSA	N/A	4.54	650	12361	152	N/A	0.98	444	8450	104	0	0
13061	WSA	N/A	3.48	534	97156	669	N/A	0.39	42	7675	53	0	0
13062	WSA	N/A	4.80	601	2429	39	N/A	0.15	19	75	1	0	0
13063	WSA	N/A	5.69	622	24470	257	N/A	6.92	1401	55088	579	0	0
13064	WSA	N/A	8.97	967	36561	420	N/A	4.86	739	27965	321	0	0
13065	WSA	N/A	8.84	917	34477	314	N/A	2.06	474	17818	162	0	0
13066	WSA	N/A	2.88	514	4318	54	N/A	0.00	0	0	0	0	0
13067	WSA	N/A	5.26	681	21073	184	N/A	0.40	5	159	1	0	0
13068	WSA	N/A	5.42	782	6435	45	N/A	1.38	315	2591	18	0	0
13069	WSA	N/A	4.11	645	17533	661	N/A	0.51	130	3523	133	0	0
13070	WSA	N/A	16.88	451	42203	312	N/A	15.61	363	33936	251	0	0
13071	WSA	N/A	7.52	503	71710	613	N/A	15.41	874	124649	1065	0	0
13072	WSA	N/A	6.49	694	41187	1385	N/A	0.31	33	1953	66	0	0
13073	WSA	N/A	3.56	468	30992	1007	N/A	6.67	359	23772	772	0	0

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13076	WSA	N/A	2.18	110	1584	8	N/A	1.44	124	1791	9	0	0
13077	WSA	N/A	8.00	661	82634	771	N/A	1.82	44	5526	52	0	0
13078	WSA	N/A	7.24	1015	48752	243	N/A	0.29	94	4495	22	0	0
13079	WSA	N/A	4.58	716	36150	794	N/A	2.49	583	29450	647	0	0
13080	WSA	N/A	8.00	1155	40288	499	N/A	1.28	548	19121	237	0	0
13081	WSA	N/A	3.07	418	51195	768	N/A	1.14	512	62795	942	0	0
13082	WSA	N/A	6.18	883	40032	456	N/A	0.46	207	9367	107	0	0
13084	ESA	N/A	3.90	200	27651	407	N/A	1.37	58	7982	118	0	0
13085	ESA	N/A	2.05	62	28962	416	N/A	0.23	7	3379	48	0	0
13086	ESA	N/A	3.07	273	591	4	N/A	1.33	55	118	1	0	0
13087	ESA	N/A	4.20	269	35618	438	N/A	2.53	325	42959	529	0	0
13088	CSA	N/A	3.54	397	2053	14	N/A	1.21	328	1697	12	0	0
13089	CSA	N/A	7.74	720	9636	53	N/A	2.20	673	9003	49	0	0
13090	CSA	N/A	4.68	687	48419	1400	N/A	1.52	392	27616	799	0	0
13091	CSA	N/A	9.05	1334	10851	78	N/A	0.30	5	42	0	0	0
13092	CSA	N/A	5.42	644	86720	1360	N/A	0.29	62	8312	130	0	0
13093	CSA	N/A	7.49	1136	44878	305	N/A	0.03	4	162	1	0	0
13094	CSA	N/A	6.07	641	142956	1592	N/A	1.59	388	86508	964	0	0
13096	CSA	N/A	19.90	702	135159	958	N/A	10.59	503	96768	686	0	0
13097	CSA	N/A	14.55	1200	231310	2436	N/A	19.40	0	0	0	0	0
13098	CSA	N/A	10.11	559	29901	151	N/A	8.99	510	27263	138	0	0
13099	CSA	N/A	11.72	1151	88141	694	N/A	19.39	0	0	0	0	0
13100	CSA	N/A	6.12	537	33067	542	N/A	0.89	73	4498	74	0	0
13101	CSA	N/A	3.23	358	4856	65	N/A	0.67	185	2512	33	0	0
13102	CSA	N/A	2.25	779	10705	52	N/A	0.43	16	226	1	0	0
13103	CSA	N/A	3.71	1484	17762	191	N/A	0.43	14	172	2	0	0
13104	CSA	N/A	5.03	539	9436	48	N/A	1.54	242	4232	22	0	0
13105	CSA	N/A	6.78	642	45171	751	N/A	2.06	343	24178	402	0	0
13106	CSA	N/A	3.57	388	18176	425	N/A	5.51	1953	91553	2139	0	0
13107	CSA	N/A	3.78	604	35163	292	N/A	5.72	871	50737	421	0	0
13109	WSA	N/A	5.49	708	48501	197	N/A	2.40	1230	84314	342	0	0
13110	WSA	N/A	1.18	66	4317	68	N/A	1.54	75	4924	77	0	0
13111	WSA	N/A	4.17	580	144324	1148	N/A	1.25	317	78815	627	0	0
13112	WSA	N/A	10.43	880	8369	99	N/A	5.09	444	4224	50	0	0
13113	WSA	N/A	3.22	500	24861	306	N/A	0.08	6	307	4	0	0



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13114	WSA	N/A	6.44	537	30284	626	N/A	8.55	1961	110634	2286	0	0
13115	WH	N/A	8.96	656	15491	115	N/A	6.95	417	9834	73	0	0
13117	WH	N/A	11.58	724	75841	1832	N/A	21.79	500	52356	1265	0	0
13118	WH	N/A	10.24	625	15396	822	N/A	9.35	686	16890	902	0	0
13119	PC	N/A	1.61	43	8	0	N/A	2.09	642	121	1	0	0
13120	PC	N/A	2.64	76	949	50	N/A	10.22	826	10296	546	0	0
13121	PC	N/A	3.26	115	7487	173	N/A	7.16	670	43516	1008	0	0
13122	PC	N/A	3.97	374	7687	402	N/A	1.05	62	1267	66	0	0
13123	PC	N/A	7.73	683	174539	2954	N/A	1.30	117	29966	507	0	0
13124	PC	N/A	7.64	447	34263	1228	N/A	2.47	259	19849	711	0	0
13125	PC	N/A	4.07	467	7023	47	N/A	3.08	365	5491	37	0	0
13126	PC	N/A	8.19	297	718	11	N/A	2.56	173	417	7	0	0
13127	ESA	N/A	2.08	110	25727	180	N/A	14.89	1029	240683	1688	0	0
13128	ESA	N/A	9.54	318	306804	1368	N/A	7.23	404	390207	1739	0	0
13129	ESA	N/A	2.82	286	17065	71	N/A	5.43	421	25106	105	0	0
13130	ESA	N/A	6.03	444	49324	336	N/A	4.12	419	46469	317	0	0
13132	ESA	N/A	1.66	58	291	4	N/A	1.76	103	521	6	0	0
13133	ESA	N/A	8.34	1284	34128	273	N/A	1.64	432	11476	92	0	0
13134	ESA	N/A	2.06	167	8592	45	N/A	2.68	209	10767	56	0	0
13136	WSA	N/A	4.24	483	51679	636	N/A	0.29	9	990	12	0	0
13137	WSA	N/A	0.88	158	866	9	N/A	1.25	541	2957	29	0	0
13138	WSA	N/A	3.97	445	166974	1186	N/A	2.54	889	333178	2366	0	0
13139	WSA	N/A	5.86	560	74606	350	N/A	3.35	912	121422	570	0	0
13140	WSA	N/A	4.08	376	3562	19	N/A	1.20	283	2676	14	0	0
13141	WSA	N/A	2.81	642	5627	53	N/A	0.93	506	4437	41	0	0
13142	WSA	N/A	2.65	504	4833	22	N/A	1.82	532	5099	24	0	0
13143	WSA	N/A	1.97	401	39872	304	N/A	0.35	42	4192	32	0	0
13146	PC	N/A	20.07	508	19908	144	N/A	1.00	16	645	5	0	0
13147	PC	N/A	32.34	810	84858	326	N/A	5.97	295	30906	119	0	0
13148	PC	N/A	30.93	671	176180	1555	N/A	1.09	38	9998	88	0	0
13150	WH	N/A	4.28	419	31821	438	N/A	4.98	191	14542	200	0	0
13151	WH	N/A	1.86	60	5455	48	N/A	9.98	1045	95565	839	0	0
13152	WH	N/A	3.68	382	7034	95	N/A	8.14	549	10125	136	0	0
13153	WH	N/A	11.36	1165	78068	1420	N/A	5.35	391	26183	476	0	0
13154	WSA	N/A	3.65	423	7583	39	N/A	8.57	1427	25608	131	0	0

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13155	WSA	N/A	3.79	414	18906	325	N/A	12.04	1220	55638	955	0	0
13156	WSA	N/A	2.20	262	28893	317	N/A	3.81	794	87472	961	0	0
13157	WSA	N/A	0.82	98	3491	29	N/A	10.03	566	20209	170	0	0
13158	CSA	N/A	7.21	744	53179	197	N/A	3.06	812	58107	216	0	0
13159	CSA	N/A	8.34	868	56033	999	N/A	1.95	221	14274	255	0	0
13160	CSA	N/A	4.94	560	82272	1748	N/A	2.01	405	59478	1264	0	0
13161	WSA	N/A	3.56	425	4144	35	N/A	0.18	52	512	4	0	0
13162	WSA	N/A	5.65	725	65414	772	N/A	0.99	135	12155	143	0	0
13163	WSA	N/A	5.61	883	144847	840	N/A	0.52	115	18886	110	0	0
13164	WSA	N/A	5.83	837	36699	295	N/A	0.79	24	1037	8	0	0
13165	WSA	N/A	1.88	261	10452	30	N/A	0.51	57	2263	7	0	0
13166	WSA	N/A	6.15	971	21629	1516	N/A	1.14	433	9646	676	0	0
13167	WSA	N/A	7.47	1267	150994	1525	N/A	0.76	213	25370	256	0	0
13169	ESA	N/A	1.07	20	879	8	N/A	10.36	754	33929	293	0	0
13170	ESA	N/A	0.22	11	0	0	N/A	15.85	1132	0	0	0	0
13171	ESA	N/A	9.35	646	14531	117	N/A	9.29	759	17077	138	0	0
13172	ESA	N/A	2.92	226	18419	171	N/A	1.46	106	8624	80	0	0
13173	ESA	N/A	3.33	467	5181	43	N/A	4.32	359	3983	33	0	0
13174	ESA	N/A	1.57	21	1331	10	N/A	11.11	2018	130575	945	0	0
13175	CSA	N/A	17.70	1771	275127	5442	N/A	0.66	11	1757	35	0	0
13176	CSA	N/A	8.52	868	182964	2683	N/A	1.06	59	12357	181	0	0
13177	CSA	N/A	3.40	349	21563	192	N/A	0.42	46	2862	26	0	0
13178	CSA	N/A	3.10	153	13369	302	N/A	0.50	33	2871	65	0	0
13180	CSA	N/A	2.25	243	263	2	N/A	0.46	74	80	1	0	0
13181	CSA	N/A	4.14	556	160725	2030	N/A	1.29	348	100416	1268	0	0
13183	CSA	N/A	6.66	355	6117	72	N/A	0.41	19	319	4	0	0
13184	CSA	N/A	1.64	146	1064	10	N/A	0.42	20	142	1	0	0
13185	CSA	N/A	2.54	249	2430	14	N/A	7.80	1043	10180	59	0	0
13186	CSA	N/A	4.02	463	7152	23	N/A	0.37	111	1716	6	0	0
13187	CSA	N/A	6.05	624	60503	282	N/A	4.42	634	61401	286	0	0
13188	CSA	N/A	5.24	521	19082	630	N/A	5.00	588	21529	710	0	0
13189	WSA	N/A	2.59	243	2136	12	N/A	1.46	60	525	3	0	0
13190	WSA	N/A	8.00	602	27701	310	N/A	7.35	346	15910	178	0	0
13191	WSA	N/A	5.60	406	10297	70	N/A	3.83	200	5057	34	0	0
13192	WSA	N/A	4.27	336	28879	328	N/A	7.71	763	65529	745	0	0

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13193	WSA	N/A	0.00	0	0	0	N/A	10.08	867	6500	14	0	0
13194	WSA	N/A	6.19	251	3181	12	N/A	1.92	209	2647	10	0	0
13195	WSA	N/A	0.45	58	694	6	N/A	0.37	14	174	1	0	0
13198	WSA	N/A	4.19	744	99167	1080	N/A	2.33	191	25512	278	0	0
13199	WSA	N/A	4.88	725	49463	950	N/A	0.71	144	9822	189	0	0
13200	WSA	N/A	0.37	63	111	2	N/A	0.39	8	15	0	0	0
13201	WSA	N/A	2.73	408	423	5	N/A	0.32	9	10	0	0	0
13204	CSA	N/A	5.29	534	134158	1155	N/A	4.21	1323	332423	2862	0	0
13205	CSA	N/A	4.01	329	14650	87	N/A	2.05	445	19823	118	0	0
13206	WSA	N/A	10.45	1433	59239	415	N/A	0.17	33	1361	10	0	0
13207	WSA	N/A	9.44	966	123877	1367	N/A	0.52	29	3694	41	0	0
13208	WSA	N/A	4.51	527	41290	369	N/A	0.87	50	3952	35	0	0
13210	WSA	N/A	7.38	866	35463	176	N/A	0.08	6	253	1	0	0
13211	ESA	N/A	2.04	205	97	1	N/A	6.83	652	307	4	0	0
13213	ESA	N/A	21.53	969	378731	2119	N/A	9.46	453	176902	990	0	0
13214	ESA	N/A	6.18	478	5811	505	N/A	5.46	234	2849	248	0	0
13217	WSA	N/A	3.10	342	11637	133	N/A	1.44	189	6430	74	0	0
13218	WSA	N/A	6.07	619	51966	350	N/A	2.14	747	62669	422	0	0
13219	WSA	N/A	8.87	1223	89611	864	N/A	1.98	363	26604	257	0	0
13220	WSA	N/A	4.53	476	44341	618	N/A	1.44	289	26911	375	0	0
13221	CSA	N/A	2.46	122	10320	28	N/A	3.99	977	82387	221	0	0
13222	CSA	N/A	2.56	188	3493	28	N/A	1.46	574	10650	85	0	0
13223	CSA	N/A	4.74	414	3582	401	N/A	1.42	71	613	69	0	0
13224	CSA	N/A	10.08	926	77097	1978	N/A	1.17	190	15848	406	0	0
13225	ESA	N/A	5.86	431	64215	515	N/A	4.56	370	55173	443	0	0
13226	ESA	N/A	6.79	504	60093	1416	N/A	9.94	1178	140421	3309	0	0
13227	ESA	N/A	6.29	455	65316	472	N/A	5.51	494	70931	513	0	0
13228	ESA	N/A	4.01	297	2256	12	N/A	4.63	770	5846	32	0	0
13229	ESA	N/A	8.37	668	108136	1955	N/A	4.15	566	91499	1654	0	0
13230	ESA	N/A	3.77	369	18481	420	N/A	5.21	758	37940	863	0	0
13231	ESA	N/A	5.13	506	4807	30	N/A	8.25	752	7142	44	0	0
13233	SH	N/A	4.67	74	56	1	N/A	1.55	159	121	2	0	0
13235	SH	N/A	0.41	11	476	11	N/A	26.15	1894	79654	1851	0	0
13236	SH	N/A	73.87	692	387462	5587	N/A	24.82	470	263106	3794	0	0
13237	SH	N/A	0.00	0	0	0	N/A	3.11	115	0	0	0	0

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13238	SH	N/A	3.97	78	4474	95	N/A	0.71	1765	101011	2146	0	0
13241	PC	N/A	11.62	890	137912	1094	N/A	4.74	528	81791	649	0	0
13242	PC	N/A	10.81	387	19378	424	N/A	3.04	372	18657	408	0	0
13243	PC	N/A	10.68	916	122377	998	N/A	2.36	340	45462	371	0	0
13253	CSA	N/A	0.09	3	0	0	N/A	0.00	0	0	0	0	0
13254	SH	N/A	24.70	552	162031	1579	N/A	11.51	825	241991	2358	0	0
13256	SH	N/A	22.44	449	135051	1607	N/A	7.00	803	241362	2872	0	0
13258	CSA	N/A	0.00	0	0	0	N/A	0.58	20	0	0	0	0
13259	CSA	N/A	0.00	0	0	0	N/A	1.37	15	0	0	0	0
13260	CSA	N/A	0.00	0	0	0	N/A	0.20	0	0	0	0	0
13261	CSA	N/A	0.00	0	0	0	N/A	1.23	6	0	0	0	0
13263	CSA	N/A	0.00	0	0	0	N/A	0.05	3	0	0	0	0
13264	CSA	N/A	0.00	0	0	0	N/A	1.49	748	0	0	0	0
13265	CSA	N/A	0.00	0	0	0	N/A	0.46	6	0	0	0	0
13270	WSA	N/A	0.41	37	198	2	N/A	3.36	434	2317	23	0	0
13275	WSA	N/A	0.00	0	0	0	N/A	1.82	5	0	0	0	0
13276	WSA	N/A	0.00	0	0	0	N/A	2.27	15	0	0	0	0
13278	WH	N/A	7.50	747	5189	55	N/A	0.80	85	593	6	0	0
13279	WH	N/A	3.16	457	213	6	N/A	1.04	34	16	0	0	0
13280	WH	N/A	0.01	0	0	0	N/A	0.12	5	0	0	0	0
13281	WH	N/A	0.00	0	0	0	N/A	0.05	4	84	2	0	0
13282	WH	N/A	12.08	418	99120	1963	N/A	2.12	52	12451	247	0	0
13283	WH	N/A	0.45	519	54	1	N/A	0.31	223	23	0	0	0
13288	WH	N/A	1.10	117	1032	6	N/A	1.68	45	399	3	0	0
13289	WH	N/A	3.98	342	47753	458	N/A	1.94	238	33126	318	0	0
13290	WH	N/A	5.08	646	36492	725	N/A	1.31	336	19002	377	0	0
13291	WH	N/A	3.90	472	3318	39	N/A	3.47	314	2204	26	0	0
13292	WH	N/A	2.80	339	115	1	N/A	1.72	118	40	0	0	0
13293	WH	N/A	8.37	925	140963	2044	N/A	2.44	360	54880	796	0	0
13294	WH	N/A	14.32	876	15245	166	N/A	2.01	34	590	6	0	0
13295	WH	N/A	2.84	245	5500	10	N/A	11.14	896	20129	38	0	0
13296	WH	N/A	9.54	465	13046	55	N/A	10.40	862	24186	101	0	0
13297	WH	N/A	6.01	584	3159	23	N/A	5.87	688	3720	27	0	0
13298	WH	N/A	134.89	1099	256218	3524	N/A	3.39	36	8389	115	0	0
13299	WH	N/A	17.51	713	96856	629	N/A	16.12	493	66947	435	0	0

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13302	SH	N/A	2.99	245	29356	470	N/A	17.80	1298	155660	2494	0	0
13303	SH	N/A	113.09	1590	138778	1003	N/A	5.71	363	31687	229	0	0
13304	SH	N/A	0.70	12	1215	27	N/A	13.11	1009	99311	2180	0	0
13305	SH	N/A	24.50	574	16842	75	N/A	6.38	64	1871	8	0	0
13308	WH	N/A	6.92	690	25972	229	N/A	3.39	507	19082	168	0	0
13309	WH	N/A	3.64	419	57042	844	N/A	0.38	14	1962	29	0	0
13310	WH	N/A	2.10	338	32676	421	N/A	0.51	109	10528	136	0	0
13311	WH	N/A	5.71	693	12074	115	N/A	0.53	84	1469	14	0	0
13312	WH	N/A	4.91	556	3099	20	N/A	2.30	350	1948	13	0	0
13313	WH	N/A	2.75	351	11616	355	N/A	1.37	72	2384	73	0	0
13314	WH	N/A	3.01	168	36	0	N/A	2.13	289	62	1	0	0
13315	WH	N/A	0.00	0	0	0	N/A	0.49	23	893	19	0	0
13317	WSA	N/A	0.74	5	252	5	N/A	5.19	1063	52177	1036	0	0
13318	WSA	N/A	0.00	0	0	0	N/A	0.38	4	0	0	0	0
13319	WSA	N/A	0.00	0	0	0	N/A	0.34	6	0	0	0	0
13320	WSA	N/A	0.00	0	0	0	N/A	2.39	7	0	0	0	0
13321	WSA	N/A	0.00	0	0	0	N/A	1.56	8	0	0	0	0
13322	WSA	N/A	0.10	0	0	0	N/A	1.56	515	11105	73	0	0
13323	WSA	N/A	1.79	283	9738	114	N/A	0.96	52	1806	21	0	0
13324	ESA	N/A	6.30	635	3727	64	N/A	0.44	293	1721	29	0	0
13325	ESA	N/A	2.01	39	261	1	N/A	0.59	11	75	0	0	0
13326	ESA	N/A	8.53	322	22359	263	N/A	2.26	42	2929	34	0	0
13327	ESA	N/A	2.88	21	329	16	N/A	1.04	8	131	7	0	0
13328	DC	N/A	6.21	539	57952	666	N/A	0.55	24	2544	29	0	0
13329	DC	N/A	8.12	693	175102	2778	N/A	0.52	51	12990	206	0	0
13330	DC	N/A	35.34	1283	159767	1998	N/A	8.13	401	49927	624	0	0
13331	DC	N/A	27.40	1143	268978	3863	N/A	3.76	138	32442	466	0	0
13332	WSA	N/A	2.70	107	6446	20	N/A	8.24	1477	89008	271	0	0
13333	WSA	N/A	1.70	202	9108	197	N/A	2.52	346	15613	338	0	0
13334	WSA	N/A	4.33	634	18619	151	N/A	1.04	207	6075	49	0	0
13335	WSA	N/A	2.00	51	16	1	N/A	2.57	20	6	0	0	0
13336	WSA	N/A	2.50	86	453	3	N/A	2.84	182	955	7	0	0
13337	WSA	N/A	2.84	293	1366	9	N/A	4.64	1835	8548	54	0	0
13338	WSA	N/A	3.42	162	10679	179	N/A	1.92	197	12977	218	0	0
13339	WSA	N/A	0.48	0	0	0	N/A	5.47	1303	109795	880	0	0

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13340	SH	N/A	3.86	62	906	8	N/A	12.00	342	5027	45	0	0
13341	SH	N/A	7.82	171	4322	23	N/A	11.58	1240	31397	170	0	0
13342	SH	N/A	9.40	424	32172	314	N/A	7.65	752	57083	557	0	0
13343	SH	N/A	0.53	10	0	0	N/A	15.49	1301	0	0	0	0
13344	SH	N/A	2.13	48	159	2	N/A	9.73	2094	6871	73	0	0
13348	CSA	N/A	3.74	625	36003	815	N/A	5.68	1478	85092	1926	0	0
13349	CSA	N/A	1.24	10	950	19	N/A	1.86	376	34773	687	0	0
13350	CSA	N/A	0.14	55	0	0	N/A	1.66	332	0	0	0	0
13351	CSA	N/A	3.24	475	61855	733	N/A	6.45	1469	191189	2266	0	0
13352	CSA	N/A	1.02	135	18043	250	N/A	5.06	1312	175745	2436	0	0
13353	CSA	N/A	0.00	0	0	0	N/A	0.68	67	0	0	0	0
13354	CSA	N/A	2.12	171	4051	22	N/A	6.24	1362	32307	172	0	0
13355	CSA	N/A	0.00	0	0	0	N/A	0.19	4	0	0	0	0
13358	WSA	N/A	4.22	1132	63712	2479	N/A	1.23	228	12847	500	0	0
13359	WSA	N/A	6.18	802	51484	466	N/A	1.84	147	9439	85	0	0
13360	WSA	N/A	0.10	60	0	0	N/A	0.05	0	0	0	0	0
13362	CSA	N/A	0.00	0	0	0	N/A	1.48	213	65774	207	0	0
13363	CSA	N/A	0.61	39	373	1	N/A	5.42	1746	16688	39	0	0
13364	CSA	N/A	0.55	85	2534	11	N/A	5.44	1441	42770	193	0	0
13365	CSA	N/A	2.11	388	7883	37	N/A	7.47	885	18003	84	0	0
13366	CSA	N/A	0.00	0	0	0	N/A	0.64	13	0	0	0	0
13367	CSA	N/A	1.13	63	1099	8	N/A	8.93	2209	38684	266	0	0
13368	CSA	N/A	0.00	0	0	0	N/A	0.01	0	0	0	0	0
13369	CSA	N/A	0.00	0	0	0	N/A	0.01	0	0	0	0	0
13370	WH	N/A	11.91	1202	46162	434	N/A	4.11	168	6437	60	0	0
13371	WH	N/A	10.35	719	27552	737	N/A	8.50	577	22112	592	0	0
13372	WH	N/A	2.39	261	2605	31	N/A	1.00	31	308	4	0	0
13373	WH	N/A	11.00	960	63410	1157	N/A	2.36	241	15904	290	0	0
13375	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13376	WSA	N/A	0.00	0	0	0	N/A	0.28	8	0	0	0	0
13377	WSA	N/A	4.12	1084	326426	4903	N/A	2.03	99	29731	447	0	0
13378	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13379	WSA	N/A	6.23	924	268217	2092	N/A	1.22	27	7766	61	0	0
13381	WSA	N/A	0.00	0	0	0	N/A	0.89	9	2214	6	0	0
13382	WSA	N/A	0.00	0	0	0	N/A	0.18	0	0	0	0	0

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13383	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13384	WSA	N/A	0.00	0	0	0	N/A	0.01	4	0	0	0	0
13385	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13388	PC	N/A	17.62	545	12544	58	N/A	6.63	169	3881	18	0	0
13389	PC	N/A	17.11	955	189595	2767	N/A	1.45	50	10000	146	0	0
13390	PC	N/A	33.46	1267	204370	2623	N/A	4.63	370	59719	766	0	0
13391	PC	N/A	48.36	1210	61457	483	N/A	6.96	289	14672	115	0	0
13397	CSA	N/A	2.45	325	6933	36	N/A	1.40	303	6472	34	0	0
13398	CSA	N/A	1.10	37	3	0	N/A	0.88	888	73	2	0	0
13399	CSA	N/A	0.43	50	0	0	N/A	0.13	14	0	0	0	0
13400	CSA	N/A	1.94	89	11997	275	N/A	1.49	211	28269	647	0	0
13405	WSA	N/A	9.03	201	36438	142	N/A	1.77	111	20181	79	0	0
13406	WSA	N/A	1.44	68	405	3	N/A	5.99	172	1024	8	0	0
13412	PC	N/A	4.39	318	27337	468	N/A	0.76	26	2212	38	0	0
13414	PC	N/A	9.52	840	155313	1217	N/A	1.67	53	9885	77	0	0
13417	CSA	N/A	5.01	664	66720	761	N/A	1.17	42	4235	48	0	0
13418	CSA	N/A	9.62	1121	41471	433	N/A	0.62	189	7001	73	0	0
13419	CSA	N/A	10.60	1382	110888	1653	N/A	0.62	63	5033	75	0	0
13420	CSA	N/A	3.92	446	5381	16	N/A	5.21	1403	16910	51	0	0
13422	DC	N/A	44.45	727	356771	3205	N/A	10.01	348	170564	1532	0	0
13423	DC	N/A	27.05	661	132402	1710	N/A	3.44	474	94926	1226	0	0
13425	WSA	N/A	0.01	11	887	16	N/A	9.31	963	75444	1366	0	0
13426	WSA	N/A	5.75	378	17993	195	N/A	11.97	1327	63072	684	0	0
13427	WSA	N/A	0.00	0	0	0	N/A	3.97	297	0	0	0	0
13428	WSA	N/A	1.29	65	2520	17	N/A	8.94	1110	43155	283	0	0
13431	DC	N/A	16.12	486	258340	2100	N/A	7.90	279	148013	1203	0	0
13432	DC	N/A	4.34	79	5751	79	N/A	16.76	539	39137	536	0	0
13433	ESA	N/A	9.08	358	61600	749	N/A	3.46	193	33278	405	0	0
13434	ESA	N/A	9.89	920	28708	174	N/A	4.28	532	16583	101	0	0
13435	ESA	N/A	5.65	303	22054	119	N/A	1.78	335	24372	131	0	0
13436	ESA	N/A	7.76	463	15945	69	N/A	2.52	185	6378	28	0	0
13438	SH	N/A	0.40	325	5968	33	N/A	21.48	191	3513	20	0	0
13439	SH	N/A	2.87	451	106007	1137	N/A	7.00	436	102385	1098	0	0
13440	SH	N/A	5.23	37	10791	258	N/A	6.55	423	123201	2942	0	0
13442	WH	N/A	13.82	632	72881	2037	N/A	20.75	1119	128935	3603	0	0

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13443	WH	N/A	5.49	252	20314	281	N/A	6.57	623	50247	695	0	0
13444	WH	N/A	3.97	446	3514	23	N/A	1.56	146	1150	8	0	0
13446	WSA	N/A	0.00	0	0	0	N/A	0.68	83	0	0	0	0
13447	WSA	N/A	1.42	104	2450	103	N/A	0.93	22	509	21	0	0
13448	WSA	N/A	1.29	124	2713	7	N/A	1.84	470	10245	28	0	0
13449	WSA	N/A	2.74	252	881	8	N/A	1.16	166	579	5	0	0
13450	WSA	N/A	0.65	69	1124	44	N/A	3.78	59	957	37	0	0
13451	WSA	N/A	0.18	21	78	1	N/A	2.51	78	296	2	0	0
13452	WSA	N/A	0.23	36	110	2	N/A	0.18	7	22	0	0	0
13453	WSA	N/A	0.36	25	5215	22	N/A	4.92	21	4346	19	0	0
13454	ESA	N/A	4.48	232	37081	361	N/A	11.55	1390	221828	2160	0	0
13455	ESA	N/A	3.02	192	8397	34	N/A	2.83	627	27392	111	0	0
13456	ESA	N/A	1.82	155	57	0	N/A	2.83	817	302	2	0	0
13457	ESA	N/A	2.29	149	1038	15	N/A	5.10	645	4488	64	0	0
13458	ESA	N/A	14.73	494	54529	447	N/A	4.12	73	8066	66	0	0
13459	ESA	N/A	11.38	408	43987	835	N/A	11.18	454	48863	927	0	0
13460	ESA	N/A	37.84	943	92120	658	N/A	3.02	159	15571	111	0	0
13461	ESA	N/A	27.27	967	282696	3222	N/A	6.18	213	62253	710	0	0
13462	PC	N/A	4.47	278	48341	914	N/A	8.50	531	92385	1747	0	0
13463	PC	N/A	1.62	247	46314	121	N/A	0.19	14	2702	7	0	0
13464	PC	N/A	3.66	301	6811	39	N/A	1.08	159	3603	21	0	0
13466	CSA	N/A	2.30	223	2175	13	N/A	0.73	38	371	2	0	0
13467	CSA	N/A	1.29	51	1138	50	N/A	1.51	258	5713	251	0	0
13468	CSA	N/A	5.57	714	19112	50	N/A	2.71	625	16744	44	0	0
13469	CSA	N/A	2.04	136	66725	1018	N/A	7.14	72	35385	540	0	0
13470	WH	N/A	40.96	774	67402	555	N/A	5.37	134	11636	96	0	0
13471	WH	N/A	3.63	393	27346	263	N/A	2.55	251	17467	168	0	0
13473	WH	N/A	9.68	559	104028	1202	N/A	2.25	168	31170	360	0	0
13479	WH	N/A	9.61	555	14125	561	N/A	3.46	233	5938	236	0	0
13480	WSA	N/A	0.77	16	248	1	N/A	11.22	1596	24052	137	0	0
13481	WSA	N/A	0.00	0	0	0	N/A	6.35	769	101392	1870	0	0
13482	WSA	N/A	0.88	10	967	12	N/A	15.25	1539	144592	1766	0	0
13483	WSA	N/A	3.21	405	50911	530	N/A	14.65	1295	162683	1693	0	0
13484	WSA	N/A	0.20	12	206	1	N/A	10.26	1405	23472	102	0	0
13485	WSA	N/A	2.89	149	1695	28	N/A	6.68	721	8195	138	0	0



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13488	SH	N/A	0.95	87	16670	181	N/A	18.88	2556	487344	5304	0	0
13489	SH	N/A	9.41	179	679	38	N/A	4.30	2689	10208	572	0	0
13490	WSA	N/A	2.84	423	27266	279	N/A	3.60	369	23816	244	0	0
13491	WSA	N/A	2.80	131	1102	6	N/A	9.64	1625	13708	75	0	0
13492	WSA	N/A	5.21	510	63443	1785	N/A	2.39	218	27117	763	0	0
13493	WSA	N/A	2.17	310	56221	459	N/A	3.70	305	55474	453	0	0
13494	SH	N/A	0.31	16	1425	10	N/A	3.44	427	36958	249	0	0
13495	ESA	N/A	18.99	365	426699	1949	N/A	6.01	140	163468	747	0	0
13496	CSA	N/A	1.13	74	780	3	N/A	2.18	205	2157	9	0	0
13497	CSA	N/A	0.83	165	4113	57	N/A	2.51	439	10976	152	0	0
13498	CSA	N/A	0.00	0	0	0	N/A	0.45	79	0	0	0	0
13499	CSA	N/A	0.09	16	1529	14	N/A	0.74	37	3440	32	0	0
13501	ESA	N/A	0.90	32	4733	51	N/A	1.68	59	8702	93	0	0
13502	ESA	N/A	5.08	174	1918	13	N/A	8.19	1371	15125	101	0	0
13504	ESA	N/A	0.18	7	77	1	N/A	1.29	10	109	1	0	0
13505	ESA	N/A	3.29	194	7060	59	N/A	5.01	780	28316	238	0	0
13506	ESA	N/A	2.56	83	7713	120	N/A	4.07	537	49708	773	0	0
13507	ESA	N/A	0.02	0	0	0	N/A	1.78	26	0	0	0	0
13509	ESA	N/A	6.88	327	28881	454	N/A	10.56	1056	93272	1467	0	0
13510	WSA	N/A	3.48	408	35711	1129	N/A	8.12	932	81497	2577	0	0
13511	WSA	N/A	3.35	461	36166	551	N/A	4.00	296	23250	354	0	0
13512	WSA	N/A	3.53	391	77977	785	N/A	7.86	1410	281333	2833	0	0
13513	WSA	N/A	0.86	93	5385	68	N/A	1.60	43	2513	32	0	0
13514	WSA	N/A	1.99	272	538	4	N/A	3.52	358	710	5	0	0
13516	WSA	N/A	4.03	498	20946	91	N/A	3.75	355	14930	65	0	0
13517	WSA	N/A	4.21	379	11237	94	N/A	3.35	1045	30940	259	0	0
13518	WSA	N/A	0.38	83	2414	6	N/A	0.25	7	209	1	0	0
13519	WSA	N/A	0.52	5	0	0	N/A	0.05	0	0	0	0	0
13520	WSA	N/A	1.50	170	779	4	N/A	2.42	417	1913	11	0	0
13521	WSA	N/A	0.01	11	49	0	N/A	1.66	19	81	1	0	0
13522	WSA	N/A	10.94	1327	76459	1787	N/A	0.70	204	11736	274	0	0
13523	WSA	N/A	4.44	680	12221	1022	N/A	0.05	5	92	8	0	0
13524	WSA	N/A	1.04	158	12987	355	N/A	2.02	250	20492	560	0	0
13530	WSA	N/A	5.51	856	38134	141	N/A	0.00	0	0	0	0	0
13531	WSA	N/A	2.75	157	14894	165	N/A	3.95	78	7399	82	0	0

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13532	WSA	N/A	4.26	409	76271	689	N/A	0.98	29	5366	48	0	0
13533	WSA	N/A	2.45	295	15574	71	N/A	5.99	1510	79660	365	0	0
13535	WSA	N/A	5.32	312	17433	361	N/A	14.88	1797	100513	2084	0	0
13538	WSA	N/A	0.22	15	245	1	N/A	13.30	900	14309	84	0	0
13539	WSA	N/A	0.86	14	1145	15	N/A	11.76	1030	81975	1042	0	0
13540	WSA	N/A	0.20	6	40	0	N/A	6.74	685	4426	33	0	0
13541	WSA	N/A	0.00	0	0	0	N/A	14.50	1018	20107	144	0	0
13544	WSA	N/A	0.87	73	200	1	N/A	4.22	596	1631	10	0	0
13546	CSA	N/A	8.09	412	58789	681	N/A	2.25	35	4985	58	0	0
13547	CSA	N/A	3.69	291	15457	113	N/A	1.34	21	1092	8	0	0
13551	CSA	N/A	0.05	3	764	1	N/A	0.01	0	0	0	0	0
13552	CSA	N/A	2.60	61	2482	10	N/A	0.65	7	294	1	0	0
13553	CSA	N/A	0.00	0	0	0	N/A	1.53	0	0	0	0	0
13554	CSA	N/A	1.28	0	0	0	N/A	0.00	0	0	0	0	0
13560	CSA	N/A	0.00	0	0	0	N/A	0.92	3	0	0	0	0
13561	CSA	N/A	0.00	0	0	0	N/A	0.99	0	0	0	0	0
13562	CSA	N/A	0.00	0	0	0	N/A	1.45	6	0	0	0	0
13563	CSA	N/A	0.00	0	0	0	N/A	0.91	5	0	0	0	0
13564	CSA	N/A	0.00	0	0	0	N/A	0.92	6	0	0	0	0
13565	CSA	N/A	0.00	0	0	0	N/A	0.94	4	0	0	0	0
13572	WSA	N/A	0.76	67	2469	40	N/A	9.27	922	34068	554	0	0
13573	WSA	N/A	1.29	28	1838	29	N/A	10.07	1053	69694	1097	0	0
13574	WSA	N/A	3.01	281	2220	17	N/A	5.49	593	4692	37	0	0
13575	WSA	N/A	0.45	24	759	6	N/A	5.43	574	18411	136	0	0
13576	ESA	N/A	2.95	313	55917	655	N/A	13.81	1245	222750	2611	0	0
13577	ESA	N/A	3.00	275	15199	286	N/A	8.47	682	37741	710	0	0
13579	ESA	N/A	4.18	418	33098	297	N/A	12.55	1099	87146	782	0	0
13582	WSA	N/A	6.23	183	17993	431	N/A	11.16	824	80969	1939	0	0
13583	WSA	N/A	4.55	124	1076	13	N/A	6.61	376	3255	41	0	0
13584	WSA	N/A	0.21	4	1510	13	N/A	10.43	956	350998	3134	0	0
13585	WSA	N/A	0.55	41	2465	47	N/A	6.89	1420	85103	1639	0	0
13586	WSA	N/A	8.51	257	23880	253	N/A	11.06	933	86638	919	0	0
13587	WSA	N/A	1.70	20	4517	37	N/A	13.81	2177	503297	4152	0	0
13589	WSA	N/A	0.47	11	362	3	N/A	8.98	782	24984	203	0	0
13590	CSA	N/A	3.29	412	2252	10	N/A	2.79	1040	5678	25	0	0

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13591	CSA	N/A	7.26	998	85527	1061	N/A	0.13	10	882	11	0	0
13592	CSA	N/A	16.03	1192	816286	8986	N/A	0.86	15	10565	116	0	0
13593	CSA	N/A	5.50	689	16069	136	N/A	1.27	79	1847	16	0	0
13600	CSA	N/A	6.39	590	85931	1299	N/A	1.66	408	59433	899	0	0
13605	WSA	N/A	2.58	314	2025	11	N/A	1.75	299	1932	11	0	0
13606	WSA	N/A	0.74	40	84	0	N/A	0.38	198	417	2	0	0
13610	WSA	N/A	5.78	582	11394	25	N/A	1.43	679	13287	29	0	0
13611	WSA	N/A	3.27	624	181050	841	N/A	0.21	86	25055	116	0	0
13612	WSA	N/A	7.49	1029	57345	320	N/A	1.02	322	17931	100	0	0
13613	WSA	N/A	5.49	829	45977	115	N/A	0.86	216	11979	30	0	0
13621	WSA	N/A	14.11	398	124845	416	N/A	8.29	353	110650	368	0	0
13622	WSA	N/A	22.72	715	55491	619	N/A	8.09	356	27626	308	0	0
13624	WSA	N/A	17.36	385	66191	707	N/A	9.18	255	43892	469	0	0
13630	CSA	N/A	6.07	743	91264	921	N/A	1.41	284	34888	352	0	0
13631	CSA	N/A	5.48	471	14376	91	N/A	9.59	868	26491	168	0	0
13632	CSA	N/A	5.29	506	6057	51	N/A	0.56	120	1440	12	0	0
13633	CSA	N/A	3.57	215	28736	423	N/A	6.89	1043	139417	2050	0	0
13635	WSA	N/A	0.21	25	64	0	N/A	3.13	31	81	1	0	0
13636	WSA	N/A	0.04	9	405	7	N/A	0.57	9	405	7	0	0
13637	WSA	N/A	1.20	68	440	3	N/A	0.67	91	586	4	0	0
13638	WSA	N/A	2.13	212	5591	30	N/A	0.59	126	3338	18	0	0
13639	WSA	N/A	0.00	0	0	0	N/A	0.00	161	664	5	0	0
13640	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13641	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13642	WSA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
13645	SH	N/A	7.82	182	22029	141	N/A	12.83	774	93716	600	0	0
13646	SH	N/A	1.22	72	0	0	N/A	22.21	858	0	0	0	0
13648	SH	N/A	19.90	450	21619	177	N/A	5.55	217	10415	85	0	0
13649	SH	N/A	4.81	294	71	2	N/A	2.18	0	0	0	0	0
13650	SH	N/A	0.00	0	0	0	N/A	10.36	906	63423	881	0	0
13651	SH	N/A	4.00	170	4389	52	N/A	12.08	1368	35379	421	0	0
13652	SH	N/A	4.57	204	7235	102	N/A	29.95	1320	46920	662	0	0
13655	PC	N/A	7.68	359	23526	402	N/A	4.35	403	26425	452	0	0
13656	PC	N/A	40.23	1123	87440	1939	N/A	8.27	361	28106	623	0	0
13657	PC	N/A	35.16	746	88599	907	N/A	7.65	257	30551	313	0	0

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13659	WH	N/A	5.11	556	23166	223	N/A	9.18	663	27619	266	0	0
13660	WH	N/A	1.61	1039	13209	121	N/A	1.07	147	1870	17	0	0
13661	WH	N/A	7.88	400	23347	448	N/A	16.50	1085	63318	1215	0	0
13668	PC	N/A	9.16	261	7074	82	N/A	15.71	1130	30606	354	0	0
13669	WSA	N/A	2.53	168	7725	41	N/A	8.67	932	42936	230	0	0
13670	WSA	N/A	1.21	6	261	3	N/A	7.16	598	25252	328	0	0
13671	WSA	N/A	0.11	5	162	2	N/A	11.77	1632	51439	588	0	0
13672	WSA	N/A	3.92	261	10267	61	N/A	10.61	2084	81894	486	0	0
13673	WSA	N/A	1.07	19	416	5	N/A	10.40	1029	23145	279	0	0
13674	WSA	N/A	1.04	39	5331	90	N/A	9.99	1032	140716	2383	0	0
13677	WSA	N/A	3.99	96	15887	189	N/A	16.24	843	140081	1667	0	0
13678	WSA	N/A	5.28	122	13789	143	N/A	15.60	2114	238229	2479	0	0
13679	WSA	N/A	9.46	360	4050	22	N/A	15.05	702	7903	43	0	0
13685	ESA	N/A	2.39	119	8742	119	N/A	12.80	1038	76037	1036	0	0
13686	ESA	N/A	3.10	142	2653	11	N/A	14.73	1152	21529	86	0	0
13687	ESA	N/A	16.14	596	124519	1415	N/A	10.96	768	160371	1822	0	0
13690	ESA	N/A	1.69	96	5649	50	N/A	11.45	736	43491	382	0	0
13691	ESA	N/A	0.84	32	2856	23	N/A	10.81	863	77286	632	0	0
13692	ESA	N/A	1.24	34	354	3	N/A	6.57	618	6446	58	0	0
13693	ESA	N/A	4.91	212	4950	29	N/A	11.39	823	19224	111	0	0
13695	WH	N/A	17.50	1069	208659	1025	N/A	3.73	309	60248	296	0	0
13696	WH	N/A	12.77	1232	111522	1771	N/A	0.63	26	2327	37	0	0
13697	WH	N/A	0.52	44	286	3	N/A	0.18	5	33	0	0	0
13698	WH	N/A	16.95	1033	59490	437	N/A	1.75	11	652	5	0	0
13699	WH	N/A	5.81	269	17405	109	N/A	9.83	1016	65634	411	0	0
13705	ESA	N/A	8.63	547	49312	1221	N/A	11.08	913	82309	2039	0	0
13706	ESA	N/A	3.77	226	1105	12	N/A	10.04	1346	6573	72	0	0
13707	ESA	N/A	1.32	73	451	4	N/A	8.35	1102	6810	55	0	0
13708	ESA	N/A	1.66	78	1305	12	N/A	12.43	1360	22696	203	0	0
13709	ESA	N/A	6.24	572	27125	747	N/A	5.23	274	12977	357	0	0
13710	ESA	N/A	6.93	370	28223	447	N/A	14.31	2303	175531	2781	0	0
13711	ESA	N/A	1.81	17	1610	22	N/A	14.07	2397	220698	2980	0	0
13712	ESA	N/A	8.66	490	81224	797	N/A	5.38	481	79859	783	0	0
13713	CSA	N/A	0.00	0	0	0	N/A	26.14	2048	16466	112	0	0
13714	CSA	N/A	0.02	10	38	0	N/A	10.34	1865	6825	32	0	0

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13715	GSA	N/A	0.08	5	45	0	N/A	14.79	1225	10647	115	0	0
13716	GSA	N/A	0.02	6	415	6	N/A	6.15	327	22000	301	0	0
13717	GSA	N/A	2.09	27	0	0	N/A	20.95	555	0	0	0	0
13718	GSA	N/A	0.01	0	0	0	N/A	18.47	946	2256	4	0	0
13719	GSA	N/A	0.01	5	65	1	N/A	4.44	792	10065	95	0	0
13722	PC	N/A	9.61	457	58461	310	N/A	1.78	58	7373	39	0	0
13723	PC	N/A	16.66	590	124691	2522	N/A	12.80	733	154886	3132	0	0
13724	PC	N/A	26.03	734	129766	1749	N/A	6.10	264	46708	630	0	0
13729	ESA	N/A	2.26	52	49	0	N/A	12.26	970	901	7	0	0
13731	ESA	N/A	0.08	7	432	8	N/A	10.85	888	53247	968	0	0
13732	ESA	N/A	0.10	20	0	0	N/A	16.29	1266	0	0	0	0
13733	ESA	N/A	1.64	10	6	0	N/A	11.71	279	164	1	0	0
13737	WSA	N/A	3.92	654	18143	90	N/A	0.57	85	2368	12	0	0
13738	WSA	N/A	1.98	206	5947	17	N/A	1.24	333	9634	27	0	0
13739	WSA	N/A	0.83	82	207	2	N/A	0.88	121	305	2	0	0
13740	WSA	N/A	10.44	1207	56172	433	N/A	0.18	6	287	2	0	0
13745	WSA	N/A	1.64	43	1359	5	N/A	16.56	1800	56630	226	0	0
13747	WSA	N/A	0.74	99	2897	98	N/A	1.91	320	9386	316	0	0
13748	WSA	N/A	4.40	448	157418	783	N/A	7.69	714	250569	1246	0	0
13749	WSA	N/A	2.00	233	9010	79	N/A	9.15	1188	45843	400	0	0
13750	WSA	N/A	1.53	73	7081	48	N/A	5.95	578	56049	379	0	0
13753	WSA	N/A	3.69	688	8004	71	N/A	0.08	4	48	0	0	0
13754	WSA	N/A	7.45	1137	65898	482	N/A	1.03	242	14002	102	0	0
13756	WSA	N/A	3.32	956	49913	1010	N/A	1.23	806	42077	851	0	0
13761	WSA	N/A	0.39	35	296	39	N/A	1.38	348	2943	386	0	0
13762	WSA	N/A	0.15	7	12	0	N/A	1.40	21	33	1	0	0
13763	WSA	N/A	0.00	0	0	0	N/A	0.03	4	0	0	0	0
13764	WSA	N/A	0.16	13	169	13	N/A	1.39	305	3872	307	0	0
13765	WSA	N/A	0.00	0	0	0	N/A	0.22	10	0	0	0	0
13769	WH	N/A	16.71	399	2009	48	N/A	13.71	739	3723	90	0	0
13770	WH	N/A	4.03	232	648	6	N/A	21.81	1411	3933	36	0	0
13772	WH	N/A	18.81	616	133691	1511	N/A	10.17	558	121193	1370	0	0
13777	SH	N/A	2.18	268	1995	11	N/A	13.08	700	5205	29	0	0
13780	SH	N/A	7.13	621	38870	226	N/A	9.92	740	46336	270	0	0
13781	SH	N/A	2.35	101	15329	200	N/A	18.37	1801	273892	3575	0	0

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13785	PC	N/A	16.59	287	66677	581	N/A	2.77	52	12188	106	0	0
13786	PC	N/A	42.93	757	266935	3370	N/A	1.57	14	5078	64	0	0
13787	PC	N/A	41.50	875	275129	2841	N/A	6.97	70	21984	227	0	0
13793	ESA	N/A	3.70	200	5519	31	N/A	12.74	1368	37839	214	0	0
13795	ESA	N/A	8.43	298	12526	98	N/A	24.77	1620	68030	534	0	0
13796	ESA	N/A	5.80	188	9535	62	N/A	7.04	1055	53457	347	0	0
13797	ESA	N/A	4.72	209	7916	66	N/A	16.26	1292	48975	409	0	0
13798	ESA	N/A	3.46	205	6461	32	N/A	9.67	984	31071	155	0	0
13799	ESA	N/A	2.80	131	4624	36	N/A	10.81	1409	49876	391	0	0
13805	PC	N/A	45.95	1020	88788	667	N/A	4.22	55	4744	36	0	0
13807	PC	N/A	34.80	1026	197468	2646	N/A	2.61	78	15038	202	0	0
13808	PC	N/A	102.35	1831	189222	813	N/A	5.10	92	9461	41	0	0
13813	DC	N/A	43.48	733	277999	1685	N/A	5.45	76	28853	175	0	0
13815	DC	N/A	45.20	651	366805	1521	N/A	7.50	94	52732	219	0	0
13817	SH	N/A	20.29	822	52219	363	N/A	15.77	844	53657	373	0	0
13825	CSA	N/A	7.03	795	16137	94	N/A	2.12	578	11732	68	0	0
13826	CSA	N/A	3.64	289	19921	351	N/A	7.09	1333	91879	1620	0	0
13827	CSA	N/A	4.00	376	47752	478	N/A	3.40	384	48665	488	0	0
13828	CSA	N/A	5.94	474	32097	368	N/A	3.29	828	56049	642	0	0
13829	CSA	N/A	1.03	65	8660	85	N/A	8.28	809	108179	1067	0	0
13830	CSA	N/A	3.67	331	14568	88	N/A	5.84	300	13211	80	0	0
13831	CSA	N/A	0.62	154	8326	199	N/A	5.51	1055	56951	1360	0	0
13832	CSA	N/A	3.01	238	3503	23	N/A	1.36	162	2396	16	0	0
13835	CSA	N/A	5.51	557	49862	726	N/A	2.96	656	58694	854	0	0
13836	CSA	N/A	1.02	37	762	4	N/A	7.94	338	6963	39	0	0
13837	CSA	N/A	4.05	441	34439	155	N/A	7.72	623	48648	218	0	0
13838	CSA	N/A	9.42	668	20753	148	N/A	6.66	911	28287	202	0	0
13839	CSA	N/A	6.70	426	140764	876	N/A	15.74	702	232227	1446	0	0
13840	CSA	N/A	7.72	357	36525	365	N/A	10.24	1544	157994	1577	0	0
13844	CSA	N/A	0.23	6	161	5	N/A	2.54	563	14658	423	0	0
13845	CSA	N/A	0.00	0	0	0	N/A	3.94	0	0	0	0	0
13850	PC	N/A	0.07	5	23	0	N/A	11.32	629	2799	25	0	0
13853	PC	N/A	1.99	33	2890	64	N/A	26.92	1284	112792	2490	0	0
13854	PC	N/A	17.27	1065	166938	1534	N/A	16.09	1216	190464	1750	0	0
13858	CSA	N/A	0.00	0	0	0	N/A	0.25	0	0	0	0	0

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13860	WSA	N/A	1.83	70	842	7	N/A	7.90	945	11376	98	0	0
13863	WSA	N/A	0.76	20	629	6	N/A	7.42	701	22591	204	0	0
13864	WSA	N/A	2.24	218	24092	261	N/A	1.82	197	21819	236	0	0
13865	WSA	N/A	5.11	233	14383	261	N/A	13.31	1423	87691	1591	0	0
13866	WSA	N/A	3.60	172	4355	199	N/A	4.62	285	7224	330	0	0
13867	WSA	N/A	2.32	177	0	0	N/A	1.77	58	0	0	0	0
13869	WSA	N/A	0.18	13	637	2	N/A	5.74	557	26571	77	0	0
13870	WSA	N/A	3.66	93	2749	17	N/A	14.15	1594	47348	298	0	0
13871	WSA	N/A	0.33	5	25	0	N/A	8.08	971	4648	9	0	0
13872	WSA	N/A	0.01	5	260	6	N/A	9.70	853	43098	945	0	0
13873	WSA	N/A	4.23	10	783	4	N/A	16.15	1143	86964	494	0	0
13878	ESA	N/A	1.92	57	6121	80	N/A	8.35	1434	155152	2021	0	0
13879	ESA	N/A	0.27	7	69	0	N/A	8.61	2283	21993	125	0	0
13880	ESA	N/A	0.14	5	60	1	N/A	6.86	1237	14545	169	0	0
13881	ESA	N/A	0.00	0	0	0	N/A	1.42	124	11297	117	0	0
13882	ESA	N/A	0.00	0	0	0	N/A	1.12	108	0	0	0	0
13883	ESA	N/A	1.26	70	791	6	N/A	4.47	1334	15096	113	0	0
13884	ESA	N/A	0.33	34	3975	41	N/A	11.48	1519	177934	1850	0	0
13885	ESA	N/A	0.61	10	108	1	N/A	9.92	1208	12682	67	0	0
13886	WSA	N/A	0.00	0	0	0	N/A	11.82	1154	132247	1676	0	0
13888	WSA	N/A	0.82	23	1238	24	N/A	11.61	1162	63608	1249	0	0
13889	WSA	N/A	6.84	326	37128	390	N/A	13.57	1401	159522	1674	0	0
13890	WSA	N/A	0.70	32	614	3	N/A	7.02	663	12783	70	0	0
13891	WSA	N/A	0.01	4	55	0	N/A	17.73	1385	18589	119	0	0
13892	WSA	N/A	1.69	83	11678	181	N/A	7.16	828	116057	1801	0	0
13895	WSA	N/A	0.79	96	766	13	N/A	2.14	225	1805	30	0	0
13896	SH	N/A	8.31	645	37393	705	N/A	6.84	673	39003	735	0	0
13897	SH	N/A	4.40	129	31005	409	N/A	10.93	635	153038	2020	0	0
13898	SH	N/A	1.60	29	4675	60	N/A	26.42	1484	240944	3111	0	0
13899	SH	N/A	2.00	134	679	4	N/A	1.05	111	564	4	0	0
13900	SH	N/A	5.60	76	2102	4	N/A	17.03	1015	28030	48	0	0
13906	ESA	N/A	6.78	371	47968	448	N/A	3.41	342	44247	413	0	0
13909	ESA	N/A	7.47	584	53761	646	N/A	2.74	51	4733	57	0	0
13910	ESA	N/A	8.00	361	228280	1107	N/A	8.91	686	433796	2104	0	0
13911	ESA	N/A	6.70	451	86775	225	N/A	6.10	699	134412	349	0	0

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13916	WH	N/A	2.43	135	610	5	N/A	12.45	1627	7364	58	0	0
13918	WH	N/A	1.89	96	1300	6	N/A	10.47	631	8585	40	0	0
13919	WH	N/A	0.01	11	430	11	N/A	1.04	34	1290	32	0	0
13920	WH	N/A	1.93	65	3331	24	N/A	11.11	1433	73656	541	0	0
13921	WH	N/A	2.46	160	7349	46	N/A	6.24	590	27040	168	0	0
13922	WH	N/A	0.82	13	748	4	N/A	26.99	1529	85529	468	0	0
13924	WH	N/A	41.18	526	10959	87	N/A	1.79	32	665	5	0	0
13927	WH	N/A	26.19	756	92009	836	N/A	11.31	949	115544	1050	0	0
13929	SH	N/A	0.45	0	0	0	N/A	0.36	0	0	0	0	0
13930	SH	N/A	0.00	0	0	0	N/A	0.47	0	0	0	0	0
13932	CSA	N/A	4.16	176	8746	65	N/A	7.82	442	21992	165	0	0
13934	CSA	N/A	1.50	51	87	1	N/A	8.86	1103	1868	12	0	0
13935	CSA	N/A	1.86	148	16698	184	N/A	4.25	312	35135	388	0	0
13939	CSA	N/A	2.65	171	2813	19	N/A	10.60	984	16217	109	0	0
13942	CSA	N/A	0.23	154	417	6	N/A	1.42	772	2088	30	0	0
13943	CSA	N/A	1.22	61	2391	16	N/A	0.96	17	689	4	0	0
13944	CSA	N/A	0.06	14	148	2	N/A	0.22	102	1043	18	0	0
13946	CSA	N/A	0.00	0	0	0	N/A	0.00	1330	0	0	0	0
13947	CSA	N/A	6.45	946	8432	47	N/A	0.15	0	0	0	0	0
13948	CSA	N/A	6.38	720	12558	60	N/A	2.58	392	6835	33	0	0
13951	ESA	N/A	0.93	78	3667	76	N/A	1.58	78	3667	76	0	0
13952	ESA	N/A	0.38	16	60	1	N/A	2.66	93	336	3	0	0
13953	ESA	N/A	4.10	158	23744	162	N/A	5.39	208	31145	213	0	0
13954	ESA	N/A	0.40	24	529	1	N/A	2.85	94	2092	5	0	0
13955	ESA	N/A	3.46	122	10150	116	N/A	8.34	2220	184143	2112	0	0
13956	ESA	N/A	1.30	60	6244	62	N/A	8.03	1544	161579	1601	0	0
13959	PC	N/A	12.75	471	249313	1469	N/A	2.65	201	106148	626	0	0
13961	PC	N/A	22.28	616	101489	706	N/A	14.65	1399	230427	1603	0	0
13962	PC	N/A	19.26	768	237133	2806	N/A	5.27	218	67299	796	0	0
13963	ESA	N/A	3.38	364	6368	36	N/A	2.18	103	1799	10	0	0
13964	ESA	N/A	7.18	466	39609	526	N/A	0.35	4	350	5	0	0
13967	WH	N/A	3.66	209	10384	207	N/A	13.96	1334	66347	1321	0	0
13968	WH	N/A	5.31	716	67446	818	N/A	1.45	358	33723	409	0	0
13971	WH	N/A	0.18	3	0	0	N/A	1.17	8	0	0	0	0
13972	WH	N/A	3.93	64	1456	10	N/A	18.82	1362	31096	212	0	0



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13973	WH	N/A	1.36	36	1240	11	N/A	16.27	1853	63821	544	0	0
13980	PC	N/A	0.00	0	0	0	N/A	0.00	3	0	0	0	0
13982	PC	N/A	2.17	44	577	4	N/A	0.88	0	0	0	0	0
13983	PC	N/A	18.56	628	12041	75	N/A	4.48	174	3331	21	0	0
13984	PC	N/A	9.22	386	29249	485	N/A	6.45	299	22697	376	0	0
13985	CSA	N/A	0.00	0	0	0	N/A	23.40	1893	39847	74	0	0
13986	CSA	N/A	1.17	21	932	12	N/A	14.15	1572	71267	948	0	0
13987	CSA	N/A	0.05	7	91	0	N/A	10.08	2203	27784	105	0	0
13988	CSA	N/A	0.00	0	0	0	N/A	11.90	2003	49818	333	0	0
13989	CSA	N/A	0.00	0	0	0	N/A	19.58	1412	126533	1779	0	0
13990	CSA	N/A	0.59	13	480	3	N/A	21.68	1581	56725	365	0	0
13991	CSA	N/A	0.00	0	0	0	N/A	10.05	640	45393	155	0	0
13993	CSA	N/A	4.95	200	14572	85	N/A	11.29	891	65049	379	0	0
14000	PC	N/A	16.43	601	73582	718	N/A	6.32	385	47122	460	0	0
14001	PC	N/A	3.41	31	2090	22	N/A	1.04	44	2995	32	0	0
14002	PC	N/A	0.52	12	3870	28	N/A	14.60	828	259632	1892	0	0
14004	PC	N/A	0.05	5	0	0	N/A	0.22	5	0	0	0	0
14010	CSA	N/A	0.00	0	0	0	N/A	2.39	88	0	0	0	0
14011	CSA	N/A	0.87	10	249	3	N/A	5.34	962	23288	266	0	0
14012	CSA	N/A	11.41	690	71216	509	N/A	4.40	448	46275	331	0	0
14014	CSA	N/A	0.74	0	0	0	N/A	1.10	0	0	0	0	0
14020	SH	N/A	5.07	284	48950	921	N/A	10.75	946	163168	3068	0	0
14021	SH	N/A	8.53	342	42485	330	N/A	11.37	818	101429	787	0	0
14022	SH	N/A	1.23	95	1426	13	N/A	12.91	1168	17610	165	0	0
14023	SH	N/A	16.05	436	37777	470	N/A	4.81	291	25215	314	0	0
14024	SH	N/A	8.41	698	17519	163	N/A	13.08	1011	25363	236	0	0
14025	SH	N/A	9.27	254	23926	502	N/A	18.53	1741	163993	3438	0	0
14026	SH	N/A	3.42	6	6785	34	N/A	4.73	0	0	0	0	0
14030	WSA	N/A	6.57	251	15406	80	N/A	24.51	1838	112830	589	0	0
14031	WSA	N/A	7.51	363	19459	412	N/A	11.53	1442	77286	1638	0	0
14032	WSA	N/A	1.45	145	0	0	N/A	1.64	571	0	0	0	0
14035	WSA	N/A	1.01	86	3101	17	N/A	2.16	353	12662	68	0	0
14036	WSA	N/A	0.00	0	0	0	N/A	0.81	42	42	14	0	0
14037	WSA	N/A	0.81	5	69	0	N/A	18.55	1956	26201	118	0	0
14040	CSA	N/A	5.69	341	20768	373	N/A	11.91	1440	87575	1572	0	0

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14041	CSA	N/A	19.22	767	378732	2899	N/A	5.30	245	120829	925	0	0
14042	CSA	N/A	5.30	465	63877	677	N/A	13.30	1075	147679	1564	0	0
14050	PC	N/A	32.22	447	71390	1155	N/A	3.01	5	821	13	0	2
14051	PC	N/A	1.66	0	0	0	N/A	0.07	0	0	0	0	0
14059	CSA	N/A	0.07	3	147	3	N/A	2.07	1020	48773	1001	0	0
14060	CSA	N/A	0.00	0	0	0	N/A	0.53	9	0	0	0	0
14064	CSA	N/A	0.00	0	0	0	N/A	0.52	486	0	0	0	0
14065	CSA	N/A	0.00	0	0	0	N/A	8.36	1239	0	0	0	0
14066	CSA	N/A	0.00	0	0	0	N/A	0.39	0	0	0	0	0
14069	WSA	N/A	5.61	218	22125	222	N/A	17.33	776	78795	792	0	0
14070	WSA	N/A	0.07	19	2048	36	N/A	18.93	1191	131763	2335	0	0
14071	WSA	N/A	8.63	367	26697	457	N/A	22.22	1024	74483	1275	0	0
14079	WSA	N/A	0.00	0	0	0	N/A	15.92	1734	206074	4315	0	0
14080	WSA	N/A	0.03	0	0	0	N/A	15.92	1418	50282	1631	0	0
14081	WSA	N/A	0.00	0	0	0	N/A	10.42	1392	42791	205	0	0
14082	WSA	N/A	0.00	0	0	0	N/A	13.52	1080	6621	104	0	0
14083	WSA	N/A	1.43	3	62	0	N/A	15.48	973	19696	96	0	0
14084	WSA	N/A	0.11	8	249	1	N/A	15.45	974	29471	118	0	0
14089	CSA	N/A	0.08	11	3133	37	N/A	24.49	1334	369377	4341	0	0

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14090	CSA	N/A	0.12	10	659	3	N/A	9.05	468	29972	139	0	0
14091	CSA	N/A	0.21	6	243	1	N/A	11.35	1047	41291	250	0	0
14094	CSA	N/A	0.03	10	0	0	N/A	11.36	1451	0	0	0	0
14095	CSA	N/A	0.00	0	0	0	N/A	14.78	881	18868	107	0	0
14096	CSA	N/A	0.00	0	0	0	N/A	14.06	1293	61104	1273	0	0
14099	CSA	N/A	2.60	46	12753	178	N/A	9.72	539	148501	2068	0	0
14100	CSA	N/A	0.00	0	0	0	N/A	19.45	1874	0	0	0	0
14101	CSA	N/A	0.00	0	0	0	N/A	20.68	1551	119686	1743	0	0
14102	CSA	N/A	2.20	48	666	10	N/A	20.07	1850	25504	388	0	0
14109	ESA	N/A	0.47	20	422	2	N/A	5.23	632	13650	57	0	0
14110	ESA	N/A	4.27	154	16652	67	N/A	14.79	679	73268	296	0	0
14111	ESA	N/A	7.54	530	27969	154	N/A	7.72	658	34757	192	0	0
14112	ESA	N/A	3.58	132	17783	45	N/A	10.50	670	90444	231	0	0
14114	ESA	N/A	6.05	299	46383	361	N/A	12.76	1070	165768	1288	0	0
14115	ESA	N/A	0.92	39	2007	41	N/A	3.09	133	6812	138	0	0
14116	ESA	N/A	1.13	101	8478	136	N/A	1.68	330	27770	444	0	0
14117	ESA	N/A	0.76	111	13561	106	N/A	1.67	84	10297	81	0	0
14119	PC	N/A	0.39	153	18229	237	N/A	27.66	1559	185469	2410	0	0
14120	PC	N/A	2.15	47	1916	7	N/A	15.16	913	36983	143	0	0
14121	PC	N/A	17.12	350	44972	556	N/A	22.47	1062	136636	1690	0	0
14122	PC	N/A	0.01	23	45	0	N/A	25.44	1443	2893	26	0	0
14123	PC	N/A	5.92	179	778	5	N/A	14.36	857	3722	25	0	0
14144	SH	N/A	7.03	545	44182	217	N/A	9.86	972	78777	387	0	0
14145	SH	N/A	0.18	42	0	0	N/A	13.69	537	0	0	0	0
14196	ESA	N/A	0.00	0	0	0	N/A	0.08	4	0	0	0	0
14197	ESA	N/A	1.96	67	3793	271	N/A	0.77	33	1868	133	0	0
14198	ESA	N/A	2.05	66	18264	220	N/A	4.11	239	66209	797	0	0
14199	ESA	N/A	1.12	65	270	2	N/A	0.81	21	86	0	0	0
14200	SH	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
14201	SH	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
14207	ESA	N/A	0.17	4	0	0	N/A	0.00	0	0	0	0	0
14208	ESA	N/A	0.00	0	0	0	N/A	0.05	4	0	0	0	0
14209	ESA	N/A	0.00	0	0	0	N/A	0.00	3	0	0	0	0
14216	CSA	N/A	7.13	0	0	0	N/A	17.81	0	0	0	0	0
14217	CSA	N/A	5.12	155	42	0	N/A	6.72	517	140	2	0	0

(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	(N) Number of Automatic Line Sectionalizing Devices on the Feeder
14218	CSA	N/A	0.05	0	0	0	N/A	9.94	0	0	0	0	0
14274	WSA	N/A	27.41	493	101661	1163	N/A	5.98	263	54332	621	0	0
14275	WSA	N/A	2.53	28	3614	33	N/A	23.39	1227	159702	1443	0	0
14306	DC	N/A	17.02	434	135142	1048	N/A	1.34	16	5124	40	0	0
14310	ESA	N/A	0.00	0	0	0	N/A	0.00	0	0	0	0	0
14341	ESA	N/A	6.43	25	688	2	N/A	0.00	0	0	0	0	0

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YES	3.91	0.09	0	0	0	3.82	62	7301	38	0.5%	6.1
YES	2.85	0.05	0	0	0	2.80	14	107	1	-50.6%	2.3
YES	9.31	0.59	0	0	0	8.72	55	12867	126	24.7%	5.2
YES	3.34	0.00	0	0	0	3.34	39	8598	118	4.0%	5.8
YES	1.59	0.51	0	0	0	1.08	36	1138	7	0.0%	3.4
YES	5.98	0.05	0	0	0	5.93	100	15833	294	1.4%	6.2
YES	3.25	0.19	0	0	0	3.06	16	5759	43	9.3%	7.4
YES	0.86	0.00	0	0	0	0.86	48	4023	31	0.0%	2.8
YES	1.99	0.09	0	0	0	1.90	0	0	0	11.8%	1.9
YES	4.83	0.20	0	0	0	4.63	52	3488	27	0.0%	6.2
YES	6.95	0.54	0	0	0	6.41	106	9789	134	0.0%	7.8
YES	0.83	0.32	0	0	0	0.51	0	0	0	0.5%	4.3
YES	1.44	0.82	0	0	0	0.63	13	82	1	0.5%	4.4
YES	0.86	0.15	0	0	0	0.70	0	0	0	0.5%	1.5
YES	3.69	0.50	0	0	0	3.19	62	1478	11	4.1%	7.4
YES	4.39	0.62	0	0	0	3.77	52	12751	45	0.5%	8.0
YES	3.86	0.00	0	0	0	3.86	62	1620	8	0.5%	4.1
YES	3.04	0.08	0	0	0	2.96	44	4771	60	0.0%	6.2
YES	0.22	0.11	0	0	0	0.11	7	65	1	0.0%	2.1
YES	2.35	0.10	0	0	0	2.25	68	6313	82	0.0%	5.4
YES	1.06	0.12	0	0	0	0.94	46	2152	15	1.6%	3.9
YES	1.29	0.04	0	0	0	1.25	83	10419	135	0.0%	5.0
YES	1.19	0.48	0	0	0	0.71	23	8035	41	2.2%	4.2
YES	1.47	0.02	0	0	0	1.45	52	546	5	0.0%	5.3
YES	1.30	0.29	0	0	0	1.00	30	3982	37	2.1%	4.9
YES	5.23	0.09	0	0	0	5.13	77	790	6	1.8%	7.6
YES	3.47	0.00	0	0	0	3.47	39	1007	6	0.5%	2.8
YES	2.06	0.04	0	0	0	2.02	33	1538	7	0.0%	4.6
YES	2.06	0.00	0	0	0	2.06	38	426	3	1.8%	5.5
YES	2.60	0.73	0	0	0	1.87	98	3364	18	0.0%	6.4

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YES	2.40	0.00	0	0	0	2.40	102	1978	8	0.0%	4.2
YES	2.15	0.13	0	0	0	2.02	38	800	3	1.4%	3.7
YES	3.08	0.08	0	0	0	3.00	37	2092	8	3.1%	5.3
YES	1.16	0.59	0	0	0	0.57	4	446	5	1.4%	6.5
YES	4.28	0.00	0	0	0	4.28	59	11657	120	12.5%	7.3
YES	2.45	0.04	0	0	0	2.41	70	9888	165	0.0%	5.7
YES	2.11	0.05	0	0	0	2.06	147	5379	37	1.0%	7.9
YES	1.51	0.03	0	0	0	1.48	119	18635	269	0.0%	6.9
YES	1.72	0.11	0	0	0	1.61	81	4723	93	0.0%	4.3
YES	3.17	0.00	0	0	0	3.17	97	11253	37	0.0%	4.5
YES	1.37	0.04	0	0	0	1.32	27	176	1	0.0%	2.5
YES	2.43	0.14	0	0	0	2.29	99	16605	214	0.0%	5.0
YES	1.75	0.05	0	0	0	1.70	70	1260	8	0.0%	4.0
YES	1.93	1.49	0	0	0	0.44	0	0	0	0.0%	5.4
YES	2.03	0.14	0	0	0	1.88	25	1521	33	0.0%	4.8
YES	1.56	0.08	0	0	0	1.47	0	0	0	6.5%	6.6
YES	2.35	0.13	0	0	0	2.23	69	1269	12	0.0%	6.1
YES	1.74	0.70	0	0	0	1.04	7	0	0	0.0%	4.0
YES	3.42	1.14	0	0	0	2.28	0	0	0	0.0%	3.5
YES	2.22	0.00	0	0	0	2.22	0	0	0	19.9%	11.0
YES	1.38	0.00	0	0	0	1.38	128	24365	183	0.5%	4.9
YES	1.98	0.00	0	0	0	1.98	35	665	8	0.5%	5.5
YES	2.21	0.00	0	0	0	2.21	106	19281	133	0.5%	3.2
YES	1.77	0.00	0	0	0	1.77	65	262	4	0.5%	2.4
YES	3.09	0.00	0	0	0	3.09	94	3681	39	0.5%	7.0
YES	1.98	0.00	0	0	0	1.98	135	5095	58	0.5%	7.6
YES	0.65	0.00	0	0	0	0.65	180	6764	62	0.5%	5.3
YES	0.59	0.07	0	0	0	0.52	10	86	1	0.5%	1.8
YES	1.56	0.29	0	0	0	1.27	60	1846	16	0.5%	4.4
YES	1.29	0.03	0	0	0	1.26	125	1033	7	0.5%	4.9
YES	2.66	0.13	0	0	0	2.53	53	1454	55	0.5%	5.1
YES	3.67	0.69	0	0	0	2.99	32	2980	22	0.5%	5.3
YES	2.36	0.06	0	0	0	2.31	11	1613	14	0.5%	8.9
YES	0.67	0.32	0	0	0	0.35	39	2319	78	0.5%	5.8
YES	2.06	0.19	0	0	0	1.86	50	3338	108	0.5%	5.8

# 2013 Storm Implementation Plan and Annual Reliability Reports

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YES	1.60	0.00	0	0	0	1.60	12	178	1	0.5%	4.6
YES	3.22	0.19	0	0	0	3.03	71	8867	83	0.5%	5.8
YES	1.08	0.06	0	0	0	1.02	11	543	3	0.5%	5.7
YES	2.49	0.26	0	0	0	2.22	92	4623	102	0.5%	6.2
YES	2.22	0.16	0	0	0	2.06	107	3731	46	0.5%	7.0
YES	0.45	0.19	0	0	0	0.25	55	6683	100	0.5%	4.8
YES	0.52	0.00	0	0	0	0.52	29	1305	15	0.5%	5.3
YES	2.41	0.12	0	0	0	2.29	11	1568	23	1.4%	3.7
YES	1.23	0.37	0	0	0	0.85	0	0	0	2.6%	4.2
YES	3.42	0.37	0	0	0	3.05	28	60	0	1.4%	5.8
YES	2.64	0.24	0	0	0	2.40	31	4078	50	1.4%	7.9
YES	1.15	0.04	0	0	0	1.11	20	101	1	0.0%	2.4
YES	0.33	0.00	0	0	0	0.33	47	633	3	0.0%	5.2
YES	2.64	0.37	0	0	0	2.28	41	2899	84	0.0%	5.2
YES	2.58	0.24	0	0	0	2.34	67	544	4	0.0%	5.1
YES	1.39	0.19	0	0	0	1.21	95	12745	200	0.0%	3.0
YES	1.61	0.21	0	0	0	1.39	73	2884	20	0.0%	4.0
YES	3.50	0.89	0	0	0	2.62	74	16521	184	5.3%	6.6
YES	3.35	0.08	0	0	0	3.27	76	14644	104	0.0%	7.5
YES	5.88	1.18	0	0	0	4.70	0	0	0	0.0%	5.7
YES	4.46	0.07	0	0	0	4.39	101	5387	27	1.8%	6.3
YES	6.45	0.07	0	0	0	6.38	0	0	0	0.0%	7.5
YES	2.36	0.22	0	0	0	2.14	57	3484	57	0.0%	6.4
YES	1.19	0.00	0	0	0	1.19	87	1186	16	0.0%	3.7
YES	2.58	0.13	0	0	0	2.46	135	1853	9	0.0%	1.9
YES	2.11	0.16	0	0	0	1.95	94	1120	12	0.0%	3.5
YES	2.15	0.00	0	0	0	2.15	49	864	4	0.0%	4.7
YES	1.67	0.00	0	0	0	1.67	59	4126	69	5.1%	6.2
YES	1.25	0.09	0	0	0	1.16	194	9112	213	0.0%	5.5
YES	3.16	0.00	0	0	0	3.16	77	4493	37	14.9%	7.7
YES	0.96	0.22	0	0	0	0.74	172	11773	48	0.5%	4.9
YES	1.75	0.08	0	0	0	1.67	0	0	0	0.5%	6.0
YES	1.02	0.08	0	0	0	0.94	12	3071	24	0.5%	4.9
YES	4.02	0.21	0	0	0	3.81	95	899	11	20.2%	9.2
YES	1.05	0.06	0	0	0	0.98	17	870	11	0.5%	2.2

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YES	1.85	1.16	0	0	0	0.69	58	3249	67	-61.0%	3.2
YES	3.34	0.59	0	0	0	2.75	64	1505	11	0.5%	5.3
YES	5.59	2.47	0	0	0	3.12	34	3555	86	0.5%	4.1
YES	7.00	1.09	0	0	0	5.91	75	1849	99	3.8%	5.4
YES	1.85	0.08	0	0	0	1.77	0	0	0	0.0%	5.0
YES	2.91	0.74	0	0	0	2.17	14	180	10	0.0%	5.7
YES	3.16	0.26	0	0	0	2.90	36	2340	54	0.0%	6.9
YES	1.43	0.09	0	0	0	1.34	22	444	23	37.4%	7.8
YES	2.08	0.00	0	0	0	2.08	70	17875	303	0.0%	4.5
YES	4.04	0.02	0	0	0	4.02	47	3623	130	-42.6%	3.5
YES	3.38	0.86	0	0	0	2.52	73	1098	7	0.0%	5.9
YES	4.77	0.15	0	0	0	4.62	32	77	1	8.8%	3.7
YES	2.56	0.00	0	0	0	2.56	56	12984	91	1.4%	5.3
YES	3.43	0.03	0	0	0	3.40	39	37730	168	1.4%	5.9
YES	2.00	0.13	0	0	0	1.87	6	368	2	1.4%	4.4
YES	3.55	0.07	0	0	0	3.48	63	6965	47	1.4%	5.0
YES	0.57	0.00	0	0	0	0.57	0	0	0	1.4%	2.7
YES	1.43	0.00	0	0	0	1.43	97	2568	21	1.4%	4.0
YES	1.14	0.07	0	0	0	1.07	50	2599	13	1.4%	1.5
YES	1.49	0.08	0	0	0	1.41	26	2749	34	0.5%	2.8
YES	1.35	0.16	0	0	0	1.19	73	399	4	0.5%	5.9
YES	1.26	0.03	0	0	0	1.23	82	30850	219	0.5%	4.8
YES	1.72	0.04	0	0	0	1.68	39	5202	24	0.5%	8.1
YES	0.11	0.08	0	0	0	0.03	45	428	2	4.9%	2.8
YES	1.34	0.38	0	0	0	0.96	37	325	3	0.5%	5.7
YES	1.05	0.28	0	0	0	0.77	140	1341	6	0.5%	4.9
YES	1.42	0.39	0	0	0	1.03	26	2556	20	0.5%	9.0
YES	8.51	0.31	0	0	0	8.19	13	524	4	0.0%	1.5
YES	5.56	0.02	0	0	0	5.55	37	3877	15	0.0%	3.0
YES	4.19	0.00	0	0	0	4.19	43	11349	100	0.0%	2.1
YES	3.67	0.33	0	0	0	3.34	51	3909	54	0.5%	6.5
YES	3.57	0.05	0	0	0	3.51	4	376	3	0.5%	5.5
YES	2.91	0.14	0	0	0	2.77	89	1650	22	0.5%	5.8
YES	2.35	0.04	0	0	0	2.31	49	3307	60	0.5%	6.9
YES	1.36	0.00	0	0	0	1.36	83	1494	8	0.5%	7.7



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YES	3.18	1.12	0	0	0	2.06	61	2768	48	0.5%	7.0
YES	2.16	0.07	0	0	0	2.09	29	3173	35	0.5%	4.7
YES	1.21	0.34	0	0	0	0.87	25	882	7	0.5%	3.7
YES	2.09	0.06	0	0	0	2.03	106	7576	28	0.0%	4.6
YES	3.31	0.09	0	0	0	3.21	74	4780	85	0.0%	5.4
YES	1.19	0.43	0	0	0	0.76	23	3321	71	0.0%	4.9
YES	0.28	0.05	0	0	0	0.23	22	211	2	0.5%	2.5
YES	1.51	0.00	0	0	0	1.51	133	11969	141	0.5%	7.3
YES	1.49	0.06	0	0	0	1.43	99	16188	94	0.5%	6.9
YES	1.63	0.36	0	0	0	1.27	10	451	4	0.5%	5.3
YES	0.31	0.21	0	0	0	0.10	21	823	2	0.5%	3.4
YES	4.17	0.15	0	0	0	4.03	106	2360	165	0.5%	8.7
YES	1.47	0.00	0	0	0	1.47	148	17649	178	0.5%	7.1
YES	3.44	1.72	0	0	0	1.72	2	93	1	2.4%	8.9
YES	5.31	2.64	0	0	0	2.66	4	0	0	15.5%	8.2
YES	4.03	0.15	0	0	0	3.88	51	1157	9	1.4%	7.0
YES	1.49	0.02	0	0	0	1.47	11	921	9	1.4%	1.7
YES	3.53	0.55	0	0	0	2.98	2	23	0	8.6%	3.1
YES	2.78	0.36	0	0	0	2.42	3	200	1	19.2%	6.4
YES	3.36	0.23	0	0	0	3.13	64	9906	196	5.1%	8.2
YES	3.74	0.38	0	0	0	3.36	76	16042	235	9.7%	8.7
YES	1.65	0.20	0	0	0	1.46	66	4071	36	0.0%	3.7
YES	2.89	0.38	0	0	0	2.51	22	1884	43	7.3%	5.9
YES	1.34	0.56	0	0	0	0.78	39	42	0	12.0%	4.7
YES	1.81	0.19	0	0	0	1.62	44	12775	161	0.0%	6.1
YES	1.35	0.22	0	0	0	1.14	33	567	7	4.2%	3.2
YES	1.98	0.40	0	0	0	1.58	0	0	0	0.0%	2.2
YES	1.27	0.06	0	0	0	1.21	44	432	3	0.0%	3.7
YES	2.26	0.00	0	0	0	2.26	129	1987	6	0.0%	2.7
YES	2.29	0.07	0	0	0	2.22	70	6778	32	0.0%	4.9
YES	2.67	0.00	0	0	0	2.67	65	2371	78	0.0%	5.7
YES	1.86	0.01	0	0	0	1.85	17	154	1	0.5%	8.2
YES	4.30	0.43	0	0	0	3.86	128	5872	66	0.5%	6.8
YES	3.15	0.30	0	0	0	2.85	51	1303	9	0.5%	6.9
YES	4.19	0.40	0	0	0	3.79	10	883	10	0.5%	7.8

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	4.89	1.81	0	0	0	3.08	1	8	0	0.5%	4.1
YES	1.35	0.12	0	0	0	1.23	11	143	1	0.5%	2.9
YES	2.09	1.43	0	0	0	0.65	0	0	0	0.5%	5.9
YES	2.92	0.34	0	0	0	2.57	33	4389	48	5.1%	4.9
YES	0.34	0.10	0	0	0	0.25	75	5122	98	7.1%	4.1
YES	0.65	0.05	0	0	0	0.60	0	0	0	0.5%	4.4
YES	2.29	0.72	0	0	0	1.58	35	36	0	0.5%	5.1
YES	2.58	0.24	0	0	0	2.34	98	24557	211	0.0%	4.3
YES	1.10	0.37	0	0	0	0.73	47	2106	12	0.0%	3.0
YES	0.94	0.15	0	0	0	0.79	100	4125	29	0.5%	6.9
YES	0.72	0.17	0	0	0	0.55	46	5937	65	0.5%	6.4
YES	1.21	0.25	0	0	0	0.95	38	2984	27	0.5%	3.8
YES	2.46	0.40	0	0	0	2.05	66	2696	13	0.5%	5.1
YES	2.23	0.30	0	0	0	1.93	0	0	0	2.4%	7.0
YES	3.83	0.75	0	0	0	3.09	95	36989	207	1.4%	7.9
YES	3.44	0.56	0	0	0	2.88	48	587	51	11.3%	4.5
YES	2.66	0.54	0	0	0	2.11	72	2446	28	0.5%	4.4
YES	1.54	0.13	0	0	0	1.41	61	5093	34	0.5%	4.6
YES	2.53	0.00	0	0	0	2.53	150	11004	106	0.5%	6.2
YES	1.50	0.08	0	0	0	1.42	7	670	9	0.5%	3.1
YES	1.58	0.16	0	0	0	1.43	12	1041	3	0.0%	4.1
YES	2.33	0.37	0	0	0	1.96	31	573	5	0.0%	6.0
YES	2.80	0.00	0	0	0	2.80	15	133	15	0.0%	4.9
YES	3.03	0.75	0	0	0	2.28	78	6510	167	1.0%	8.0
YES	0.62	0.06	0	0	0	0.56	26	3831	31	1.4%	3.6
YES	3.98	0.13	0	0	0	3.85	47	5641	133	1.4%	9.8
YES	2.90	0.03	0	0	0	2.87	64	9162	66	1.4%	5.6
YES	3.48	0.14	0	0	0	3.34	60	453	2	1.4%	7.0
YES	2.33	0.10	0	0	0	2.23	74	11978	217	1.4%	5.6
YES	2.56	0.21	0	0	0	2.36	23	1133	26	1.4%	5.0
YES	3.50	0.20	0	0	0	3.30	27	254	2	1.4%	5.9
YES	1.49	0.05	0	0	0	1.44	5	4	0	0.5%	0.8
YES	8.29	3.13	0	0	0	5.16	1	43	1	5.5%	8.4
YES	10.26	3.15	0	0	0	7.11	36	20150	291	-35.7%	6.6
YES	3.12	2.22	0	0	0	0.90	0	0	0	661.6%	5.2

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	3.05	0.31	0	0	0	2.74	1	59	1	53.5%	1.7
YES	1.93	0.00	0	0	0	1.93	37	5740	46	0.0%	6.3
YES	3.59	0.10	0	0	0	3.49	19	928	20	5.4%	3.6
YES	2.24	0.00	0	0	0	2.24	85	11400	93	0.0%	5.2
YES	0.46	0.05	0	0	0	0.42	0	0	0	0.0%	7.9
YES	12.58	0.28	0	0	0	12.30	138	40432	394	3.6%	5.1
YES	2.01	0.28	0	0	0	1.73	36	10816	129	0.5%	2.9
YES	0.29	0.29	0	0	0	0.00	0	0	0	0.0%	5.4
YES	0.77	0.77	0	0	0	0.00	0	0	0	0.0%	5.3
YES	1.07	1.07	0	0	0	0.00	0	0	0	0.0%	0.1
YES	0.76	0.76	0	0	0	0.00	0	0	0	0.0%	3.3
YES	0.15	0.15	0	0	0	0.00	0	0	0	0.0%	0.8
YES	1.17	1.17	0	0	0	0.00	0	0	0	3.7%	6.7
YES	0.53	0.53	0	0	0	0.00	0	0	0	0.0%	3.4
YES	1.37	0.06	0	0	0	1.31	1	5	0	0.5%	2.8
YES	2.00	2.00	0	0	0	0.00	0	0	0	0.5%	2.9
YES	1.72	1.72	0	0	0	0.00	0	0	0	0.5%	3.2
YES	3.21	0.07	0	0	0	3.13	85	593	6	79.4%	5.7
YES	3.43	0.35	0	0	0	3.08	19	9	0	0.5%	3.8
YES	0.87	0.70	0	0	0	0.18	0	0	0	0.5%	6.3
YES	1.48	0.97	0	0	0	0.51	0	0	0	0.5%	8.3
YES	6.26	0.30	0	0	0	5.97	14	3418	68	-49.5%	4.1
YES	1.29	0.51	0	0	0	0.78	59	6	0	-37.1%	4.2
YES	1.11	0.00	0	0	0	1.11	0	0	0	0.5%	4.9
YES	2.96	0.17	0	0	0	2.79	16	2294	22	0.5%	3.4
YES	3.00	0.14	0	0	0	2.86	59	3312	66	0.5%	3.4
YES	1.37	0.00	0	0	0	1.37	23	159	2	0.5%	5.2
YES	2.35	0.00	0	0	0	2.35	61	20	0	0.5%	3.0
YES	3.49	0.07	0	0	0	3.42	124	18973	275	0.5%	4.3
YES	3.73	0.27	0	0	0	3.46	83	1449	16	26.3%	9.9
YES	3.74	0.62	0	0	0	3.12	34	763	1	0.5%	4.9
YES	4.37	0.20	0	0	0	4.17	68	1905	8	7.7%	6.0
YES	3.81	0.12	0	0	0	3.69	121	656	5	0.5%	5.0
YES	24.02	0.00	0	0	0	24.02	25	5752	79	0.5%	7.1
YES	8.75	3.32	0	0	0	5.43	79	10762	70	8.2%	5.6

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	2.92	1.44	0	0	0	1.48	3	370	6	0.5%	6.1
YES	5.37	0.09	0	0	0	5.28	137	11939	86	0.5%	8.0
YES	3.50	1.52	0	0	0	1.97	3	304	7	15.7%	4.6
YES	5.22	0.09	0	0	0	5.13	40	1177	5	32.4%	3.1
YES	3.23	0.05	0	0	0	3.18	82	3096	27	0.5%	6.1
YES	1.83	0.04	0	0	0	1.79	4	561	8	0.5%	3.4
YES	1.36	0.05	0	0	0	1.30	11	1093	14	0.5%	3.0
YES	2.98	0.06	0	0	0	2.92	58	1003	10	0.5%	4.2
YES	2.59	0.04	0	0	0	2.55	16	92	1	0.5%	7.4
YES	1.75	0.22	0	0	0	1.53	31	1022	31	0.5%	5.4
YES	1.42	0.32	0	0	0	1.10	21	4	0	0.5%	3.9
YES	0.38	0.38	0	0	0	0.00	0	0	0	0.5%	1.7
YES	3.53	2.52	0	0	0	1.01	5	252	5	0.5%	4.7
YES	1.83	1.83	0	0	0	0.00	0	0	0	0.5%	4.1
YES	2.72	2.72	0	0	0	0.00	0	0	0	0.5%	3.7
YES	2.26	2.26	0	0	0	0.00	0	0	0	0.0%	7.7
YES	1.88	1.88	0	0	0	0.00	0	0	0	0.5%	3.2
YES	2.68	2.31	0	0	0	0.38	1	22	0	0.5%	3.6
YES	1.91	0.83	0	0	0	1.08	7	248	3	0.5%	1.9
YES	4.03	0.10	0	0	0	3.94	48	284	5	1.4%	5.1
YES	1.65	0.11	0	0	0	1.54	0	0	0	26.5%	5.0
YES	5.63	0.00	0	0	0	5.63	16	1143	13	1.4%	6.6
YES	1.25	0.00	0	0	0	1.25	0	0	0	453.8%	9.1
YES	1.42	0.07	0	0	0	1.35	14	1548	18	0.0%	3.2
YES	2.85	0.06	0	0	0	2.80	22	5456	87	2.0%	4.6
YES	4.82	0.20	0	0	0	4.62	136	16898	211	0.0%	6.1
YES	3.90	0.11	0	0	0	3.79	89	21063	303	29.7%	4.7
YES	1.86	0.06	0	0	0	1.80	69	4153	13	0.5%	4.8
YES	2.17	0.19	0	0	0	1.99	24	1069	23	0.5%	4.3
YES	2.20	0.13	0	0	0	2.07	45	1330	11	0.5%	5.0
YES	0.92	0.20	0	0	0	0.72	0	0	0	0.5%	4.3
YES	1.56	0.18	0	0	0	1.38	1	5	0	0.5%	5.0
YES	2.72	0.17	0	0	0	2.55	82	383	2	0.5%	6.3
YES	3.36	0.14	0	0	0	3.23	6	406	7	0.5%	4.8
YES	1.45	1.04	0	0	0	0.41	3	260	2	0.5%	7.6

# 2013 Storm Implementation Plan and Annual Reliability Reports

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YES	8.41	2.90	0	0	0	5.51	1	15	0	101.6%	6.0
YES	6.66	0.39	0	0	0	6.27	59	1484	8	1.7%	8.7
YES	4.93	0.12	0	0	0	4.81	11	859	8	0.5%	5.5
YES	2.34	0.70	0	0	0	1.64	6	0	0	0.5%	6.5
YES	4.31	0.97	0	0	0	3.34	6	20	0	17.3%	5.3
YES	2.73	0.32	0	0	0	2.41	195	11251	255	9.8%	6.7
YES	1.22	0.60	0	0	0	0.62	6	570	11	0.0%	2.7
YES	0.70	0.39	0	0	0	0.31	4	0	0	0.0%	5.2
YES	1.39	0.30	0	0	0	1.08	25	3213	38	0.0%	5.5
YES	1.87	0.86	0	0	0	1.01	24	3168	44	0.0%	5.7
YES	1.47	1.47	0	0	0	0.00	0	0	0	0.0%	1.4
YES	2.18	0.07	0	0	0	2.11	31	732	4	0.0%	6.9
YES	1.03	0.75	0	0	0	0.28	0	0	0	0.0%	7.0
YES	2.23	0.41	0	0	0	1.82	98	5497	214	0.5%	7.0
YES	3.51	1.44	0	0	0	2.06	19	1188	11	0.5%	5.7
YES	1.59	0.77	0	0	0	0.82	0	0	0	0.5%	0.1
YES	1.18	0.53	0	0	0	0.66	0	0	0	0.0%	6.4
YES	1.39	0.21	0	0	0	1.18	9	88	0	33.5%	5.0
YES	1.54	0.09	0	0	0	1.46	3	92	0	0.0%	3.7
YES	5.26	1.67	0	0	0	3.59	27	544	3	0.0%	5.4
YES	1.29	0.90	0	0	0	0.39	0	0	0	0.0%	5.6
YES	1.59	0.12	0	0	0	1.47	6	108	1	0.0%	6.6
YES	0.21	0.21	0	0	0	0.00	0	0	0	0.0%	4.4
YES	0.32	0.32	0	0	0	0.00	0	0	0	0.0%	5.3
YES	4.65	0.18	0	0	0	4.47	99	3791	36	29.8%	8.9
YES	4.15	0.39	0	0	0	3.77	33	1261	34	3.7%	6.5
YES	1.33	0.11	0	0	0	1.22	10	103	1	0.5%	5.8
YES	4.08	0.84	0	0	0	3.24	76	5029	92	0.5%	4.9
YES	0.80	0.80	0	0	0	0.00	0	0	0	0.5%	2.1
YES	0.84	0.84	0	0	0	0.00	0	0	0	0.5%	1.6
YES	3.08	0.84	0	0	0	2.24	41	12388	186	0.5%	6.0
YES	0.00	0.00	0	0	0	0.00	0	0	0	0.5%	0.0
YES	1.15	0.58	0	0	0	0.57	202	58542	457	0.5%	5.1
YES	0.99	0.99	0	0	0	0.00	0	0	0	0.5%	4.6
YES	0.85	0.85	0	0	0	0.00	0	0	0	0.5%	4.7

# 2013 Storm Implementation Plan and Annual Reliability Reports

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YES	0.00	0.00	0	0	0	0.00	0	0	0	0.5%	0.0
YES	0.74	0.74	0	0	0	0.00	0	0	0	0.5%	3.1
YES	0.00	0.00	0	0	0	0.00	0	0	0	0.0%	0.0
YES	4.88	0.85	0	0	0	4.03	52	1207	6	1.7%	4.7
YES	6.29	0.04	0	0	0	6.26	135	26735	390	0.0%	4.6
YES	6.50	0.30	0	0	0	6.20	166	26707	343	0.0%	5.7
YES	9.97	1.45	0	0	0	8.52	94	4752	37	2.9%	6.8
YES	1.95	1.00	0	0	0	0.94	14	307	2	0.0%	3.9
YES	1.65	1.31	0	0	0	0.34	6	1	0	460.5%	0.6
YES	0.67	0.23	0	0	0	0.43	0	0	0	106.5%	1.9
YES	1.59	0.25	0	0	0	1.34	17	2344	54	0.0%	3.5
YES	3.07	0.67	0	0	0	2.41	2	374	1	0.5%	1.5
YES	4.45	0.25	0	0	0	4.20	0	0	0	0.5%	4.1
YES	4.62	0.05	0	0	0	4.56	28	2389	41	0.0%	6.7
YES	2.71	0.04	0	0	0	2.67	34	6273	49	0.0%	5.0
YES	3.16	0.25	0	0	0	2.90	105	10535	120	0.0%	4.8
YES	1.44	0.13	0	0	0	1.31	175	6468	67	0.0%	5.4
YES	1.60	0.14	0	0	0	1.46	108	8663	129	0.0%	6.5
YES	2.18	0.10	0	0	0	2.08	114	1376	4	0.0%	6.2
YES	7.91	0.12	0	0	0	7.78	56	27250	245	9.7%	6.4
YES	2.67	0.18	0	0	0	2.49	49	9884	128	25.8%	5.4
YES	0.99	0.14	0	0	0	0.85	0	0	0	0.5%	4.9
YES	1.15	0.07	0	0	0	1.07	32	1516	16	0.5%	6.6
YES	0.16	0.07	0	0	0	0.09	0	0	0	0.5%	1.2
YES	2.60	0.05	0	0	0	2.55	55	2120	14	0.5%	4.5
YES	4.64	0.78	0	0	0	3.86	46	24578	200	19.6%	4.3
YES	2.38	0.08	0	0	0	2.30	25	1793	25	12.6%	6.3
YES	3.43	0.25	0	0	0	3.18	15	2655	32	1.4%	5.8
YES	4.27	0.10	0	0	0	4.17	112	3496	21	4.9%	4.5
YES	2.96	0.12	0	0	0	2.84	3	224	1	1.4%	2.4
YES	3.24	0.12	0	0	0	3.12	44	1524	7	1.4%	5.4
YES	5.10	3.26	0	0	0	1.84	9	170	1	0.5%	7.5
YES	4.04	0.65	0	0	0	3.39	51	12074	130	0.5%	5.3
YES	6.55	0.57	0	0	0	5.98	6	1799	43	20.9%	5.4
YES	2.89	0.14	0	0	0	2.74	53	6162	172	3.4%	7.2

# 2013 Storm Implementation Plan and Annual Reliability Reports

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YES	2.22	0.04	0	0	0	2.18	28	2239	31	0.5%	3.7
YES	2.48	0.23	0	0	0	2.25	19	146	1	0.5%	2.6
YES	1.25	1.25	0	0	0	0.00	0	0	0	0.5%	3.3
YES	1.31	0.11	0	0	0	1.19	0	0	0	0.5%	6.6
YES	1.15	0.68	0	0	0	0.47	5	112	0	0.5%	3.5
YES	1.69	0.89	0	0	0	0.79	24	83	1	0.5%	5.2
YES	2.77	1.51	0	0	0	1.26	0	0	0	0.5%	6.6
YES	1.21	0.29	0	0	0	0.92	0	0	0	0.5%	4.9
YES	0.71	0.14	0	0	0	0.57	0	0	0	0.5%	1.3
YES	3.37	2.90	0	0	0	0.47	0	0	0	1.4%	7.2
YES	2.30	0.12	0	0	0	2.19	41	6563	64	1.4%	6.5
YES	2.09	0.13	0	0	0	1.95	52	2290	9	3.5%	4.1
YES	2.50	0.71	0	0	0	1.79	21	8	0	1.4%	4.7
YES	2.55	0.07	0	0	0	2.48	22	150	2	1.4%	4.5
YES	8.31	0.63	0	0	0	7.68	38	4203	34	1.4%	3.0
YES	5.66	1.68	0	0	0	3.98	62	6648	126	6.2%	4.5
YES	7.33	0.11	0	0	0	7.21	50	4922	35	1.4%	5.0
YES	6.89	0.19	0	0	0	6.70	63	18345	209	1.4%	6.6
YES	3.93	0.21	0	0	0	3.73	32	5550	105	0.0%	8.8
YES	3.11	0.10	0	0	0	3.01	63	11771	31	0.0%	7.9
YES	1.83	0.10	0	0	0	1.73	19	418	2	0.0%	2.1
YES	1.80	0.12	0	0	0	1.68	15	150	1	1.9%	4.0
YES	1.57	0.08	0	0	0	1.50	0	0	0	0.0%	1.4
YES	2.67	0.14	0	0	0	2.53	77	2065	5	0.0%	4.2
YES	4.09	0.55	0	0	0	3.54	8	4044	62	0.0%	7.2
YES	5.16	0.26	0	0	0	4.90	40	3491	29	2.9%	8.8
YES	3.36	0.22	0	0	0	3.14	26	1790	17	0.5%	2.5
YES	2.44	0.02	0	0	0	2.42	37	6884	80	0.5%	3.2
YES	4.85	0.05	0	0	0	4.79	40	1020	41	0.5%	4.4
YES	1.00	0.03	0	0	0	0.97	1	15	0	0.5%	4.7
YES	5.63	2.64	0	0	0	2.99	0	0	0	0.5%	3.4
YES	2.55	0.64	0	0	0	1.92	4	387	5	0.5%	6.6
YES	1.61	1.49	0	0	0	0.12	77	9691	101	0.5%	6.8
YES	3.75	0.73	0	0	0	3.03	8	137	1	0.5%	5.0
YES	2.56	0.08	0	0	0	2.47	9	105	2	0.5%	5.9

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	3.40	0.83	0	0	0	2.57	202	38438	418	0.5%	6.4
YES	3.75	0.82	0	0	0	2.93	9	35	2	28.8%	5.0
YES	1.94	0.07	0	0	0	1.87	39	2521	26	3.3%	4.3
YES	2.77	0.13	0	0	0	2.63	29	243	1	0.5%	5.2
YES	2.04	0.28	0	0	0	1.77	91	11256	317	0.5%	5.8
YES	1.98	0.38	0	0	0	1.60	55	9899	81	0.5%	2.7
YES	2.40	0.80	0	0	0	1.60	0	0	0	0.5%	2.3
YES	6.39	0.01	0	0	0	6.38	9	10818	49	5.0%	9.5
YES	3.19	1.17	0	0	0	2.02	10	108	0	6.0%	5.3
YES	4.32	2.20	0	0	0	2.12	3	77	1	0.0%	8.6
YES	0.72	0.72	0	0	0	0.00	0	0	0	56.1%	6.4
YES	3.23	1.63	0	0	0	1.59	0	0	0	0.0%	4.5
YES	1.83	0.12	0	0	0	1.71	0	0	0	6.9%	4.0
YES	2.27	1.14	0	0	0	1.13	74	817	5	1.4%	7.3
YES	1.86	1.02	0	0	0	0.83	0	0	0	5.9%	4.7
YES	2.51	1.03	0	0	0	1.47	28	1009	8	1.4%	5.5
YES	2.66	1.14	0	0	0	1.52	21	1905	30	5.0%	4.9
YES	1.52	1.35	0	0	0	0.17	0	0	0	1.4%	3.0
YES	4.25	0.90	0	0	0	3.35	19	1635	26	1.4%	6.5
YES	1.85	0.07	0	0	0	1.78	19	1619	51	0.5%	5.8
YES	2.34	0.39	0	0	0	1.95	12	969	15	0.5%	5.8
YES	2.29	0.29	0	0	0	2.00	53	10671	107	0.5%	5.7
YES	0.94	0.56	0	0	0	0.39	0	0	0	0.5%	5.4
YES	3.35	0.11	0	0	0	3.24	3	6	0	20.1%	6.2
YES	1.94	0.12	0	0	0	1.82	48	2034	9	2.5%	5.3
YES	1.76	0.07	0	0	0	1.69	59	1736	15	0.5%	6.9
YES	1.13	0.16	0	0	0	0.96	0	0	0	0.5%	7.0
YES	0.96	0.02	0	0	0	0.94	0	0	0	0.0%	0.0
YES	2.13	0.37	0	0	0	1.76	19	85	0	0.5%	4.8
YES	0.48	0.17	0	0	0	0.31	0	0	0	0.5%	3.9
YES	1.32	0.27	0	0	0	1.05	121	6994	163	0.5%	6.5
YES	1.62	0.23	0	0	0	1.40	123	2219	185	0.5%	3.4
YES	1.60	0.38	0	0	0	1.22	33	2699	74	0.5%	8.1
YES	0.82	0.18	0	0	0	0.64	11	504	2	0.5%	3.6
YES	3.04	0.61	0	0	0	2.43	6	584	6	0.5%	4.1



# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	1.92	0.04	0	0	0	1.89	43	8049	73	0.5%	5.7
YES	2.84	0.02	0	0	0	2.82	57	2985	14	0.5%	5.6
YES	2.15	0.08	0	0	0	2.08	103	5753	119	0.5%	8.4
YES	2.49	1.07	0	0	0	1.42	8	131	1	0.5%	6.0
YES	2.05	0.12	0	0	0	1.94	11	900	11	0.5%	5.0
YES	1.97	0.17	0	0	0	1.80	4	27	0	0.5%	2.9
YES	1.69	1.69	0	0	0	0.00	0	0	0	0.5%	5.7
YES	2.10	0.06	0	0	0	2.04	1	3	0	0.5%	3.4
YES	4.65	0.58	0	0	0	4.07	8	1173	14	0.0%	7.8
YES	3.44	0.15	0	0	0	3.29	50	2676	19	0.0%	3.2
YES	0.33	0.10	0	0	0	0.23	0	0	0	0.0%	0.7
YES	1.64	0.06	0	0	0	1.58	0	0	0	40.0%	5.3
YES	0.35	0.35	0	0	0	0.00	0	0	0	0.0%	2.0
YES	0.31	0.31	0	0	0	0.00	0	0	0	0.0%	4.5
YES	1.48	1.48	0	0	0	0.00	0	0	0	0.0%	2.3
YES	2.95	2.95	0	0	0	0.00	0	0	0	0.0%	3.1
YES	2.44	2.44	0	0	0	0.00	0	0	0	0.0%	3.7
YES	1.70	1.70	0	0	0	0.00	0	0	0	0.0%	2.6
YES	1.57	1.57	0	0	0	0.00	0	0	0	0.0%	3.6
YES	1.99	1.99	0	0	0	0.00	0	0	0	0.0%	2.2
YES	1.13	0.21	0	0	0	0.92	5	190	3	0.5%	4.0
YES	1.28	0.30	0	0	0	0.98	5	340	5	0.5%	4.5
YES	1.89	0.16	0	0	0	1.73	11	89	1	0.5%	3.9
YES	1.06	0.12	0	0	0	0.94	12	396	3	0.5%	2.6
YES	4.82	0.40	0	0	0	4.42	71	12692	149	1.4%	7.1
YES	3.33	0.00	0	0	0	3.33	44	2448	46	1.4%	4.3
YES	2.56	0.15	0	0	0	2.41	81	6440	58	1.4%	5.0
YES	5.73	1.85	0	0	0	3.88	4	404	10	0.5%	7.2
YES	3.15	0.09	0	0	0	3.06	6	53	1	30.3%	7.0
YES	2.14	0.05	0	0	0	2.10	6	2265	20	0.5%	4.3
YES	1.60	0.44	0	0	0	1.16	0	0	0	0.5%	5.8
YES	3.40	0.50	0	0	0	2.90	4	382	4	0.5%	7.0
YES	2.42	0.62	0	0	0	1.80	2	475	4	0.5%	7.5
YES	4.68	1.94	0	0	0	2.74	0	0	0	20.1%	6.2
YES	3.07	0.03	0	0	0	3.04	154	842	4	0.0%	5.9

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	2.76	0.14	0	0	0	2.62	118	10140	126	0.0%	3.8
YES	4.69	0.13	0	0	0	4.57	76	52118	574	4.6%	9.5
YES	2.74	0.14	0	0	0	2.59	46	1079	9	2.6%	4.5
YES	1.43	0.14	0	0	0	1.29	23	3294	50	15.9%	6.5
YES	0.86	0.20	0	0	0	0.66	53	345	2	0.5%	2.5
YES	1.46	0.05	0	0	0	1.41	59	123	1	0.5%	2.8
YES	1.31	0.23	0	0	0	1.08	56	1087	2	0.5%	5.6
YES	0.91	0.16	0	0	0	0.75	75	21774	101	0.5%	2.6
YES	1.35	0.14	0	0	0	1.21	43	2406	13	0.5%	5.2
YES	1.36	0.26	0	0	0	1.10	55	3023	8	0.5%	3.9
YES	2.38	0.03	0	0	0	2.35	41	12904	43	0.5%	5.8
YES	2.94	0.06	0	0	0	2.88	65	5030	56	0.5%	5.9
YES	3.26	0.00	0	0	0	3.26	57	9734	104	0.5%	3.9
YES	3.52	0.33	0	0	0	3.19	117	14410	145	0.0%	5.1
YES	2.22	0.31	0	0	0	1.92	48	1475	9	0.0%	6.4
YES	1.94	0.06	0	0	0	1.89	84	1010	8	0.0%	2.7
YES	3.60	0.15	0	0	0	3.44	76	10174	150	2.3%	7.8
YES	2.90	1.24	0	0	0	1.66	0	0	0	0.5%	7.8
YES	1.89	0.74	0	0	0	1.14	0	0	0	0.5%	5.8
YES	2.06	0.10	0	0	0	1.96	12	80	1	0.5%	1.7
YES	1.65	0.40	0	0	0	1.25	13	353	2	0.5%	1.9
YES	0.42	0.42	0	0	0	0.00	0	0	0	0.5%	0.6
YES	1.92	1.92	0	0	0	0.00	0	0	0	0.0%	0.0
YES	1.90	1.90	0	0	0	0.00	0	0	0	0.0%	0.0
YES	1.92	1.92	0	0	0	0.00	0	0	0	0.0%	0.0
YES	4.57	0.43	0	0	0	4.14	9	1120	7	-17.3%	8.4
YES	4.87	4.12	0	0	0	0.75	0	0	0	54.6%	8.1
YES	4.62	0.05	0	0	0	4.57	67	3208	26	0.5%	5.1
YES	1.68	0.08	0	0	0	1.60	60	14	0	6.1%	1.9
YES	2.89	1.67	0	0	0	1.23	0	0	0	0.5%	4.2
YES	5.31	1.12	0	0	0	4.20	25	638	8	0.5%	8.1
YES	8.99	3.82	0	0	0	5.17	33	1169	17	7.6%	11.4
YES	3.21	0.08	0	0	0	3.13	39	2562	44	0.0%	2.8
YES	8.48	0.34	0	0	0	8.14	146	11370	252	0.8%	7.3
YES	3.36	0.17	0	0	0	3.19	124	14787	151	10.2%	5.4

# 2013 Storm Implementation Plan and Annual Reliability Reports

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YES	2.85	0.03	0	0	0	2.81	42	1756	17	0.5%	4.2
YES	2.88	0.17	0	0	0	2.71	76	968	9	150.2%	2.5
YES	4.82	1.24	0	0	0	3.58	15	900	17	0.5%	7.3
YES	3.06	1.92	0	0	0	1.14	39	1058	12	3.0%	6.9
YES	2.26	0.18	0	0	0	2.08	37	1706	9	0.5%	3.9
YES	0.90	0.11	0	0	0	0.79	2	87	1	0.5%	2.8
YES	3.18	1.73	0	0	0	1.45	17	551	6	0.5%	5.6
YES	4.31	0.81	0	0	0	3.50	11	445	3	0.0%	6.4
YES	3.19	1.04	0	0	0	2.15	3	69	1	0.5%	5.6
YES	4.27	1.45	0	0	0	2.82	5	701	12	0.5%	6.3
YES	6.18	3.46	0	0	0	2.72	1	171	2	0.5%	7.0
YES	3.10	0.28	0	0	0	2.82	2	232	2	0.5%	6.7
YES	4.85	0.18	0	0	0	4.68	52	590	3	0.5%	7.6
YES	4.49	1.70	0	0	0	2.79	44	3240	44	1.8%	6.6
YES	2.97	0.13	0	0	0	2.84	22	404	2	3.2%	7.9
YES	6.44	0.19	0	0	0	6.25	109	22757	259	10.6%	7.9
YES	2.90	1.29	0	0	0	1.61	25	1458	13	1.4%	5.6
YES	3.17	0.73	0	0	0	2.45	10	921	8	1.4%	5.6
YES	2.19	0.16	0	0	0	2.02	7	75	1	1.4%	2.9
YES	3.73	0.99	0	0	0	2.73	46	1081	6	1.4%	6.2
YES	2.13	0.00	0	0	0	2.13	75	14660	72	0.5%	6.2
YES	3.20	0.11	0	0	0	3.08	84	7633	121	0.5%	6.6
YES	2.33	0.36	0	0	0	1.97	2	13	0	0.5%	0.4
YES	5.48	0.69	0	0	0	4.78	97	5570	41	0.5%	6.4
YES	2.04	0.38	0	0	0	1.67	7	465	3	0.5%	3.7
YES	3.18	0.14	0	0	0	3.04	27	2410	60	-5.9%	6.4
YES	2.81	0.22	0	0	0	2.58	45	221	2	1.4%	7.0
YES	3.43	0.92	0	0	0	2.51	11	70	1	1.4%	4.9
YES	4.04	0.73	0	0	0	3.31	14	240	2	1.4%	7.7
YES	2.59	0.12	0	0	0	2.47	39	1854	51	1.4%	3.5
YES	3.12	0.27	0	0	0	2.85	25	1882	30	8.3%	9.7
YES	4.08	1.03	0	0	0	3.05	3	284	4	1.4%	8.4
YES	5.37	0.51	0	0	0	4.86	53	8873	87	1.4%	5.3
YES	3.79	3.12	0	0	0	0.67	4	33	0	0.0%	9.8
YES	3.81	2.09	0	0	0	1.72	0	0	0	0.0%	5.6

## 2013 Storm Implementation Plan and Annual Reliability Reports

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YES	2.45	0.39	0	0	0	2.06	2	18	0	0.0%	5.2
YES	4.21	0.60	0	0	0	3.61	1	69	1	0.0%	3.3
YES	4.68	0.49	0	0	0	4.20	5	0	0	0.9%	4.8
YES	3.63	2.54	0	0	0	1.09	0	0	0	0.0%	6.1
YES	3.22	2.04	0	0	0	1.18	4	52	0	0.0%	3.6
YES	3.50	0.02	0	0	0	3.48	5	658	3	0.0%	4.9
YES	5.81	0.07	0	0	0	5.74	35	7386	149	0.0%	5.6
YES	6.21	0.07	0	0	0	6.14	76	13449	181	0.0%	5.6
YES	2.53	0.18	0	0	0	2.34	3	3	0	4.6%	6.7
YES	2.28	0.99	0	0	0	1.29	0	0	0	1.4%	4.2
YES	1.96	1.80	0	0	0	0.16	0	0	0	1.4%	7.5
YES	4.73	2.01	0	0	0	2.73	1	1	0	83.5%	5.9
YES	2.44	0.17	0	0	0	2.28	45	1255	6	0.5%	4.8
YES	2.31	0.69	0	0	0	1.62	36	1041	3	0.5%	5.7
YES	1.84	0.23	0	0	0	1.61	0	0	0	0.5%	3.9
YES	1.39	0.28	0	0	0	1.11	99	4593	35	0.5%	5.7
YES	1.72	0.00	0	0	0	1.72	13	421	2	0.5%	7.6
YES	1.17	0.22	0	0	0	0.95	7	211	7	0.5%	1.9
YES	3.88	0.39	0	0	0	3.48	29	10109	50	0.5%	7.5
YES	2.19	0.30	0	0	0	1.89	17	675	6	0.5%	4.7
YES	1.73	0.31	0	0	0	1.42	13	1297	9	0.5%	4.2
YES	1.88	0.05	0	0	0	1.83	97	1125	10	0.5%	4.6
YES	0.74	0.14	0	0	0	0.59	131	7567	55	0.5%	6.2
YES	0.79	0.14	0	0	0	0.65	86	4508	91	0.5%	5.5
YES	1.74	0.66	0	0	0	1.08	0	0	0	0.5%	2.5
YES	2.45	1.92	0	0	0	0.53	0	0	0	0.5%	5.1
YES	0.52	0.52	0	0	0	0.00	0	0	0	0.5%	3.5
YES	0.88	0.12	0	0	0	0.76	0	0	0	0.5%	5.5
YES	0.86	0.86	0	0	0	0.00	0	0	0	0.5%	1.3
YES	6.83	1.20	0	0	0	5.63	16	83	2	0.5%	4.5
YES	3.99	0.40	0	0	0	3.60	67	186	2	0.5%	7.6
YES	10.96	4.62	0	0	0	6.34	5	1116	13	0.5%	6.2
YES	4.53	2.19	0	0	0	2.34	87	650	4	0.5%	5.7
YES	2.19	0.55	0	0	0	1.64	93	5792	34	0.5%	7.5
YES	5.19	0.19	0	0	0	5.00	9	1408	18	1.1%	8.4

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	1.94	0.39	0	0	0	1.55	34	7887	69	0.0%	1.8
YES	5.51	0.56	0	0	0	4.95	39	13782	174	0.0%	3.3
YES	8.94	0.24	0	0	0	8.70	86	27157	280	0.0%	5.6
YES	3.26	0.72	0	0	0	2.54	52	1451	8	7.1%	6.9
YES	4.53	0.07	0	0	0	4.46	57	2376	19	1.4%	9.6
YES	4.12	0.54	0	0	0	3.58	17	886	6	1.4%	4.1
YES	2.86	0.06	0	0	0	2.80	34	1287	11	1.4%	8.6
YES	2.09	0.25	0	0	0	1.84	32	1006	5	1.4%	6.6
YES	2.83	0.29	0	0	0	2.54	39	1383	11	1.4%	6.0
YES	5.55	0.03	0	0	0	5.52	87	7608	57	1.9%	5.5
YES	6.34	0.09	0	0	0	6.25	115	22161	297	1.6%	5.4
YES	14.94	0.25	0	0	0	14.69	114	11800	51	0.0%	7.4
YES	5.14	0.03	0	0	0	5.11	12	4679	28	0.0%	3.1
YES	6.99	0.26	0	0	0	6.73	28	15646	65	0.0%	2.9
YES	7.85	1.82	0	0	0	6.03	76	4836	34	0.5%	7.0
YES	2.58	0.02	0	0	0	2.56	147	2985	17	0.0%	5.4
YES	3.23	0.57	0	0	0	2.65	96	6593	116	0.0%	4.9
YES	1.16	0.03	0	0	0	1.13	24	3001	30	0.0%	3.2
YES	1.45	0.15	0	0	0	1.31	38	2576	30	0.0%	6.0
YES	3.27	0.05	0	0	0	3.22	2	275	3	0.0%	3.8
YES	2.95	0.00	0	0	0	2.95	41	1810	11	0.0%	4.2
YES	1.47	0.03	0	0	0	1.45	92	4940	118	0.0%	3.5
YES	1.47	0.85	0	0	0	0.62	28	409	3	0.0%	2.3
YES	1.42	0.02	0	0	0	1.40	45	4048	59	0.0%	5.1
YES	1.26	0.07	0	0	0	1.19	10	212	1	0.0%	2.8
YES	2.67	0.53	0	0	0	2.14	35	2729	12	3.7%	5.2
YES	4.61	0.16	0	0	0	4.45	138	4278	31	0.0%	6.0
YES	5.60	0.12	0	0	0	5.48	20	6460	40	0.0%	8.0
YES	4.53	0.07	0	0	0	4.47	137	13999	140	0.0%	6.7
YES	2.44	0.53	0	0	0	1.91	5	134	4	5.6%	3.7
YES	0.55	0.55	0	0	0	0.00	0	0	0	0.0%	2.1
YES	0.81	0.41	0	0	0	0.40	0	0	0	0.0%	2.7
YES	4.49	2.90	0	0	0	1.59	4	361	8	0.0%	7.6
YES	7.08	0.81	0	0	0	6.27	59	9185	84	4.9%	9.5
YES	0.55	0.55	0	0	0	0.00	0	0	0	0.0%	5.5

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	1.54	0.05	0	0	0	1.49	17	210	2	0.5%	5.8
YES	1.83	0.92	0	0	0	0.91	9	298	3	0.5%	3.2
YES	2.63	0.16	0	0	0	2.47	34	3750	41	0.5%	5.1
YES	4.53	0.65	0	0	0	3.88	17	1077	20	0.5%	7.8
YES	3.31	0.15	0	0	0	3.16	7	183	8	0.5%	7.9
YES	1.71	0.19	0	0	0	1.52	0	0	0	0.5%	5.5
YES	1.15	0.17	0	0	0	0.99	3	147	0	0.5%	6.5
YES	2.34	0.06	0	0	0	2.28	12	367	2	0.5%	7.4
YES	1.76	0.33	0	0	0	1.43	7	34	0	0.5%	4.0
YES	1.35	0.81	0	0	0	0.53	0	0	0	0.5%	3.4
YES	1.33	0.18	0	0	0	1.15	7	548	3	0.5%	8.3
YES	2.62	0.41	0	0	0	2.21	15	1669	22	8.0%	5.8
YES	2.73	1.72	0	0	0	1.01	3	30	0	4.7%	7.0
YES	2.72	1.54	0	0	0	1.18	4	48	1	15.5%	7.6
YES	1.82	1.18	0	0	0	0.64	0	0	0	1.4%	4.5
YES	1.25	1.25	0	0	0	0.00	0	0	0	1.4%	3.3
YES	2.24	0.53	0	0	0	1.72	5	58	0	2.4%	5.9
YES	2.23	0.28	0	0	0	1.95	6	723	8	1.4%	6.5
YES	2.50	0.77	0	0	0	1.72	11	119	1	1.4%	4.9
YES	1.84	1.43	0	0	0	0.41	0	0	0	0.5%	4.9
YES	2.57	0.45	0	0	0	2.13	2	113	2	0.5%	5.6
YES	3.30	0.31	0	0	0	2.99	35	3982	42	0.5%	10.0
YES	1.19	0.07	0	0	0	1.12	27	515	3	0.5%	3.7
YES	1.67	0.96	0	0	0	0.71	9	124	1	0.5%	6.9
YES	2.93	0.12	0	0	0	2.81	4	577	9	0.5%	6.5
YES	2.07	0.07	0	0	0	1.99	3	25	0	0.5%	4.6
YES	3.96	1.73	0	0	0	2.23	62	3578	67	5.9%	5.9
YES	5.52	2.90	0	0	0	2.62	8	1984	26	29.4%	3.1
YES	9.76	5.10	0	0	0	4.66	3	501	6	0.5%	8.1
YES	1.99	0.05	0	0	0	1.94	0	0	0	125.6%	4.5
YES	7.59	1.13	0	0	0	6.46	5	142	0	13.7%	6.1
YES	2.61	0.11	0	0	0	2.49	23	2923	27	1.4%	4.0
YES	2.73	0.23	0	0	0	2.50	32	2934	35	2.9%	6.3
YES	2.60	0.08	0	0	0	2.52	89	56582	274	1.4%	7.1
YES	2.05	0.08	0	0	0	1.97	115	22139	58	1.4%	4.7

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	1.22	0.00	0	0	0	1.22	17	79	1	0.5%	5.7
YES	2.51	0.18	0	0	0	2.33	7	98	0	9.8%	3.6
YES	0.83	0.25	0	0	0	0.58	0	0	0	0.5%	1.6
YES	2.04	0.32	0	0	0	1.72	14	740	5	0.5%	5.0
YES	1.56	0.00	0	0	0	1.56	36	1649	10	0.5%	2.7
YES	5.55	2.31	0	0	0	3.24	2	115	1	0.5%	5.8
YES	28.12	0.00	0	0	0	28.12	25	515	4	0.5%	3.3
YES	5.21	0.32	0	0	0	4.89	94	11392	104	0.5%	6.6
YES	0.36	0.36	0	0	0	0.00	0	0	0	0.0%	0.0
YES	0.29	0.29	0	0	0	0.00	0	0	0	0.0%	0.0
YES	2.07	0.05	0	0	0	2.01	40	1995	15	0.0%	4.0
YES	2.39	0.12	0	0	0	2.26	13	23	0	0.0%	6.5
YES	2.51	0.29	0	0	0	2.22	35	3943	44	0.0%	2.9
YES	2.75	0.08	0	0	0	2.67	29	474	3	0.0%	5.5
YES	1.31	1.19	0	0	0	0.12	7	19	0	11.0%	3.0
YES	2.26	1.28	0	0	0	0.98	0	0	0	0.0%	3.6
YES	1.28	0.99	0	0	0	0.28	0	0	0	0.0%	0.0
YES	0.06	0.06	0	0	0	0.00	0	0	0	0.0%	0.0
YES	1.08	0.00	0	0	0	1.08	106	944	5	0.0%	2.7
YES	2.10	0.00	0	0	0	2.10	79	1381	7	0.0%	6.4
YES	2.29	0.58	0	0	0	1.71	0	0	0	1.4%	3.8
YES	1.12	0.15	0	0	0	0.97	0	0	0	1.4%	3.5
YES	2.53	0.15	0	0	0	2.38	8	1233	8	1.4%	8.7
YES	2.24	0.32	0	0	0	1.91	0	0	0	1.4%	4.6
YES	4.31	1.67	0	0	0	2.64	12	1023	12	21.9%	8.8
YES	3.44	0.80	0	0	0	2.64	7	754	7	18.2%	7.1
YES	6.06	0.02	0	0	0	6.04	44	23407	138	0.0%	2.7
YES	3.82	0.00	0	0	0	3.82	33	5422	38	0.0%	7.5
YES	4.45	0.25	0	0	0	4.20	92	28253	334	0.0%	6.7
YES	2.32	0.59	0	0	0	1.73	21	360	2	1.4%	4.1
YES	2.02	0.20	0	0	0	1.82	26	2186	29	1.4%	2.7
YES	3.60	0.06	0	0	0	3.54	148	7366	147	0.5%	6.5
YES	2.96	0.06	0	0	0	2.91	91	8528	103	0.5%	3.3
YES	0.40	0.21	0	0	0	0.19	0	0	0	0.5%	1.5
YES	3.18	0.06	0	0	0	3.12	11	258	2	0.5%	5.6

## 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	3.84	1.47	0	0	0	2.37	32	1098	9	0.5%	5.7
YES	0.98	0.06	0	0	0	0.92	0	0	0	0.0%	0.3
YES	6.08	0.50	0	0	0	5.58	0	0	0	3.1%	6.7
YES	5.57	0.15	0	0	0	5.42	60	1143	7	5.6%	3.8
YES	6.18	1.09	0	0	0	5.10	40	3042	50	0.0%	6.6
YES	9.95	6.66	0	0	0	3.28	14	303	1	2.0%	10.3
YES	3.28	2.29	0	0	0	1.00	4	186	2	5.8%	7.3
YES	6.13	2.87	0	0	0	3.26	3	39	0	3.8%	4.9
YES	3.17	3.17	0	0	0	0.00	0	0	0	0.0%	6.3
YES	3.51	1.47	0	0	0	2.05	1	92	1	0.0%	6.2
YES	7.25	5.10	0	0	0	2.15	0	0	0	3.4%	9.1
YES	1.67	1.09	0	0	0	0.58	1	73	0	0.0%	3.2
YES	4.95	0.18	0	0	0	4.77	48	3530	21	0.0%	5.5
YES	4.13	0.56	0	0	0	3.57	27	3276	32	0.0%	5.7
YES	1.32	0.13	0	0	0	1.19	0	0	0	25.4%	2.2
YES	3.12	1.98	0	0	0	1.15	1	323	2	0.0%	4.0
YES	0.44	0.04	0	0	0	0.41	0	0	0	0.0%	0.3
YES	1.57	1.57	0	0	0	0.00	0	0	0	13.6%	9.3
YES	2.03	1.57	0	0	0	0.46	5	125	1	25.3%	8.9
YES	7.43	0.77	0	0	0	6.67	31	3184	23	0.9%	6.7
YES	0.34	0.07	0	0	0	0.28	0	0	0	1.3%	1.6
YES	3.94	0.21	0	0	0	3.74	12	2128	40	0.5%	7.6
YES	2.37	0.06	0	0	0	2.31	29	3572	28	0.5%	6.6
YES	2.61	0.32	0	0	0	2.29	6	93	1	0.5%	5.4
YES	4.43	0.03	0	0	0	4.40	66	5702	71	0.5%	5.7
YES	4.88	0.14	0	0	0	4.74	65	1625	15	0.5%	8.3
YES	5.19	1.61	0	0	0	3.58	21	1937	41	0.5%	8.3
YES	2.14	0.50	0	0	0	1.64	2	2262	11	0.5%	2.2
YES	2.56	0.24	0	0	0	2.33	41	2526	13	0.5%	10.1
YES	2.87	0.78	0	0	0	2.09	28	1488	32	0.5%	7.8
YES	1.92	0.79	0	0	0	1.13	27	0	0	0.5%	3.0
YES	1.66	0.95	0	0	0	0.71	0	0	0	0.5%	4.5
YES	1.31	1.25	0	0	0	0.05	0	0	0	0.5%	2.8
YES	3.35	1.90	0	0	0	1.45	0	0	0	0.5%	7.9
YES	3.74	0.02	0	0	0	3.71	43	2627	47	0.0%	6.3



(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	4.47	0.23	0	0	0	4.24	28	13707	105	0.0%	7.7
YES	4.72	0.08	0	0	0	4.64	29	3957	42	8.5%	8.2
YES	14.74	4.82	0	0	0	9.91	8	1313	21	51.1%	3.0
YES	0.00	0.00	0	0	0	0.00	0	0	0	0.0%	0.4
YES	1.89	1.89	0	0	0	0.00	0	0	0	2.0%	5.7
YES	0.84	0.84	0	0	0	0.00	0	0	0	2.0%	3.2
YES	2.24	2.24	0	0	0	0.00	0	0	0	2.0%	7.8
YES	0.38	0.38	0	0	0	0.00	0	0	0	2.0%	4.9
YES	0.70	0.70	0	0	0	0.00	0	0	0	0.0%	0.0
YES	5.17	3.99	0	0	0	1.18	9	939	9	0.5%	6.4
YES	3.14	0.80	0	0	0	2.34	7	796	14	0.5%	7.5
YES	8.23	4.65	0	0	0	3.58	45	3290	56	4.2%	8.5
YES	4.43	4.17	0	0	0	0.26	1	122	3	0.5%	8.1
YES	2.70	2.23	0	0	0	0.47	0	0	0	0.5%	6.5
YES	2.92	2.92	0	0	0	0.00	0	0	0	0.5%	5.3
YES	2.88	2.88	0	0	0	0.00	0	0	0	0.5%	6.6
YES	6.53	3.66	0	0	0	2.87	0	0	0	0.5%	8.0
YES	3.34	1.39	0	0	0	1.96	4	124	1	0.5%	8.0
YES	6.73	4.21	0	0	0	2.52	4	1139	13	0.0%	10.0

# 2013 Storm Implementation Plan and Annual Reliability Reports

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	4.22	2.93	0	0	0	1.30	2	132	1	0.0%	6.2
YES	3.83	2.08	0	0	0	1.75	0	0	0	0.0%	6.0
YES	3.85	2.25	0	0	0	1.60	0	0	0	0.0%	7.8
YES	2.91	2.91	0	0	0	0.00	0	0	0	7.6%	6.5
YES	4.88	4.04	0	0	0	0.84	0	0	0	0.0%	6.1
YES	6.30	1.95	0	0	0	4.35	4	1134	16	10.1%	4.4
YES	4.43	4.43	0	0	0	0.00	0	0	0	0.0%	7.3
YES	5.61	5.61	0	0	0	0.00	0	0	0	0.0%	7.9
YES	4.81	2.75	0	0	0	2.06	34	468	7	0.0%	8.7
YES	1.72	0.29	0	0	0	1.43	4	89	0	1.4%	2.7
YES	2.56	0.16	0	0	0	2.40	29	3108	13	1.4%	5.4
YES	2.97	0.06	0	0	0	2.92	30	1575	9	1.4%	6.2
YES	3.10	0.24	0	0	0	2.87	20	2640	7	4.5%	6.2
YES	2.99	0.15	0	0	0	2.84	26	3985	31	1.4%	6.8
YES	2.90	1.64	0	0	0	1.26	0	0	0	7.9%	6.7
YES	1.93	0.15	0	0	0	1.78	40	3374	54	1.4%	3.5
YES	2.12	0.21	0	0	0	1.91	12	1507	12	1.4%	5.2
YES	5.21	3.77	0	0	0	1.44	0	0	0	0.0%	10.0
YES	4.75	3.09	0	0	0	1.66	0	0	0	0.0%	9.2
YES	7.67	2.19	0	0	0	5.48	22	2778	34	0.0%	8.6
YES	3.41	3.19	0	0	0	0.22	0	0	0	0.0%	8.8
YES	6.15	2.47	0	0	0	3.67	33	143	1	0.0%	6.4
YES	1.63	0.14	0	0	0	1.49	76	6169	30	0.5%	4.9
YES	3.44	1.28	0	0	0	2.16	1	0	0	0.5%	3.7
YES	0.00	0.00	0	0	0	0.00	0	0	0	1.4%	6.3
YES	2.02	0.00	0	0	0	2.02	0	0	0	1.4%	2.6
YES	3.04	0.62	0	0	0	2.42	5	1427	17	1.4%	5.7
YES	2.36	0.25	0	0	0	2.12	0	0	0	6.2%	6.4
YES	0.08	0.08	0	0	0	0.00	0	0	0	0.5%	7.7
YES	0.12	0.12	0	0	0	0.00	0	0	0	0.5%	9.4
YES	0.24	0.03	0	0	0	0.21	0	0	0	1.4%	5.2
YES	0.26	0.08	0	0	0	0.18	0	0	0	1.4%	2.7
YES	0.49	0.07	0	0	0	0.42	0	0	0	1.4%	0.7
YES	4.88	0.57	0	0	0	4.30	0	0	0	0.0%	6.3
YES	3.09	1.22	0	0	0	1.87	1	0	0	25.4%	3.5

(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 2010	(Z) Recorded Peak Load Recorded through December 31 2011
YES	2.70	0.30	0	0	0	2.40	0	0	0	0.0%	3.7
YES	5.27	0.32	0	0	0	4.95	19	3820	44	0.5%	3.5
YES	5.44	3.05	0	0	0	2.39	1	134	1	0.5%	7.7
YES	3.64	0.51	0	0	0	3.13	48	15051	117	10.1%	3.7
YES	0.40	0.10	0	0	0	0.30	0	0	0	0.0%	14.8
YES	1.10	0.09	0	0	0	1.01	0	0	0	1.4%	0.1