2014

STORM IMPLEMENTATION PLAN
&
ANNUAL RELIABILITY PERFORMANCE REPORTS

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TAMPA ELECTRIC

2014 Storm Implementation Plan & Annual Reliability Performance Reports

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 2014, Tampa Electric continued to streamline the company's pole attachment processes to better manage attachment requests from attaching entities and conducted comprehensive loading analyses. The comprehensive loading analysis was performed on 1,325 poles and all poles determined to be overloaded will be corrected. For 2015, 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 which was completed in June 2014.

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 2014 inspections were completed as scheduled, including the remainder

of the 2013 above ground inspections. The annual aerial infrared inspections and ground patrol inspections were completed as scheduled. The second cycle of the ground line inspections began in 2014; these inspections were planned and completed as scheduled.

In November of 2014, the Florida Public Service Commission approved Tampa Electric's petition to alter the Above Ground Inspection cycle from six to eight years, reducing the annual inspection amount from 17 percent to 12.5 percent. The reduction in the inspection schedule was supported by the results of our substantial transmission pole replacement and maintenance program. Since the inception of this maintenance and inspection program, the outages related to transmission equipment issues has steadily declined to a minimal level.

The ruling was also supported by the company's plan to reallocate the cost savings from the reduced above ground inspections to refine and enhance the accuracy of the State Estimator Model. The upgrade of this application will improve the company's ability to identify potential outages before they occur, thus improving reliability without any additional cost to the customer.

In addition to the above ground inspection cycle change, In December 2014, Tampa Electric identified a scheduling opportunity that would benefit overall reliability. This scheduling opportunity enabled the company to perform all of the above ground inspections scheduled for 2015 in addition to the 2014 structures that were completed throughout the year.

For 2015, the aerial infrared inspections, ground patrol, and ground line inspections are scheduled to meet program requirements.

D) Initiative 4: Hardening of Existing Transmission Structures

Tampa Electric continues hardening the existing transmission system in a prudent, cost-effective manner utilizing its inspection and maintenance program to systematically replace wood structures with non-wood structures. In 2014, Tampa Electric hardened 871 structures that included 720 pole replacements utilizing steel or concrete poles and 151 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 114 structures consisting of 65 pole replacements and 49 sets of insulators. In addition to the structures that were replaced or reconfigured, 11 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. In 2014, the company completed the corrective procedure process in response to the 2010 NERC Alert.

Combining the totals from both programs Tampa Electric hardened 985 structures including 785 structure replacements and 200 sets of insulators.

For 2015, Tampa Electric's goal is to harden 548 transmission structures as part of the pole inspection and maintenance program.

E) Initiative 5: Geographic Information System

Tampa Electric's Geographic Information System ("GIS") continues to serve as the foundational database for all transmission, substation and distribution facilities. Development and improvement of the GIS continues. In 2014, a major upgrade of the GIS system was completed which included 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.

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 seven 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 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.

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

Tampa Electric was not impacted by any storms in 2014. Should a major weather event occur in 2015, 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 2014, Tampa Electric's communication efforts focused on maintaining existing vital governmental contacts and continued participation on standing disaster recovery planning committees. Tampa Electric continues to be involved in improving emergency response to vulnerable populations. In addition, Tampa Electric also participated in joint storm exercises with Hillsborough, Polk and Pinellas county and municipal agencies.

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 2014, 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 continue to participate in internal and external preparedness exercises, collaborating with government emergency management agencies, at local, State and Federal levels.

Specifically, 2014 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 align PDRP recovery support functions and emergency support functions
- Supporting the Florida Division of Emergency Management ("FDEM") Business and Industry Summit
- Chair of the Florida Emergency Preparedness Association ("FEPA") Public-Private Partnership Committee

- Coordinating with Tampa Bay Regional Planning Council ("TBRPC") and Hillsborough County Public Works on preparedness measures
- Principal member of the National Fire Protection Association ("NFPA") 1600 - Committee on Business Continuity, Emergency Management and Disaster Recovery
- Leadership roles in Local Mitigation Strategy ("LMS") Committee, Citizen Corp Council, and Vulnerable Population Task Force
- Member of Electric Subsector Coordinating Council ("ESCC") Leadership Working Group. Organized first ESCC exercise – Federal level
- Supporting the update of Hillsborough County's Comprehensive Emergency Management Plan ("CEMP")

For 2015, Tampa Electric will continue in leadership roles in county and national preparedness groups: Hillsborough County PDRP, Hillsborough County LMS Working Group, TBRPC Small Business preparedness, Edison Electric Institute ("EE"I), ESCC, and the NFPA 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 one-eighth of the pole population each year. The company manages a total pole population of approximately 421,000 over five counties within Florida. Out of this total population, there are approximately 316,000 distribution and lighting wood poles and 26,000 transmission poles appropriate for inspection for a

total inspection population of approximately 342,000. In 2014, Tampa Electric performed 52,379 pole inspections. For 2015, the company plans to inspect approximately 47,000 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. For 2014, the company adhered to its approved vegetation management trim plan by trimming approximately one-fourth of its system. Results for the year, on a system-wide basis as well as by specific region, are provided in various tables contained in Appendix D.

2) Description of Vegetation Management Program

In 2014, Tampa Electric's Vegetation Management Program utilized nine full time company employees and approximately 160 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 specifications related to operations, notification guidelines, tree trimming and removal, chemical application, targeted completion dates, overtime, and non-compliance.

In 2014, Tampa Electric utilized approximately 24 contracted tree trim personnel to manage the company's transmission tree trimming

requirements. In addition, Tampa Electric updated its Transmission Vegetation Management Program ("TVMP") to address the North American Electric Reliability Corporation ("NERC") FAC-003-3 standard. In 2014, the Florida Reliability Coordinating Council ("FRCC") completed an audit of Tampa Electric's compliance with FAC-003-3.

3) Summary of Past and Future Activities

During 2014, Tampa Electric's System Reliability and Line Clearance Departments continued to utilize its 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 2015, 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 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, any tree which cannot be trimmed in accordance with ANSI A300 standards is considered for removal. On occasion, Tampa Electric has replaced a tree with a more suitable tree at 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 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 2014, approximately 82 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.

9) 2015 Projected Activities

For 2015, Tampa Electric has 157 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 137 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 2014, Tampa Electric submitted its renewal application to the National Arbor Day Foundation's Tree Line USA Program and expects to receive endorsement in the first quarter 2015. This will be the seventh consecutive year Tampa Electric has received the National Arbor Day Foundation's Tree Line USA Program designation.

Tampa Electric partnered with the City of Temple Terrace for Arbor Day 2014. Volunteers spent the day planting trees throughout the community as part of Temple Terrace's Adopt-A-Tree Program. Tampa Electric also served on the Hillsborough County Tree and Landscape Advisory Committee.

11) Hazard Tree Program and Related Information

Tampa Electric's work order management system for data collection related to hazard tree and "top for removal" program has been in effect since January 2007. During 2014, Tampa Electric evaluated 219 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 2014. 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 2014, Tampa Electric trimmed approximately one-fourth of its system. For 2015, the company will continue to operate in agreement with its four-year program.

B) Initiative 2: Joint Use Pole Attachments Audit

1) Overview

In 2014, Tampa Electric conducted comprehensive loading analyses and continued to streamline processes to better manage attachment requests from attaching entities. A comprehensive loading analysis was performed on 1325 poles and all poles determined to be overloaded will be corrected. For 2015, 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 which was completed in June 2014.

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 2014, 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.

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 2014, the Joint Use Department processed 10 pole attachment applications for 175 poles. As a result, the company identified 11 distribution poles that were overloaded due to joint use attachments and no poles were overloaded due to Tampa Electric's attachments. Out of the 175

poles that were assessed through the pole attachment application process and the comprehensive loading analysis, there were 20 poles that had NESC violations due to joint use attachments and 10 poles with NESC violations due to Tampa Electric attachments. All poles with NESC violations were either corrected by adjustments to attachments, pole replacements or joint use entities' removal of the attachments in violation.

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 2014, 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 and continue to be performed. These initiatives are the Comprehensive Loading Analysis and the Pole Attachment Audit.

For 2014, 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 which was completed in June 2014. The main benefit of performing the audit is the identification of unauthorized attachments. This allows Tampa Electric to perform the engineering and loading analysis on these poles to ensure that all loading requirements are met.

5) Conclusion

In 2014, 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 completed 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 and 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 ground line inspections are performed on an eight-year cycle. The above ground inspection cycle will shift from a six-year to an eight-year cycle in 2015 as described in the company's petition that was approved by the Commission in November of 2014. Additionally, pre-climb inspections are performed prior to commencing work on any structure.

The 2015 budget for the ground line inspection, aerial infrared patrol, and ground patrol is $443,825.

2) Ground Line Inspection

Tampa Electric has continued its 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.

In 2014, approximately 3,200 structures or 12.5 percent of the system, comprising of 23 circuits were inspected. The cost for the 2014 ground line inspection was $53,857.

For 2015, ground line inspections are planned for 3,200 transmission structures within a budget of $123,710.

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 2014, all 230 kV, 138 kV and 69 kV circuits were patrolled by ground at least once. The cost for the 2014 ground patrol was $245,234.

For 2015, ground patrol is planned for all transmission circuits. All 230 kV, 138 kV and all critical 69 kV circuits will be ground patrolled prior to the peak of hurricane season with the remaining transmission circuits being

completed by the end of 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 $235,428.

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 2014, the infrared patrol was performed on 100 percent of the transmission circuits. The cost for the 2014 aerial infrared patrols was $64,089.

For 2015, aerial infrared patrol is planned for all transmission circuits with a budget of $92,065.

5) Above Ground Inspection

Above ground inspections will now be performed on transmission structures on an eight-year cycle; therefore, each year approximately 12.5 percent or one-eighth of transmission structures are inspected. This inspection is performed by a 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 2014, above ground inspections were performed on 8,400 structures, or approximately 32 percent of the system, comprising 55 circuits. The cost for the 2014 above ground inspection was $502,158.

In December 2014, Tampa Electric identified a scheduling opportunity that would benefit overall reliability. This scheduling opportunity enabled the company to perform all of the above ground inspections scheduled for 2015 in addition to the 2014 structures that were completed throughout the year. Because of this early completion for the scheduled 2015 above ground inspections, there will be no above ground inspections scheduled for 2015. The above ground inspections will begin again in 2016.

6) Substation Inspections

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

In 2014, substation inspections were performed on all transmission substations.

For 2015, substation inspections are planned on all transmission substations.

7) Pre-Climb Inspections

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

8) Reporting

Standardized reports are provided for each of the formal inspections. Deficiencies identified during the inspections are entered into a maintenance database.

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

D) Initiative 4: Storm Hardening Activities for Transmission Structures

1) Overview

Tampa Electric is hardening the existing transmission system in a prudent, cost-effective manner utilizing 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) 2014 Activity

In 2014, Tampa Electric hardened 871 structures at a cost of $12.2 million. This included 720 pole replacements with steel or concrete poles and 151 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 114 structures. This consisted of 65 pole replacements and 49 sets of insulators. In addition to the structures that were replaced or reconfigured, 11 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 2014 LiDAR corrective procedures were completed at a cost of $ 5.1 million.

In 2014, the company completed the corrective procedure process in response to the 2010 NERC Alert.

3) 2015 Activity

For 2015, Tampa Electric plans to harden 548 transmission structures as a part of the pole inspection and maintenance program with a budget of $10.3 million. This includes 548 structure replacements with steel or concrete poles as well as replacing insulators with polymer insulators as needed.

E) Initiative 5: Geographic Information System

1) Overview

GIS is fully integrated into Tampa Electric's process as the foundational database for all transmission, substation and distribution facilities. All new computing technology requests are evaluated with an emphasis on full integration with GIS. Development and improvement of the GIS for users continues. In 2014, a major upgrade of the system was completed which included 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.

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.

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 2014, a major upgrade of the system was completed.

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

Tampa Electric's forensics measurements were established prior to the 2007 storm season. The forensics measurements were established through the use of an external consultant that built a database of distribution facilities using existing data sources based upon Tampa Electric's geographic basis (service areas). The consultant collected the data, cataloged and produced the database for Tampa Electric. The completed database gives a complete understanding of the total facilities exposed to storm conditions in a given area which enables the effective forensic analysis and extent of storm 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.

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
- Equipment - type of damage, overhead only, size and type, and likely cause of damage

- Hardware - type of damage, size and type, and likely cause of damage

To collect post-storm field data, a data collection model will be used by field personnel doing the damage assessments. This data collection model will exist electronically for use on 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.

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 2015, 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 2014. Should a major weather event occur in 2015, 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 2014 activities with local

governments in support of ongoing programs, storm preparation and plans for 2015. This information is also represented in the matrix provided in the Appendix D.

1) Communication Efforts

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

In 2014, Tampa Electric's Emergency Management communication efforts expanded from a focus with local governments in preparedness to now also include federal government agencies [i.e., Department of Energy ("DOE"), Department of Homeland Security ("DHS"), and NERC]. Tampa Electric was invited to participate in several local and state government drills, as well as partnering in preparation for the International Indian Film Academy Awards (Bollywood) in Tampa, and organized the ESCC Playbook exercise. Other communication topics in 2014 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 in 2014 included pre-hurricane season news releases to all major media outlets that serve our customers. 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

In 2014, Tampa Electric participated in joint storm workshops and training with governmental officials including exercises with Hillsborough, Polk and Pinellas county and municipal agencies. Tampa Electric was responsible for organizing the ESCC Playbook exercise. In addition, the company played a key role in improving emergency response to vulnerable populations.

3) Emergency Operations Centers – Key Personnel Contact

There were no full Emergency Operations Center ("EOC") activations in 2014. Tampa Electric continues to work with local, state and federal governments to streamline the flow of information that is helpful to 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 2014. Tampa Electric, however, maintains a staff of lineman and vehicles ready to assist local fire departments with search and rescue activities if called upon.

5) Tree Ordinances, Planting Guides and Trim Procedures

In previous years, Tampa Electric Line Clearance personnel communicated with municipal officials on several projects. Some of these projects include providing guidance to planning boards 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.

For 2015, the company's Manager of Vegetation Management and Inspections will continue to work with Community Relations staff to offer meetings with local government's Public Works supervisory staff on how Tampa Electric can best work with city staff in pre-storm and post-storm events and to better coordinate the company's tree trimming procedures with governmental ordinances.

6) Underground Conversions

In 2014, the Dana Shores Civil Association continued to work with Hillsborough County to finalize and pass the Municipal Service Benefit Units Ordinance ("MSBU"). The MSBU ordinance allows for neighborhoods to set up self-elected taxing districts that would fund capital upgrade through annual Ad Valorem taxes. Tampa Electric employees 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.

7) Planned Activities in 2015

Tampa Electric will continue to train its EOC representatives and designated search and rescue personnel. For 2015, Tampa Electric will continue to focus its government communication efforts to provide governmental officials with the company's emergency response contacts and review the company's Emergency Response Plan. Tampa Electric will continue communicating storm preparedness information to customers through the annual media pre-hurricane season press release.

For 2015, Tampa Electric plans to host government and emergency response leaders and representatives for a pre-storm hurricane event and presentation. This hosted event will duplicate the original one performed in 2011. The pre-storm hurricane event will outline the company's ongoing emergency preparedness plan, what information is necessary to most effectively report damages, and the sharing of contact information to ensure open dialogue among stakeholders. Representatives in the 2011 event included participants from Hillsborough, Polk and Pinellas Counties, Plant City, Temple Terrace, Lake Alfred, Mulberry, and Winter Haven.

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 2015

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 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 2014.

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 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 the University of Wisconsin and North Carolina State University with an interest in the model, though no additional relationships have been established. In addition to universities, PURC was contacted by researchers at the Argonne National Laboratory who expressed interest in modeling the effects of storm damage. The researchers continue 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 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 the company 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 Connecticut, New York, and New Jersey, and regulators in Jamaica, Grenada, and Curacao. 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.

PURC researchers continue to utilize the insight gained through the hurricane hardening research to contribute to the debate on undergrounding in the popular press, and reinforce the state of Florida as a thought leader in this area. On February 13, 2014 PURC Director of Energy Studies Ted Kury was asked to contribute an essay on CNN.com entitled "Burying power lines is not always the answer" where he discussed the economic trade-offs of undergrounding power lines. The essay also provided a link to an *Electricity Journal* article by Kury and Lynne Holt, another PURC researcher, which discusses Florida's cooperative approach and holds it up as a "best practice" in regulation. In addition, the October 2014 issue of *Costco Connection* featured a debate on whether utilities should be required to bury power lines, where Kury provided the "No" position.

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) 2014 Emergency Management Summary

In 2014, 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 joint storm exercise, the Tampa Electric Emergency Response Team tested its response and communication plans.

Prior to June 1, 2014, all emergency support functions were reviewed, personnel trained, and ICS Logistics and Planning Section plans were tested.

In January 2015, the company Emergency Response Plan was reviewed.

2) 2015 Emergency Management Activities & Budget

The 2015 Emergency Management budget of $332,615 will be used to finance human capital and preparedness resources (i.e., emergency notification system, weather services, resilience management product, etc.) including internal and external training and exercises to test plans. For 2015, the budget for Tampa Electric's Emergency Management is removed from the overall TECO Energy umbrella budget.

Tampa Electric will continue the following initiatives:

- Continue to hold a Tampa Electric Emergency Preparedness Fair with representation from government agencies, and support additional external county fairs
- 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 Federal emergency management and business continuity forums
- Continue to participate in the Southeast Electric Exchange ("SEE") Logistics Committee
- Continue supporting Hillsborough County in communicating the national flood insurance to county residents
- Support the ESCC strategy
- Support the Hillsborough County PDRP Exercise Planning Team, State Division of Emergency Management, and DHS
- Support the FEPA Public/Private Partnership Committee activities
- Continue to participate in the DHS Protective Security Advisor Program by working through the local Urban Area Security Initiative (UASI)
- 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 ("DOH") on the Cities Readiness Initiative; pandemic and bio-terrorism emergency response
- Continue to provide leadership in the Hillsborough County LMS 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) 2014 Energy Delivery Emergency Management

In 2014, 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 coordinated and oversaw multiple training meetings and exercises across Energy Delivery. Special emphasis was placed on training for the recently developed Estimated Time of Restoration ("ETR") process.

In April 2014, Energy Delivery facilitated a centralized functional exercise focusing on the ETR process. The event was based on a Category 3 hurricane with sustained winds of 100 - 115 mph and a storm surge of 11 feet which impacted Hillsborough County. The scenario was preceded by an Energy Delivery conference call that included other key employees across the company. Additionally, a second, decentralized exercise was conducted on May 20, 2014 to provide further practice on the ETR process. As a result of both these exercises**,** 72 action items were identified for follow-up and lessons learned. Finally, on July 9, 2014, Transmission and Grid Operations conducted an exercise focusing on their restoration process. As a result of this exercise, 52 action items were identified for follow-up and lessons learned. All action items were followed up on and implemented.

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

are reviewed for each incident base site. Throughout Tampa Electric's service territory, the company is constantly developing and maintaining relationships with property owners for potential incident bases and staging sites. Energy Delivery also annually reviews existing purchase orders and contacted vendors who would assist the company with restoration efforts. All these activities were performed in 2014.

In 2014, Energy Delivery participated in numerous conference calls with other SEE 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 one time in 2014 to assist another electric utility as a result of a wind event.

In 2014, Energy Delivery engaged the services of an outside consulting firm to perform a review of Energy Delivery's emergency restoration process. This consulting firm has long been involved in reviewing emergency restoration practices of electric utilities across the country. The firm also participated in the development of the National Response Event ("NRE") plan. The review for Energy Delivery consists of two parts with a potential third part. Part one involves securing outside restoration resources, part two involves the review of the emergency restoration plan, and part three is the potential evaluation of alternatives for hardening the T&D system and formulating a multi-year plan for the Distribution System. Part one was completed 2014 and part two was begun in 2014 and is scheduled for completion prior to June 2015.

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) 2015 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 2015 to include key employees across all levels of the company. The plan is to practice a hurricane making landfall on peninsula 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.

The review of Energy Delivery's emergency restoration plan (part two) by the consulting firm will be completed by June 2015.

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 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 2014 a total of 15 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. The downtown network consists of 361 manholes and 56 network vaults. Most network vaults contain two network transformers and two network protectors. In 2014, a total of 72 network protectors were tested and 15 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 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: 2014 Accomplishments

1) Transmission

In 2014, 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 2014, Tampa Electric hardened 871 structures that included 720 pole replacements utilizing steel or concrete poles and 151 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 114 structures consisting of 65 pole replacements and 49 sets of insulators. In addition to the structures that were replaced or reconfigured, 11 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.

Combining the totals from both programs Tampa Electric hardened 985 structures including 785 structure replacements and 200 sets of insulators.

2) Vegetation Management

In 2014, 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 2014, have better prepared Tampa Electric for future storm seasons.

3) Updated and Reviewed Circuit Priority

For 2015, Tampa Electric will continue working with all county and municipal agencies in reviewing and updating the restoration priorities following established procedures.

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 2014. The company remotely monitors capacitor banks and when apparent problems were identified, a Tampa Electric field crew was dispatched to resolve any operational problems. In 2014, the company conducted field visits for 667 capacitor banks and made repairs as needed.

5) Increased Equipment Inventory

The company reviewed and increased its storm inventory prior to the 2014 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 2014, 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 storm exercises with Hillsborough, Polk and Pinellas county and municipal agencies, and Federal with DHS, DOE, NERC and the White House.

7) Secured and Expanded Incident Bases

Tampa Electric annually reviews sites for incident bases and staging sites which ensure primary and backup locations for distribution, transmission, and materials. Additionally, logistical needs and equipment requirements are reviewed for each incident base site. Throughout Tampa Electric's service territory, the company is constantly developing and maintaining relationships with property owners for potential incident bases and staging sites. Energy Delivery also annually reviews existing purchase orders and contacted vendors who would assist the company with restoration efforts. All these activities were performed in 2014.

8) Hurricane Preparedness Exercises

In April 2014, Energy Delivery facilitated a centralized functional exercise focusing on the ETR process. The 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. The scenario was preceded by an Energy Delivery conference call that included other key employees

across the company. Additionally, a decentralized exercise was conducted on May 20, 2014 to provide further practice on the ETR process. As a result of both these exercises**,** 72 action items were identified for follow-up and lessons learned. Transmission and Grid Operations conducted an exercise on July 9, 2014 which focused on their restoration process. As a result of this exercise, 52 action items were identified for follow-up and lessons learned. All action items were followed up on and implemented.

9) Post-Storm Data Collection and Forensic Analysis Implemented

In 2014, Tampa Electric continued its relationship with its outside consultant for performing post storm forensic analysis. When required, 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: 2015 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, hurricane preparation exercises, and industry research for best practices and procedures for storm restoration.

2) Transmission Inspections and Maintenance

In preparation for the 2015 storm season, Tampa Electric will perform aerial infrared inspections on all 230kV, 138kV and 69kV circuits including approximately 26,000 structures prior to hurricane season. All 230kV, 138kV and all critical 69kV circuits will be patrolled prior to the peak of hurricane season with the remaining transmission circuits being completed by the end of 2015. Tampa Electric plans to change out approximately 548 wood transmission poles throughout the year with steel or concrete structures. Also, Tampa Electric intends to replace existing insulators with polymer insulators as needed, with much of this work being completed prior to the peak of hurricane season.

3) Pole Inspections

The 2015 Ground-line Pole Inspection Program goal includes 42,832 distribution and lighting wood 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 2015, 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 2015. 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 2015, 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 2014, the company will review and increase storm stock in 2015 to ensure a four-day supply of overhead distribution materials such as splices, fuses, connectors, service clamps, brackets, wire, poles, transformers, etc., as well as transmission and substation materials. The company will also ensure that procurement contracts are in place to support additional supplies being delivered within four days of landfall and it will replenish required stock for the duration of a major restoration event.

7) Circuit Priority Review

For 2015, Tampa Electric will continue working with all county and municipal agencies in reviewing and updating 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 2015 to include key employees across all levels of the company. The plan is to practice a hurricane making landfall on peninsula Florida. Various scenarios will be injected throughout the exercise. Follow-up items and lessons learned will be recorded and followed up on and implemented as appropriate.

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 316,000 distribution and lighting

wood poles and 26,000 transmission poles appropriate for inspection for a total pole population of approximately 342,000. Approximately 12.5 percent of the known system will be targeted for inspections annually. The actual number of wood poles inspected may vary from year to year due to recently constructed circuits, de-energized circuits, reconfigured circuits, etc.

3) Inspection Method and Procedure

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

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.

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 include the annual Pole Inspection Report for 2014 as an appendix item contained within this 2014 Storm Implementation Plan. This annual Pole Inspection Report is required to be submitted 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. The 2014 report is attached as Appendix C, Annual Wood Pole Inspection Report.

10) 2014 Accomplishments

Tampa Electric's Ground-line Pole Inspection Program was conducted by three contracted crews and one supervisor who inspected a total of 49,079 poles. The pole failure rate for distribution and lighting was 17.8 percent

due to the vintage of poles inspected. Of these failures, 0.24 percent were reinforced; therefore, the overall distribution and lighting wooden pole replacement rate was 17.6 percent. Tampa Electric's spending levels for the Ground-line Pole Inspection Program, which included distribution and lighting pole reinforcements, exceeded $1.6 million.

The 2014 Ground-line Pole Inspection Program results include:

- 49,176 planned distribution and lighting pole inspections with 49,079 completed.
- 3,250 planned transmission poles inspections with 3,300 completed.
- 52,426 planned distribution, lighting, and transmission ground-line pole inspections with a total of 52,379 completed.

Expenditures for the 2014 Ground-line Pole Inspection Program include:

- Distribution and lighting ground-line pole inspections - $1.5 million.
- Transmission ground-line pole inspections - $53,857.
- Distribution and lighting pole reinforcements - $42,566.

11) 2015 Activities and Budget Levels

For 2015, 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 2015 Ground-line Pole Inspection Program goals include:

- 42,832 distribution and lighting wood pole inspections
- 3,250 transmission pole inspections
- 46,082 total distribution, lighting, and transmission ground-line pole inspections

Established funding levels for the 2015 Ground-line Pole Inspection Program are:

- Distribution and lighting ground-line pole inspections - $1.2 million.
- Transmission ground-line pole inspections - $123,710.
- Distribution and lighting pole reinforcements - $50,000.

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.

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

A) 2014 Reliability Performance

1) Overview

Tampa Electric's 2014 distribution reliability indices, both adjusted and

actual, represented positive results in comparison to 2013. The company saw an improved performance in the adjusted and actual system average interruption duration index ("SAIDI"), the adjusted and actual customer average interruption duration index ("CAIDI"), the adjusted and actual system average interruption frequency index ("SAIFI") and in the adjusted and actual momentary average interruption frequency index ("MAIFIe"). The CEMI-5 measurements increased for both the adjusted and actuals.

2) Summary

Tampa Electric's Adjusted 2014 SAIDI decreased by 5.25 minutes over 2013 representing a 6.17 percent decrease (9.62 minutes or 10.23 percent decrease – 2014 actual). Adjusted 2014 CAIDI decreased by 4.89 minutes over 2013 representing a 5.47 percent decrease (4.86 minutes or 6.29 percent decrease – 2014 actual). Adjusted 2014 SAIFI decreased by 0.01 average events or 1.05 percent (0.05 average events or 4.10 percent decrease – 2014 actual). Adjusted 2014 MAIFIe decreased by 2.12 events or 17.42 percent from 2013 (2.1 events or 16.20 percent decrease – 2014 actual).

The overall improvement and decreases in the SAIDI, CAIDI and SAIFI indices are attributed to Tampa Electric's aggressive tree trimming plan, milder than normal weather and the implementation of two man crews that work 24 hours a day 5 days a week focusing mainly on restoration work. Tampa Electric's continued decrease in MAIFIe is attributed to the 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.

The primary causes associated with a total outage decrease of 657 were attributed as follows:

Animals – 435
Bad Connection – 36
Down Wire – 87
Defective Equipment – 42
Other Weather – 52
All Remaining Causes – 5

The primary causes associated with a total increase of 455 attributed as follows:
Lightning – 278
Vegetation – 15
Electrical – 102
Unknown – 13
Vehicle - 37

When these primary causes are considered together, the net decrease of 212 outages is realized.

Overall outages decreased in 2014 in comparison to 2013, however the total number of outages in comparison to the last five-year average increased by 0.7 percent or 68 outage events. For the 2014 outage causes, five of the eleven categories are down in comparison to the five-year average totals. Animals, bad connection, other weather, defective equipment and all remaining causes decreased by 20.56 percent, 5.64 percent, 37.76 percent, 17.34 percent and 10.17 percent, respectively when compared to the five-year average. Lightning, Vegetation, Electrical, Unknown, Down Wire and Vehicle causes increased by 27.78 percent, 5.10 percent, 4.15 percent, 3.08 percent, 11.45 percent and 14.79 percent, respectively when compared to the five-year average.

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 2014, 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.

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 2014, Tampa Electric customers experienced a decrease in the number of outages, the system average interruption duration, customer average interruption duration, system average interruption frequency and the momentary average interruption frequency when compared to the previous year, 2013.

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 2014 Annual Distribution Reliability Report related to generation outage events.

C) Transmission Events- Adjustments

1) Transmission Outage Summary

In 2014, there were 12 transmission outages that affected customers. This included seven outages that were due to equipment failures, four outages due to inclement weather and lightning, and one outage due to vegetation. A total of 949,534 Customer Minutes of Interruption and 61,778 Customer Interruptions were excluded from the 2014 Annual Distribution Reliability Report per Rule 25-6.0455.

2) Equipment Failure Outages

There were six outages attributed to insulator, wire, switch, and equipment failures, as well as one structure failure. The repair or replacement of structures and associated components has been identified and prioritized.

3) Vehicle Collision Outages

There were no outages due to vehicle collisions in 2014.

4) Human Error Outages

There were no outages due to human error in 2014.

5) Vegetation Related Outages

There was one outage due to vegetation in 2014. 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 2014.

7) Transmission Outage Detail

69 KV Circuit

January 2014

Date: 1/3/2014 **Circuit:** 66652
Customers Affected: 2,338 **SAIDI Impact:** 6.8 seconds
Discussion: Service was interrupted when a splice in the conductor failed. The splice and conductor was repaired and the circuit was returned to service.
Event: Localized

April 2014

Date: 4/1/2014 **Circuit:** 66026
Customers Affected: 4,555 **SAIDI Impact:** 25.9 seconds
Discussion: Service was interrupted the top of a pole was broken due to construction equipment interference. The pole was repaired and the circuit was returned to service.
Event: Localized

Date: 4/7/2014 **Circuit:** 66095
Customers Affected: 4,427 **SAIDI Impact:** 1.50 seconds
Discussion: Service was interrupted when a set of insulators broke. Due to access issues, this portion of the circuit has been de-energized. Customers returned to service after switching an additional circuit into service.
Event: Localized

May 2014

Date: 5/2/2014 **Circuit:** 66020/66044
Customers Affected: 8,618 **SAIDI Impact:** 2.00 seconds
Discussion: Service was interrupted by lightning in the area. The circuit was patrolled and no additional damage was found. The circuit was returned to service.
Event: Localized

Date: 5/2/2014 **Circuit:** 66658
Customers Affected: 64 **SAIDI Impact:** 0.01 seconds
Discussion: Service was interrupted due to storms in the area. The circuit was patrolled and no additional damage was found. The circuit was returned to service.
Event: Localized

Date: 5/14/2014 **Circuit:** **66436**
Customers Affected: 4,252 **SAIDI Impact:** 9.41 seconds
Discussion: Service was interrupted due to a fault in the capacitor bank within the substation. The equipment was repaired and the circuit returned to service.
Event: Localized

June 2014
Date: 06/19/2014 **Circuit:** **66059**
Customers Affected: 16,679 **SAIDI Impact:** 1.9 seconds
Discussion: Service was interrupted when vegetation fell into the circuit. The vegetation was removed and the circuit returned to service.
Event: Localized

July 2014
Date: 07/3/2014 **Circuit:** **66405**
Customers Affected: 1,720 **SAIDI Impact:** 0.2 seconds
Discussion: Service was interrupted by lightning in the area. The circuit was patrolled and no additional damage was found. The circuit was returned to service.
Event: Localized

Date: 07/21/2014 **Circuit:** **66085**
Customers Affected: 4,613 **SAIDI Impact:** 25.8 seconds
Discussion: Service was interrupted due to a static wire breaking as a result of a lightning strike. The static wire was repaired and the circuit

returned to service.
Event: Localized

August 2014
Date: 08/7/2014 **Circuit:** **66658**
Customers Affected: 41 **SAIDI Impact:** 0.07 seconds
Discussion: Service was interrupted due to storms in the area. The circuit was patrolled and no additional damage was found. The circuit was returned to service.
Event: Localized

November 2014
Date: 11/18/2014 **Circuit:** **66426**
Customers Affected: 8,284 **SAIDI Impact:** 1.4 seconds
Discussion: Service was interrupted due to a broken static wire. The static wire was repaired and the circuit returned to service.
Event: Localized

138 kV Circuit

June 2014
Date: 06/03/2014 **Circuit:** **138003**
Customers Affected: 6,187 **SAIDI Impact:** 5.8 seconds
Discussion: Service was interrupted due to an operating failure of a pole top switch. The switch was repaired and the circuit was returned to service.
Event: Localized

230 kV Circuit
There were no outages on the 230kV circuits in 2014.

D) Extreme Weather

Tampa Electric experienced one extreme weather event during 2014 which affected customers in our service territory. A tornado touched down and impacted the company's electric system on May 30, 2014 at approximately 4:12 PM and continued to affect customers until approximately 12:00 PM the next day.

This weather system caused 79 outage events resulting in 9,981 Customer Interruptions and 798,423 Customer Minutes of Interruption impacting the electric system over the two day period.

Of the 79 outage events experienced, 66 were attributed to the overhead system and the balance of 13 were attributed to the underground system. System outage duration (L Bar) during these events was 268.41 (243.08 and 397.00 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 2014, there were 472 Other Distribution outages that affected customers. A total of 2,503,846 Customer Minutes of Interruption and 148,813 Customer Interruptions were excluded from the 2014 Annual Distribution Reliability Report per Rule 25-6.0455. All outages were attributed to planned events as noted within the 2014 Adjustments: Other Distribution in Appendix.

F) Distribution Substation

1) 2014 Distribution Substation Adjustments

In 2014, there were 175 Distribution Substation outages that affected customers. A total of 10,056,620 Customer Minutes of Interruption and

181,432 Customer Interruptions were excluded from the 2014 Annual Distribution Reliability Report per Rule 25-6.0455. All outages were attributed to substation equipment as noted within the 2014 Adjustments: Distribution Substation in Appendix B.

2) Patterns and Trends - Distribution Substation Reliability Performance

In 2014, Substation outages due to animals contributed the most to SAIDI. Tampa Electric has installed animal protection on 56% of its substation equipment. Tampa Electric is currently evaluating a strategy to complete installation of animal protection on the remaining 44% of its substation equipment.

In 2014, Substation transformer failures were the second leading contributor 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.

The third leading contributor to SAIDI can be attributed to surge arrestor failures. Tampa Electric now installs surge arresters made of a composite/polymer material. This material is lighter and will improve reliability. Tampa Electric is performing root cause analyses to determine the cause of failure(s) of these arresters.

Since 2008, the total number of 13 kV circuit breakers that have been replaced through the program is 153. In 2014, 4 breakers were replaced as part of our capital asset replacement 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:

- 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 mis-operations
- Installation of animal protection in substations
- Install microprocessor based relays for reclosing in all new construction and upgrade projects
- Replace station wide static under frequency relays with feeder based microprocessor under frequency relays in all new construction projects
- Replacing 13kV circuit breakers that have been identified as problem breakers
- Increased lightning withstand protection on Tampa Electric Large Autotransformers
- An improved standard of all polymer/composite bushings on all new transformers and circuit breakers
- Improved lighting in select substation with the installation of over 300 LED lights

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

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
2010	542
2011	271
2012	520
2013	527
2014	396

Exhibit 1: 2014 Distribution Substation Outages

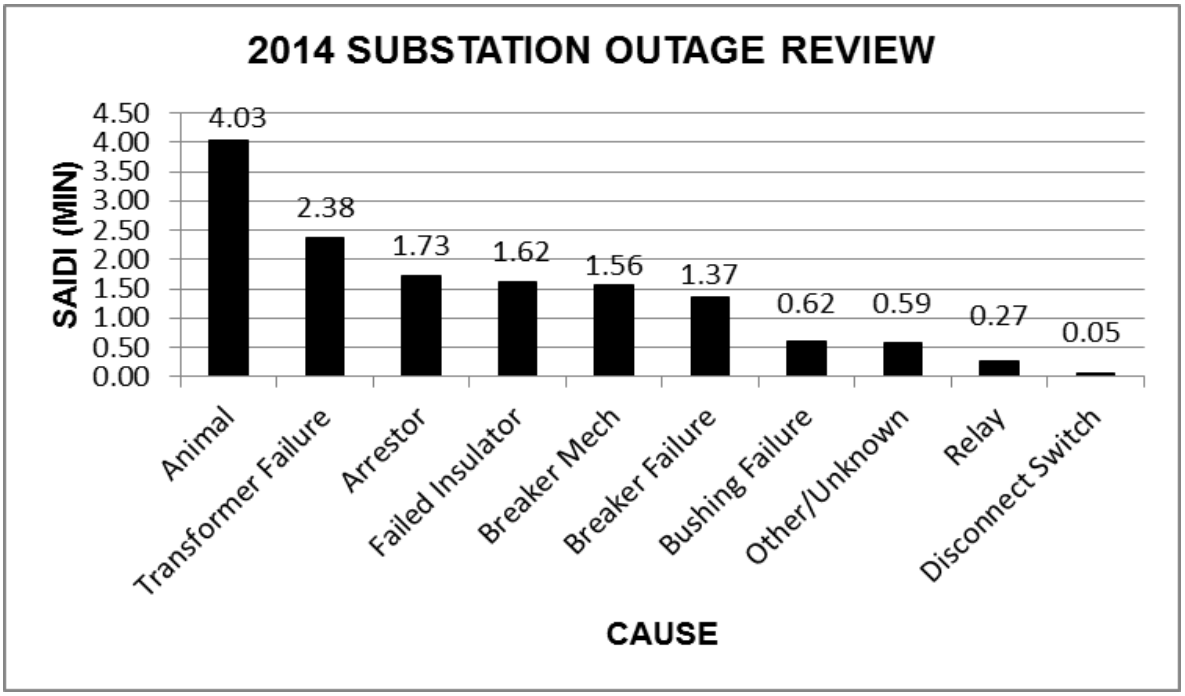


Exhibit 2: 2013 Distribution Substation Outages

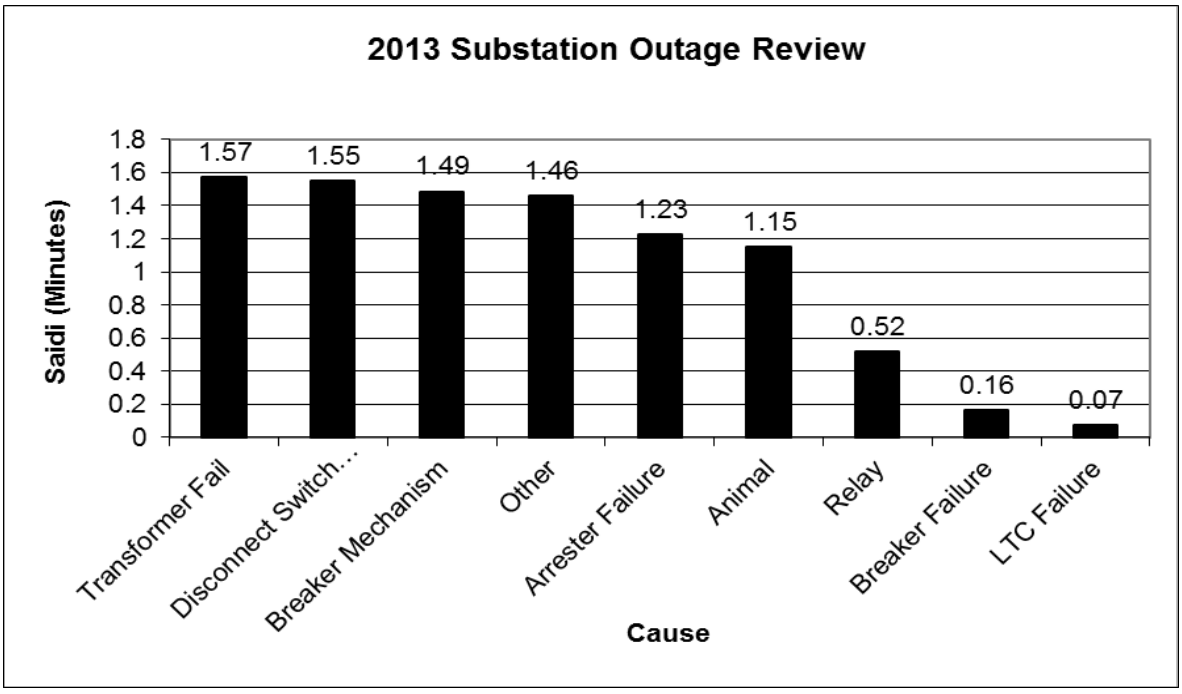


Exhibit 3: 2012 Distribution Substation Outages

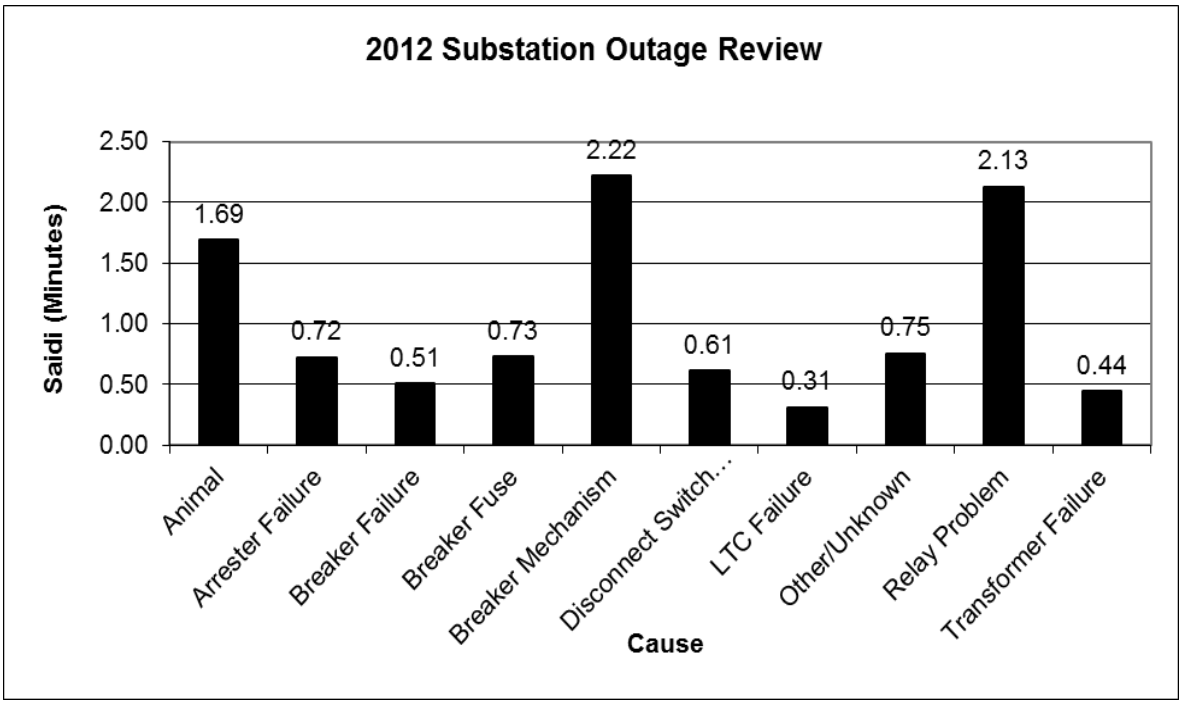


Exhibit 4: 2011 Distribution Substation Outages

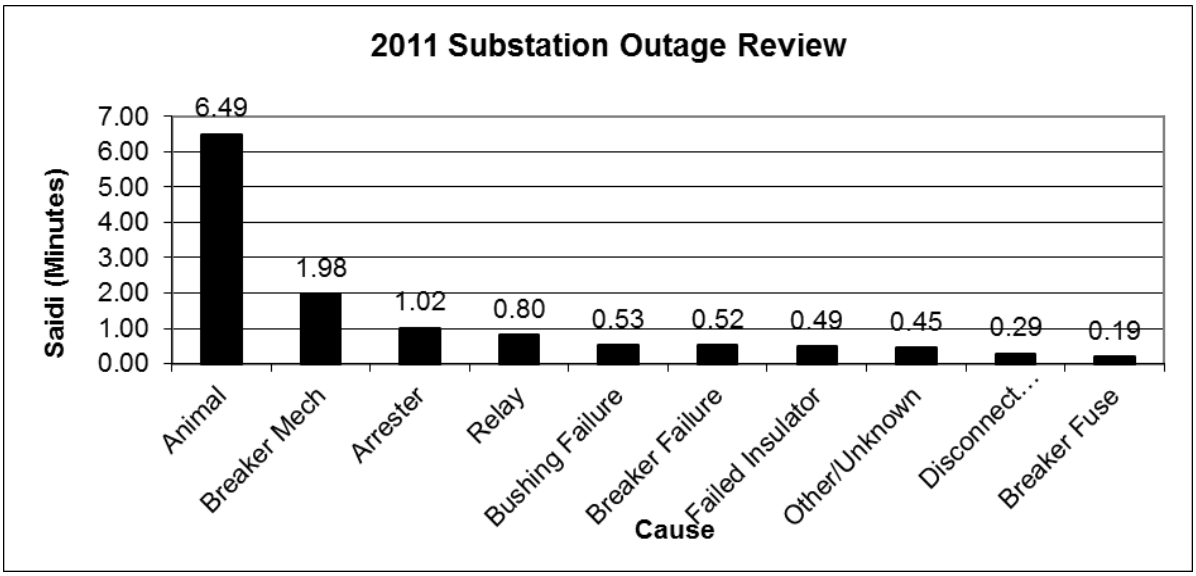


Exhibit 5: 2010 Distribution Substation Outages

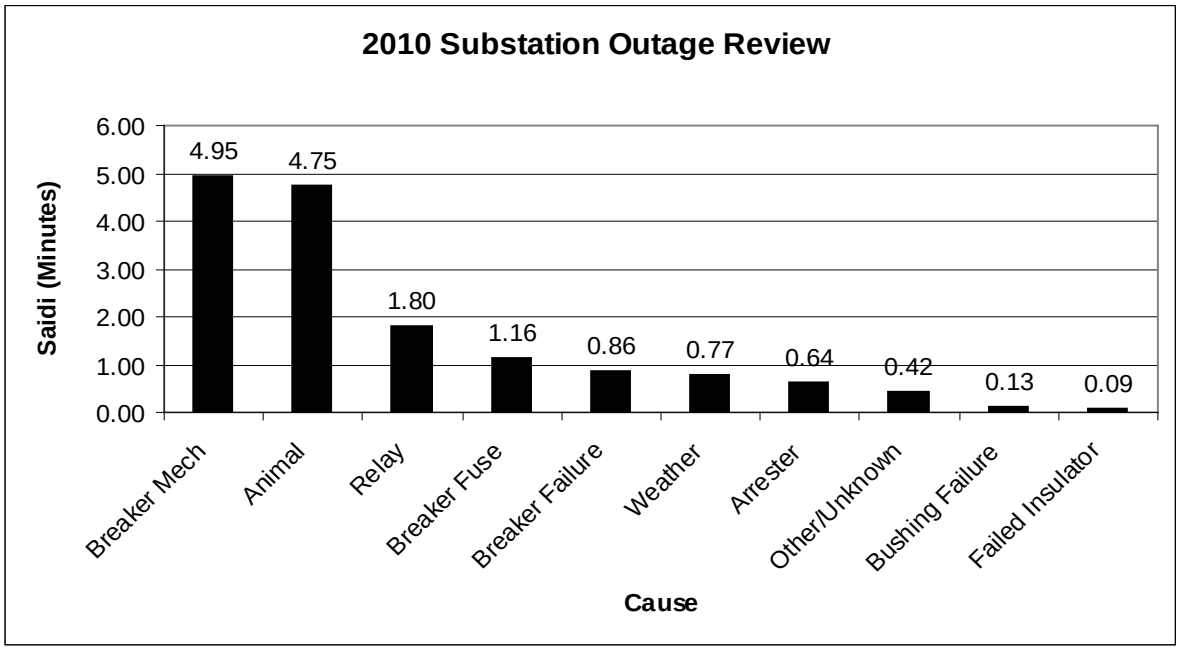


Exhibit 6: Substation Outages due to Animal Contact

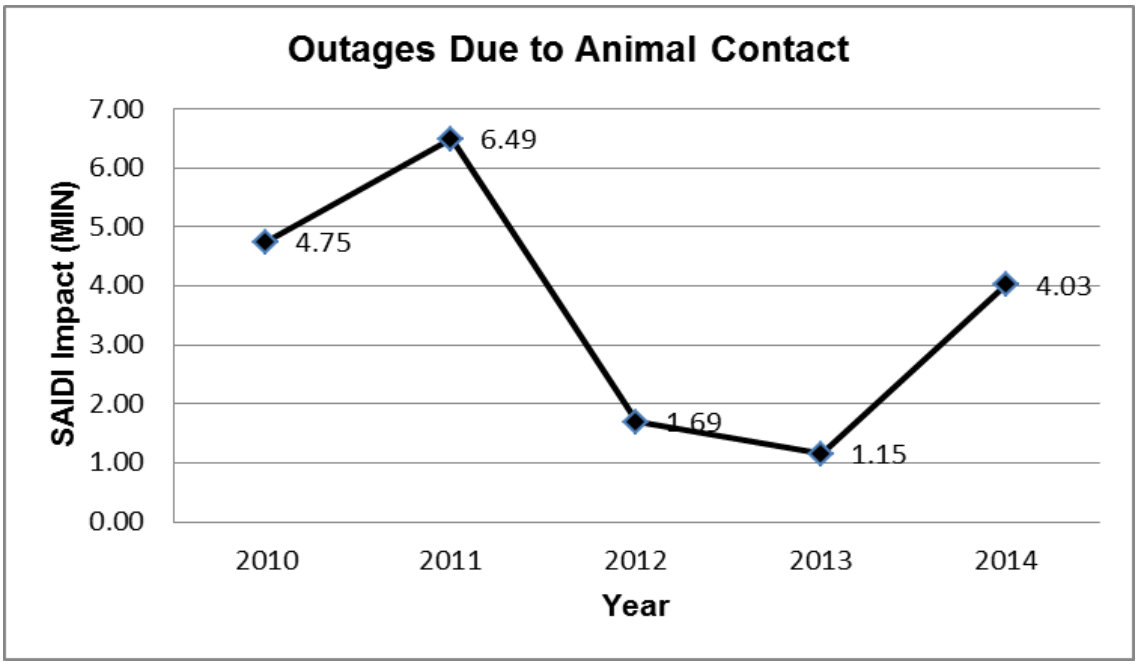


Exhibit 7: Substation Outages due to Transformer Failure

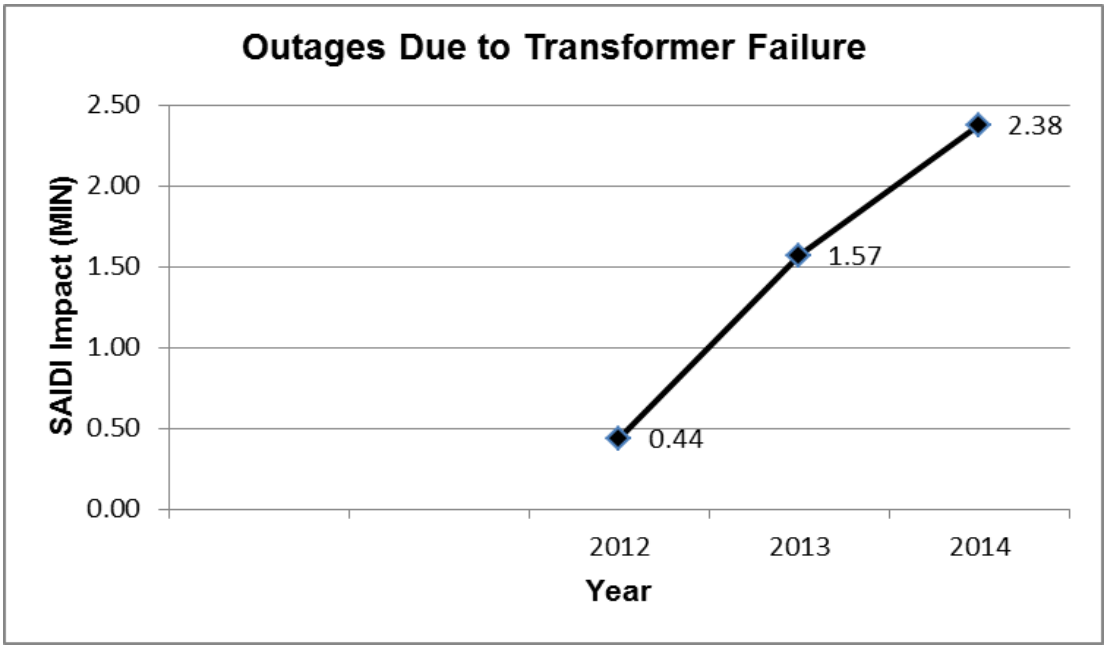
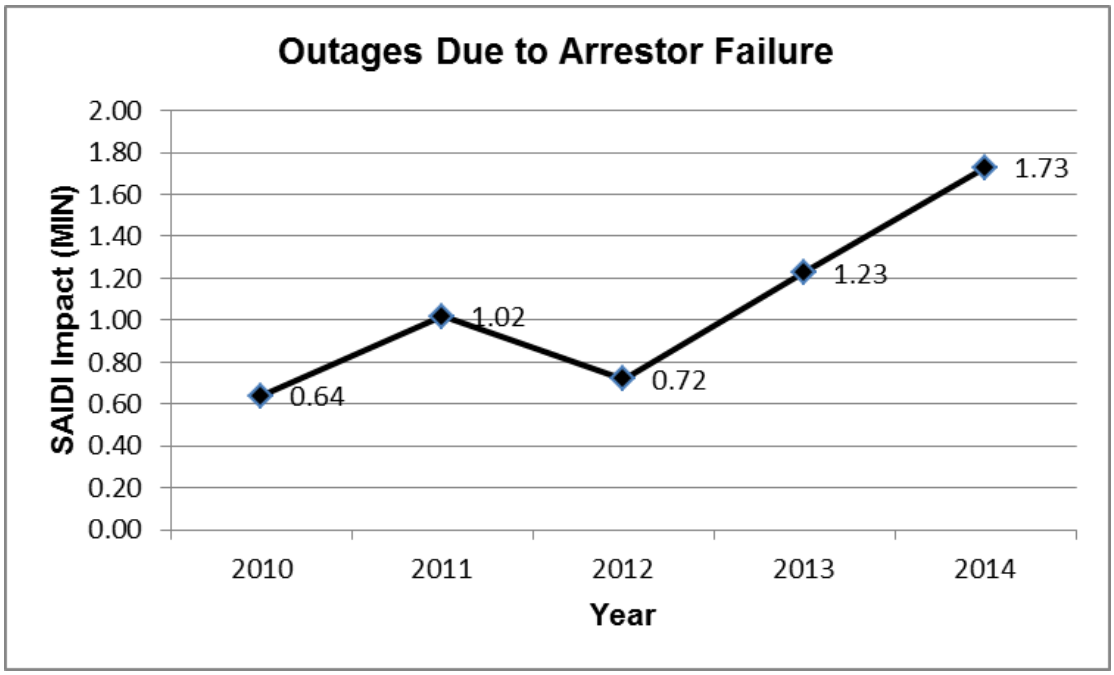


Exhibit 8: Substation Outages due to Arrestor Failure



G) 2014 Adjusted Distribution Reliability

1) Causes of Outages

Table 2: Cause of Outage Events by Year

	2010	2011	2012	2013	2014
Vegetation	1,975	1,806	1,677	1,959	1,974
Animals	2,040	2,157	1,736	1,918	1,483
Lightning	1,226	1,392	1,327	1,639	1,917
Electrical	1,380	1,172	1,068	1,154	1,256
Bad Connection	1,090	848	905	837	856
Unknown	753	849	779	892	850
Down Wire	336	325	525	599	512
Vehicle	245	285	315	306	343
Other Weather	727	222	260	261	209
Defective Equipment	245	196	181	206	164
All Remaining Causes	206	223	215	187	182
System Totals	10,223	9,475	8,988	9,958	9,746

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 prior five years. These circuits include Harney Rd 14041, Dade City 13329, Fort King 13422, Mulberry 13007, Blanton 13815, Brandon 13226, Mulberry 13010 and E. Winter Haven 13309.

Actual events for Harney Rd 14041 included five circuit outages as reported. The company completed corrective activities on this circuit in 2014 including

full circuit tree trimming, pole replacement, replacement of fuses and cutouts, replacing switches, replacement of poles and replacing lightning arresters.

Actual events for Dade City 13329 included five circuit outages as reported. The company completed corrective activities on this circuit in 2014 including hotspot tree trimming, the replacement of defective transformers and poles, replacing fuses and cutouts, the replacement of primary and the replacing lightning arresters.

Actual events for Fort King 13422 included five circuit outages as reported. The company completed corrective activities on this circuit in 2014 including full circuit tree trimming and the installation of a recloser.

Actual events for Mulberry 13007 included five circuit outages as reported. The company completed corrective activities on this circuit in 2014 including the replacement of lightning arresters, hot spot tree trimming, installation of avian protection, replacement of poles, replacement of defective equipment and the installation of a recloser.

Actual events for Blanton 13815 included four circuit outages as reported. The company completed corrective activities on this circuit in 2014 including full circuit tree trimming.

Actual events for Brandon 13226 included four circuit outages as reported. The company completed corrective activities on this circuit in 2014 including full circuit tree trimming, replacing of defective equipment and replacing lightning arresters.

Actual events for Mulberry 13010 included four circuit outages as reported. The company completed corrective activities on this circuit in 2014 including

hot spot tree trimming, installation of avian protection, pole replacement, replacing fused cutouts, replacing switches and replacing lightning arresters.

Actual events for E. Winter Haven 13309 included four circuit outages as reported. The company completed corrective activities on this circuit in 2014 including full circuit tree trimming, the replacement of lightning arresters, replacement of poles, and 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 period. This is due to the much greater distance traveled for service restoration in rural areas.

In 2014, SAIDI by division decreased over 2013 in all divisions except for Western and Winter Haven as represented in Table 4. The 2014 SAIDI performance for four out of the seven divisions was below the five-year average, Dade City, Eastern and Winter Haven were above. Actual results by division and year have varied for the five-year period.

Table 5 data represents a decrease in the 2014 CAIDI performance in comparison to 2013 for all divisions except Western, Eastern and Winter Haven. 2014 CAIDI performance for all divisions except Winter Haven, were above the five-year average. Actual results by division and year have varied for the five-year period.

In 2014, SAIFI performance for Dade City, Plant City and South Hillsborough improved over 2013 as noted in Table 6. SAIFI performance in Central, Eastern and Winter Haven declined over 2013 results and Western remained unchanged. Four out of seven divisions performed above the five-year average except Western, South Hillsborough and Winter Haven.

In 2014, MAIFIe performance improved over 2013 in all divisions except for Dade City, as seen in Table 7. All divisions except Dade City had improved MAIFIe performance when compared to the five-year average.

2) Improving Regional Reliability Trends

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

Table 3: Number of Customers by Service Area per Year

	2010	2011	2012	2013	2014
Central	179,810	181,797	185,005	188,161	190,459
Dade City	13,692	13,700	13,822	13,965	14,165
Eastern	109,383	109,876	111,069	113,053	115,122
Plant City	54,470	54,725	55,472	56,438	57,220
South Hillsborough	61,530	62,761	64,530	67,071	69,431
Western	187,932	189,200	191,083	193,320	196,085
Winter Haven	67,560	67,222	67,735	68,529	69,687
System	674,377	679,281	688,716	700,537	712,169

Table 4: SAIDI by Service Area per Year

	2010	2011	2012	2013	2014
Central	64.06	54.40	75.88	69.51	62.95
Dade City	134.55	170.11	161.12	260.65	206.10
Eastern	66.90	60.95	56.76	92.53	76.33
Plant City	143.61	99.39	109.73	130.57	116.88
South Hillsborough	101.07	66.77	89.70	93.59	74.22
Western	88.91	91.22	77.48	75.24	81.39
Winter Haven	79.24	86.24	66.76	61.42	76.58
System	84.20	75.96	78.07	85.05	79.80

Table 5: CAIDI by Service Area per Year

	2010	2011	2012	2013	2014
Central	87.48	85.32	88.10	87.53	79.05
Dade City	81.73	85.06	96.56	94.81	87.37
Eastern	96.07	75.93	78.07	106.37	79.62
Plant City	97.36	87.87	82.02	87.35	79.37
South Hillsborough	113.70	88.77	84.83	84.18	87.83
Western	99.23	93.92	95.79	87.84	94.24
Winter Haven	80.08	82.93	66.14	75.76	82.69
System	94.53	86.83	85.55	89.43	84.54

Table 6: SAIFI by Service Area per Year

	2010	2011	2012	2013	2014
Central	0.73	0.64	0.86	0.79	0.80
Dade City	1.65	2.00	1.67	2.75	2.36
Eastern	0.70	0.80	0.73	0.87	0.96
Plant City	1.48	1.13	1.34	1.49	1.47
South Hillsborough	0.89	0.75	1.06	1.11	0.85
Western	0.90	0.97	0.81	0.86	0.86
Winter Haven	0.99	1.04	1.01	0.81	0.93
System	0.89	0.87	0.91	0.95	0.94

Table 7: MAIFIe by Service Area per Year

	2010	2011	2012	2013	2014
Central	10.01	11.23	10.17	10.01	8.31
Dade City	16.51	15.64	15.76	17.42	19.84
Eastern	12.99	14.38	10.85	13.76	9.85
Plant City	14.78	17.61	19.84	17.80	15.08
South Hillsborough	14.20	13.56	11.21	12.87	8.73
Western	11.79	12.57	10.58	10.90	9.64
Winter Haven	11.55	14.47	9.98	12.56	11.36
System	12.04	13.25	11.36	12.16	10.04

Table 8: CEMI5 by Service Area per Year

	2010	2011	2012	2013	2014
Central	0.37%	0.60%	0.44%	0.20%	0.83%
Dade City	0.58%	0.67%	3.66%	1.48%	5.94%
Eastern	1.60%	0.69%	0.37%	0.41%	0.33%
Plant City	1.22%	0.85%	0.90%	1.65%	1.37%
South Hillsborough	1.04%	0.30%	3.49%	0.84%	0.23%
Western	0.69%	0.58%	0.26%	0.33%	0.15%
Winter Haven	3.56%	0.80%	0.71%	0.01%	0.54%
System	1.11%	0.62%	0.79%	0.47%	0.63%

I) Overhead – Underground Reliability

1) Five-Year Trends - Reliability Performance

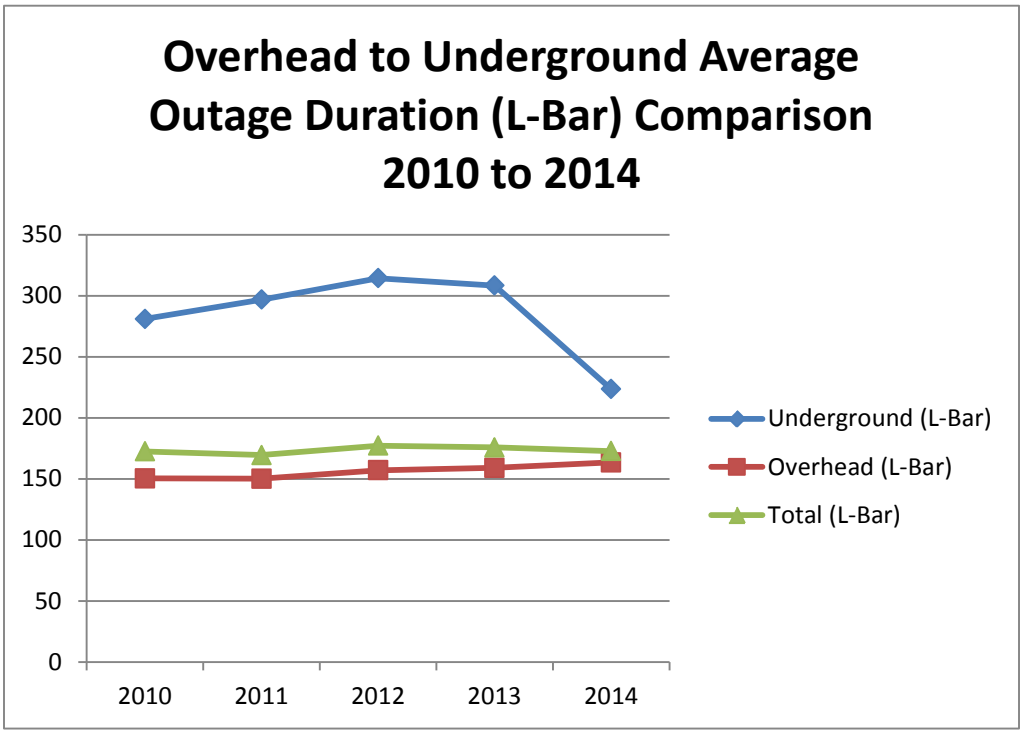
Table 9: Outages per Year

System Totals	2010	2011	2012	2013	2014
Number of Outages Events (N)	10,223	9,475	8,988	9,958	9,746
System Average Duration (L-Bar)	172.51	169.47	177.24	175.85	172.84
Average Restoration Time (CAIDI)	94.53	86.83	85.55	89.43	84.54

Overhead	2010	2011	2012	2013	2014
Number of Outages Events (N)	8,495	8,226	7,838	8,840	8,233
Overhead Average Duration (L-Bar)	150.43	150.11	157.12	159.09	163.52
Average Restoration Time (CAIDI)	86.80	82.65	80.87	85.77	79.08

Underground	2010	2011	2012	2013	2014
Number of Outages Events (N)	1,728	1,249	1,150	1,118	1,513
Underground Average Duration (L-Bar)	281.08	296.94	314.37	308.38	223.59
Average Restoration Time (CAIDI)	237.89	246.51	277.23	261.46	132.80

Exhibit 9: Overhead to Underground Outage Duration



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 MAIFIe 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 the outage management systems ("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 2014, there was no activity associated with underground distribution system conversions.

J) Reliability-Related Customer Complaints

During 2014, Tampa Electric experienced a decrease of 5 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 44 complaints in 2014 as noted in Exhibit 11 below. In comparison to the five-year average, overall complaints increased by 39.29 percent in 2014.

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 a continued focus on activities such as vegetation management, circuit review activity and resulting line improvements and other maintenance activities will contribute toward minimizing service-related complaints in 2015.

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 Formal Reliability Complaints Filed with the FPSC by Year

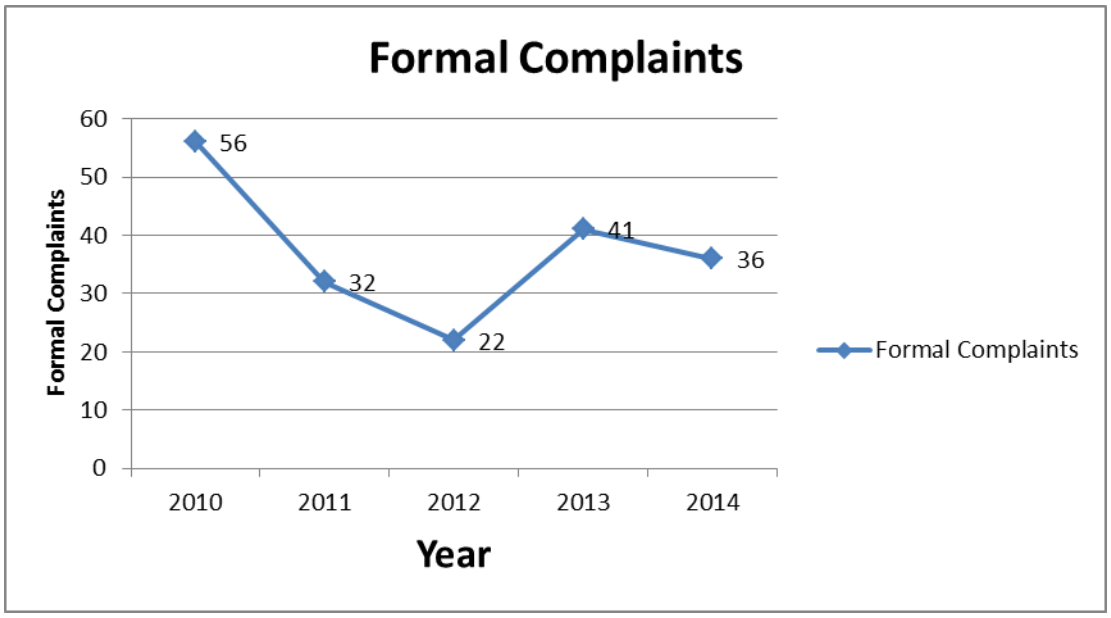
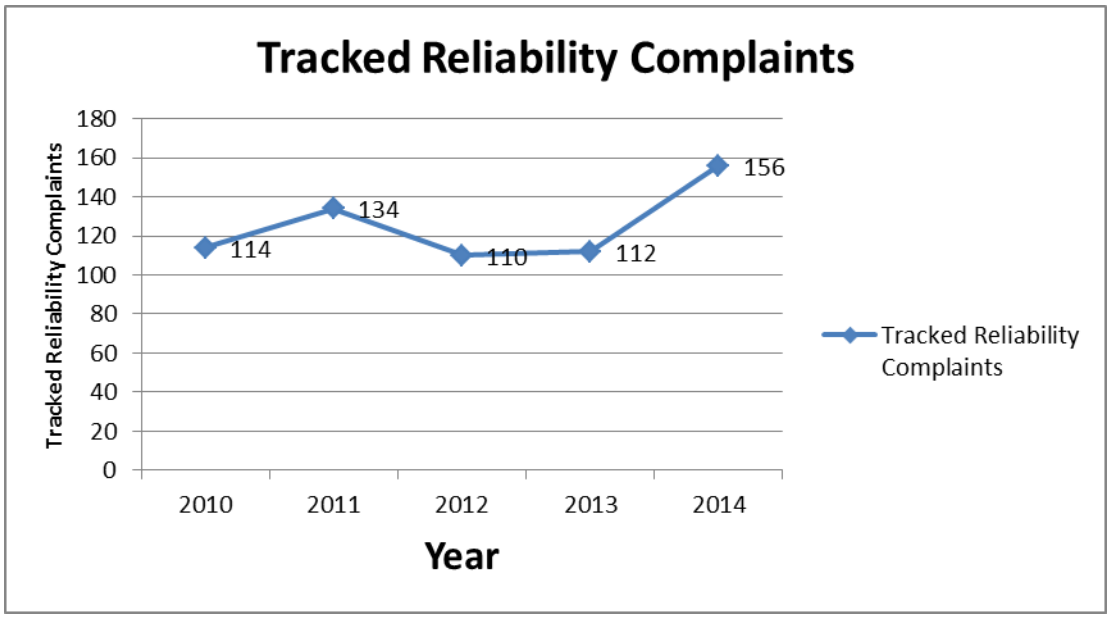


Exhibit 11: Tampa Electric Service Complaints by Year



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.

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

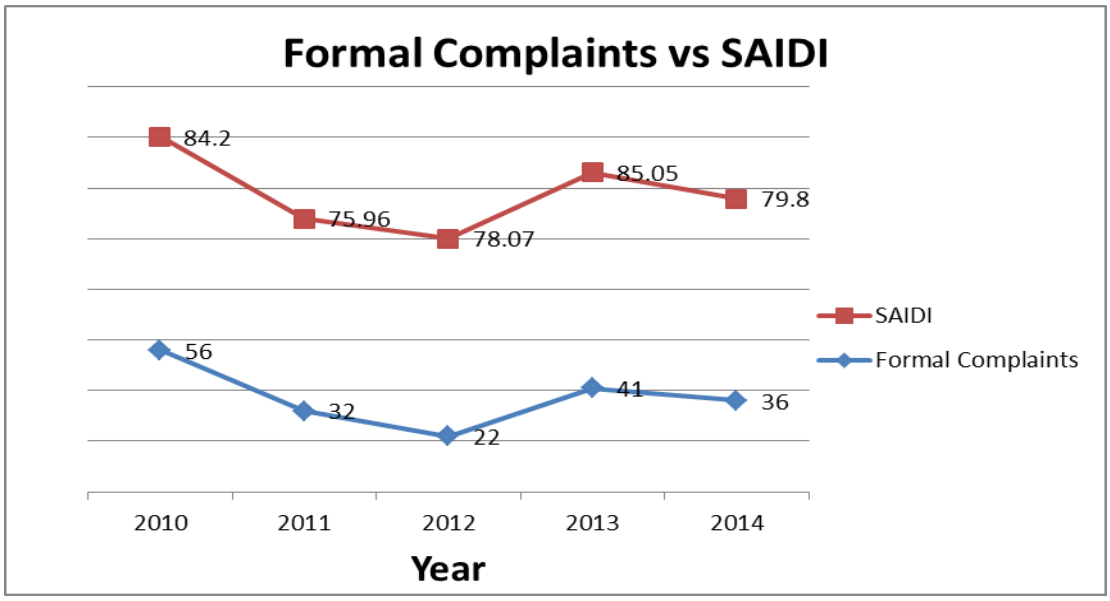
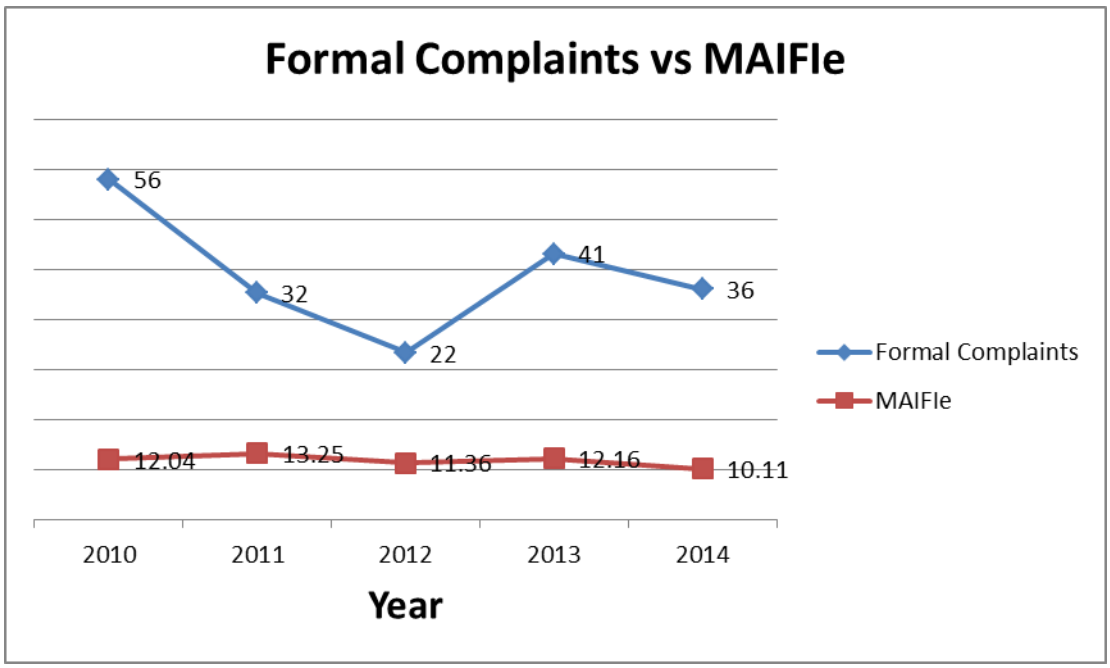


Exhibit 13: Formal Complaints *vs.* MAIFIe by Year



APPENDIX

2014

STORM IMPLEMENTATION PLAN
&
ANNUAL RELIABILITY PERFORMANCE REPORTS

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

Primary Causes of Outage Events

Utility Name: Tampa Electric Year: 2014

Cause (a)	Number of Outages Events (N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
1. Vegetation	1,998	193.43	92.78
2. Lightning	1,934	198.94	95.54
3. Animals	1,494	97.73	70.55
4. Electrical	1,286	189.97	78.23
5. Bad Connection	878	229.62	126.24
6. Unknown	851	134.20	72.79
7. Down Wire	527	164.00	94.21
8. All Remaining Causes	1,384	142.78	39.50
Total	10,352	170.15	72.36

Form 102 – Part II –Actual

FPSC Annual Report - 3 Percent Feeder List

Utility Name: Tampa Electric Year: 2014

Primary	Substation Origin (b)	Location (c)	Number of Residential (d)	Commercial (e)	Industrial (f)	Total (g)	Circuit Outages "N" (h)	Avg. Duration "L-Bar" (i)	CAIDI (j)	Listed Last Year? (k)	Years in the Last 5 (l)	Action Completion Date (n)
13993	SUNST.LN	Central	1075	31	2014	1112	6	167.7078	52.2018	No	0	1/2015, 6/2014, 8/2014, 9/2014, 10/2014,
13147	HOPEWELL	Plant City	1034	79	4176	1125	6	136.0735	75.0293	No	0	2/2014, 5/2014, 6/2014, 8/2014, 9/2014, 10/2014, 11/2014
14041	HARNY RD	Central	771	190	11998	998	5	147.7986	35.4592	Yes	1	9/2014
13329	DADE CTY	Dade City	487	223	14540	753	5	127.4992	30.4608	Yes	2	6/2014, 10/2014
13422	FORT KING	Dade City	1398	171	3114	1578	5	158.6402	64.0129	No	2	3/2014, 11/2014
13007	MULBERRY	Plant City	312	170	17742	532	5	172.7968	66.6754	Yes	2	1/2014, 3/2014, 4/2014,
13898	1ST ST	South Hillsborough	1712	86	7356	1818	5	124.7593	75.0875	No	0	1/2014, 2/2014, 3/2014, 4/2014, 5/2014, 6/2014, 7/2014, 8/2014, 9/2014, 12/2014
13023	JUNEAU	Central	1232	162	2842	1402	4	199.9707	28.0503	No	0	2/2014, 10/2014, 11/2014
13097	SUNST.LN	Central	1119	61	3323	1191	4	186.7362	48.9504	Yes	1	1/2014, 9/2014, 10/2014
13815	BLANTON	Dade City	632	118	2204	757	4	144.2141	55.1817	No	1	1/2014, 2/2014
13226	BRANDON	Eastern	1438	198	16742	1683	4	131.0553	58.5114	No	1	4/2014
13909	PEACH AV	Eastern	489	101	15275	633	4	131.0338	51.2519	No	0	1/2014, 2/2014, 3/2014, 4/2014, 5/2014,6/2014, 7/2014, 8/2014, 9/2014, 12/2014
13010	MULBERRY	Plant City	1394	141	10337	1564	4	187.8989	54.864	No	2	3/2014, 4/2014, 5/2014
13539	CARROLWD	Western	970	50	2630	1028	4	239.5844	81.5822	No	0	3/2014, 6/2014, 11/2004, 12/2014
13012	GRAY ST	Western	66	30	6296	113	4	121.445	53.4341	No	0	8/2014, 9/2014, 10/2014, 11/2014
13309	E.W.HAVN	Winter Haven	285	119	10142	432	4	62.00556	43.6277	Yes	1	3/2014
13314	E.W.HAVN	Winter Haven	325	94	15518	464	4	59.68889	58.927	No	0	3/2014, 12/2014
13288	LK.SILVR	Winter Haven	58	67	10065	154	4	135.4333	55.0728	No	0	10/1/2014, 11/2014
13352	27TH.ST	Central	1375	124	2527	1506	3	193.5288	38.6784	No	0	2/2014, 10/2014, 11/2004
13838	FLORIDA AV	Central	1379	162	7314	1563	3	152.156	44.0553	No	0	2/2014, 3/2014, 6/2014, 7/2014, 8/2004, 12/2014
13985	TROUT CREEK	Central	2168	160	9650	2355	3	188.1073	69.7752	No	0	4/2014, 8/2014, 9/2014
13708	BUCKHORN	Eastern	1241	169	8307	1435	3	154.0512	41.0291	No	0	4/2014, 5/2014, 7/2014, 12/2014
13460	CLARKWILD	Eastern	942	129	6368	1090	3	210.5333	67.7264	No	0	1/2014, 3/2014, 4/2014, 6/2014 7/2014, 8/2014, 10/2014, 12/2014
14117	LAKEWOOD	Eastern	1	162	10229	195	3	139.1229	35.6602	No	0	2/1/2014
13174	MADISON AV	Eastern	2244	154	5286	2413	3	95.16	80.1496	No	0	7/1/2014
13128	S.SEFNER	Eastern	1104	62	2372	1175	3	184.835	75.9411	No	0	2/2014,4/2014,7/2014, 12/2014
13906	PEACH AV	Eastern	616	73	4157	701	3	180.2183	64.1407	No	0	1/2014, 2/2014, 3/2014, 4/2014, 5/2014, 6/2014, 7/2014, 10/2014

Form 102 – Part III –Actual

Annual Distribution Reliability Report - 2014

Utility Name: Tampa Electric

SAIDI: System Average Interruption Duration Index

= Sum of All Customer Minutes Interrupted (CMI)	60,136,082	**84.44**
Total number of Customers Served (C)	712,169	

CAIDI: System Average Interruption Duration Index

= Sum of All Customer Minutes Interrupted (CMI)	60,136,082	**72.36**
Total number of Customers Interruptions (CI)	831,095	

SAIFI: System Average Interruption Frequency Index

= Total number of Customers Interruptions (CI)	831,095	**1.17**
Total number of Customers Served (C)	712,169	

MAIFIe: Momentary Average Interruption Event

= Sum of All Customer Momentary Interruption Events (CME)	7,749,264	**10.88**
Total number of Customers Served (C)	712,169	

LBar

= Minutes of Interruption	1,761,370	**170.15**
Total number of Outages	10,352	

District	C	CMI	CI	CME	# Cust > 5
Central	190,459	12,519,239	175,954	1,739,457	2,067
Dade City	14,165	3,043,936	40,037	308,525	1,399
Eastern	115,122	9,118,153	135,747	1,224,836	502
Plant City	57,220	7,330,028	105,913	929,652	2,315
South Hillsborough	69,431	5,460,789	76,634	660,109	493
Western	196,085	17,059,707	221,672	2,038,267	878
Winter Haven	69,687	5,604,231	75,138	848,418	377
System Total:	712,169	60,136,082	831,095	7,749,264	9,755

Form 102 – Part III continued – Actual

PART III
Service Reliability Indices - Actual

Utility Name: Tampa Electric Year: 2014

District or Service Area	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFIe (e)	CEMI-5 % (f)
Central	65.73	71.15	0.92	9.13	1.09%
Dade City	214.89	76.03	2.83	21.78	9.88%
Eastern	79.20	67.17	1.18	10.64	0.44%
Plant City	128.10	69.21	1.85	16.25	4.05%
South Hillsborough	78.65	71.26	1.10	9.51	0.71%
Western	87.00	76.96	1.13	10.39	0.45%
Winter Haven	80.42	74.59	1.08	12.17	0.54%
System Total:	84.44	72.36	1.17	10.88	1.37%

Form PSC/ECR 102-3, Docket No. 011351-EI, Rule 25-6.0455(c)
Notes: L-SAIDI and CAIDI are expressed in minutes

Appendix B) Form PSC/ECR 102-1(b) (8/06) - Adjusted

Causes of Outage Events – Adjusted			
Utility Name: Tampa Electric			Year: 2014
Cause (a)	Number of Outage Events(N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
1. Vegetation	1,974	192.084	93.156
2. Lightning	1,917	198.819	95.263
3. Animals	1,483	97.569	69.654
4. Electrical	1,256	190.424	77.712
5. Bad Connection	856	228.997	125.591
6. Unknown	850	133.935	72.394
7. Down Wire	512	161.411	94.874
8. All Remaining Causes	898	164.965	68.087
Total	9,746	172.845	84.536

FORM 103 - PART II – Adjusted

FPSC Annual Report - 3 Percent Feeder List
Utility Name: Tampa Electric Year: 2014

Primary Circuit Id. No. or (a)	Substation Origin (b)	Location (c)	Number of Customers: Residential (d)	Commercial (e)	Industrial (f)	Total (g)	Circuit Outages "N" (h)	Avg. Duration "L-Bar" (i)	CAIDI (j)	Listed Last Year? (k)	Years in the Last 5 (l)	Action Completion Date (n)
13993	SUNST.LN	Central	1,075	31	2,014	1,112	6	167.71	52.20	No	0	1/2015, 6/2014, 8/2014, 9/2014, 10/2014,
13815	BLANTON	Dade City	632	118	2,204	757	4	144.21	55.18	No	1	1/2014, 2/2014
13226	BRANDON	Eastern	1,438	198	16,742	1,683	4	131.06	58.51	No	1	4/2014
13909	PEACH AV	Eastern	489	101	15,275	633	4	133.78	51.25	No	0	1/2014, 2/2014, 3/2014, 4/2014, 5/2014,6/2014, 7/2014, 8/2014, 9/2014, 12/2014
13147	HOPEWELL	Plant City	1,034	79	4,176	1,125	4	132.58	79.42	No	0	2/2014, 5/2014, 6/2014, 8/2014, 9/2014, 10/2014, 11/2014
13010	MULBERRY	Plant City	1,394	141	10,337	1,564	4	175.60	54.68	No	2	3/2014, 4/2014, 5/2014
13898	1ST ST	South Hillsborough	1,712	86	7,356	1,818	4	129.91	93.89	No	0	1/2014, 2/2014, 3/2014, 4/2014, 5/2014, 6/2014, 7/2014, 8/2014, 9/2014, 12/2014
13309	E.W.HAVN	Winter Haven	285	119	10,142	432	4	62.01	43.63	No	0	3/2014
13352	27TH.ST	Central	1,375	124	2,527	1,506	3	193.53	38.68	No	0	2/2014, 10/2014, 11/2004
13838	FLORIDA AV	Central	1,379	162	7,314	1,563	3	152.16	44.06	No	0	2/2014, 3/2014, 6/2014, 7/2014, 8/2004, 12/2014
13217	HABANA AV	Western	540	18	6,570	576	3	148.95	59.73	No	0	5/2014, 6/2014, 7/2014, 8/2014, 10/2014
13023	JUNEAU	Central	1,232	162	2,842	1,402	3	207.03	35.91	No	0	2/2014, 10/2014, 11/2014
13593	SENECA	Central	658	115	8,361	796	3	180.53	96.22	No	0	2/2014, 4/2014, 5/2014, 6/2014, 7/2014, 9/2014, 10/2014
13097	SUNST.LN	Central	1,119	61	3,323	1,191	3	190.25	60.80	No	0	1/2014, 9/2014, 10/2014
13985	TROUT CREEK	Central	2,168	160	9,650	2,355	3	154.81	69.61	No	0	4/2014, 8/2014, 9/2014
13060	HIMES	Western	1,014	73	6,689	1,108	3	181.42	57.84	No	0	1/2014, 2/2014, 5/2014, 8/2014, 11/2014
13674	MEADOW PARK	Western	1,203	31	2,555	1,241	3	176.06	71.02	No	0	2/2014, 4/2014, 5/2014, 6/2014, 9/2014
13460	CLARKWILD	Eastern	942	129	6,368	1,090	3	210.53	67.73	No	0	1/2014, 3/2014, 4/2014, 6/2014 7/2014, 8/2014, 10/2014, 12/2014
13128	S.SEFNER	Eastern	1,104	62	2,372	1,175	3	185.40	75.47	No	0	2/2014,4/2014,7/2014, 12/2014
13338	WATERS AV	Western	193	118	21,250	372	3	168.75	92.27	No	0	6/2014, 8/2014, 9/2014
13795	ST.CLOUD	Eastern	2,023	57	2,888	2,088	3	138.02	38.57	No	0	7/2014, 12/2014
13007	MULBERRY	Plant City	312	170	17,742	532	3	174.72	83.12	No	0	1/2014, 3/2014, 4/2014,
13621	WAYNE RD	Western	577	81	11,650	692	3	186.23	126.14	No	0	
13311	E.W.HAVN	Winter Haven	677	119	6,627	817	3	53.86	35.20	No	0	7/1/2014
13241	WILSON	Plant City	1,166	211	14,332	1,419	3	140.90	107.99	No	0	4/2014, 6/2014, 7/2014, 9/2014, 12/2014
13539	CARROLWD	Western	970	50	2,630	1,028	3	225.42	69.21	No	0	3/2014, 6/2014, 11/2004, 12/2014
13895	EHRLICH	Western	67	161	23,640	297	3	149.04	67.14	No	0	5/2014, 8/2014, 12/2014

Form 103 – Part III – Adjusted

PART III
ANNUAL DISTRIBUTION RELIABILITY REPORT - 2014
Utility Name: Tampa Electric

SAIDI: System Average Interruption Duration Index		
= Sum of All Customer Minutes Interrupted (CMI)	56,833,813	79.80
Total number of Customers Served (C)	712,169	
CAIDI: System Average Interruption Duration Index		
= Sum of All Customer Minutes Interrupted (CMI)	56,833,813	84.54
Total number of Customer Interruptions (CI)	672,301	
SAIFI: System Average Interruption Frequency Index		
= Total number of Customer Interruptions (CI)	672,301	0.94
Total number of Customers Served (C)	712,169	
MAIFIe: Momentary Average Interruption Event		
= Sum of All Customer Momentary Interruption Events (CME)	7,149,214	10.04
Total number of Customers Served (C)	712.169	
LBar:		
= Minutes of Interruption	1,684,546	172.84
Total number of Outages	9,746	

District	C	CMI	CI	CME	# Cust > 5
Central	190,459	11,989,217	151,672	1,583,074	1,585
Dade City	14,165	2,919,370	33,415	281,092	842
Eastern	115,122	8,787,351	110,373	1,134,387	377
Plant City	57,220	6,687,925	84,266	862,699	784
South Hillsborough	69,431	5,152,996	58,673	606,150	159
Western	196,085	15,960,174	169,364	1,890,141	297
Winter Haven	69,687	5,336,779	64,538	791,671	376
System Totals	712,169	56,833,813	672,301	7,149,214	4,497

Form 103 – Part III continued – Adjusted

PART III

Service Reliability Indices

Utility Name: Tampa Electric **Year: 2014**

District or Service Area	SAIDI	CAIDI	SAIFI	MAIFIe	CEMI5
(a)	(b)	(c)	(d)	(e)	(f)
Central	62.95	79.05	0.80	8.31	0.83%
Dade City	206.10	87.37	2.36	19.84	5.94%
Eastern	76.33	79.62	0.96	9.85	0.33%
Plant City	116.88	79.37	1.47	15.08	1.37%
South Hillsborough	74.22	87.83	0.85	8.73	0.23%
Western	81.39	94.24	0.86	9.64	0.15%
Winter Haven	76.58	82.69	0.93	11.36	0.54%
System	79.80	84.54	0.94	10.04	0.63%

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

Notes:
SAIDI and CAIDI are expressed in minutes

2014 Storm Implementation Plan and Annual Reliability Reports

Actual Data: Customer Minutes of Interruption (CMI), Customer Interruptions (CI) and Documented Exclusions

Year 2014	Customer Minutes of Interruption		Customer Interruptions (CI)	
	Value	% of Actual	Value	% of Actual
Reported Actual Data	71142236.02	100.00%	1074305	100.00%
Documented				
Planned Service	2503845.58	3.52%	148813	13.85%
Named Storm	0.00	0.00%	0	0.00%
Tornadoes	798423.18	1.12%	9981	0.93%
Ice on Lines	0.00	0.00%	0	0.00%
Planned Load	0.00	0.00%	0	0.00%
Generation/Transmiss	11006154.27	15.47%	243210	22.64%
Extreme Weather	0.00	0.00%	0	0.00%
Reported Adjusted	56833812.98	79.89%	672301	62.58%

2014 Adjustments: Extreme Weather Outage Events

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	FPSC Commission Rule 25-6.0455	5/30/2014 4:12:17 PM	23399.13	1,102
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 4:21:17 PM	2407.33	23
TX Repaired (PM)	FPSC Commission Rule 25-6.0455	5/30/2014 4:21:17 PM	16923.92	47
Primary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 4:27:51 PM	2908.58	11
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 4:48:15 PM	4465.07	28
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 4:50:31 PM	211.67	1
Cut Out 100 amp - Tx	FPSC Commission Rule 25-6.0455	5/30/2014 4:52:24 PM	16560.17	67
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 4:58:26 PM	424.37	2
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:03:55 PM	116.08	1
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:05:03 PM	4135.50	15
Primary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 5:05:23 PM	493.85	3
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 5:13:02 PM	407.27	2
Pole	FPSC Commission Rule 25-6.0455	5/30/2014 5:23:54 PM	3888.80	8
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 5:23:54 PM	2159.67	31
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:24:34 PM	592.93	4
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 5:27:13 PM	100.63	1
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:27:31 PM	304.97	2
Primary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 5:29:53 PM	4328.33	20
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 5:30:28 PM	389.53	1
Circuit Out	FPSC Commission Rule 25-6.0455	5/30/2014 5:30:46 PM	5128.57	11
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 5:30:46 PM	96515.65	903
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 5:30:46 PM	20962.25	191
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:34:18 PM	1457.40	14
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 5:36:37 PM	2666.92	5
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 5:40:28 PM	2235.33	5
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:43:26 PM	609.42	1
Secondary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 5:46:41 PM	794.20	3
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 5:52:25 PM	117.18	1
Circuit Out	FPSC Commission Rule 25-6.0455	5/30/2014 5:54:09 PM	29130.00	450
Pole	FPSC Commission Rule 25-6.0455	5/30/2014 5:59:20 PM	541.33	2
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 6:02:02 PM	1163.90	3
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 6:06:31 PM	314.53	2
Circuit Out	FPSC Commission Rule 25-6.0455	5/30/2014 6:08:59 PM	63128.70	927
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 6:08:59 PM	16473.00	180
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 6:08:59 PM	12757.33	104
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 6:08:59 PM	22333.00	138
Circuit Out	FPSC Commission Rule 25-6.0455	5/30/2014 6:09:51 PM	62547.37	1,619

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 6:12:44 PM	1329.30	7
Primary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 6:12:44 PM	7947.20	12
Primary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 6:21:11 PM	128.82	1
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 6:36:14 PM	100.77	1
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 6:44:49 PM	7.13	1
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 6:51:59 PM	474.05	3
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 6:52:30 PM	478.42	5
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 7:17:55 PM	763.12	7
OH Other	FPSC Commission Rule 25-6.0455	5/30/2014 8:03:44 PM	5237.17	10
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 8:34:11 PM	480.38	1
PLF	FPSC Commission Rule 25-6.0455	5/30/2014 8:44:06 PM	3778.75	25
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 8:49:44 PM	154.77	1
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/30/2014 10:33:39 PM	355.77	2
TX Replaced (PM)	FPSC Commission Rule 25-6.0455	5/30/2014 10:34:46 PM	7528.58	55
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 10:34:46 PM	5095.17	19
OH Other	FPSC Commission Rule 25-6.0455	5/30/2014 10:34:53 PM	135.12	1
Primary Wire	FPSC Commission Rule 25-6.0455	5/30/2014 10:39:29 PM	8469.30	18
Step Restoration	FPSC Commission Rule 25-6.0455	5/30/2014 10:51:46 PM	15467.50	75
UG Other	FPSC Commission Rule 25-6.0455	5/30/2014 11:48:53 PM	2614.80	8
OH Other	FPSC Commission Rule 25-6.0455	5/30/2014 11:52:58 PM	2765.70	6
Regulator	FPSC Commission Rule 25-6.0455	5/31/2014 12:34:20 AM	4356.30	26
Secondary Wire	FPSC Commission Rule 25-6.0455	5/31/2014 1:04:28 AM	2146.60	3
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 1:09:28 AM	881.33	4
Pole	FPSC Commission Rule 25-6.0455	5/31/2014 2:12:44 AM	2443.60	6
Circuit Out	FPSC Commission Rule 25-6.0455	5/31/2014 2:12:44 AM	48899.62	1,223
Step Restoration	FPSC Commission Rule 25-6.0455	5/31/2014 4:13:59 AM	35441.87	464
Circuit Out	FPSC Commission Rule 25-6.0455	5/31/2014 4:18:30 AM	9424.50	103
Pole	FPSC Commission Rule 25-6.0455	5/31/2014 4:18:30 AM	12684.50	23
TX Replaced (PM)	FPSC Commission Rule 25-6.0455	5/31/2014 5:00:49 AM	5681.40	17
Step Restoration	FPSC Commission Rule 25-6.0455	5/31/2014 5:00:49 AM	2918.67	22
TX Repaired (PM)	FPSC Commission Rule 25-6.0455	5/31/2014 5:57:20 AM	1741.83	2
TX Replaced (PM)	FPSC Commission Rule 25-6.0455	5/31/2014 6:13:55 AM	704.42	1
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 6:18:58 AM	207.20	2
Switch 600 amp	FPSC Commission Rule 25-6.0455	5/31/2014 6:23:38 AM	76163.93	398
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 6:34:05 AM	131.58	1
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 6:44:39 AM	1115.20	16
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 6:47:11 AM	458.20	6
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 7:31:48 AM	611.42	11
Primary Wire	FPSC Commission Rule 25-6.0455	5/31/2014 8:04:09 AM	22040.05	53

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	FPSC Commission Rule 25-6.0455	5/31/2014 8:04:28 AM	18683.28	1,081
TX Repaired (PM)	FPSC Commission Rule 25-6.0455	5/31/2014 8:05:39 AM	236.95	1
Cut Out 100 amp - PLF	FPSC Commission Rule 25-6.0455	5/31/2014 8:15:42 AM	35566.30	77
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 8:23:25 AM	36.43	2
TX Replaced (PM)	FPSC Commission Rule 25-6.0455	5/31/2014 8:35:13 AM	11076.80	21
Step Restoration	FPSC Commission Rule 25-6.0455	5/31/2014 8:35:13 AM	1203.90	9
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 8:35:13 AM	1826.33	5
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 8:59:37 AM	361.53	4
TX Repaired (OH)	FPSC Commission Rule 25-6.0455	5/31/2014 9:11:06 AM	304.42	5
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 9:16:07 AM	3243.80	21
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 9:25:02 AM	3240.95	159
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 9:31:33 AM	115.03	1
Primary Wire	FPSC Commission Rule 25-6.0455	5/31/2014 10:29:38 AM	6272.93	11
PLF	FPSC Commission Rule 25-6.0455	5/31/2014 10:29:38 AM	1796.62	17

2014 Adjustments: Other Distribution Outage Events

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
None	Planned Outage	1/1/2014 3:38:43 AM	19678.40	672
Circuit Out	Planned Outage	1/1/2014 12:56:37 PM	433.17	1130
Secondary Wire	Planned Outage	1/7/2014 8:35:18 AM	52.43	1
OH Other	Planned Outage	1/7/2014 10:01:15 AM	129.22	1
TX Replaced (PM)	Planned Outage	1/7/2014 10:25:22 AM	2969.60	12
OH Other	Planned Outage	1/7/2014 2:13:27 PM	121.50	2
Service - Crew	Planned Outage	1/7/2014 2:31:41 PM	161.97	1
Circuit Out	Planned Outage	1/7/2014 7:25:24 PM	1276.17	1178
OH Other	Planned Outage	1/8/2014 9:59:22 AM	372.02	1
OH Other	Planned Outage	1/8/2014 1:20:29 PM	477.33	16
Step Restoration	Planned Outage	1/9/2014 11:03:33 AM	238.13	2
OH Other	Planned Outage	1/10/2014 9:26:14 AM	360.00	12
OH Other	Planned Outage	1/10/2014 11:00:21 AM	69.25	1
Circuit Out	Planned Outage	1/11/2014 4:25:04 AM	3141.33	589
Meter Damaged	Planned Outage	1/15/2014 8:07:58 AM	75.87	1
OH Other	Planned Outage	1/15/2014 10:27:16 AM	94.38	1
None	Planned Outage	1/15/2014 1:39:58 PM	77.43	1
None	Planned Outage	1/15/2014 2:44:27 PM	65.50	1
UG Other	Planned Outage	1/15/2014 5:14:18 PM	176.30	6
UG Other	Planned Outage	1/17/2014 3:21:22 PM	65.42	1
None	Planned Outage	1/17/2014 7:35:48 PM	59.63	1
TX Replaced (PM)	Planned Outage	1/18/2014 1:02:43 PM	2916.80	8
OH Other	Planned Outage	1/20/2014 10:11:41 AM	92.42	1
OH Other	Planned Outage	1/20/2014 2:15:40 PM	26.62	1
Handhole	Planned Outage	1/21/2014 8:10:33 AM	256.02	1
UG Other	Planned Outage	1/21/2014 9:11:51 AM	66.03	1
UG Other	Planned Outage	1/21/2014 9:43:59 AM	327.02	1
UG Other	Planned Outage	1/21/2014 10:15:56 AM	107658.40	69
UG Other	Planned Outage	1/21/2014 10:15:56 AM	131301.80	84
UG Other	Planned Outage	1/21/2014 10:15:56 AM	151633.63	97
Switch 600 amp	Planned Outage	1/21/2014 11:41:45 AM	744.05	69
OH Other	Planned Outage	1/22/2014 8:51:26 AM	34.92	1
OCR, Sec.	Planned Outage	1/23/2014 12:43:05 AM	2191.47	1174
None	Planned Outage	1/24/2014 4:40:02 AM	3329.40	558
None	Planned Outage	1/24/2014 3:38:11 PM	29038.78	1597
UG Other	Planned Outage	1/25/2014 2:15:10 PM	39.13	1
UG Other	Planned Outage	1/25/2014 8:55:27 PM	1233.05	91
OH Other	Planned Outage	1/27/2014 5:41:35 AM	3523.95	191
Circuit Out	Planned Outage	1/27/2014 1:52:42 PM	852.50	825

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	1/28/2014 8:43:57 AM	202.42	1
UG Other	Planned Outage	1/29/2014 8:35:11 AM	83.27	1
None	Planned Outage	1/30/2014 4:12:55 AM	12785.60	1572
None	Planned Outage	1/30/2014 4:13:55 PM	342.40	8
OH Other	Planned Outage	1/31/2014 8:53:33 AM	60.90	1
Step Restoration	Planned Outage	2/2/2014 12:31:02 AM	79.80	28
OH Other	Planned Outage	2/2/2014 3:23:46 PM	155.53	4
UG Other	Planned Outage	2/3/2014 7:34:32 AM	65.43	1
OH Other	Planned Outage	2/3/2014 8:44:34 AM	78.45	1
OH Other	Planned Outage	2/7/2014 8:44:16 AM	40837.50	225
None	Planned Outage	2/9/2014 5:18:10 AM	7905.83	895
None	Planned Outage	2/9/2014 7:16:41 AM	2968.42	895
UG Other	Planned Outage	2/11/2014 8:17:19 AM	138.13	1
OH Other	Planned Outage	2/11/2014 8:44:19 AM	100.50	1
OH Other	Planned Outage	2/11/2014 5:29:55 PM	59.87	1
UG Other	Planned Outage	2/12/2014 11:13:16 AM	98.10	1
OH Other	Planned Outage	2/12/2014 1:31:40 PM	2186.17	13
None	Planned Outage	2/13/2014 10:46:52 AM	144312.35	591
None	Planned Outage	2/13/2014 11:14:04 AM	92.58	1
None	Planned Outage	2/14/2014 9:29:24 AM	67.42	1
None	Planned Outage	2/14/2014 1:34:41 PM	55.20	1
Circuit Out	Planned Outage	2/16/2014 3:42:03 AM	25179.73	814
OH Other	Planned Outage	2/17/2014 10:03:25 AM	114.28	1
UG Other	Planned Outage	2/17/2014 10:05:38 AM	130.27	1
UG Other	Planned Outage	2/17/2014 12:44:14 PM	44.65	1
Cross Arm	Planned Outage	2/17/2014 2:09:00 PM	10943.40	52
OH Other	Planned Outage	2/18/2014 8:11:55 AM	262.40	1
None	Planned Outage	2/18/2014 9:54:47 AM	233.63	1
None	Planned Outage	2/18/2014 11:44:23 AM	25.43	1
None	Planned Outage	2/19/2014 10:32:37 AM	46.97	1
OH Other	Planned Outage	2/20/2014 8:37:10 AM	271.35	1
OH Other	Planned Outage	2/20/2014 9:15:24 AM	56.30	1
OH Other	Planned Outage	2/21/2014 9:20:02 AM	57.30	1
OH Other	Planned Outage	2/21/2014 9:20:54 AM	57.82	1
OH Other	Planned Outage	2/21/2014 9:41:20 AM	65.77	1
OH Other	Planned Outage	2/21/2014 12:43:56 PM	93.07	1
OH Other	Planned Outage	2/21/2014 12:48:28 PM	434.17	5
UG Other	Planned Outage	2/22/2014 1:37:04 PM	52.28	1
Meter Damaged	Planned Outage	2/22/2014 5:33:03 PM	104.43	1
OH Other	Planned Outage	2/24/2014 10:54:28 AM	53.58	1
OH Other	Planned Outage	2/24/2014 12:26:53 PM	53.90	1

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	2/24/2014 7:50:52 PM	741.33	10
OH Other	Planned Outage	2/25/2014 9:51:16 AM	71.52	1
Service - Non Crew	Planned Outage	2/25/2014 12:31:18 PM	151.08	1
OH Other	Planned Outage	2/26/2014 12:00:51 PM	66.97	1
OH Other	Planned Outage	2/27/2014 9:25:00 AM	2848.00	480
Circuit Out	Planned Outage	2/28/2014 8:03:52 AM	25427.20	1392
OH Other	Planned Outage	2/28/2014 10:04:55 AM	148.35	1
OH Other	Planned Outage	3/2/2014 9:04:29 PM	1269.40	66
OH Other	Planned Outage	3/4/2014 1:32:08 PM	38.22	1
UG Other	Planned Outage	3/5/2014 11:53:56 AM	47.93	1
UG Other	Planned Outage	3/5/2014 5:03:06 PM	114.70	1
OH Other	Planned Outage	3/6/2014 11:05:35 AM	7312.35	87
TX Replaced (PM)	Planned Outage	3/6/2014 1:03:25 PM	762.45	9
Step Restoration	Planned Outage	3/6/2014 2:10:03 PM	29499.60	468
Circuit Out	Planned Outage	3/9/2014 5:21:29 AM	1952.70	566
OH Other	Planned Outage	3/9/2014 8:31:00 AM	1916.60	21
Circuit Out	Planned Outage	3/10/2014 8:40:37 AM	5316.00	1329
OH Other	Planned Outage	3/12/2014 8:33:07 AM	129.37	1
Circuit Out	Planned Outage	3/12/2014 12:21:35 PM	6906.90	1001
UG Other	Planned Outage	3/13/2014 7:28:45 AM	37244.17	170
OH Other	Planned Outage	3/13/2014 7:54:53 AM	82.17	1
UG Other	Planned Outage	3/13/2014 12:59:53 PM	65.35	1
OH Other	Planned Outage	3/13/2014 2:02:47 PM	72.85	1
Circuit Out	Planned Outage	3/17/2014 11:42:06 AM	20482.70	203
Circuit Out	Planned Outage	3/17/2014 1:33:57 PM	2018.85	939
PLF	Planned Outage	3/17/2014 4:10:32 PM	3633.93	14
PLF	Planned Outage	3/17/2014 4:10:32 PM	24734.83	95
PLF	Planned Outage	3/17/2014 4:10:32 PM	39846.33	140
OH Other	Planned Outage	3/18/2014 3:33:10 AM	47090.77	271
Circuit Out	Planned Outage	3/18/2014 11:45:56 AM	3612.00	2064
OH Other	Planned Outage	3/18/2014 3:06:31 PM	140.53	1
OH Other	Planned Outage	3/18/2014 4:55:50 PM	152.50	1
UG Other	Planned Outage	3/18/2014 6:50:13 PM	413.88	19
UG Other	Planned Outage	3/19/2014 9:20:29 AM	109.65	1
Circuit Out	Planned Outage	3/20/2014 8:15:02 AM	23306.07	1042
OH Other	Planned Outage	3/21/2014 9:27:23 PM	177.40	1
Circuit Out	Planned Outage	3/22/2014 4:12:22 AM	1562.40	1008
OH Other	Planned Outage	3/22/2014 4:41:07 PM	56.20	1
Circuit Out	Planned Outage	3/23/2014 2:17:06 AM	4937.40	1266
OH Other	Planned Outage	3/24/2014 5:37:30 PM	83.97	1
OH Other	Planned Outage	3/25/2014 7:56:14 AM	4169.23	29

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
OH Other	Planned Outage	3/25/2014 2:01:16 PM	230.37	1
TX Repaired (PM)	Planned Outage	3/25/2014 5:34:48 PM	10118.40	17
OH Other	Planned Outage	3/26/2014 9:47:06 AM	5083.00	26
Service - Crew	Planned Outage	3/26/2014 5:25:32 PM	122.73	1
OH Other	Planned Outage	3/28/2014 9:53:17 AM	166.13	8
OH Other	Planned Outage	3/28/2014 10:08:44 AM	173.87	32
TX Replaced (OH)	Planned Outage	3/28/2014 1:52:46 PM	1179.60	9
Circuit Out	Planned Outage	3/29/2014 12:52:39 AM	2006.93	848
Circuit Out	Planned Outage	3/29/2014 5:21:20 AM	908.50	474
Circuit Out	Planned Outage	3/29/2014 3:06:01 PM	7285.63	1118
Step Restoration	Planned Outage	3/29/2014 7:14:53 PM	56200.50	345
Circuit Out	Planned Outage	3/30/2014 5:03:28 PM	2112.72	637
Circuit Out	Planned Outage	3/30/2014 5:49:47 PM	24498.13	3281
OH Other	Planned Outage	3/31/2014 9:48:27 AM	128.92	1
TX Replaced (PM)	Planned Outage	3/31/2014 12:27:14 PM	9496.30	33
OH Other	Planned Outage	3/31/2014 3:41:15 PM	97.13	1
UG Other	Planned Outage	4/8/2014 11:08:34 AM	50.10	1
OH Other	Planned Outage	4/8/2014 5:01:07 PM	2764.77	41
OH Other	Planned Outage	4/8/2014 5:01:07 PM	53928.30	201
OH Other	Planned Outage	4/8/2014 6:59:52 PM	1670.40	3
OH Other	Planned Outage	4/9/2014 9:38:40 AM	63.40	1
Primary Wire	Planned Outage	4/11/2014 12:50:14 PM	43.48	1
OH Other	Planned Outage	4/11/2014 1:37:43 PM	125.20	1
OH Other	Planned Outage	4/16/2014 9:40:52 AM	27.17	1
OH Other	Planned Outage	4/17/2014 10:46:45 PM	2459.73	32
OH Other	Planned Outage	4/18/2014 7:14:06 PM	13598.65	39
Circuit Out	Planned Outage	4/19/2014 4:32:53 AM	7672.70	1582
Circuit Out	Planned Outage	4/19/2014 9:04:41 AM	4678.67	880
Circuit Out	Planned Outage	4/20/2014 7:47:03 AM	18233.60	777
Circuit Out	Planned Outage	4/20/2014 3:02:42 PM	473.00	110
OH Other	Planned Outage	4/21/2014 11:55:33 AM	33.42	1
TX Repaired (PM)	Planned Outage	4/21/2014 11:02:10 PM	4952.67	17
OH Other	Planned Outage	4/22/2014 7:54:43 AM	88.55	1
UG Other	Planned Outage	4/22/2014 9:10:54 AM	65.32	1
OH Other	Planned Outage	4/22/2014 10:57:12 AM	121.25	1
Service - Crew	Planned Outage	4/24/2014 9:24:56 AM	371.30	1
OH Other	Planned Outage	4/24/2014 9:47:38 AM	74.37	1
OH Other	Planned Outage	4/24/2014 12:56:01 PM	343.13	1
UG Other	Planned Outage	4/26/2014 1:15:53 PM	674.40	9
UG Other	Planned Outage	4/28/2014 8:16:45 AM	461.80	4
TX Replaced (PM)	Planned Outage	4/29/2014 8:33:53 AM	2241.20	6

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	4/29/2014 4:17:40 PM	283.33	1
UG Other	Planned Outage	4/29/2014 9:54:06 PM	36.13	1
OH Other	Planned Outage	5/1/2014 3:40:14 AM	797.67	10
OH Other	Planned Outage	5/1/2014 7:35:32 AM	295.40	1
OH Other	Planned Outage	5/1/2014 8:09:57 AM	110.48	1
UG Other	Planned Outage	5/1/2014 11:19:16 AM	96.43	2
OH Other	Planned Outage	5/1/2014 12:24:24 PM	87.08	1
Circuit Out	Planned Outage	5/1/2014 5:55:05 PM	1133.27	764
Circuit Out	Planned Outage	5/2/2014 11:55:23 AM	4625.28	2861
Circuit Out	Planned Outage	5/2/2014 12:38:32 PM	4097.70	314
OH Other	Planned Outage	5/2/2014 3:37:10 PM	63.52	1
OH Other	Planned Outage	5/2/2014 3:50:29 PM	608.17	10
Circuit Out	Planned Outage	5/2/2014 4:14:01 PM	11683.53	2873
Circuit Out	Planned Outage	5/2/2014 8:03:54 PM	9634.48	487
Service - Crew	Planned Outage	5/2/2014 10:08:38 PM	166.27	1
Circuit Out	Planned Outage	5/3/2014 3:39:43 AM	2520.77	1609
Circuit Out	Planned Outage	5/3/2014 3:45:09 AM	1247.50	998
OH Other	Planned Outage	5/3/2014 10:54:24 AM	66.85	1
OH Other	Planned Outage	5/3/2014 11:32:04 AM	76.27	11
Circuit Out	Planned Outage	5/4/2014 11:01:33 AM	12575.78	2869
OH Other	Planned Outage	5/4/2014 4:51:07 PM	389.55	1
UG Other	Planned Outage	5/5/2014 8:58:29 PM	128.92	1
Circuit Out	Planned Outage	5/7/2014 9:08:27 AM	2465.53	1193
Circuit Out	Planned Outage	5/12/2014 12:39:08 PM	825.53	427
Circuit Out	Planned Outage	5/12/2014 5:50:47 PM	13829.60	1416
Service - Non Crew	Planned Outage	5/15/2014 7:34:23 AM	105.53	1
CutOut 200 amp - PLF	Planned Outage	5/15/2014 7:58:08 AM	14293.53	281
OH Other	Planned Outage	5/15/2014 9:48:40 AM	84.05	1
Circuit Out	Planned Outage	5/15/2014 9:52:36 PM	705.83	770
Circuit Out	Planned Outage	5/16/2014 6:21:30 AM	2285.13	908
OH Other	Planned Outage	5/16/2014 8:01:51 PM	34.27	1
Switch 600 amp	Planned Outage	5/16/2014 10:59:58 PM	10465.40	402
OH Other	Planned Outage	5/17/2014 8:32:45 AM	57.77	1
TX Replaced (OH)	Planned Outage	5/17/2014 10:18:27 AM	141.10	3
UG Other	Planned Outage	5/17/2014 7:32:26 PM	69.97	1
OH Other	Planned Outage	5/18/2014 1:59:07 PM	8677.90	66
OH Other	Planned Outage	5/19/2014 5:22:26 PM	29.83	1
Circuit Out	Planned Outage	5/20/2014 8:27:00 AM	2765.00	553
UG Other	Planned Outage	5/21/2014 12:13:45 PM	38.60	1
Load Break Elbow	Planned Outage	5/21/2014 3:01:49 PM	9150.00	120
OH Other	Planned Outage	5/22/2014 9:09:54 AM	46.43	1

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Step Restoration	Planned Outage	5/22/2014 11:17:14 AM	757.80	36
OH Other	Planned Outage	5/22/2014 12:03:57 PM	53.40	1
OH Other	Planned Outage	5/22/2014 12:36:38 PM	50.57	1
UG Other	Planned Outage	5/22/2014 1:48:22 PM	75.23	1
UG Other	Planned Outage	5/23/2014 10:39:59 AM	171.72	1
OH Other	Planned Outage	5/23/2014 1:10:24 PM	66.50	1
OH Other	Planned Outage	5/23/2014 3:39:10 PM	109.95	1
UG Other	Planned Outage	5/24/2014 1:29:43 PM	149.68	1
OH Other	Planned Outage	5/24/2014 11:17:02 PM	114.65	1
OH Other	Planned Outage	5/25/2014 6:06:51 PM	49.25	1
Circuit Out	Planned Outage	5/26/2014 5:08:52 PM	2821.50	1881
OH Other	Planned Outage	5/26/2014 8:35:15 PM	304.78	1
OH Other	Planned Outage	5/27/2014 8:06:57 AM	452.68	1
OH Other	Planned Outage	5/27/2014 9:20:10 AM	108.27	1
Circuit Out	Planned Outage	5/27/2014 11:57:05 AM	5012.50	1203
Circuit Out	Planned Outage	5/28/2014 8:05:17 PM	2571.57	1498
Circuit Out	Planned Outage	5/29/2014 6:23:40 PM	3824.83	433
Circuit Out	Planned Outage	5/29/2014 10:16:04 PM	4074.48	1619
OH Other	Planned Outage	5/29/2014 10:41:12 PM	1120.00	100
OH Other	Planned Outage	5/30/2014 8:39:16 AM	173.77	1
OH Other	Planned Outage	5/30/2014 9:16:58 AM	82.58	1
UG Other	Planned Outage	5/30/2014 9:17:30 AM	360.90	1
Primary Wire	Planned Outage	6/2/2014 6:17:13 AM	2809.50	9
OH Other	Planned Outage	6/2/2014 7:44:59 AM	305.18	1
OH Other	Planned Outage	6/2/2014 7:45:56 AM	305.72	1
OH Other	Planned Outage	6/4/2014 12:28:14 PM	211.30	3
Circuit Out	Planned Outage	6/7/2014 11:42:42 AM	1512.40	1592
Step Restoration	Planned Outage	6/7/2014 11:42:42 AM	6912.33	445
Circuit Out	Planned Outage	6/8/2014 8:02:05 PM	9012.25	1833
Primary Wire	Planned Outage	6/9/2014 7:52:00 AM	518.38	1
OH Other	Planned Outage	6/9/2014 7:56:12 AM	113.35	1
OH Other	Planned Outage	6/9/2014 11:28:58 AM	3178.07	247
OH Other	Planned Outage	6/10/2014 8:45:55 AM	43.18	1
PLF	Planned Outage	6/10/2014 10:15:34 AM	2076.25	151
Switch 600 amp	Planned Outage	6/10/2014 11:26:06 AM	201.73	136
Circuit Out	Planned Outage	6/10/2014 5:57:16 PM	3125.83	682
UG Other	Planned Outage	6/11/2014 9:29:23 AM	89.68	1
OH Other	Planned Outage	6/11/2014 5:54:33 PM	170.13	1
Primary Wire	Planned Outage	6/11/2014 6:02:59 PM	36862.45	163
Circuit Out	Planned Outage	6/11/2014 11:12:16 PM	8189.32	2351
UG Other	Planned Outage	6/12/2014 9:07:45 AM	127.80	1

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
OH Other	Planned Outage	6/12/2014 9:23:20 AM	97.43	1
OH Other	Planned Outage	6/12/2014 9:23:38 AM	142.32	1
OH Other	Planned Outage	6/12/2014 11:51:06 AM	365.40	1
OH Other	Planned Outage	6/12/2014 3:19:15 PM	155.73	1
Transclosure	Planned Outage	6/13/2014 12:08:52 PM	384.00	2
Service - Crew	Planned Outage	6/15/2014 8:19:00 AM	539.80	1
Step Restoration	Planned Outage	6/16/2014 4:59:20 AM	503.80	6
UG Other	Planned Outage	6/18/2014 9:13:18 AM	200.02	1
OH Other	Planned Outage	6/18/2014 10:48:10 AM	46.20	1
Service - Crew	Planned Outage	6/18/2014 12:54:02 PM	157.65	1
OH Other	Planned Outage	6/18/2014 2:05:59 PM	27.47	1
Circuit Out	Planned Outage	6/18/2014 5:54:32 PM	9039.75	765
Circuit Out	Planned Outage	6/18/2014 6:23:12 PM	4679.50	2865
OH Other	Planned Outage	6/19/2014 7:57:43 AM	68.40	1
TX Repaired (PM)	Planned Outage	6/21/2014 7:16:17 PM	5781.32	13
Circuit Out	Planned Outage	6/23/2014 4:27:07 AM	9441.60	672
UG Other	Planned Outage	6/23/2014 10:49:41 AM	133.35	21
Service - Crew	Planned Outage	6/23/2014 2:38:34 PM	242.20	1
OH Other	Planned Outage	6/24/2014 7:52:24 AM	40.27	1
OH Other	Planned Outage	6/26/2014 10:00:41 AM	80.78	1
OH Other	Planned Outage	6/26/2014 2:06:47 PM	53.13	1
TX Replaced (PM)	Planned Outage	6/27/2014 12:40:03 PM	1589.85	3
OH Other	Planned Outage	6/27/2014 1:30:10 PM	43.77	1
OH Other	Planned Outage	6/27/2014 9:53:26 PM	102.42	1
Circuit Out	Planned Outage	6/29/2014 1:44:40 AM	4977.50	1991
OH Other	Planned Outage	6/30/2014 10:37:58 AM	70.18	1
PLF	Planned Outage	7/2/2014 9:39:45 AM	49.82	1
OH Other	Planned Outage	7/2/2014 11:51:05 AM	74.38	1
Circuit Out	Planned Outage	7/2/2014 1:08:07 PM	15039.88	841
UG Other	Planned Outage	7/3/2014 9:09:53 AM	237.45	1
Circuit Out	Planned Outage	7/4/2014 7:57:33 AM	965.70	783
PLF	Planned Outage	7/4/2014 9:43:53 AM	3570.00	170
Service - Crew	Planned Outage	7/5/2014 1:32:42 PM	541.72	1
Circuit Out	Planned Outage	7/6/2014 1:55:48 AM	159.32	79
Circuit Out	Planned Outage	7/6/2014 1:55:48 AM	1114.47	458
OH Other	Planned Outage	7/7/2014 6:46:00 AM	47.80	1
OH Other	Planned Outage	7/7/2014 9:30:50 AM	30.32	1
OH Other	Planned Outage	7/8/2014 9:40:54 AM	68.28	1
Circuit Out	Planned Outage	7/8/2014 2:35:16 PM	1909.08	739
Circuit Out	Planned Outage	7/8/2014 10:27:16 PM	2226.00	954
OH Other	Planned Outage	7/9/2014 6:05:00 AM	162.65	1

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Circuit Out	Planned Outage	7/9/2014 12:00:40 PM	13279.13	1433
OH Other	Planned Outage	7/9/2014 1:09:33 PM	48.80	1
OH Other	Planned Outage	7/10/2014 11:10:59 AM	35.37	1
UG Other	Planned Outage	7/10/2014 4:22:09 PM	77.22	1
Circuit Out	Planned Outage	7/11/2014 6:31:37 AM	11565.60	1422
UG Other	Planned Outage	7/12/2014 12:22:56 AM	158.17	2
Service - Crew	Planned Outage	7/14/2014 9:41:04 AM	181.00	1
TX Repaired (PM)	Planned Outage	7/14/2014 11:34:38 AM	41.87	1
OH Other	Planned Outage	7/14/2014 5:04:41 PM	57.28	1
Switch 600 amp	Planned Outage	7/14/2014 10:43:49 PM	600.97	242
OH Other	Planned Outage	7/15/2014 2:16:30 PM	40.32	1
Circuit Out	Planned Outage	7/16/2014 3:41:56 AM	17979.07	1786
Circuit Out	Planned Outage	7/16/2014 4:14:40 AM	1725.33	1294
OH Other	Planned Outage	7/16/2014 8:55:58 AM	40.57	1
OH Other	Planned Outage	7/16/2014 11:28:37 AM	363.98	1
OH Other	Planned Outage	7/17/2014 8:30:02 AM	60.38	1
OH Other	Planned Outage	7/17/2014 9:27:28 AM	213.53	1
UG Other	Planned Outage	7/17/2014 9:30:11 AM	777.12	1
TX Repaired (PM)	Planned Outage	7/17/2014 9:55:43 AM	93.68	1
OH Other	Planned Outage	7/17/2014 10:34:05 AM	50.17	1
Circuit Out	Planned Outage	7/17/2014 10:50:04 AM	3720.73	1139
TX Replaced (PM)	Planned Outage	7/17/2014 6:04:11 PM	6379.60	24
OH Other	Planned Outage	7/18/2014 9:23:43 AM	99.98	1
UG Other	Planned Outage	7/18/2014 10:43:38 AM	316.47	1
OH Other	Planned Outage	7/18/2014 1:14:44 PM	59.05	1
UG Other	Planned Outage	7/18/2014 2:10:07 PM	73.98	1
OH Other	Planned Outage	7/21/2014 7:33:43 AM	283.35	1
Circuit Out	Planned Outage	7/21/2014 5:32:51 PM	11784.85	231
Circuit Out	Planned Outage	7/21/2014 9:31:37 PM	5312.40	699
Circuit Out	Planned Outage	7/21/2014 10:42:11 PM	1283.03	1262
OH Other	Planned Outage	7/21/2014 10:44:42 PM	41659.90	177
OH Other	Planned Outage	7/22/2014 9:26:25 AM	126.30	1
Circuit Out	Planned Outage	7/23/2014 12:27:58 AM	2965.67	1148
OH Other	Planned Outage	7/23/2014 9:11:24 AM	132.13	1
OH Other	Planned Outage	7/23/2014 11:43:02 AM	62.80	1
TX Replaced (PM)	Planned Outage	7/25/2014 10:05:16 AM	3533.13	7
OH Other	Planned Outage	7/28/2014 8:21:11 AM	123.15	1
Circuit Out	Planned Outage	7/28/2014 4:10:06 PM	5802.12	793
OH Other	Planned Outage	7/30/2014 7:32:40 AM	44.92	1
OH Other	Planned Outage	7/30/2014 10:07:24 AM	23.95	1
OH Other	Planned Outage	7/31/2014 9:08:30 AM	381.63	1

2014 Storm Implementation Plan and Annual Reliability Reports

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	8/1/2014 5:21:07 PM	1394.42	5
TX Repaired (PM)	Planned Outage	8/2/2014 3:41:25 PM	103.78	1
OH Other	Planned Outage	8/3/2014 11:27:59 AM	61.03	1
OH Other	Planned Outage	8/4/2014 12:35:58 PM	300.22	1
Circuit Out	Planned Outage	8/7/2014 6:01:27 AM	9755.70	1049
Service - Crew	Planned Outage	8/7/2014 10:13:52 AM	2388.40	3
Connections	Planned Outage	8/8/2014 6:04:28 AM	131.90	1
OH Other	Planned Outage	8/8/2014 8:16:34 AM	1089.32	7
Service - Non Crew	Planned Outage	8/12/2014 8:59:45 AM	45.80	1
OH Other	Planned Outage	8/14/2014 7:39:20 AM	34.82	1
TX Repaired (PM)	Planned Outage	8/14/2014 8:04:50 AM	2885.67	22
OH Other	Planned Outage	8/14/2014 1:58:45 PM	408.30	18
OH Other	Planned Outage	8/15/2014 7:37:52 AM	1102.08	115
OH Other	Planned Outage	8/15/2014 10:40:05 AM	584.30	3
OH Other	Planned Outage	8/16/2014 1:55:30 PM	70.93	1
Service - Crew	Planned Outage	8/20/2014 10:25:00 AM	34.40	1
Circuit Out	Planned Outage	8/21/2014 2:52:24 PM	8610.80	1133
Service - Non Crew	Planned Outage	8/22/2014 8:11:26 AM	157.42	1
OH Other	Planned Outage	8/22/2014 8:15:21 AM	62.57	1
Circuit Out	Planned Outage	8/22/2014 7:25:51 PM	80824.67	1640
Circuit Out	Planned Outage	8/23/2014 4:07:20 PM	4200.00	1120
OH Other	Planned Outage	8/24/2014 5:09:40 PM	14523.60	42
OH Other	Planned Outage	8/24/2014 5:11:14 PM	19999.47	56
Primary Wire	Planned Outage	8/24/2014 5:33:45 PM	1046.72	1
Step Restoration	Planned Outage	8/24/2014 9:40:56 PM	6220.75	15
Circuit Out	Planned Outage	8/25/2014 8:45:42 AM	584.58	115
Circuit Out	Planned Outage	8/25/2014 4:20:42 PM	611.00	282
OH Other	Planned Outage	8/26/2014 9:52:13 AM	39.95	1
Meter Damaged	Planned Outage	8/26/2014 5:00:45 PM	14.78	1
OH Other	Planned Outage	8/27/2014 4:26:52 PM	113.27	1
Connections	Planned Outage	8/29/2014 12:58:20 PM	36.97	1
UG Other	Planned Outage	8/30/2014 6:31:27 AM	116.70	1
Circuit Out	Planned Outage	8/30/2014 9:01:52 AM	5582.83	1634
UG Other	Planned Outage	9/2/2014 10:49:23 AM	405.27	2
UG Other	Planned Outage	9/3/2014 8:59:28 AM	81.97	1
Service - Non Crew	Planned Outage	9/3/2014 11:40:30 AM	37.62	1
Circuit Out	Planned Outage	9/4/2014 10:46:32 PM	21008.00	1560
Pole	Planned Outage	9/4/2014 11:01:16 PM	84362.13	472
Service - Non Crew	Planned Outage	9/5/2014 6:25:11 AM	60.90	1
Circuit Out	Planned Outage	9/6/2014 3:30:18 AM	4367.40	502
Secondary Wire	Planned Outage	9/8/2014 10:34:46 AM	44.97	1

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Service - Crew	Planned Outage	9/9/2014 9:49:03 AM	2535.60	9
OH Other	Planned Outage	9/9/2014 10:52:42 AM	389.25	9
UG Other	Planned Outage	9/9/2014 1:47:19 PM	214.63	1
Service - Crew	Planned Outage	9/9/2014 2:25:17 PM	334.20	4
OH Other	Planned Outage	9/10/2014 4:16:34 PM	74.50	1
TX Repaired (PM)	Planned Outage	9/12/2014 12:58:10 PM	1203.67	2
Circuit Out	Planned Outage	9/12/2014 7:29:09 PM	3231.95	1747
Circuit Out	Planned Outage	9/12/2014 7:35:55 PM	3966.95	1077
Circuit Out	Planned Outage	9/13/2014 7:07:21 AM	1963.50	990
Circuit Out	Planned Outage	9/14/2014 3:18:22 AM	1068.20	294
Circuit Out	Planned Outage	9/14/2014 4:18:54 AM	6320.77	1841
Secondary Wire	Planned Outage	9/15/2014 8:06:17 AM	118.27	1
OH Other	Planned Outage	9/15/2014 12:06:27 PM	102.48	1
Circuit Out	Planned Outage	9/17/2014 10:27:43 AM	35188.83	1090
UG Other	Planned Outage	9/18/2014 10:18:57 AM	59.60	1
OH Other	Planned Outage	9/18/2014 2:39:21 PM	182.65	1
Circuit Out	Planned Outage	9/19/2014 4:27:32 AM	3185.00	980
Circuit Out	Planned Outage	9/20/2014 5:40:23 AM	4931.07	2386
Circuit Out	Planned Outage	9/20/2014 7:23:41 AM	13805.33	835
OH Other	Planned Outage	9/20/2014 2:36:04 PM	51.78	1
OH Other	Planned Outage	9/22/2014 11:01:02 AM	99.22	1
OH Other	Planned Outage	9/22/2014 1:33:41 PM	61.95	1
UG Other	Planned Outage	9/23/2014 9:50:36 AM	156.10	1
OH Other	Planned Outage	9/23/2014 10:29:10 AM	29.48	1
UG Other	Planned Outage	9/23/2014 11:38:58 AM	128.77	1
Circuit Out	Planned Outage	9/24/2014 7:00:25 AM	2248.75	1799
UG Other	Planned Outage	9/24/2014 7:53:13 AM	58.07	1
UG Other	Planned Outage	9/24/2014 8:53:46 AM	107.95	1
TX Repaired (PM)	Planned Outage	9/24/2014 5:06:42 PM	5895.70	29
OH Other	Planned Outage	9/24/2014 8:03:16 PM	129.67	1
TX Repaired (OH)	Planned Outage	9/27/2014 2:30:05 AM	97.90	2
Switch 600 amp	Planned Outage	9/27/2014 8:02:48 AM	4518.27	188
Circuit Out	Planned Outage	9/27/2014 8:05:14 AM	212.37	277
Circuit Out	Planned Outage	9/27/2014 8:24:28 AM	332.40	277
Circuit Out	Planned Outage	9/27/2014 8:54:29 AM	3181.75	1335
OH Other	Planned Outage	9/27/2014 3:40:25 PM	148.10	1
OH Other	Planned Outage	9/30/2014 9:29:21 AM	36.38	1
TX Repaired (OH)	Planned Outage	9/30/2014 1:32:00 PM	55.50	1
Circuit Out	Planned Outage	9/30/2014 6:41:00 PM	10315.00	2063
Circuit Out	Planned Outage	10/1/2014 11:03:44 AM	6076.65	153
OH Other	Planned Outage	10/1/2014 12:29:14 PM	138.40	3

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
UG Other	Planned Outage	10/3/2014 7:50:02 AM	47.60	1
Circuit Out	Planned Outage	10/3/2014 9:21:46 AM	27179.25	1169
Secondary Wire	Planned Outage	10/3/2014 9:56:49 AM	71.50	1
Service - Non Crew	Planned Outage	10/3/2014 10:01:58 AM	128.93	1
OH Other	Planned Outage	10/3/2014 11:40:27 AM	29.35	1
Circuit Out	Planned Outage	10/3/2014 9:11:00 PM	4940.00	1235
PLF	Planned Outage	10/6/2014 4:04:55 PM	1479.92	59
Circuit Out	Planned Outage	10/8/2014 11:39:50 AM	3042.00	1404
OH Other	Planned Outage	10/9/2014 11:34:35 AM	76.05	1
OH Other	Planned Outage	10/9/2014 3:25:04 PM	69.87	1
Service - Non Crew	Planned Outage	10/10/2014 8:51:05 AM	55.98	1
OH Other	Planned Outage	10/10/2014 9:38:43 AM	38.27	1
Circuit Out	Planned Outage	10/11/2014 10:24:24 PM	3266.67	1400
OH Other	Planned Outage	10/14/2014 8:50:09 AM	49.08	1
Service - Crew	Planned Outage	10/14/2014 11:16:08 AM	186.98	1
OH Other	Planned Outage	10/15/2014 7:48:56 AM	146.88	1
Circuit Out	Planned Outage	10/15/2014 10:33:30 PM	1581.10	978
Circuit Out	Planned Outage	10/16/2014 1:59:45 AM	3510.75	1359
Circuit Out	Planned Outage	10/19/2014 6:43:05 AM	18327.83	1538
Cross Arm	Planned Outage	10/20/2014 1:45:00 PM	44398.00	281
OH Other	Planned Outage	10/21/2014 8:33:58 AM	129.13	1
Service - Non Crew	Planned Outage	10/21/2014 2:56:27 PM	111.95	1
UG Other	Planned Outage	10/22/2014 12:14:52 PM	54.70	1
UG Other	Planned Outage	10/23/2014 9:46:24 AM	2685.40	29
Service - Non Crew	Planned Outage	10/28/2014 9:08:14 AM	34.70	1
Step Restoration	Planned Outage	11/1/2014 2:58:57 AM	23493.60	468
Circuit Out	Planned Outage	11/1/2014 2:58:57 AM	1057.65	33
Step Restoration	Planned Outage	11/1/2014 2:58:57 AM	8218.00	28
Switch 600 amp	Planned Outage	11/2/2014 1:08:59 AM	68.13	56
Circuit Out	Planned Outage	11/2/2014 1:14:02 AM	3014.55	693
OH Other	Planned Outage	11/2/2014 1:34:55 AM	3036.47	148
OH Other	Planned Outage	11/2/2014 1:49:02 AM	5184.15	57
Circuit Out	Planned Outage	11/2/2014 3:08:30 AM	1779.00	1186
UG Other	Planned Outage	11/2/2014 7:27:29 AM	90.58	1
Meter Damaged	Planned Outage	11/2/2014 10:24:09 AM	24.47	1
OH Other	Planned Outage	11/2/2014 10:48:36 AM	13.75	1
Service - Non Crew	Planned Outage	11/4/2014 3:00:49 PM	1017.33	10
UG Other	Planned Outage	11/4/2014 6:57:27 PM	55.15	1
OH Other	Planned Outage	11/6/2014 9:01:11 AM	81.03	1
Service - Non Crew	Planned Outage	11/6/2014 10:00:15 AM	111.90	1
OH Other	Planned Outage	11/7/2014 12:59:55 PM	127.33	1

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Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
OH Other	Planned Outage	11/8/2014 6:19:11 AM	14769.07	368
Circuit Out	Planned Outage	11/8/2014 11:43:08 PM	124.30	113
Circuit Out	Planned Outage	11/8/2014 11:50:04 PM	218.47	113
Circuit Out	Planned Outage	11/9/2014 5:27:06 AM	32777.15	213
Circuit Out	Planned Outage	11/10/2014 6:25:08 AM	785.42	725
OH Other	Planned Outage	11/10/2014 8:12:01 AM	128.78	1
OH Other	Planned Outage	11/10/2014 11:33:10 AM	93.42	1
Circuit Out	Planned Outage	11/10/2014 2:30:04 PM	113.47	1
Step Restoration	Planned Outage	11/10/2014 2:30:04 PM	48242.33	892
OH Other	Planned Outage	11/10/2014 4:24:05 PM	70.33	1
Circuit Out	Planned Outage	11/13/2014 11:07:22 AM	7845.50	1065
Step Restoration	Planned Outage	11/14/2014 1:21:27 AM	6781.95	189
OH Other	Planned Outage	11/14/2014 8:13:57 AM	64.57	1
OH Other	Planned Outage	11/14/2014 9:02:04 AM	90.42	1
TX Replaced (PM)	Planned Outage	11/15/2014 2:05:36 PM	523.13	4
Step Restoration	Planned Outage	11/15/2014 2:40:50 PM	4905.52	23
Step Restoration	Planned Outage	11/15/2014 2:40:50 PM	4905.52	23
OH Other	Planned Outage	11/18/2014 2:34:52 PM	370.33	5
Connections	Planned Outage	11/18/2014 7:09:23 PM	3652.50	45
Service - Crew	Planned Outage	11/19/2014 1:36:08 PM	48.20	1
Meter Damaged	Planned Outage	11/20/2014 8:25:33 AM	59.23	1
Meter Damaged	Planned Outage	11/22/2014 11:28:57 AM	40.38	1
Circuit Out	Planned Outage	11/22/2014 1:59:39 PM	22505.80	1572
Service - Non Crew	Planned Outage	11/22/2014 5:27:34 PM	198.40	1
UG Other	Planned Outage	11/24/2014 7:36:21 AM	279.53	1
UG Other	Planned Outage	11/25/2014 1:43:14 PM	240.48	1
OH Other	Planned Outage	11/26/2014 4:53:39 PM	36.75	1
Circuit Out	Planned Outage	11/28/2014 8:24:31 AM	2585.05	533
Switchgear	Planned Outage	12/2/2014 1:02:38 PM	3927.10	227
OH Other	Planned Outage	12/3/2014 4:47:36 AM	11517.30	54
TX Replaced (PM)	Planned Outage	12/3/2014 8:06:40 AM	289.32	1
Step Restoration	Planned Outage	12/3/2014 8:06:40 AM	1152.87	4
Service - Non Crew	Planned Outage	12/3/2014 2:11:07 PM	68.30	1
Circuit Out	Planned Outage	12/7/2014 3:50:24 PM	549.67	194
Service - Non Crew	Planned Outage	12/8/2014 11:56:02 AM	90.17	1
OH Other	Planned Outage	12/9/2014 10:49:57 AM	96.48	1
TX Repaired (PM)	Planned Outage	12/10/2014 1:46:57 PM	1869.80	6
OH Other	Planned Outage	12/11/2014 8:06:36 AM	552.88	7
UG Other	Planned Outage	12/11/2014 9:31:42 AM	214.73	1
TX Repaired (OH)	Planned Outage	12/11/2014 4:16:46 PM	122.78	1
UG Other	Planned Outage	12/12/2014 1:52:40 PM	65.78	1

2014 Storm Implementation Plan and Annual Reliability Reports

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Step Restoration	Planned Outage	12/13/2014 1:44:44 AM	2239.97	298
Circuit Out	Planned Outage	12/14/2014 2:00:41 PM	2487.50	750
Step Restoration	Planned Outage	12/15/2014 9:35:58 AM	1284.07	4
TX Repaired (OH)	Planned Outage	12/17/2014 2:31:09 PM	63.25	1
Circuit Out	Planned Outage	12/18/2014 7:48:11 AM	3510.75	1395
Circuit Out	Planned Outage	12/18/2014 7:48:27 AM	3242.75	1635
UG Other	Planned Outage	12/18/2014 9:09:54 AM	119.62	1
OH Other	Planned Outage	12/18/2014 11:45:47 AM	359.47	8
OH Other	Planned Outage	12/19/2014 10:40:34 AM	665.33	10
Circuit Out	Planned Outage	12/20/2014 8:08:23 PM	1420.40	67
Circuit Out	Planned Outage	12/21/2014 8:41:37 PM	9692.38	677
Meter Damaged	Planned Outage	12/22/2014 4:46:42 PM	67.88	1
Circuit Out	Planned Outage	12/24/2014 11:45:08 AM	3901.80	929
Circuit Out	Planned Outage	12/25/2014 7:18:46 AM	15363.75	723
Circuit Out	Planned Outage	12/25/2014 8:49:12 AM	14563.73	1162
Circuit Out	Planned Outage	12/25/2014 10:03:15 AM	2918.70	1242
PLF	Planned Outage	12/25/2014 11:43:36 AM	22364.65	231
UG Other	Planned Outage	12/26/2014 11:26:41 AM	47.53	1
UG Other	Planned Outage	12/26/2014 4:05:08 PM	1376.53	116
OH Other	Planned Outage	12/27/2014 12:59:59 PM	66.63	1
Circuit Out	Planned Outage	12/29/2014 4:32:40 AM	6146.20	948
OH Other	Planned Outage	12/30/2014 11:33:02 AM	23146.43	437
Step Restoration	Planned Outage	12/30/2014 11:33:02 AM	8300.73	178
OH Other	Planned Outage	12/30/2014 11:42:46 AM	76.20	1
OH Other	Planned Outage	12/30/2014 1:35:39 PM	30.87	1
OH Other	Planned Outage	12/31/2014 3:36:13 PM	95.08	1

2014 Adjustments: Substation Events

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	1/1/2014 7:48:23 AM	56616.66667	1,000
Substation	FPSC Commission Rule 25-6.0455	1/1/2014 7:48:23 AM	125749.2833	2,261
Substation	FPSC Commission Rule 25-6.0455	1/1/2014 7:48:23 AM	43947.2	1,056
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	1082	1,082
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	1	1
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	1518	1,518
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	1760	1,760
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	964	964
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	242	242
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	416	416
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	1037	1,037
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	283	283
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	233	233
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	1307	1,307
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	713	713
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	92	92
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	304	304
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:00 PM	195	195
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:38 PM	10344.6	378
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:38 PM	2393.066667	112
Substation	FPSC Commission Rule 25-6.0455	1/2/2014 8:09:38 PM	45993.03333	1,421
Substation	FPSC Commission Rule 25-6.0455	1/21/2014 10:22:25 AM	46769.21667	1,289
Substation	FPSC Commission Rule 25-6.0455	2/9/2014 9:55:24 PM	5140.8	153
Substation	FPSC Commission Rule 25-6.0455	2/9/2014 9:56:03 PM	17897.6	448
Substation	FPSC Commission Rule 25-6.0455	2/9/2014 9:56:25 PM	42711.58333	937
Substation	FPSC Commission Rule 25-6.0455	2/9/2014 9:57:13 PM	78354.2	1,356
Substation	FPSC Commission Rule 25-6.0455	2/16/2014 4:55:53 PM	116802.9	1,398
Substation	FPSC Commission Rule 25-6.0455	2/16/2014 4:56:13 PM	46687.66667	935
Substation	FPSC Commission Rule 25-6.0455	2/16/2014 4:56:13 PM	124470.5833	2,413
Substation	FPSC Commission Rule 25-6.0455	3/10/2014 7:31:53 AM	137990.7	1,566
Substation	FPSC Commission Rule 25-6.0455	3/10/2014 7:32:09 AM	37451.51667	379
Substation	FPSC Commission Rule 25-6.0455	3/11/2014 10:39:42 AM	3.15	3
Substation	FPSC Commission Rule 25-6.0455	3/12/2014 7:03:23 AM	63450.8	1,204
Substation	FPSC Commission Rule 25-6.0455	3/12/2014 7:03:23 AM	14708.96667	514
Substation	FPSC Commission Rule 25-6.0455	3/12/2014 7:03:23 AM	52922.08333	809
Substation	FPSC Commission Rule 25-6.0455	3/12/2014 7:03:24 AM	32853.6	729
Substation	FPSC Commission Rule 25-6.0455	3/29/2014 8:32:19 AM	48706.55	753

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	3/29/2014 10:50:33 PM	14752.2	276
Substation	FPSC Commission Rule 25-6.0455	3/29/2014 10:50:33 PM	109605.2333	1,523
Substation	FPSC Commission Rule 25-6.0455	3/29/2014 10:50:33 PM	45086.53333	536
Substation	FPSC Commission Rule 25-6.0455	3/30/2014 3:35:54 PM	149803.1333	1,628
Substation	FPSC Commission Rule 25-6.0455	3/30/2014 3:36:00 PM	100228.8	1,099
Substation	FPSC Commission Rule 25-6.0455	3/30/2014 3:37:00 PM	67390.75	679
Substation	FPSC Commission Rule 25-6.0455	3/30/2014 3:38:49 PM	216220.95	1,881
Substation	FPSC Commission Rule 25-6.0455	4/15/2014 3:37:09 PM	53100.6	564
Substation	FPSC Commission Rule 25-6.0455	4/15/2014 3:55:13 PM	100118.8333	1,042
Substation	FPSC Commission Rule 25-6.0455	4/15/2014 3:55:13 PM	101792.25	945
Substation	FPSC Commission Rule 25-6.0455	4/20/2014 9:29:44 AM	40622.8	984
Substation	FPSC Commission Rule 25-6.0455	4/29/2014 4:59:34 PM	74134.08333	835
Substation	FPSC Commission Rule 25-6.0455	4/29/2014 9:08:19 PM	1996	998
Substation	FPSC Commission Rule 25-6.0455	4/30/2014 4:36:07 PM	327.1666667	302
Substation	FPSC Commission Rule 25-6.0455	4/30/2014 4:52:19 PM	50610.08333	1,705
Substation	FPSC Commission Rule 25-6.0455	5/4/2014 8:30:26 AM	9036	753
Substation	FPSC Commission Rule 25-6.0455	6/5/2014 7:28:23 AM	25346.96667	754
Substation	FPSC Commission Rule 25-6.0455	6/5/2014 7:28:49 AM	27386.71667	593
Substation	FPSC Commission Rule 25-6.0455	6/5/2014 7:30:10 AM	18004.66667	452
Substation	FPSC Commission Rule 25-6.0455	6/5/2014 7:30:10 AM	14967.33333	628
Substation	FPSC Commission Rule 25-6.0455	6/5/2014 7:31:00 AM	2024	88
Substation	FPSC Commission Rule 25-6.0455	6/12/2014 10:08:01 AM	6252.916667	1,075
Substation	FPSC Commission Rule 25-6.0455	6/12/2014 4:17:34 PM	48213.73333	926
Substation	FPSC Commission Rule 25-6.0455	6/14/2014 8:28:13 AM	4697	1,540
Substation	FPSC Commission Rule 25-6.0455	6/29/2014 8:54:00 AM	84	2
Substation	FPSC Commission Rule 25-6.0455	6/29/2014 8:54:00 AM	3002	79
Substation	FPSC Commission Rule 25-6.0455	6/29/2014 8:54:00 AM	6540	109
Substation	FPSC Commission Rule 25-6.0455	6/29/2014 8:54:59 AM	6764.3	138
Substation	FPSC Commission Rule 25-6.0455	7/3/2014 6:10:00 PM	14523.6	546
Substation	FPSC Commission Rule 25-6.0455	7/3/2014 6:10:00 PM	85850.48333	481
Substation	FPSC Commission Rule 25-6.0455	7/3/2014 8:25:48 PM	14376.43333	1,303
Substation	FPSC Commission Rule 25-6.0455	7/8/2014 2:55:13 PM	53049.26667	589
Substation	FPSC Commission Rule 25-6.0455	7/11/2014 6:38:03 AM	1160.833333	995
Substation	FPSC Commission Rule 25-6.0455	7/14/2014 10:08:01 AM	4198.7	66
Substation	FPSC Commission Rule 25-6.0455	7/14/2014 10:08:21 AM	9954.933333	112
Substation	FPSC Commission Rule 25-6.0455	7/14/2014 10:08:57 AM	143458.85	1,831
Substation	FPSC Commission Rule 25-6.0455	7/15/2014 7:59:27 AM	46291.9	898
Substation	FPSC Commission Rule 25-6.0455	7/21/2014 4:58:51 PM	98211	1,140
Substation	FPSC Commission Rule 25-6.0455	7/25/2014 7:10:05 PM	61491.6	1,102

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	7/25/2014 7:10:05 PM	78355.2	1,056
Substation	FPSC Commission Rule 25-6.0455	7/26/2014 8:38:03 AM	95907.2	1,763
Substation	FPSC Commission Rule 25-6.0455	7/26/2014 8:38:11 AM	135542.4667	2,081
Substation	FPSC Commission Rule 25-6.0455	7/26/2014 8:38:41 AM	187494.6667	1,508
Substation	FPSC Commission Rule 25-6.0455	7/26/2014 8:38:46 AM	38803.05	737
Substation	FPSC Commission Rule 25-6.0455	7/29/2014 2:55:16 AM	112034	2,085
Substation	FPSC Commission Rule 25-6.0455	7/29/2014 2:55:16 AM	71684.4	846
Substation	FPSC Commission Rule 25-6.0455	7/29/2014 2:55:16 AM	99566.13333	1,492
Substation	FPSC Commission Rule 25-6.0455	8/2/2014 5:33:58 PM	65417.55	967
Substation	FPSC Commission Rule 25-6.0455	8/2/2014 5:33:58 PM	62207.53333	838
Substation	FPSC Commission Rule 25-6.0455	8/2/2014 5:33:58 PM	74249.53333	1,756
Substation	FPSC Commission Rule 25-6.0455	8/2/2014 5:36:15 PM	55849.65	1,041
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:29:16 PM	19260	432
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:29:16 PM	46869.2	798
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:29:16 PM	36312.26667	794
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:30:45 PM	35166.58333	881
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:31:37 PM	34468.23333	898
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:32:38 PM	30549.21667	661
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:33:39 PM	28405.05	463
Substation	FPSC Commission Rule 25-6.0455	8/7/2014 2:37:26 PM	16836.7	303
Substation	FPSC Commission Rule 25-6.0455	8/10/2014 9:02:30 AM	32038	772
Substation	FPSC Commission Rule 25-6.0455	8/10/2014 9:02:30 AM	109641	1,362
Substation	FPSC Commission Rule 25-6.0455	8/10/2014 9:02:35 AM	31509	972
Substation	FPSC Commission Rule 25-6.0455	8/10/2014 9:02:35 AM	73802.66667	1,408
Substation	FPSC Commission Rule 25-6.0455	8/10/2014 9:02:35 AM	53215.75	1,941
Substation	FPSC Commission Rule 25-6.0455	8/11/2014 3:40:32 PM	67924.8	848
Substation	FPSC Commission Rule 25-6.0455	9/12/2014 5:47:33 AM	19000.7	1,514
Substation	FPSC Commission Rule 25-6.0455	9/12/2014 5:47:33 AM	10005.73333	743
Substation	FPSC Commission Rule 25-6.0455	9/12/2014 5:47:33 AM	26970.66667	2,080
Substation	FPSC Commission Rule 25-6.0455	9/12/2014 5:47:33 AM	14244.3	1,026
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 7:20:17 AM	39223.35	909
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 7:20:17 AM	48341.3	1,113
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 7:20:17 AM	40162.1	957
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 7:20:17 AM	146624.4	2,028
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 10:48:05 AM	104965.85	1,373
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 10:48:05 AM	81069.1	1,074
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 10:48:05 AM	70676.9	1,302
Substation	FPSC Commission Rule 25-6.0455	9/17/2014 10:48:05 AM	45606.33333	758
Substation	FPSC Commission Rule 25-6.0455	9/26/2014 4:41:20 PM	72748.66667	1,666

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	9/26/2014 4:41:20 PM	248735.3333	2,774
Substation	FPSC Commission Rule 25-6.0455	9/26/2014 4:41:20 PM	82903.33333	1,190
Substation	FPSC Commission Rule 25-6.0455	9/27/2014 1:54:30 PM	48810.75	1,359
Substation	FPSC Commission Rule 25-6.0455	9/27/2014 1:54:30 PM	46783.2	772
Substation	FPSC Commission Rule 25-6.0455	9/27/2014 1:54:30 PM	63475.2	1,044
Substation	FPSC Commission Rule 25-6.0455	9/27/2014 1:55:21 PM	62199.2	1,392
Substation	FPSC Commission Rule 25-6.0455	10/8/2014 6:35:35 PM	51670.65	881
Substation	FPSC Commission Rule 25-6.0455	10/8/2014 6:36:06 PM	27491.1	689
Substation	FPSC Commission Rule 25-6.0455	10/8/2014 6:36:21 PM	100875.05	2,117
Substation	FPSC Commission Rule 25-6.0455	10/8/2014 6:36:58 PM	98591.95	1,759
Substation	FPSC Commission Rule 25-6.0455	10/10/2014 7:15:16 PM	23583.93333	679
Substation	FPSC Commission Rule 25-6.0455	10/10/2014 7:15:21 PM	60411.75	1,295
Substation	FPSC Commission Rule 25-6.0455	10/10/2014 7:15:21 PM	82403.25	1,405
Substation	FPSC Commission Rule 25-6.0455	10/10/2014 7:15:26 PM	69288.26667	1,144
Substation	FPSC Commission Rule 25-6.0455	10/12/2014 4:38:50 AM	256224.6	1,242
Substation	FPSC Commission Rule 25-6.0455	10/12/2014 4:42:18 AM	214989.6	1,528
Substation	FPSC Commission Rule 25-6.0455	10/12/2014 4:42:21 AM	32561.7	698
Substation	FPSC Commission Rule 25-6.0455	10/12/2014 4:43:14 AM	85773.23333	1,049
Substation	FPSC Commission Rule 25-6.0455	10/12/2014 6:36:20 AM	70810.66667	1,207
Substation	FPSC Commission Rule 25-6.0455	10/13/2014 10:02:24 PM	157208.8	2,933
Substation	FPSC Commission Rule 25-6.0455	10/13/2014 10:02:24 PM	118636	1,680
Substation	FPSC Commission Rule 25-6.0455	10/13/2014 10:02:24 PM	72756.8	2,458
Substation	FPSC Commission Rule 25-6.0455	10/14/2014 6:06:03 PM	5169.25	115
Substation	FPSC Commission Rule 25-6.0455	10/20/2014 1:30:13 PM	62972.06667	946
Substation	FPSC Commission Rule 25-6.0455	11/15/2014 8:14:00 AM	73260	990
Substation	FPSC Commission Rule 25-6.0455	11/15/2014 10:52:56 PM	38984	660
Substation	FPSC Commission Rule 25-6.0455	11/15/2014 10:52:56 PM	69211.93333	1,919
Substation	FPSC Commission Rule 25-6.0455	11/15/2014 10:52:56 PM	66805.06667	1,516
Substation	FPSC Commission Rule 25-6.0455	11/24/2014 4:13:13 PM	7232.35	993
Substation	FPSC Commission Rule 25-6.0455	11/25/2014 8:41:21 AM	2431.433333	2,353
Substation	FPSC Commission Rule 25-6.0455	12/4/2014 9:09:07 AM	103537.05	2,229
Substation	FPSC Commission Rule 25-6.0455	12/4/2014 9:10:00 AM	51846.8	1,142
Substation	FPSC Commission Rule 25-6.0455	12/4/2014 9:10:31 AM	95133.9	2,097
Substation	FPSC Commission Rule 25-6.0455	12/4/2014 9:10:34 AM	73544.15	1,641
Substation	FPSC Commission Rule 25-6.0455	12/4/2014 9:11:53 AM	9026.833333	205
Substation	FPSC Commission Rule 25-6.0455	12/4/2014 9:12:33 AM	341.4666667	8
Substation	FPSC Commission Rule 25-6.0455	12/5/2014 4:07:05 PM	600.9333333	8
Substation	FPSC Commission Rule 25-6.0455	12/5/2014 4:07:05 PM	248704.2	2,097
Substation	FPSC Commission Rule 25-6.0455	12/5/2014 4:07:05 PM	195069.6	1,642

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Substation	FPSC Commission Rule 25-6.0455	12/5/2014 4:07:05 PM	18276.76667	203
Substation	FPSC Commission Rule 25-6.0455	12/5/2014 4:07:05 PM	122726.9333	1,142
Substation	FPSC Commission Rule 25-6.0455	12/5/2014 4:07:05 PM	235499.6	2,228
Substation	FPSC Commission Rule 25-6.0455	12/18/2014 6:42:39 AM	88679.95	1,357
Substation	FPSC Commission Rule 25-6.0455	12/18/2014 6:42:39 AM	177708.3	2,058
Substation	FPSC Commission Rule 25-6.0455	12/18/2014 6:42:39 AM	95589	1,404
Substation	FPSC Commission Rule 25-6.0455	12/18/2014 6:42:44 AM	75590.93333	1,046
Substation	FPSC Commission Rule 25-6.0455	12/22/2014 5:25:31 AM	106334.1333	1,354
Substation	FPSC Commission Rule 25-6.0455	12/22/2014 5:25:31 AM	158782.2333	2,063
Substation	FPSC Commission Rule 25-6.0455	12/22/2014 5:25:31 AM	112403.6833	1,403
Substation	FPSC Commission Rule 25-6.0455	12/22/2014 5:25:36 AM	84423.1	1,047
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:10:09 PM	82921.65	1,569
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:12:49 PM	27851.75	555
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:12:49 PM	22783.23333	454
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:40:00 PM	23230	1,010
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:40:00 PM	2085	695
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:40:00 PM	1317	439
Substation	FPSC Commission Rule 25-6.0455	12/24/2014 2:40:00 PM	684	228
Substation	FPSC Commission Rule 25-6.0455	12/25/2014 5:01:18 PM	13547	589
Substation	FPSC Commission Rule 25-6.0455	12/25/2014 5:01:35 PM	3856.25	125
Substation	FPSC Commission Rule 25-6.0455	12/25/2014 5:02:00 PM	16735.6	903

2014 Adjustments: Transmission Events

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Transmission	FPSC Commission Rule 25-6.0455	1/3/2014 9:21:30 PM	57726.1667	1,702
Transmission	FPSC Commission Rule 25-6.0455	1/3/2014 9:21:30 PM	21677	636
Transmission	FPSC Commission Rule 25-6.0455	4/1/2014 9:32:00 AM	76612.2	1,036
Transmission	FPSC Commission Rule 25-6.0455	4/1/2014 9:32:00 AM	53352	741
Transmission	FPSC Commission Rule 25-6.0455	4/1/2014 9:32:00 AM	34349.4333	446
Transmission	FPSC Commission Rule 25-6.0455	4/1/2014 9:32:00 AM	29510.6	591
Transmission	FPSC Commission Rule 25-6.0455	4/1/2014 9:32:00 AM	38007.2	616
Transmission	FPSC Commission Rule 25-6.0455	4/1/2014 9:32:00 AM	72187.5	1,125
Transmission	FPSC Commission Rule 25-6.0455	4/7/2014 2:32:00 PM	6720	1,680
Transmission	FPSC Commission Rule 25-6.0455	4/7/2014 2:32:00 PM	6588	1,647
Transmission	FPSC Commission Rule 25-6.0455	4/7/2014 2:32:00 PM	4400	1,100
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	1444.8	516
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	2133.6	762
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	3878	1,385
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	4202.8	1,501
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	1582	565
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	3922.8	1,401
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	4821.6	1,722
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 9:16:26 AM	2144.8	766
Transmission	FPSC Commission Rule 25-6.0455	5/2/2014 8:10:48 PM	135.466667	64
Transmission	FPSC Commission Rule 25-6.0455	5/14/2014 8:41:58 AM	40507.8667	1,556
Transmission	FPSC Commission Rule 25-6.0455	5/14/2014 8:41:58 AM	39076.0333	1,501
Transmission	FPSC Commission Rule 25-6.0455	5/14/2014 8:41:58 AM	31109.8333	1,195
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:03 AM	6006.66667	850
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:03 AM	1674.8	237
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:03 AM	3236.53333	458
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:03 AM	8868.66667	1,255
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:06 AM	3299.45	231
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:06 AM	9112.76667	638
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:06 AM	15654.5333	1,096
Transmission	FPSC Commission Rule 25-6.0455	6/3/2014 6:36:06 AM	20310.9	1,422
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	2048.73333	1,556
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	2975.66667	2,260
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1411.46667	1,072
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1228.45	933
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1637.93333	1,244
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	2297.58333	1,745

Outage Event Description

Outage Event	Reason For Exclusion	Outage Date	CMI Excluded	CI Excluded
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	884.8	672
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	936.15	711
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1306.13333	992
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1894.68333	1,439
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1134.96667	862
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	1689.28333	1,283
Transmission	FPSC Commission Rule 25-6.0455	6/19/2014 8:29:06 PM	2514.83333	1,910
Transmission	FPSC Commission Rule 25-6.0455	7/3/2014 6:10:49 PM	1144.28333	967
Transmission	FPSC Commission Rule 25-6.0455	7/3/2014 6:10:53 PM	1054.2	753
Transmission	FPSC Commission Rule 25-6.0455	7/21/2014 7:14:00 PM	92271.85	1,397
Transmission	FPSC Commission Rule 25-6.0455	7/21/2014 7:14:00 PM	100437.983	1,513
Transmission	FPSC Commission Rule 25-6.0455	7/21/2014 7:14:00 PM	111347.817	1,703
Transmission	FPSC Commission Rule 25-6.0455	8/7/2014 3:08:59 PM	820.683333	41
Transmission	FPSC Commission Rule 25-6.0455	11/18/2014 6:51:25 PM	1211.4	673
Step Restoration	FPSC Commission Rule 25-6.0455	11/18/2014 6:51:25 PM	3578.4	1,988
Step Restoration	FPSC Commission Rule 25-6.0455	11/18/2014 6:51:25 PM	2588.4	1,438
Transmission	FPSC Commission Rule 25-6.0455	11/18/2014 6:51:25 PM	2041.2	1,134
Transmission	FPSC Commission Rule 25-6.0455	11/18/2014 6:51:25 PM	2120.4	1,178
Transmission	FPSC Commission Rule 25-6.0455	11/18/2014 6:51:25 PM	3331.8	1,851
OH Other	FPSC Commission Rule 25-6.0455	11/18/2014 6:54:41 PM	1370.96667	22

Appendix C) Annual Wood Pole Inspection Report

ORDER NO. PSC - 07 - 0918 - PAA - PU
DOCKET NOS. 070634-EI, 070635-TL

TAMPA ELECTRIC COMPANY
Annual Wood Pole Inspection Report
2014

a	b	c	d	e	f	g	h	i	j	k	l	m
Total # of Wooden Poles in the Company Inventory	# of Pole Inspections Planned this Annual Inspection	# of Poles Inspected this Annual Inspection	# of Poles Failing Inspection this Annual Inspection	Pole Failure Rate (%) this Annual Inspection	# of Poles Designated for Replacement this Annual Inspection	Total # of Poles Replaced this Annual Inspection	# of Poles Requiring Minor Follow-up this Annual Inspection (Anchors/Guys)	# of Poles Overloaded this Annual Inspection	Methods(s) V = Visual E = Excavation P = Prod S = Sound B = Bore R = Resistograph	# of Pole Inspections Planned for Next Annual Inspection Cycle	Total # of Poles Inspected (Cumulative) in the 8-Year Cycle to Date	% of Poles Inspected (Cumulative) in the 8-Year Cycle to Date
Distribution and Transmission **WOOD POLE POPULATION**				Distribution Reinforcement 0.24% Distribution Replacement 17.62%	Distribution Reinforcement 116 Distribution Replacement 8,649	Distribution Reinforcement 99 Distribution Replaced 6,038					**CYCLE TWO**	
Distribution 316,000	Distribution 49,176	Distribution 49,079	Distribution 8,765	Distribution 17.86%	Distribution 8,765	Distribution 6,038	Distribution 541	Distribution Poles Overloaded 1,150	Visual Sound Bore	** Distribution 42,832	Distribution 36,168	Distribution 11.45%
*Transmission 26,000	Transmission 3,250	Transmission 3,300	Transmission 87	Transmission 2.72%	Transmission 87	Transmission 720	Transmission 1	Transmission 3	Excavation	Transmission 3,250	Transmission 3,300	Transmission 12.69%
Total Poles 342,000	Total 52,426	Total 52,379	Total 8,852		Total 8,852	Total 6,758	Total 542	Total 1,153		Total 46,082	Total 39,468	Total 11.54%

If b - c > 0, provide explanation	Planned inspections are performed by circuit and area. The status of completion would be considered before moving into a new circuit or area
If d - g > 0, provide explanation	Pole replacement funding is determined prior to the calendar year beginning. This funding level will be influenced by the poles identified in prior years for replacement. The company spent $24.1M replacing distribution poles and $12.6M replacing transmission poles in 2014.
Description of selection criteria for inspections	* Transmission Total Pole Population Includes Concrete, Steel and Wood. ** 3332 additional Distribution Pole Inspections Planned for next Annual Inspection Cycle.

Appendix D) Storm Hardening Metrics

1) Initiative 1: Four-year Vegetation Management

2014 - 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		464.77			1,161.22		1,625.99
(D) Remaining Miles		1,255.01			3,411.07		4,666.08
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		104			4,723		4,827
(H) All Vegetation Management Costs							$10,880,338
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							$10,797,572
(L) Vegetation Goal (current year)							1,573.02
(M) Vegetation Budget (next year)							$11,013,662
(N) Vegetation Goal (next year)							1,569.59
(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

2014 - 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		56.42			146.46		202.88
(D) Remaining Miles		279.33			564.05		843.37
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		22			1,321		1,343
(H) All Vegetation Management Costs							$928,177
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							261.56
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							261.45
(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.

2014 - System Vegetation Management Performance Metrics - DCA

	Feeders			Laterals			Total
	Unadjusted	Adjusted	Diff.	Unadjusted	Adjusted	Diff.	
(A) Number of Outages							
(B) Customer Interruptions		14.51			89.64		104.15
(C) Miles Cleared		39.80			225.30		265.10
(D) Remaining Miles							
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		0			105		105
(H) All Vegetation Management Costs							$314,214
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							92.31
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							92.43
(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.

2014 - 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		85.17			139.66		224.84
(D) Remaining Miles		207.02			410.57		617.59
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		19			966		985
(H) All Vegetation Management Costs							$1,672,627
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							210.61
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							210.28
(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.

2014 - 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		66.26			255.28		321.53
(D) Remaining Miles		178.98			739.69		918.67
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims		11			536		547
(H) All Vegetation Management Costs							$1,205,498
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							310.05
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							309.47
(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.

2014 - 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		69.24			132.86		202.10
(D) Remaining Miles		122.95			420.65		543.60
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims							270
(H) All Vegetation Management Costs							$832,107
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							186.43
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							185.37
(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.

2014 - 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		100.46			183.68		284.14
(D) Remaining Miles		252.30			582.87		835.16
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims							1,254
(H) All Vegetation Management Costs							$2,645,006
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							279.83
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							278.66
(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.

2014 - 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		72.71			213.63		286.35
(D) Remaining Miles		174.63			467.96		642.58
(E) Outages per Mile [A ÷ (C + D)]							
(F) Vegetation CI per Mile [B ÷ (C + D)]							
(G) Number of Hotspot trims							323
(H) All Vegetation Management Costs							$668,737
(I) Customer Minutes of Interruption							
(J) Outage restoration costs							
(K) Vegetation Budget (current year)							
(L) Vegetation Goal (current year)							232.23
(M) Vegetation Budget (next year)							
(N) Vegetation Goal (next year)							231.93
(O) Trim-Back Distance							10’

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

2) Initiative 2: Joint-Use Pole Attachments Audit

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

a) Percent of system audited: 100%
feeders: _N/A___ laterals: _N/A___

b) Date audit conducted: 4th quarter 2013 through June 2014.

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.

Joint-Use Attachment Data Table

(A) Number of company owned distribution poles.	307,023
(B) Number of company distribution poles leased.	13,184(1)
(C) Number of owned distribution pole attachments	200,056
(D) Number of leased distribution pole attachments.	13,184(2)
(E) Number of authorized attachments.	326,155
(F) Number of unauthorized attachments.	8,473(3)
(G) Number of distribution poles strength tested.	1325
(H) Number of distribution poles passing strength test.	164
(I) Number of distribution poles failing strength test (overloaded).	11
(J) Number of distribution poles failing strength test (other reasons).	8,765 (4)
(K) Number of distribution poles corrected (strength failure).	544(5)
(L) Number of distribution poles corrected (other reasons).	115 (6)
(M) Number of distribution poles replaced.	6048
(N) Number of apparent NESC violations involving electric infrastructure.	10
(O) Number of apparent NESC violations involving 3rd party facilities.	20

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 completed a pole attachment audit in June 2014 and identified unauthorized attachments at the completion of the audit in June 2014.
(4) These 8,765 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.

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)	14 (3,216)		$123,710		16 (3,259)	$116,332
(B2)	Planned transmission circuit inspections – Above Ground (Structures).	32 (5,100)		$344,000		0	0
(C1)	Completed transmission circuit inspections – Groundline (Poles)		23 (3,300)		$53,857		
(C2)	Completed transmission circuit inspections – Above Ground (Structures)		55 (8,400)		$502,158		
(D1)	Percent of transmission circuit inspections completed - Groundline		164%				
(D2)	Percent of transmission circuit inspections completed – Above Ground.		172%				
(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		$326,744/ $61,800		187/187	
(I)	Completed transmission equipment inspections (other equipment) – Ground Patrol/ IR Patrol		187/187		$245,234/ $64,089		$235,428/ $92,065
(J)	Percent of transmission equipment inspections completed (other equipment) – Ground Patrol/ IR Patrol		100%				

Transmission Pole Inspections

	Activity		Current Budget		Next Year	
	Goal	Actual	Budget	Actual	Goal	Budget
(A) Total number of transmission poles		25,599[1]				
(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)		785 [4]			548 [3]	

Note 1: The transmission pole count on the entire system is currently 25,599 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 11 additional poles added in 2014 as a part of LiDAR work.

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.	805[1]		$15.2M		548	$10.3M
(B) Transmission structures hardening completed.		985		$17.3M		
(C) Percent transmission structures hardening completed.	122%					

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

5) Initiative 5: Geographic Information System

See Section I – Storm Preparedness Plans, item E) Initiative 5: See Geographic Information System on page 21 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 21 through 26 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 26 for a detailed discussion.

8) Initiative 8: Increase Coordination with Local Governments

See attached page 133 for a matrix of Tampa Electric's activities involving its coordination with local governments.

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			NFPA 1600 Committee meeting - Emergency Management, Business Continuity, and Disaster Recovery Standard - 30 hours				
			Electric Subsector Coordinating Council Leadership and Exercise - 90 hours				
STATE		FEPA Public and Private Partnership meetings - 20 hours	DHS Security meeting - 24 hours				
Hillsborough County		Prepare Hillsborough Community Event - 8 hours	THIRA meeting - 4 hours	No activations in 2014			Dana Shores Community Association Undergrounding - 100 hrs
			PDRP Planning - 3 hours				
			Vulnerable Population Task force - 5 hours				
			Citizen Corp Council - 18 hours				
			Tampa Port Authority Communications Drill - 2 hours				
			Hillsborough County Operations Group - 10 hours				
			Hillsborough County Exercises - 30 hours				
			LMS Working Group - 40+ hours				
			Comprehensive Emergency Management Plan (CEMP) - 20 hours				
			Critical Facility Index Working Group - 8 hours			Met with Avila Property Mgmt. to go over new NERC transmission clearance standards - 4 hrs	
	City of Tampa	Met with staff to explain pole inspection and replacement program. - 2 hrs	Emergency Management Preparedness Summit - 6 hours	No activations in 2014		Met with city staff to go over new NERC transmission clearance standards - 4 hrs	
	City of Plant City			No activations in 2014			
	City of Temple Terrace		Storm Season Kick-off - 6 hours	No activations in 2014			
Polk County	Winter Haven		WebEOC Exercise for Polk County EOC - 3 hours	No activations in 2014			
	Winter Haven		Polk County Mock Storm exercise - 8 hours				
Pasco County		Forwarded Storm Season Press release to staff - .5 hr					
	New Port Richey		WebEOC Exercise for Pasco County EOC - 2 hours	No activations in 2014			
	New Port Richey		Critical Infrastructure - 5 hours				
	New Port Richey		Comprehensive Emergency Management Plan - 10 hours				
	Dade City	Forwarded Storm Season Press release to staff - .5 hr		No activations in 2014			
	San Antonio	Forwarded Storm Season Press release to staff - .5 hr		No activations in 2014			
	San Antonio	Provided copy of Tree USA document to staff - .5 hr.					
	St. Leo	Forwarded Storm Season Press release to staff - .5 hr		No activations in 2014			
Pinellas County	Largo		Pinellas County Exercise - 6 hours	No activations in 2014			
	Oldsmar			No activations in 2014			
Other			ICS/NIMS for Energy Delivery - 6 hours				

9) Initiative 9: Collaborative Research

See Section I – Storm Preparedness Plans, item I) Initiative 9: Collaborative Research on pages 31 through 34 for a detailed description and related data.

10) Initiative 10: Disaster Preparedness and Recovery Plan

The company's Disaster Preparedness and Recovery Plan for 2014 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 2015, the Plan will undergo its customary annual review prior to storm season and any necessary updates or modifications will be made at that time.

11) Feeder Specific and Attached Laterals Data

See attached pages 135 through 182.