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December 15, 2017

**VIA: ELECTRONIC FILING**

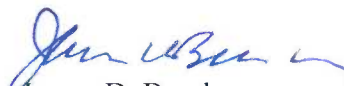
Ms. Carlotta S. Stauffer  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Docket No. 20170215-EU – Review of electric utility hurricane preparedness and restoration actions

Dear Ms. Stauffer:

Attached for filing in the above docket are Tampa Electric Company's Answers to Staff's First Data Request (Nos. 1-37) dated November 14, 2017.

Sincerely,

  
James D. Beasley

JDB/pp  
Attachment

cc: Wesley Taylor (w/attachment)

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 1  
PAGE 1 OF 4  
FILED: DECEMBER 15, 2017**

1. Please describe the pre-storm coordination process for Hurricanes Hermine, Matthew, Irma, Maria, and Nate. The description should include:
  - a. Dates and topics of internal meetings held after each storm was named.
  - b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.
  - c. Date mutual aid was requested and nature of request.

**A. Hurricane Hermine:**

- a. Hurricane Hermine was named on August 31, 2016. By this time Tampa Electric had already begun holding twice daily Electric Delivery Command Calls. Topics included activation of Electric Delivery's Emergency Management Plan, planning scenarios of customer outages and types and numbers of foreign resources, how to keep polling locations in service for election day, availability of personnel with the holiday weekend approaching, the plans of other Florida utilities, the rescheduled National Football League game in Tampa, securing of additional materials, response plans and the opening of Incident Base
- b. The first external call pertaining to mutual aid was held on August 25, 2016. Topics included requests and offers of foreign crews, along with current weather forecasts and desired arrival times for the crews.
- c. Tampa Electric requested mutual aid on August 25, 2016, the request being for 250 distribution linemen, 50 tree trimmers and 30 damage assessment resources.

**Hurricane Matthew:**

- a. Hurricane Matthew was named on September 28, 2016. Electric Delivery held its first call on the storm September 29, 2016. The topics included potential impacts from the storm and the level of preparedness. Daily discussions were conducted twice a day beginning October 3, 2016 with topics including projected outages and required resources, general preparedness and implementation of the Electric Delivery Emergency Management Plan. Starting October 5, 2016, Electric Delivery implemented Incident Command Systems ("ICS") and began conducting formal Electric Delivery Command

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 1  
PAGE 2 OF 4  
FILED: DECEMBER 15, 2017**

Calls. Deployment of personnel plans were confirmed along with other functional updating (Logistics, Finance, etc.).

- b. The first external call pertaining to mutual aid was held on Tuesday, October 4, 2016. Topics included requests and offers of foreign crews, along with current weather forecasts and desired arrival times for the crews.
- c. Based on current forecasts, planning models and expected outages, Tampa Electric did not request foreign crews. Internal crews and contractors were determined to be sufficient to handle outages that would occur.

**Hurricane Irma:**

- a. Hurricane Irma was named on August 30, 2017. Electric Delivery Senior Management held the first of three 'Touch Base' calls on Sunday, September 3, 2017. Topics included current weather, review of internal resources, discussion of several planning scenarios, internal facility preparations and next steps. Beginning on Wednesday, September 6, 2017, Electric Delivery began twice daily Command Calls, corresponding to full corporate activation.
- b. The first external call pertaining to mutual aid was held on Tuesday, September 5, 2017. Topics included requests and offers of foreign crews, along with current weather forecasts and desired arrival times for the crews.
- c. Tampa Electric requested mutual aid on September 5, 2017. The request was made for 1,374 distribution linemen, 372 tree trimmers and 100 damage assessment resources.

**Hurricanes Maria and Nate:**

- a. Hurricane Maria was named on September 16, 2017. Hurricane Nate was named on October 5, 2017. As neither storm's forecasted path threatened Tampa Electric's service territory, internal meeting to specifically discuss these storms were not held. Weather updates and discussions were included as part of the daily Electric Delivery Operations calls.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 1  
PAGE 3 OF 4  
FILED: DECEMBER 15, 2017**

Additionally, Tampa Electric uses the ICS to prepare for and manage emergencies, including hazards from tropical weather. As such, the company follows a consistent ICS Activation Schedule for pre-storm coordination to ensure consistency with internal and external stakeholders. In general, the pre-storm coordination process begins as approaching storms are tracked by the company's Electric Delivery Department using a third-party weather service. When storm impact is determined to be imminent, the Electric Delivery Department Commander will request a Unified Command ("UC") meeting be scheduled by the company's Emergency Management Department. During pre-storm UC meetings, which are typically scheduled for 9:00 AM and 8:30 PM, a pre-defined and consistent agenda (shown below) is followed by all department leaders and functional areas to discuss their operational preparedness status, along with internal and external communication strategies.

<b>TECO Unified Command Meeting Agenda</b>
• <b>Safety Tip</b>
• <b>Unified Commander</b>
• <b>Electric Delivery Department Commander and Weather Report</b>
• <b>Peoples Gas Company Commander</b>
• <b>Energy Supply Department Commander</b>
• <b>Fuels Department Response Team Leader</b>
• <b>Environmental Officer</b>
• <b>Customer Experience Department Commander</b>
• <b>IT and Telecom Department Commander</b>
• <b>Emergency Management and Physical Security Officer</b>
• <b>Human Resource Officer</b>
• <b>Safety Officer</b>
• <b>Community Relations Officer</b>
• <b>Regulatory Officer</b>
• <b>State EOC Representative</b>
• <b>Corporate Communications Officer</b>
• <b>Legal Officer</b>
• <b>Logistics Section Chief</b>
• <b>Planning Section Chief</b>
• <b>Finance Section Chief</b>
• <b>Federal Affairs Officer</b>
• <b>Emergency Management Section Chief</b>

In addition to the UC meetings, departments and functional areas have their own internal meetings for coordination and communication purposes, as

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 1  
PAGE 4 OF 4  
FILED: DECEMBER 15, 2017**

defined in the company's ICS activation schedule. Specifically, internal UC meetings were held as follows for the named storms above:

- i. Hurricane Hermine
  - 1) 8/24/2016 – See agenda above.
  - 2) 8/25/2016 – See agenda above.
  - 3) 8/26/2016 – See agenda above.
  - 4) 8/27/2016 – See agenda above.
  - 5) 8/28/2016 – No meetings or conference calls conducted; the company continued to monitor weather.
  - 6) 8/29/2016 – See agenda above.
  - 7) 8/30/2016 – See agenda above.
  - 8) 8/31/2016 – See agenda above.
  - 9) 9/01/2016 – See agenda above.
- ii. Hurricane Matthew
  - 1) 10/05/2016 – See agenda above.
  - 2) 10/06/2016 – See agenda above.
  - 3) 10/07/2016 – See agenda above.
- iii. Hurricane Irma – Evening conference call schedules varied to accommodate Governor Scott's updates with electric utilities.
  - 1) 9/06/2017 – See agenda above.
  - 2) 9/07/2017 – See agenda above.
  - 3) 9/08/2017 – See agenda above.
  - 4) 9/09/2017 – See agenda above.
  - 5) 9/10/2017 – See agenda above.
  - 6) 9/06/2017 – See agenda above.
- iv. Hurricane Maria – TECO did not activate UC for this storm.
- v. Hurricane Nate – TECO did not activate UC for this storm.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 2  
PAGE 1 OF 4  
FILED: DECEMBER 15, 2017**

2. Please provide a detailed description of the utility’s allocation of storm duties for all personnel. This should include a description of each function and the number of utility personnel assigned.

A. Below is a detailed description of the utility’s allocation of storm duties.

<b># of Unified Command</b>	<b># of Staff</b>	<b># of General Staff</b>
65	19	351

The company ICS is comprised of a Unified Commander, Staff and General Staff.

Unified Commander: is responsible for the activation of the ICS in response to a business disruption crisis.

Staff includes:

- A. Emergency Management Officer – is responsible for ensuring safe response to an incident or multiple incidents, high level communications and representation of the utility at local Emergency Operation Centers (“EOC”).
  - i. Emergency Management (“EM”) – Business Continuity (“BC”) Director – facilitates the use of ICS throughout the structure and works with outside agencies.
  - ii. Response Team
    - a. Emergency Support Function (“ESF”) - 3 Representative – reports to the Public Works Command.
    - b. EOC (ESF-12) Representative – reports to EOCs and serves as liaison between Tampa Electric and the assigned EOC.
    - c. EOC-EM Coordinator – responsible for high level communications from Hillsborough County EOC to the company’s Emergency Response Team.
    - d. Wire-Down Liaison – provides communication to the company’s Emergency Response Team at the Energy Control Center (“ECC”) from the field.
    - e. Wire-Down Team – within Electric Delivery supporting the company’s Emergency Response Team in the field for wire-down responses.
  - iii. Security Officer – is responsible for coordinating with Contract Security and Law Enforcement and staying in communication with

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 2  
PAGE 2 OF 4  
FILED: DECEMBER 15, 2017**

Corporate Safety, Emergency Management Operations and Corporate Communications.

- B. Regulatory Officer – responsible for high level communications and representation of the utility at State level.
- C. Environmental Officer – responsible for ensuring precise environmental response to an incident, or multiple incidents.
- D. Corporate Communications Officer – responsible for ensuring accurate and timely dissemination of information.
- E. Public Information Officer – is to gather current information on the impacted company status (i.e. storm damage reports, gas restoration updates, etc.) and other information of interest and importance to team members, customers and the news media.
- F. Legal Officer – to support crisis management, by providing legal guidance.
- G. Community Relations Officer – is responsible for maintaining contact with local government officials.
- H. Safety Officer – is responsible for staying in communication with the different company safety personnel, hospitals, and Emergency Management Operations and managing the PODs.
- I. Human Resource (“HR”) Officer – is responsible for the oversight of critical employee functions during an emergency event that could impair the operations of the company, and is responsible for maintaining contact with HR Managers, Generalists and Department Commanders with respect to conducting safety and wellbeing visits.
- J. Federal Affairs Officer – is responsible for maintaining contact with federal officials and other external constituencies in conjunction with the company’s Corporate Communications Officer.

General Staff includes four sections:

- A. Operations: is responsible for the incident tactical response and includes:
  - i. Electric Delivery
  - ii. Gas Delivery
  - iii. Energy Supply
  - iv. Customer Experience
  - v. Information Technology (“IT”) and Telecom
  - vi. Corporate Emergency Management
- B. Planning: responsible for supporting Unified Command, documentation, and maintaining situational awareness.
  - i. Documentation
  - ii. Resource Situation

- iii. Legal
- iv. Risk Management
- C. Logistics: is responsible for economizing and acquiring resources.
  - i. Logistics Support Unit (“LSU”) – has resource planners (referenced below) which coordinate acquiring needs for the field and help troubleshooting issues.
    - a. Corporate Safety
    - b. IT Technical Support
    - c. LSU Set-up
    - d. HR Department Resource Team (“DRT”)
    - e. Purchasing
    - f. Temporary Workforce
    - g. Employee Benefits
    - h. Fleet Services
    - i. Family Assistance
    - j. Resource Planners
    - k. Facility Services
    - l. Claims Management
    - m. Security & Traffic
    - n. Environmental
    - o. Business Emergency Response Team (“BERT”)
    - p. Telecom
  - ii. Purchasing DRT – is responsible for purchasing materials and services and, if necessary, setting up the secondary emergency coordination center at Ybor Data Center.
  - iii. Lodging Services Team – is responsible for providing lodging for foreign crew members and displaced home crews.
  - iv. Emergency Services Team – is responsible for supplying logistical services (as noted below) to foreign crews, displaced home crews, critical team members and support personnel at IBs during an emergency.
    - a. Meals
    - b. Laundry
    - c. Transportation
    - d. Lodging
  - v. Mass Management – is responsible for tracking emergency services provided to the mutual assistance crews, as well as the crew members.
  - vi. Incident Base (“IB”) Setup Team
- D. Finance - responsible for streamlining payroll, accounts payable, documenting expenses and other financial functions during an emergency.



**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 2  
PAGE 4 OF 4  
FILED: DECEMBER 15, 2017**

- i. Payroll
- ii. Accounts payable
- iii. Documentation

Tampa Electric's storm procedures and plan contains sensitive data. From prior discussions with Commission Staff on providing access to view this information. The company will agree to provide Commission Staff an opportunity to review Tampa Electric's storm procedures and plan for the information related to this data request. The company has provided this option during a recent Commission Audit and is more than willing to provide this accommodation again to review the applicable documents in Tallahassee at either the company's local office or an office of Tampa Electric's Attorney.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 3  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 3.** When did the costs for Hurricanes Hermine, Matthew, Irma, Maria, and Nate begin to accrue for receiving mutual aid?
  - A.** Tampa Electric begins accruing costs for receiving mutual aid when foreign crews start traveling and positioning in preparation for assisting the company with restoration efforts. Tampa Electric incurred mutual aid costs for Hurricane Hermine and Irma. Mutual aid costs for Hurricane Hermine started in August 2016 and Hurricane Irma started in September 2017. Tampa Electric did not incur any mutual aid costs for Hurricanes Matthew, Maria or Nate.

## Damage Assessment Process

4. Please provide a detailed overview of the initial damage assessment process for Hurricanes Hermine, Matthew, Irma, Maria, and Nate, including the number of utility employees or contractors involved, their duties, and how initial damage assessment is disseminated within the utility to assist in restoration activities. Additionally, please provide photographs or other visual media that memorializes storm damage, which was documented during the initial damage assessment process.
- A. Restoration of Tampa Electric's distribution system begins with an assessment of the damaged areas. This is accomplished by teams made up of one Distribution Design Technician ("DDT") and one driver. Each team receives primary circuit maps from the area DDT Supervisor for the event impacted area. Teams then perform a circuit patrol to determine the type and amount of damage, mark up maps and complete Distribution Damage Assessment (D-280) forms.

Maps and D-280's are turned in to the DDT Supervisor when completed or at the end of each day, whichever comes first. As each team completes patrolling a circuit, an additional circuit or circuits are assigned until all event affected areas are complete. D-280 information is entered into an internal database and rolled up to the Damage Assessment Unit ("DAU"), who receive, process and assess the information. The DAU will compile the information into a restoration forecast plan for review by the ED Planning Section Chief, who communicates this information out to the organization on the twice daily Electric Delivery Command calls. The restoration forecast is also posted to an internal SharePoint site accessible to Electric Delivery personnel.

Restoration of Tampa Electric's transmission system has a similar process as that for distribution, with teams assessing the transmission system by air (helicopter) or on the ground. Data is rolled up to the Source Restoration Unit ("SRU"), who follow the same process as for distribution.

Restoration of Tampa Electric's substation system also has a similar process as that for distribution. Again, data is rolled up to the SRU, which follows the same process as for distribution.

Specifically, for the Hurricanes Hermine, Matthew and Irma, the Damage Assessment ("DA") process for these three storms was substantially the

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 4  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

same with only Hurricane Irma requiring a full DA process implementation. Initial daily planning calls were held starting September 4, 2017. Based upon initial assessments and preliminary damage estimates, Tampa Electric requested 100 Distribution DA personnel from both Southeastern Electric Exchange ("SEE") and non-SEE resources. Along with Tampa Electric personnel and contractors, between 258 and 318 Distribution DA personnel comprising between 129 to 159 two-person teams were established. A planning group based at the Energy Control Center ran various system impact simulations using the latest track and intensity information. Based on the storm track and reports from field personnel the Planning Section allocated the teams to the areas hardest hit by Hurricane Irma. These areas for Tampa Electric, included Winter Haven, Plant City, Eastern, Dade City and Western Service Areas of the company. Each DA team was responsible for identifying damage for their assigned circuits and reporting that damage on a form that included estimated material types and quantities needed for repair. This information was used to develop an Estimated Time to Restore ("ETR") and to help direct the dispatch of line crews to the areas where they would be the most effective.

Tampa Electric's marked up damage assessment maps that the company used are extremely large maps and are not available in electronic format at this time.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 5  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 5.** Please provide a description of how damage assessment data is updated and communicated internally.
- A.** See Response No. 4 of this set.

### Restoration Workload

6. Please provide a detailed description of how the utility determines when and where to start restoration efforts.
- A. Tampa Electric begins restoration efforts once winds have subsided to Tropical Storm force, or 39 MPH or less. This wind level criteria has been established as the point where it is safe for Tampa Electric personnel to travel and begin restoration efforts. Tampa Electric's System Operators will isolate and restore the transmission system as outages occur via remote control/switching from the control room as storms move through the area.

Restoration efforts at Tampa Electric are prioritized according to previously identified individual customer restoration priorities as well as where the greatest number of outages have occurred from damage to the system.

To maintain the transmission system integrity and system-wide voltage, all 230 kilovolt (kV) and 138kV circuits must be restored as quickly as possible. Some 230kV circuits and/or sections may be left out of service if neighboring utilities systems can be utilized to carry portions of TEC's load. Restoration of 69kV circuits will be based on the premise of providing one radial feed to each substation.

Working with the DAU, the SRU and the ETR teams, Substation restoration priorities are determined to maximize system stability needs and the number of customers that can be restored.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 7  
PAGE 1 OF 3  
FILED: DECEMBER 15, 2017**

7. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please complete the following table on workload priority:

<b>Personnel Responsible for Restoration Workload Assignments</b>		
<b>Title</b>	<b>Years of experience</b>	<b>Number of crews managed</b>

- A. The tables below show the company's personnel responsible for restoration workload assignments for the Hurricanes listed above:

**Hurricane Hermine:**

<b>Personnel Responsible for Restoration Workload Assignments</b>		
<b>Title</b>	<b>Years of experience</b>	<b>Number of crews managed</b>
Manager, Distribution Engineering and Operations (Polk County, Plant City and Dade City)	36	100
Manager, Distribution Engineering and Operations (Eastern and South Hillsborough)	34	
Manager, Distribution Engineering and Operations (Central)	10	
Manager, Distribution Engineering and Operations (Western)	34	
Manager, Substation Operations	11	
Manager, Transmission Operations	33	

**Hurricane Matthew:**

<b>Personnel Responsible for Restoration Workload Assignments</b>		
<b>Title</b>	<b>Years of experience</b>	<b>Number of crews managed</b>
Manager, Distribution Engineering and Operations (Polk County, Plant City and Dade City)	36	54
Manager, Distribution Engineering and Operations (Eastern and South Hillsborough)	34	
Manager, Distribution Engineering and Operations (Central)	10	
Manager, Distribution Engineering and Operations (Western)	34	
Manager, Substation Operations	11	
Manager, Transmission Operations	33	

**Hurricane Irma:**

<b>Personnel Responsible for Restoration Workload Assignments</b>		
<b>Title</b>	<b>Years of experience</b>	<b>Number of crews managed</b>
Manager, Distribution Engineering and Operations (Polk County, Plant City and Dade City)	36	684
Manager, Distribution Engineering and Operations (Eastern and South Hillsborough)	34	



**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 7  
PAGE 3 OF 3  
FILED: DECEMBER 15, 2017**

Manager, Distribution Engineering and Operations (Central)	10	
Manager, Distribution Engineering and Operations (Western)	34	
Manager, Substation Operations	11	
Manager, Transmission Operations	33	

Tampa Electric was not impacted by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 8  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 8.** Please provide a description of how restoration workload adjusts based on work completed and updates to damage assessments.
  
- A.** Tampa Electric's restoration workload is determined initially by outage reports from the company's Energy Management System ("EMS") and Outage Management Systems ("OMS"), along with initial damage assessments. Each day, additional damage assessment and restoration work is completed in each of Tampa Electric's service areas or Incident Bases. This data is provided to the DAU, the SRU and the ETR teams. Taking this data and factoring in the number of restoration personnel assigned to each area, these teams will analyze the data and determine priorities and ETR's. They will also reassign restoration personnel from one service area or Incident Base as needed to ensure the company is performing restoration in the most efficient manner along with addressing any critical facility or priority customers issues. Reassignments are also done to ensure that restoration will be complete over the entire service territory about the same time frame. This process is continued daily until restoration is complete.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 9  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 9.** If applicable, please describe how mutual aid was determined to be no longer needed following Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
- A.** Following the process described in the Response No. 8 above, the ETR team will project when restoration is expected to be complete. This estimate is updated daily as new damage assessment and work completed information is forwarded to the ETR team. To maximize efficiency of restoration and minimize costs, a determination of when mutual aid is no longer required is a part of the ETR process. Every effort is made to utilize mutual aid to assist in the restoration effort until such time as all customers who are able to take service have been restored.

This process has been followed for all restoration efforts, including Hurricanes Hermine and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate and did not require mutual aid nor was mutual aid required for Hurricane Matthew.

**Staffing Considerations**

- 10.** Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please respond to the following, please provide the following:
- a. Days of lodging provided for Utility personnel (Person-Days)
  - b. Days of lodging provided for mutual aid partners (Person-Days)
  - c. Number of meals provided for Utility personnel
  - d. Number of meals provided for mutual aid partners
  - e. Number of Utility personnel injuries
  - f. Number of mutual aid partner injuries
  - g. Number of Utility personnel fatalities
  - h. Number of mutual aid partner fatalities

Please note any delays in restoration associated with items e-h above.

- A.**
- a. Not applicable.
  - b. The table below shows the dates lodging was provided for mutual aid partners, along with the number of beds and rooms associated with each storm requested.

<b>Dates of Lodging provided for Mutual Aid Partners, including number of Beds and Rooms</b>					
	<b>Hermine</b>	<b>Matthew</b>	<b>Irma</b>	<b>Maria</b>	<b>Nate</b>
<b>Dates Provided</b>	9/1/2016 to 9/3/2016	Not applicable	9/9/2017 to 9/16/2017	Not applicable	Not applicable
<b>Beds</b>	750	0	14,041	0	0
<b>Rooms</b>	375	0	7,932	0	0

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 10  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

- c. During storm activation, Tampa Electric considers all personnel, including mutual aid partners, utility personnel. The table below shows the number of meals and snacks provided to utility personnel.

<b>Meals and Snacks provided to Utility Personnel</b>					
	<b>Hermine</b>	<b>Matthew</b>	<b>Irma</b>	<b>Maria</b>	<b>Nate</b>
<b>Meals</b>	2,475	0	103,896	0	0
<b>Snacks</b>	825	0	15,000	0	0

- d. The number of meals and snacks provided is in Response 10.c above. As detailed in Response 10.c, Tampa Electric considers all personnel, including mutual aid partners, utility personnel
- e. Tampa Electric experienced zero utility personnel injuries for any of the above listed hurricanes.
- f. Tampa Electric's mutual aid partners experienced one injury during Hurricane Irma related to heat illness. There were no other injuries during any of the other listed hurricanes.
- g. Tampa Electric experienced zero utility personnel fatalities for any of the above listed hurricanes.
- h. Tampa Electric's mutual aid partners experienced zero fatalities for any of the above listed hurricanes while working for the company.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 11  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 11.** Please provide a detailed description of when your Utility was considered fully restored from each named storm event.
- A.** Tampa Electric restored the majority of customers by the date and time indicated for each of the following named storms:
- Hurricane Hermine: September 2, 2016; 15:00
  - Hurricane Matthew: October 7, 2016; 23:59
  - Hurricane Irma: September 18, 2017; 23:59

Tampa Electric was not impacted by Hurricane Maria or Nate.

**Customer Communication**

- 12.** Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please respond to the following for each county in the Utility's service territory affected by the storms.
- a. Total number of customer accounts
  - b. Peak number of outages
- A.**
- a. The total number of customer accounts is provided in the table below for Hurricane Hermine, Matthew and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate.
  - b. On the following page, the peak number of outages is provided in the table for Hurricanes Hermine, Matthew and Irma for each county in Tampa Electric's service area. Tampa Electric was not impacted by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 12**  
**PAGE 2 OF 2**  
**FILED: DECEMBER 15, 2017**

<b>Hurricane Hermine</b>		
	<b>Total Customers<sup>1</sup></b>	<b>Peak Customers Out</b>
<b>Tampa Electric System</b>	724,911	30,973
<b>Hillsborough County</b>	639,740	29,862
<b>Pasco County</b>	14,372	69
<b>Pinellas County</b>	0	929
<b>Polk County</b>	70,799	113
<b>Hurricane Matthew</b>		
	<b>Total Customers<sup>1</sup></b>	<b>Peak Customers Out</b>
<b>Tampa Electric System</b>	724,911	3,838
<b>Hillsborough County</b>	639,740	138
<b>Pasco County</b>	14,372	6
<b>Pinellas County</b>	0	1
<b>Polk County</b>	70,799	3,666
<b>Hurricane Irma</b>		
	<b>Total Customers<sup>2</sup></b>	<b>Peak Customers Out</b>
<b>Tampa Electric System</b>	736,819	>328,000
<b>Hillsborough County</b>	650,439	263,790
<b>Pasco County</b>	14,372	15,731
<b>Pinellas County</b>	0	770
<b>Polk County</b>	71,888	52,513
Note 1: as of January 1, 2016, Note 2: as of January 1, 2017		



13. Please provide how call center customer service representatives were utilized before, during and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

A. Below is how the company staffed call center representatives during Hurricanes Hermine, Matthew and Irma. Hurricanes Maria and Nate did not impact Tampa Electric.

**Hurricane Hermine**

**Before:** No additional staffing – staffed in call center.

**During:** No additional staffing – staffed in call center.

**After:** No additional staffing – staffed in call center.

**Hurricane Matthew**

**Before:** No additional staffing – staffed in call center.

**During:** No additional staffing – staffed in call center.

**After:** No additional staffing – staffed in call center.

**Hurricane Irma**

**Before:** No additional staffing – staffed in call center.

**During:** Staffed in call center, additional call center support provided by offsite Mutual Assistance Routing Systems (“MARS”) assistance.

**After:** Staffed in call center, additional call center support provided by offsite MARS assistance.

14. Please provide the number of customer service representatives the Utility had during Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

a. Were there additional personal deployed or 3rd party entities utilized to help address customer contacts during each named storm event? If so, how many?

A. Below is the number of customer service representatives the company staffed during Hurricanes Hermine, Matthew and Irma. Hurricanes Maria and Nate did not impact Tampa Electric. Tampa Electric currently has 240 CSPs that provide seven days a week by 24-hours a day overlapping coverage.

**Hurricane Hermine**

**Before:** No additional staffing  
**During:** No additional staffing  
**After:** No additional staffing

**Hurricane Matthew**

**Before:** No additional staffing  
**During:** No additional staffing  
**After:** No additional staffing

**Hurricane Irma**

**Before:** No additional staffing  
**During:** 64 team members and contractors. MARS assistance from multiple utilities totaling another additional 112 resources.  
**After:** Team members in rotating 12-hour shifts. Approximately 155 CSPs providing A.M. shift support, approximately 90 CSPs providing P.M. shift support and varying levels of MARS assistance with a peak support level of 137 CSPs.

a. Tampa Electric did not require additional personnel to be deployed during any of the above listed storms to help address customer contacts.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 15  
PAGE 1 OF 2  
FILED: DECEMBER 15, 2017**

15. Please provide the number of customer contacts received by the customer call center(s) during Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

A. The tables below show the number of customer contacts received by the company's customer call center during Hurricanes Hermine, Matthew and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate.

<b>Hurricane Hermine</b>					
<b>Date</b>	<b>CSP / Dispatcher</b>	<b>Phone</b>	<b>Text</b>	<b>Web</b>	<b>Total Outages Reported</b>
8/28/2017	69	375	26	16	486
8/29/2017	300	538	61	17	916
8/30/2017	191	134	9	42	376
8/31/2017	346	1,535	256	134	2,271
9/1/2017	2,071	8,712	1,382	807	12,972
9/2/2017	3,423	8,004	1,160	841	13,428
9/3/2017	416	644	118	352	1,530
<b>Total</b>	<b>6,816</b>	<b>19,942</b>	<b>3,012</b>	<b>2,209</b>	<b>31,979</b>

<b>Hurricane Matthew</b>					
<b>Date</b>	<b>CSP / Dispatcher</b>	<b>Phone</b>	<b>Text</b>	<b>Web</b>	<b>Total Outages Reported</b>
9/28/2016	434	903	100	0	1,437
9/29/2016	542	817	109	0	1,468
9/30/2016	168	102	2	0	272
10/1/2016	128	766	99	0	993
10/2/2016	89	425	66	0	580
10/3/2016	228	356	33	0	617
10/4/2016	239	224	24	0	487
10/5/2016	212	143	20	0	375
10/6/2016	255	292	32	0	579
10/7/2016	689	1,495	253	0	2,437
10/8/2016	50	257	22	0	329
10/9/2016	68	628	187	0	883
<b>Total</b>	<b>3,102</b>	<b>6,408</b>	<b>947</b>	<b>0</b>	<b>10,457</b>

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 15  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

<b>Hurricane Irma</b>						
<b>Date</b>	<b>CSP / Dispatcher</b>	<b>Customer Portal</b>	<b>Phone</b>	<b>Text</b>	<b>Web</b>	<b>Total Outages Reported</b>
9/5/2017	404	25	242	47	22	740
9/6/2017	391	9	236	13	5	654
9/7/2017	291	28	165	71	10	565
9/8/2017	366	35	174	124	14	713
9/9/2017	444	63	666	245	47	1,465
9/10/2017	5,159	922	9,393	3,749	1,308	20,531
9/11/2017	37,806	9,208	60,092	9,603	8,878	125,587
9/12/2017	27,187	5,555	34,056	6,151	5,351	78,300
9/13/2017	11,820	2,056	12,660	2,013	2,485	31,034
9/14/2017	8,211	1,203	8,322	1,573	1,630	20,939
9/15/2017	5,204	577	4,548	766	850	11,945
9/16/2017	2,209	232	2,215	376	295	5,327
9/17/2017	1,295	89	1,545	210	249	3,388
<b>Total</b>	<b>100,787</b>	<b>20,002</b>	<b>134,314</b>	<b>24,941</b>	<b>21,144</b>	<b>301,188</b>

16. Please provide all methods (call centers, email, Utility website, etc.) utilized to submit and collect customer contacts before, during, and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

A. Tampa Electric utilized the following methods for the company to submit and collect customer contacts before, during, and after Hurricanes Hermine, Matthew and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate.

**Before Storm:**

Before each of the above listed hurricanes, the following methods were used to communicate with the customer:

- Tampa Electric Interactive Voice Response (“IVR”) system – Customers were able to call 813-223-0800 to contact the company for any questions or issues.
- Outbound email campaigns were used to promote enrollment in Power Updates.
- Social media was used to communicate with customers on storm-related issues including the process for restoring customers post-storm, how to enroll in Power Updates, safety considerations, etc.
- Outbound phone calls to customers on medical watch letting them know about Irma and advising them to plan ahead.
- Outbound emails were sent to customers on Energy Planner alerting them to the storm.

**During Storm:**

During each of the above listed storms, the following methods were used to communicate with the customer:

- Reporting an outage:
  - **Phone:** Customers can utilize the IVR to report an outage by calling 1-877-588-1010.
  - **Text:** Once enrolled in Power Updates, customers can report an outage by texting OUT to 35069.
  - **TampaElectric.com:** Customers can view the outage map by going to [www.tampaelectric.com](http://www.tampaelectric.com) and report an outage.
  - **Customer Portal:** Customers can log into their account at [www.tecoaccount.com](http://www.tecoaccount.com) and report an outage.
  - **Routed to CSP:** Customers can call Tampa Electric IVR at 813-223-0800 and report an outage by speaking directly with a CSP.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 16  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

- Social media was used to communicate with customers on storm-related issues including the process for restoring customers post-storm, how to enroll in Power Updates, safety considerations, etc. Customers are also able to send message with questions/issues utilizing social media.
- Emails – Customers were able to send an email regarding their question/issue through the following link <http://www.tampaelectric.com/contact/>
- Outage map – Customers viewed the outage map, ETR and reported outages through [www.tampaelectric.com](http://www.tampaelectric.com).
- Web banners/alerts were added on to the home page of [tampaelectric.com](http://www.tampaelectric.com) to communicate with customers on storm-related issues.

**After Storm:**

- Social media was used to communicate with customers on storm-related issues including updates on the restoration progress, safety considerations, etc.
- Automated outbound calls, texts, and emails were made to customers with an update on restoration progress.
- Manual outbound calls were made by Customer Experience staff to customers with an update on restoration progress.
- Web banners/alerts were added on to the home page of [tampaelectric.com](http://www.tampaelectric.com) to communicate with customers on storm-related issues.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 17  
PAGE 1 OF 2  
FILED: DECEMBER 15, 2017**

17. Please describe the step by step process(es) by which customer contacts are addressed before, during, and after a named storm event. If different during each timeframe, please describe the step by step process during each separately.
- a. Did the Utility identify any delays in restoration as a result of addressing customer contacts related to Hurricanes Hermine, Matthew, Irma, Maria, and Nate? If so, please provide detail.
- A. Tampa Electric follows a consistent process by which customer contacts are addressed before, during and after a named storm event. Tampa Electric's customers are able to call, email, text message, login to their customer portal or visit the company's website to report outage information. Details of how to report the outage for each of these is detailed below:
- **Phone:** Customers can utilize the IVR to report an outage by calling 1-877-588-1010.
  - **Text:** Once enrolled in Power Updates, customers can report an outage by texting OUT to 35069.
  - **TampaElectric.com:** Customers can view the outage map by going to [www.tampaelectric.com](http://www.tampaelectric.com) and report an outage.
  - **Customer Portal:** Customers can log into their account at [www.tecoaccount.com](http://www.tecoaccount.com) and report an outage.
  - **Routed to CSP:** Customers can call Tampa Electric's IVR at 813-223-0800 and report an outage by speaking directly with a CSP.

Once the outage is reported, that information will be routed to Tampa Electric's OMS for automatic and manual analysis. The company's OMS is programmed to assist the System Dispatcher with the prediction of the location and device of the actual outage based upon the number of calls received in a given location versus the potential upstream devices that could be the cause. The System Dispatcher can update the outage on what is the potential cause and how many resources will be needed for repair/replacement based upon information they have at the time. The System Dispatcher will dispatch the outage to the restoration crews electronically via the company's Computer Aided Dispatching ("CAD") system which assigns the outage ticket. Depending on the potential cause of the outage, number of customers impacted, storm damage assessment information and current and expected restoration resources, an ETR will be developed. The restoration crew(s) arrive on location and either confirms the outage location and device or, after patrolling, updates the ticket to the correct location and device. The restoration crew resolves the outage and

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 17  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

updates the ticket with the pertinent information (restoration time, outage cause and comments). After the ticket is updated with a restoration time, customers are contacted to confirm restoration. If the customer states they are still without power, the outage is rerouted back to OMS to enable the process to start over.

- a. Tampa Electric did not experience any delays in restoration as a result of addressing customer contacts related to Hurricanes Hermine, Matthew and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate.



**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 18  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 18.** Please provide whether or not customer contacts are categorized (by concern, complaint, information request, etc.) If so, how are they categorized? If not, why not?
  - A.** Tampa Electric categorizes customer contact calls during large storm events such as Hurricanes Hermine, Matthew and Irma as either Outage or Emergency.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 19  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

**19.** Please provide a detailed description of how customer service representatives are informed of restoration progress.

a. Is there a script provided to each customer service representative to relay restoration progress to customers? If so, what is the process by which the script is created?

**A.** Tampa Electric's Corporate Communications Department creates all of the customer talking points for the storm and updates to the restoration progress. This information is sent to a distribution list that includes Development Services ("DS") which distributes this information to the CSPs. In the case of Hurricane Irma, the company also kept all of the talking points, hurricane info and other important information pertaining to the storm and restoration on an accessible SharePoint site that CSPs can access for information when talking with customers. In addition, all of this information is provided to the company's MARS Assistance partners to ensure consistency in messaging and communications to Tampa Electric's customers.

In the event that the company's call center starts receiving questions or concerns from customers that's not addressed by the provided information. The company's CSPs will inform their performance coach or DS of the information needed. This information will be provided to the company's Corporate Communications Department so the next restoration update will have the needed information for use.

a. The script that is developed for CSPs use during large storm events to relay restoration progress is the same as the above described process for talking points.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 20  
PAGE 1 OF 2  
FILED: DECEMBER 15, 2017**

**20.** Please describe the process the Utility uses to notify customers of approximate restoration times. The response should include at a minimum:

- a. How restoration time estimates were determined.
- b. How customers are notified.
- c. How restoration time estimates are updated.
- d. How restoration time estimates are disseminated internally, to the county and state Emergency Operations Centers, and to the public.

**A.** a. For Hurricanes Hermine, Matthew and Irma, Tampa Electric utilized a forecaster model to initially establish restoration times. The use of this forecaster model enables the company to provide a global ETR for all customers.

For Hurricanes Hermine and Matthew, Tampa Electric's OMS calculated ETR's based on the type of outage occurrence.

For Hurricane Irma, Tampa Electric's regional operation center's ETR Teams estimated the time of restoration at a circuit level by having crews report back remaining damage.

b. Customers are notified of ETRs from multiple sources, including Tampa Electric's online outage map, the company's IVR system, news releases, social media posts, Customer Service representatives, EOC representatives and news media reports or coverage of news conferences.

c. For Hurricanes Hermine and Matthew, Tampa Electric's regional operation center's ETR Teams notified a dispatcher to update ETRs based on damage.

For Hurricane Irma, ETRs were updated at a circuit level each night after restoration work was completed for that day.

d. Tampa Electric's online outage map was the main resource used for disseminating ETRs. The company also provided updates throughout each day by providing updated information through Tampa Electric representatives located at the EOCs, at the same frequency and

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 20  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

schedule as those estimates are provided to the Florida Public Service Commission. The restoration time estimates are provided to those representatives internally through the company's Corporate Communications dashboards.

**Material Considerations**

- 21.** Regarding Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide a description of how vehicle fuel was procured for Utility personnel and mutual aid partners. As part of the response, please answer the following:
- a. Whether or not the Utility has fuel stored for these types of events
  - b. Whether or not fuel shortage was an issue during these events
  - c. Whether or not there were any delays due to fuel shortage
  - d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews
- A.**
- a. Tampa Electric has diesel and unleaded bulk fuel storage tanks at six of the seven service area locations the company operates.
  - b. Fuel shortage was not an issue for the company during any of these events.
  - c. There were no customer restoration delays due to fuel.
  - d. There were enough vehicles available for mobilized crews. There were additional vehicles needed, in which the company rented, to manage the laundry service.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 22  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 22.** Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
- A.** Tampa Electric experienced no complications or delays for the delivery of materials for any of the named Hurricanes above. Tampa Electric's process for equipment inventory requires a review prior to hurricane season of each year. The company reviews the current level of inventory in stock and then increases the inventory prior to the hurricane season to support a Category 1 level restoration effort. The stock increase secures a full four-day supply of overhead distribution supplies, parts and materials such as splices, fuses, connectors, service clamps, brackets, wire, poles, transformers, etc.

## Restoration Process

23. Please provide a summary timeline of the utility's restoration process for each hurricane: Hermine, Matthew, Irma, Maria, and Nate. The timeline should include, but not limited to, staging, stand-down, deployment, re-deployment, allocation, mutual aid, release of mutual aid, and date last outage was restored.
- A. The summary timeline for Tampa Restoration process for Hurricane Hermine, Matthew and Irma are detailed below. The company was not impacted by Hurricane Maria or Nate.

### Hurricane Hermine:

**Staging:** August 31, 2016, 'Dog Track' Incident Base opened  
**Stand-down:** September 3, 2016, 'Dog Track' Incident Base closed  
**Deployment:** August 31, 2016, mutual aid crews arrive and are deployed  
**Re-deployment:** September 3, 2016, mutual aid crews released to Duke Energy Florida  
**Allocation:** August 25, 2016, secured mutual aid crews  
**Mutual Aid:** August 25, 2016, secured mutual aid crews  
**Release of Mutual Aid:** August 26, 2016, released some mutual aid crews due to improving weather forecast, remainder released on September 3, 2016  
**Date last Customer Ready for Restoration Restored:** September 3, 2016

### Hurricane Matthew:

**Staging:** No Incident Bases were opened  
**Stand-down:** Not applicable  
**Deployment:** Deployed Tampa Electric crews to Jacksonville Electric Authority on October 9, 2016  
**Re-deployment:** Not applicable  
**Allocation:** No mutual aid crews were requested  
**Mutual Aid:** No mutual aid crews were requested  
**Release of Mutual Aid:** Not applicable  
**Date last Customer Ready for Restoration Restored:** October 7, 2016

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 23  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

**Hurricane Irma:**

**Staging:** September 12, 2017, 'Strawberry' Incident Base opened, September 13, 2017, 'SW Complex', 'Wimauma Church' 'Dog Track' 'CSX Railhead' and 'Fairgrounds' Incident Bases opened

**Stand-down:** September 18, 2017, all Incident Bases closed

**Deployment:** Some Tampa Electric crews were scheduled for September 9, 2017, to handle any restoration needs ahead of the storm. A target of 10:00a.m., Monday, September 11, was established for the start of general restoration as winds were forecasted to drop to tropical storm strength (39 MPH or less). Some crews deployed earlier than the target time as they determined safe travel conditions had started

**Re-deployment:** September 15, 2017, almost 400 mutual aid personnel released to another impacted utility. September 16, 2017, 206 mutual aid personnel released to another impacted utility. September 17, 2017, 2,313 of the mutual aid personnel were released to other impacted utilities. September 18, 2017, remaining mutual aid personnel were released to other impacted utilities

**Allocation:** Beginning September 5, 2017 and continuing until September 14, mutual aid crews were requested and/or coordinated

**Mutual Aid:** Beginning September 5, 2017 and continuing until September 14, mutual aid crews were requested and/or coordinated

**Release of Mutual Aid:** September 15, 2017, almost 400 mutual aid personnel released to another impacted utility. September 16, 2017, 206 mutual aid personnel released to another impacted utility. September 17, 2017, 2,313 of the mutual aid personnel were released to other impacted utilities. September 18, 2017, remaining mutual aid personnel were released to other impacted utilities

**Date last Customer Ready for Restoration Restored:** September 18, 2017



**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 24  
PAGE 1 OF 2  
FILED: DECEMBER 15, 2017**

**24.** Please explain how the Utility validates adherences and departures from its storm preparation plan.

- a. If the Utility does not assess departures from its storm plan, explain why not.
- b. If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not.
- c. Have departures from the Utility's storm preparation plan resulted in modification of the storm preparation plan during 2015 through 2017? If so, please explain how with examples.

**A.** a. Tampa Electric's Corporate Emergency Management validates adherences and departures of the storm plan by capturing lesson's learned pre-storm, during the storm and post-storm. These lessons are tracked and followed-up with corrective action.

In addition, Tampa Electric assesses, documents and memorializes departures from the company's storm plan by gathering "Lesson's Learned" from all personnel post storm. Each Lesson's Learned is assigned to an individual for follow-up with a due date. For Electric Delivery, the Manager of Electric Delivery Emergency Management is responsible for tracking the status of all Lesson's Learned and reporting their status to the Vice President of Electric Delivery. The Manager of Electric Delivery Emergency Management is also responsible for monitoring restoration activities as they occur to determine if there are any departures from the storm plan and either addresses them immediately or documents them for follow-up and resolution after restoration is complete.

- b. Not applicable
- c. Tampa Electric's Corporate Emergency Management updates the plans with the lesson's learned which continuously improve the storm plans after changes are identified. Example changes such as increasing employee training and adding employees where the needs are to cover the functions required to aid crew members. All Lesson's Learned gathered because of each storm are reviewed for possible updates to the Electric Delivery Emergency Management Plan at Tampa Electric. The Electric Delivery Emergency Management Plan

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 24  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017**

is continually updated and refined as changes are identified. The Emergency Management Plan is also formally reviewed and updated each year prior to the start of hurricane season (June 1).

Some examples of modifications to the Electric Delivery Emergency Management Plan include the use of two-man Cut-N-Clear teams to isolate damage and restore main circuit feeders, the implementation of the ETR process, technological improvements to the Fold Out Rigid Temporary Shelters ("FORTS"), increased utilization of personnel to respond to wire down calls, updated and improved Electric Delivery storm communication dashboards.

- 25.** Please explain how the Utility validates adherences and departures from its storm restoration plan.
- a. If the Utility does not assess departures from its storm restoration plan, explain why not.
  - b. If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.
  - c. Have departures from the Utility's storm restoration plan resulted in modification of the storm restoration plan during 2015 through 2017? If so, please explain how with examples.
- A.**
- a. See response 24a of this set.
  - b. See response 24b of this set.
  - c. See response 24c of this set.

**Outages**

- 26.** Please identify all counties, including reporting regions/division for each county if applicable, that were impacted (had outages or damage) due to Hurricanes Matthew, Hermine, Irma, Maria, and Nate.
- A.** Tampa Electric experienced damage and outages in all of the company's service areas/regions from Hurricanes Matthew, Hermine and Irma. The company's service areas/regions cover the counties of Hillsborough, Pasco, Pinellas and Polk. The company was not impacted by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 27  
PAGE 1 OF 2  
FILED: DECEMBER 15, 2017**

27. Please complete the table below summarizing the wind speed and flooding impacts by county in the utility's service area. If the requested information is not available by county, please provide the information on a system basis. Please provide this information for Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

<b>Weather Impact</b>				
<b>County</b>	<b>Maximum Sustained Winds (MPH)</b>	<b>Maximum Gusts (MPH)</b>	<b>Maximum Rainfall (inches)</b>	<b>Maximum Storm Surge (Feet)</b>

- A. The tables below summarize the wind speed and flooding impacts by county for Tampa Electric's service area. The information is provided for impacts from Hurricanes Matthew, Hermine and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate.

<b>Weather Impact - Hurricane Matthew</b>				
<b>County</b>	<b>Maximum Sustained Winds (MPH)</b>	<b>Maximum Gusts (MPH)</b>	<b>Maximum Rainfall (inches)</b>	<b>Maximum Storm Surge (Feet)</b>
Pinellas	24.2	40.3	<3.0	N/A

<b>Weather Impact - Hurricane Hermine</b>				
<b>County</b>	<b>Maximum Sustained Winds (MPH)</b>	<b>Maximum Gusts (MPH)</b>	<b>Maximum Rainfall (inches)</b>	<b>Maximum Storm Surge (Feet)</b>
Hillsborough	36.8	57.5	7.0	4.2
Polk	29.9	41.4		

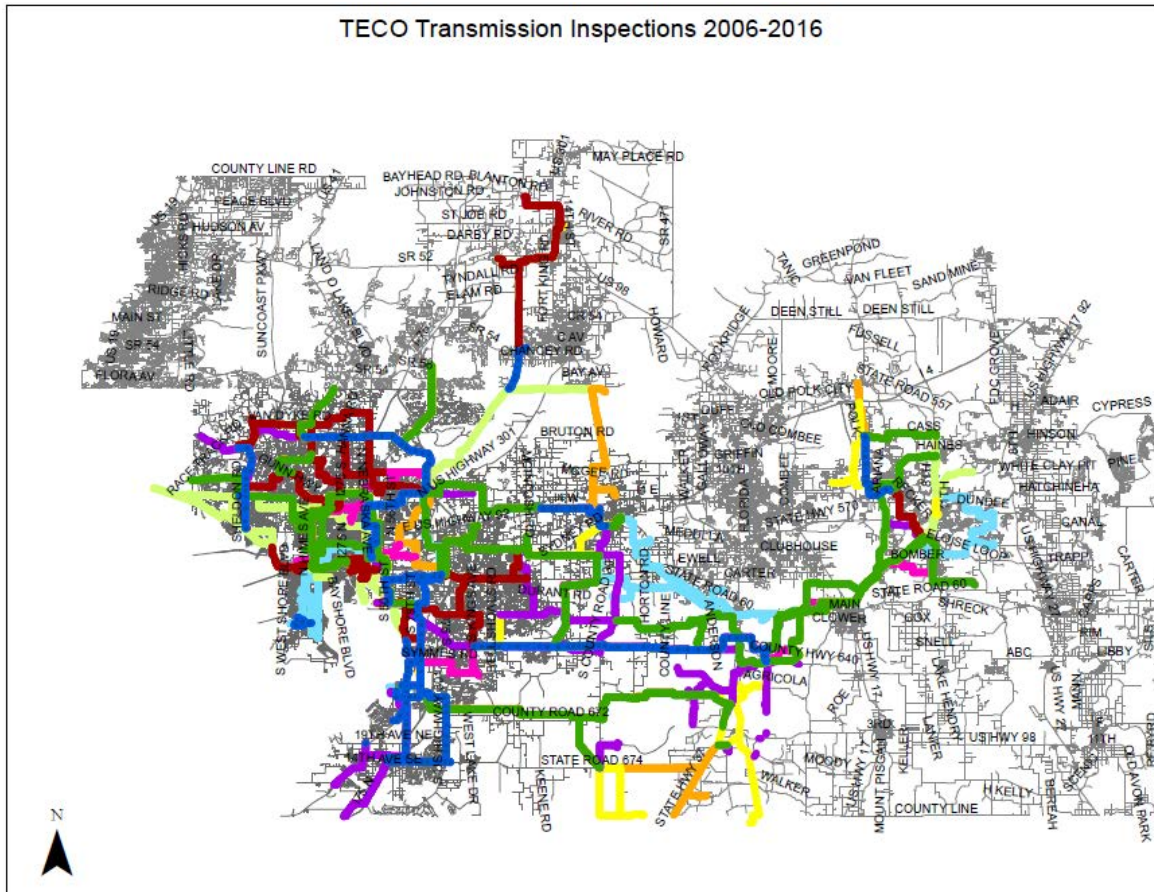
TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 27  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017

<b>Weather Impact - Hurricane Irma</b>				
<b>County</b>	<b>Maximum Sustained Winds (MPH)</b>	<b>Maximum Gusts (MPH)</b>	<b>Maximum Rainfall (inches)</b>	<b>Maximum Storm Surge (Feet)</b>
Hillsborough	46.0	66.7	7.5	3.1
Pasco	Unknown	Unknown	8.7	Unknown
Pinellas	49.4	73.6	5.6	1.7
Polk	50.6	76.0	11.0	N/A

**Hardened and Non-Hardened Structures**

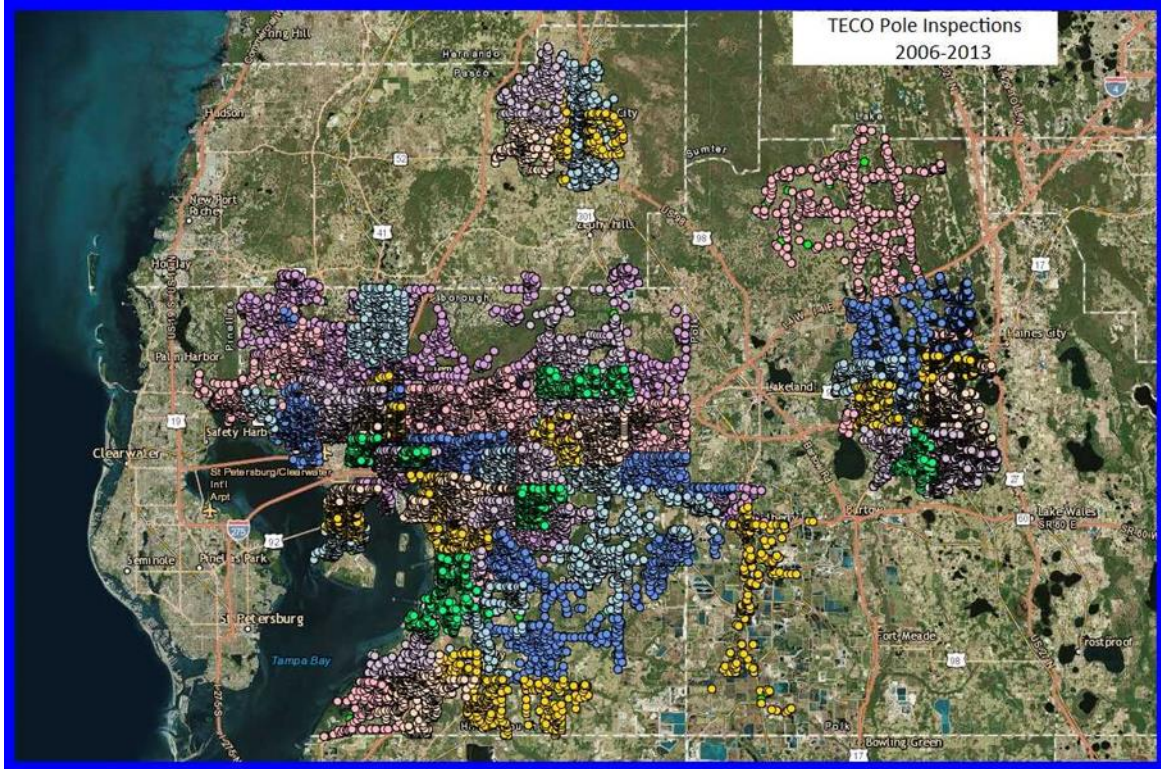
- 28. Please provide a county map or graphic indicating the geographic locations where the Utility's infrastructure was storm hardened after 2006. For purposes of this question, do not include vegetation management.
  
- A. The maps provided below show graphically the transmission and distribution infrastructure areas of Tampa Electric's service area that have been hardened since 2006.

Transmission:



TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 28  
PAGE 2 OF 2  
FILED: DECEMBER 15, 2017

Distribution:





**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 29**  
**PAGE 1 OF 4**  
**FILED: DECEMBER 15, 2017**

29. Please complete the table below summarizing hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

<b>Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures		
Substations		
<b>Total</b>		
<b><i>Distribution</i></b>		
Poles		
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
<b>Total</b>		
<b><i>Service</i></b>		
Service OH		
Service UG		
Service Combined		
<b>Total</b>		

- A. The tables on the following pages summarize the company's hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine and Irma. Tampa Electric was not impact by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 29**  
**PAGE 2 OF 4**  
**FILED: DECEMBER 15, 2017**

<b>Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
<b>Matthew</b>	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures	0	0
Substations	0	0
<b>Total</b>	0	0
<b><i>Distribution</i></b>		
Poles	0	0
Substation	0	0
Feeder OH	0	0
Feeder UG	0	0
Feeder Combined	0	0
Lateral OH	0	0
Lateral UG	0	0
Lateral Combined	0	0
<b>Total</b>	0	0
<b><i>Service</i></b>		
Service OH	0	0
Service UG	0	0
Service Combined	0	0
<b>Total</b>	0	0

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 29**  
**PAGE 3 OF 4**  
**FILED: DECEMBER 15, 2017**

<b>Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
<b>Hermine</b>	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures	0	0
Substations	0	0
<b>Total</b>	0	0
<b><i>Distribution</i></b>		
Poles	0	0
Substation	0	0
Feeder OH	0	0
Feeder UG	0	0
Feeder Combined	0	0
Lateral OH	0	0
Lateral UG	0	0
Lateral Combined	0	0
<b>Total</b>	0	0
<b><i>Service</i></b>		
Service OH	0	0
Service UG	0	0
Service Combined	0	0
<b>Total</b>	0	0

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 29**  
**PAGE 4 OF 4**  
**FILED: DECEMBER 15, 2017**

<b>Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
<b>Irma</b>	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures	2	0
Substations	0	0
<b>Total</b>	2	0
<b><i>Distribution</i></b>		
Poles	0	24
Substation	0	0
Feeder OH	Note 1	Note 1
Feeder UG	Note 1	Note 1
Feeder Combined	Note 1	Note 1
Lateral OH	Note 1	Note 1
Lateral UG	Note 1	Note 1
Lateral Combined	Note 1	Note 1
<b>Total</b>	Note 1	Note 1
<b><i>Service</i></b>		
Service OH	Note 1	Note 1
Service UG	Note 1	Note 1
Service Combined	Note 1	Note 1
<b>Total</b>	Note 1	Note 1

Note 1: Tampa Electric does not have this data at this time due to the number of outages that occurred during Hurricane Irma and the number of outages that were restored by foreign crews.

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 30**  
**PAGE 1 OF 4**  
**FILED: DECEMBER 15, 2017**

30. Please complete the table below summarizing the company's non-hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

<b>Non-Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures		
Substations		
<b>Total</b>		
<b><i>Distribution</i></b>		
Poles		
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
<b>Total</b>		
<b><i>Service</i></b>		
Service OH		
Service UG		
Service Combined		
<b>Total</b>		

- A. The tables on the following pages summarize the non-hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine and Irma. Tampa Electric was not impact by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 30**  
**PAGE 2 OF 4**  
**FILED: DECEMBER 15, 2017**

<b>Non-Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
<b>Matthew</b>	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures	0	0
Substations	0	0
<b>Total</b>	0	0
<b><i>Distribution</i></b>		
Poles	0	0
Substation	0	0
Feeder OH	0	0
Feeder UG	0	0
Feeder Combined	0	0
Lateral OH	2	4
Lateral UG	0	1
Lateral Combined	0	0
<b>Total</b>	2	5
<b><i>Service</i></b>		
Service OH	2	8
Service UG	0	1
Service Combined	0	0
<b>Total</b>	2	9

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 30**  
**PAGE 3 OF 4**  
**FILED: DECEMBER 15, 2017**

<b>Non-Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
<b>Hermine</b>	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures	0	0
Substations	0	0
<b>Total</b>	0	0
<b><i>Distribution</i></b>		
Poles	0	22
Substation	0	0
Feeder OH	5	1
Feeder UG	1	1
Feeder Combined	0	0
Lateral OH	67	9
Lateral UG	0	0
Lateral Combined	0	0
<b>Total</b>	73	33
<b><i>Service</i></b>		
Service OH	59	35
Service UG	5	0
Service Combined	0	0
<b>Total</b>	64	35

**TAMPA ELECTRIC COMPANY**  
**DOCKET NO. 20170215-EU**  
**STAFF'S FIRST DATA REQUEST**  
**REQUEST NO. 30**  
**PAGE 4 OF 4**  
**FILED: DECEMBER 15, 2017**

<b>Non-Hardened Facilities</b>		
<b>Hurricane</b>	<b>Number of Facilities Requiring</b>	
<b>Irma</b>	<b>Repair</b>	<b>Replacement</b>
<b><i>Transmission</i></b>		
Structures	5	10
Substations	0	0
<b>Total</b>	5	10
<b><i>Distribution</i></b>		
Poles	0	160
Substation	0	0
Feeder OH	Note 1	Note 1
Feeder UG	Note 1	Note 1
Feeder Combined	Note 1	Note 1
Lateral OH	Note 1	Note 1
Lateral UG	Note 1	Note 1
Lateral Combined	Note 1	Note 1
<b>Total</b>	Note 1	Note 1
<b><i>Service</i></b>		
Service OH	Note 1	Note 1
Service UG	Note 1	Note 1
Service Combined	Note 1	Note 1
<b>Total</b>	Note 1	Note 1

Note 1: Tampa Electric does not have this data at this time due to the number of outages that occurred during Hurricane Irma and the number of outages that were restored by foreign crews.



31. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the five highest volume of outage causation that impacted the Utility's service area.

A. The rankings of the five highest volume of outage causation that impacted Tampa Electric for Hurricanes Matthew, Hermine and Irma are provide below. Tampa Electric was not impacted by Hurricane Maria or Nate.

**Hurricane Matthew:**

1. Vegetation
2. Unknown
3. Other weather
4. Electrical
5. Bad connection

**Hurricane Hermine:**

1. Vegetation
2. Other weather
3. Lightning
4. Bad connection
5. Electrical

**Hurricane Irma:**

1. Vegetation
2. Unknown
3. Planned outage
4. Other weather
5. Electrical

32. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the top five drivers that protracted service restoration time.

A. The top five drivers that protracted service restoration time for Tampa Electric for Hurricanes Matthew, Hermine and Irma are listed below. Tampa Electric believes these are the top five drivers that protracted service restoration time, but the ranked order can be different depending on the characteristics of the actual storm:

- **High Winds:** High winds bring down trees and block access to facilities requiring repair. In addition, high winds with heavy rains or prior days of rain can weaken soil, causing tall trees outside of the right of way to pull up at the roots and fall across the company's facilities. These situations increase the number of outages and time required to repair simply due to the amount of time required to clear downed foliage and debris.
- **Trailing "bands":** Trailing bands from tropical systems can produce bursts of tornado like winds causing significant damage and outages in a very short time frame. These bands and their impacts can be difficult to predict. Due to their intense nature and quick time frame, restoration for some customers can be protracted from the overwhelming number of outages caused in such a short period of time.
- **Storm Path Uncertainty:** Due to uncertainty over the path of the storm, unable to get restoration crews in early, neighboring utilities hesitant to release their personnel.
- **Limited Resource Availability:** Limited resource availability (especially tree trimmers) and competition for the available resources, had to draw on resources from over 1,500 miles away.
- **Returning Evacuation Congestion:** Arrival of resources delayed due to highway congestion resulting from returning evacuees.

Tampa Electric was not impacted by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 33  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 33.** If applicable, please describe any damage prevented by flood monitors during Hurricanes Matthew, Hermine, Irma, Maria, and Nate.
- A.** Tampa Electric experienced no damage from flooding to the company's facilities during the hurricanes listed above. The flood monitoring system the company utilizes was fully operational during all of the hurricanes listed above but the facilities that it monitors did not experience flooding.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 34  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

- 34.** How many outages were avoided by automated feeder switches during Hurricanes Matthew, Hermine, Irma, Maria, and Nate? Please explain how the data for each event was collected.
- A.** Tampa Electric did not avoid any outages due to the company's automated switchgear/switches for any of the hurricanes listed above.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 35  
PAGE 1 OF 31  
FILED: DECEMBER 15, 2017**

**Critical Infrastructure Restoration**

**35.** Please complete the table below for all critical infrastructure facilities (CIFs), by location (city/county) and facility type, which lost power, the restoration time for the CIFs and the cause of the outage (such as wind, storm-surge, flooding, debris, etc.) and facilities structure type that required replacement and/or repair. Please provide this information for Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

Hurricane (Name) – CIF						
CIF Name/Type (i.e. Hospital)	County/ Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
					Repair	Replace
				<b>Transmission</b>		
				Structures		
				Substations		
				<b>Total</b>		
				<b>Distribution</b>		
				Poles		
				Substation		
				Feeder OH		
				Feeder UG		
				Feeder Combined		
				Lateral OH		
				Lateral UG		
				Lateral Combined		
				<b>Total</b>		
				<b>Service</b>		
				Service OH		
				Service UG		
				Service Combined		
				<b>Total</b>		

**A.** The tables starting on the next page provide the critical facilities (“CF”) by facility type and associated location, restoration time and cause of the outage for Hurricanes Matthew, Hermine and Irma. Tampa Electric was not impacted by Hurricane Maria or Nate.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
FILED: DECEMBER 15, 2017**

**Hurricane Matthew – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
				Repair	Replace	
HCFR Station 30	HILLSBOROUGH	0:02:12	Human Interference			
PC WATER PS #38	HILLSBOROUGH	0:02:12	Human Interference	<b>Transmission</b>		
Sweet Bay	HILLSBOROUGH	0:23:36	Bad Connection	Structures		
Jan Phyl Sewer Plant	POLK	0:26:02	Vegetation	Substations		
FAHSA Patrician Arms Apts	HILLSBOROUGH	0:31:31	Bad Connection	<b>Total</b>		
NH South Tampa Health&Rehab	HILLSBOROUGH	0:31:31	Bad Connection	<b>Distribution</b>		
Lake Shipp Elementary	POLK	0:34:42	Other Weather	Poles	1	
SDHC Colson Elementary	HILLSBOROUGH	0:35:11	Vegetation	Substation		
TBW - BUDWELL NO. 2	HILLSBOROUGH	0:35:11	Vegetation	Feeder OH	1	
COT TFR Station 18	HILLSBOROUGH	0:35:11	Vegetation	Feeder UG		
Living Stone Academy - Seffner	HILLSBOROUGH	0:35:11	Vegetation	Feeder Combined		
HC WRS Craven Dr WWPS	HILLSBOROUGH	0:35:11	Vegetation	Lateral OH		
HC WRS Valencia Park WWPS	HILLSBOROUGH	0:35:11	Vegetation	Lateral UG		
Communication Tower	HILLSBOROUGH	0:35:11	Vegetation	Lateral Combined		
Eagle Lake Christian School	POLK	0:39:52	Vegetation	<b>Total</b>	2	
CSX Switching Yard	POLK	0:43:58	Vegetation	<b>Service</b>		
Auburdale Fire Dept.	POLK	0:43:58	Vegetation	Service OH		
Sewell Corporation - KIK Inc	POLK	0:43:58	Vegetation	Service UG		
Stambaugh Middle School	POLK	0:43:58	Vegetation	Service Combined		
Davis Island PS	HILLSBOROUGH	0:46:31	Vegetation	<b>Total</b>		
HCAA Peter O'Knight Airport	HILLSBOROUGH	0:46:31	Vegetation			
Communication Tower	HILLSBOROUGH	0:48:26	Vegetation			
Radisson Bay Harbor	HILLSBOROUGH	0:48:26	Vegetation			
Doubletree Rocky Point	HILLSBOROUGH	0:48:26	Vegetation			
Traffic Signal	HILLSBOROUGH	0:48:26	Vegetation			
Traffic Signal	HILLSBOROUGH	0:48:26	Vegetation			
Traffic Signal	HILLSBOROUGH	0:48:26	Vegetation			
COT Courtney Campbell Boat Ramp	HILLSBOROUGH	0:48:26	Vegetation			
Hyatt Westshore	HILLSBOROUGH	0:48:26	Vegetation			

**Hurricane Matthew – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
Traffic Signal	HILLSBOROUGH	0:51:35	Vegetation	
FAHSA TAMPA PRESBYTERIAN COMM	HILLSBOROUGH	0:51:35	Vegetation	
Traffic Signal	HILLSBOROUGH	0:51:35	Vegetation	
HRS MacDonald	HILLSBOROUGH	0:52:57	Vegetation	
HCSO Seffner Community Station	HILLSBOROUGH	0:54:10	Vegetation	
Montara	HILLSBOROUGH	0:54:10	Vegetation	
SWFWMD Keystone Lake	HILLSBOROUGH	1:00:00	Electrical	
SWFWMD Crescent Lake	HILLSBOROUGH	1:00:00	Electrical	
SWFWMD Island Ford Lake	HILLSBOROUGH	1:00:00	Electrical	
Communication Tower	HILLSBOROUGH	1:00:00	Electrical	
Communication Tower	HILLSBOROUGH	1:00:00	Electrical	
Communication Tower	HILLSBOROUGH	1:42:17	Unknown	
SWFWMD Lake Pretty	HILLSBOROUGH	2:03:38	Vegetation	
SDHC Northwest Elementary	HILLSBOROUGH	2:03:38	Vegetation	
HRS Brennan	HILLSBOROUGH	2:03:38	Vegetation	
HC WRS Hutchinson Rd #2 WWPS	HILLSBOROUGH	2:03:38	Vegetation	
Hutchinson #3	HILLSBOROUGH	2:03:38	Vegetation	
HCWRS Northwest Regional WWTP	HILLSBOROUGH	2:03:38	Vegetation	
HC WRS Rye Lane WWPS	HILLSBOROUGH	2:03:38	Vegetation	
HC WRS Clouds Peak WWPS	HILLSBOROUGH	2:03:38	Vegetation	
Communication Tower	HILLSBOROUGH	2:03:38	Vegetation	
SDHC Hammond Elementary	HILLSBOROUGH	2:03:38	Vegetation	
Equestrian	HILLSBOROUGH	2:03:38	Vegetation	
Best, Virgil	HILLSBOROUGH	2:23:21	Other Weather	
Traffic Signal	HILLSBOROUGH	2:24:57	Vehicle	
Communication Tower	HILLSBOROUGH	2:58:22	Defective Equipment	
Traffic Signal	HILLSBOROUGH	4:38:00	Vehicle	
Sweet Bay	HILLSBOROUGH	8:33:32	Bad Connection	
HCFR Station 30	HILLSBOROUGH	0:02:12	Human Interference	

**Hurricane Matthew – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
PC WATER PS #38	HILLSBOROUGH	0:02:12	Human Interference	
Sweet Bay	HILLSBOROUGH	0:23:36	Bad Connection	
Jan Phyl Sewer Plant	POLK	0:26:02	Vegetation	
FAHSA Patrician Arms Apts	HILLSBOROUGH	0:31:31	Bad Connection	
NH South Tampa Health&Rehab	HILLSBOROUGH	0:31:31	Bad Connection	
Lake Shipp Elementary	POLK	0:34:42	Other Weather	
SDHC Colson Elementary	HILLSBOROUGH	0:35:11	Vegetation	
TBW - BUDWELL NO. 2	HILLSBOROUGH	0:35:11	Vegetation	
COT TFR Station 18	HILLSBOROUGH	0:35:11	Vegetation	
Living Stone Academy - Seffner	HILLSBOROUGH	0:35:11	Vegetation	
HC WRS Craven Dr WWPS	HILLSBOROUGH	0:35:11	Vegetation	
HC WRS Valencia Park WWPS	HILLSBOROUGH	0:35:11	Vegetation	
Communication Tower	HILLSBOROUGH	0:35:11	Vegetation	
Eagle Lake Christian School	POLK	0:39:52	Vegetation	
CSX Switching Yard	POLK	0:43:58	Vegetation	
Auburdales Fire Dept.	POLK	0:43:58	Vegetation	
Sewell Corporation - KIK Inc	POLK	0:43:58	Vegetation	
Stambaugh Middle School	POLK	0:43:58	Vegetation	
Davis Island PS	HILLSBOROUGH	0:46:31	Vegetation	
HCAA Peter O'Knight Airport	HILLSBOROUGH	0:46:31	Vegetation	
Communication Tower	HILLSBOROUGH	0:48:26	Vegetation	
Radisson Bay Harbor	HILLSBOROUGH	0:48:26	Vegetation	
Doubletree Rocky Point	HILLSBOROUGH	0:48:26	Vegetation	
Traffic Signal	HILLSBOROUGH	0:48:26	Vegetation	
Traffic Signal	HILLSBOROUGH	0:48:26	Vegetation	
Traffic Signal	HILLSBOROUGH	0:48:26	Vegetation	
COT Courtney Campbell Boat Ramp	HILLSBOROUGH	0:48:26	Vegetation	
Hyatt Westshore	HILLSBOROUGH	0:48:26	Vegetation	
Traffic Signal	HILLSBOROUGH	0:51:35	Vegetation	



**Hurricane Matthew – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
FAHSA TAMPA PRESBYTERIAN COMM	HILLSBOROUGH	0:51:35	Vegetation	
Traffic Signal	HILLSBOROUGH	0:51:35	Vegetation	
HRS MacDonald	HILLSBOROUGH	0:52:57	Vegetation	
HCSO Seffner Community Station	HILLSBOROUGH	0:54:10	Vegetation	
Montara	HILLSBOROUGH	0:54:10	Vegetation	
SWFWMD Keystone Lake	HILLSBOROUGH	1:00:00	Electrical	
SWFWMD Crescent Lake	HILLSBOROUGH	1:00:00	Electrical	
SWFWMD Island Ford Lake	HILLSBOROUGH	1:00:00	Electrical	
Communication Tower	HILLSBOROUGH	1:00:00	Electrical	
Communication Tower	HILLSBOROUGH	1:00:00	Electrical	
Communication Tower	HILLSBOROUGH	1:42:17	Unknown	
SWFWMD Lake Pretty	HILLSBOROUGH	2:03:38	Vegetation	
SDHC Northwest Elementary	HILLSBOROUGH	2:03:38	Vegetation	
HRS Brennan	HILLSBOROUGH	2:03:38	Vegetation	
HC WRS Hutchinson Rd #2 WWPS	HILLSBOROUGH	2:03:38	Vegetation	
Hutchinson #3	HILLSBOROUGH	2:03:38	Vegetation	
HCWRS Northwest Regional WWTP	HILLSBOROUGH	2:03:38	Vegetation	
HC WRS Rye Lane WWPS	HILLSBOROUGH	2:03:38	Vegetation	
HC WRS Clouds Peak WWPS	HILLSBOROUGH	2:03:38	Vegetation	
Communication Tower	HILLSBOROUGH	2:03:38	Vegetation	
SDHC Hammond Elementary	HILLSBOROUGH	2:03:38	Vegetation	
Equestrian	HILLSBOROUGH	2:03:38	Vegetation	
Best, Virgil	HILLSBOROUGH	2:23:21	Other Weather	
Traffic Signal	HILLSBOROUGH	2:24:57	Vehicle	
Communication Tower	HILLSBOROUGH	2:58:22	Defective Equipment	
Traffic Signal	HILLSBOROUGH	4:38:00	Vehicle	
Sweet Bay	HILLSBOROUGH	8:33:32	Bad Connection	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring	
				Repair	Replace
WASTEWATER	HILLSBOROUGH	0:35:23	Vegetation		
WASTEWATER	HILLSBOROUGH	0:35:23	Vegetation	Transmission	
WASTEWATER	HILLSBOROUGH	0:35:23	Vegetation	Structures	
SCHOOL	HILLSBOROUGH	0:35:23	Vegetation	Substations	
Pump_Station Wastewater	HILLSBOROUGH	0:35:23	Vegetation	<b>Total</b>	
WASTEWATER	HILLSBOROUGH	0:35:23	Vegetation	Distribution	
Traffic_Signal	HILLSBOROUGH	0:21:34	Electrical	Poles	
RAIL	POLK	0:34:23	Unknown	Substation	
INDUSTRIAL	POLK	0:34:23	Unknown	Feeder OH	<b>3</b>
FIRE RESCUE	POLK	0:34:23	Unknown	Feeder UG	
SCHOOL	POLK	0:34:23	Unknown	Feeder Combined	
Industrial_Chemical	HILLSBOROUGH	4:34:33	Bad Connection	Lateral OH	<b>5</b>
Industrial_Chemical	HILLSBOROUGH	0:45:46	Down Wire	Lateral UG	
Pump_Station	HILLSBOROUGH	0:45:46	Down Wire	Lateral Combined	
WASTEWATER	HILLSBOROUGH	3:05:54	Down Wire	<b>Total</b>	<b>8</b>
WASTEWATER	HILLSBOROUGH	1:13:01	Bad Connection	Service	
GROCERY	HILLSBOROUGH	1:13:01	Bad Connection	Service OH	
Traffic_Signal	HILLSBOROUGH	1:13:01	Bad Connection	Service UG	
GROCERY	HILLSBOROUGH	1:13:01	Bad Connection	Service Combined	
WASTEWATER	HILLSBOROUGH	1:13:01	Bad Connection	<b>Total</b>	
WASTEWATER	HILLSBOROUGH	1:13:01	Bad Connection		
Pump_Station Wastewater	HILLSBOROUGH	1:44:17	Other Weather		
Religious_Worship	HILLSBOROUGH	1:44:17	Other Weather		
WASTEWATER	HILLSBOROUGH	1:44:17	Other Weather		
GOVERNMENT	HILLSBOROUGH	1:44:17	Other Weather		
SAFETY COMMUNICATION - 911	HILLSBOROUGH	1:44:17	Other Weather		
WASTEWATER	HILLSBOROUGH	1:44:17	Other Weather		
WASTEWATER	HILLSBOROUGH	1:44:17	Other Weather		

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
SHELTER	HILLSBOROUGH	1:44:17	Other Weather	
TRANSPORTATION	HILLSBOROUGH	1:44:17	Other Weather	
Senior_Center	HILLSBOROUGH	1:44:17	Other Weather	
COMM TOWER	HILLSBOROUGH	0:37:31	Vegetation	
WATER	HILLSBOROUGH	0:37:31	Vegetation	
SCHOOL	HILLSBOROUGH	0:28:01	Other Weather	
WASTEWATER	HILLSBOROUGH	0:28:01	Other Weather	
SCHOOL	HILLSBOROUGH	1:06:35	Other Weather	
SCHOOL	HILLSBOROUGH	1:06:35	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	1:06:35	Other Weather	
LAW ENFORCEMENT	HILLSBOROUGH	1:06:35	Other Weather	
WASTEWATER	HILLSBOROUGH	1:06:35	Other Weather	
WASTEWATER	HILLSBOROUGH	1:06:35	Other Weather	
Traffic_Signal	HILLSBOROUGH	1:06:35	Other Weather	
WASTEWATER	HILLSBOROUGH	2:47:34	Vegetation	
WASTEWATER	HILLSBOROUGH	2:47:34	Vegetation	
AGRICULTURE	HILLSBOROUGH	18:05:12	Vegetation	
WATER	HILLSBOROUGH	18:05:12	Unsigned	
WASTEWATER	HILLSBOROUGH	2:14:39	Other Weather	
WASTEWATER	HILLSBOROUGH	2:14:39	Other Weather	
GROCERY	HILLSBOROUGH	2:14:39	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	2:14:39	Other Weather	
WASTEWATER	HILLSBOROUGH	2:14:39	Other Weather	
WASTEWATER	HILLSBOROUGH	2:14:39	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	1:36:39	Vegetation	
WASTEWATER	HILLSBOROUGH	1:36:39	Vegetation	
WASTEWATER	HILLSBOROUGH	1:36:39	Vegetation	
SCHOOL	HILLSBOROUGH	11:11:48	Vegetation	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
WASTEWATER	HILLSBOROUGH	11:11:48	Lightning	
WASTEWATER	HILLSBOROUGH	11:11:48	Vegetation	
WASTEWATER	HILLSBOROUGH	1:27:57	Other Weather	
AGRICULTURE	HILLSBOROUGH	1:27:57	Other Weather	
COMM TOWER	HILLSBOROUGH	3:02:12	Other Weather	
WASTEWATER	HILLSBOROUGH	6:15:57	Lightning	
WASTEWATER	HILLSBOROUGH	0:56:48	Vegetation	
SHELTER	HILLSBOROUGH	0:56:48	Vegetation	
GROCERY	HILLSBOROUGH	0:56:48	Vegetation	
WASTEWATER	HILLSBOROUGH	0:56:48	Vegetation	
WASTEWATER	HILLSBOROUGH	0:56:48	Vegetation	
WASTEWATER	HILLSBOROUGH	0:56:48	Vegetation	
WASTEWATER	HILLSBOROUGH	0:56:48	Vegetation	
Traffic_Signal	HILLSBOROUGH	2:26:57	Vegetation	
WASTEWATER	HILLSBOROUGH	1:19:47	Vegetation	
GROCERY DISTRIBUTION	HILLSBOROUGH	1:19:47	Vegetation	
Traffic_Signal	HILLSBOROUGH	1:19:47	Vegetation	
WASTEWATER	HILLSBOROUGH	1:19:47	Vegetation	
WASTEWATER	HILLSBOROUGH	1:19:47	Vegetation	
Lift_Station Wastewater	HILLSBOROUGH	1:19:47	Vegetation	
Medical_ALF	HILLSBOROUGH	1:19:47	Vegetation	
WASTEWATER	HILLSBOROUGH	1:19:47	Vegetation	
Transmitter_Station	HILLSBOROUGH	2:10:37	Vegetation	
SHELTER	HILLSBOROUGH	2:10:37	Vegetation	
Traffic_Signal	HILLSBOROUGH	2:10:37	Vegetation	
School_Private	HILLSBOROUGH	1:10:27	Vegetation	
SCHOOL	HILLSBOROUGH	1:10:27	Vegetation	
PRIVATE SCHOOL	HILLSBOROUGH	1:10:27	Vegetation	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
WASTEWATER	HILLSBOROUGH	1:10:27	Vegetation	
ANIMAL FARM	HILLSBOROUGH	2:48:34	Other Weather	
School_Public	HILLSBOROUGH	2:48:34	Other Weather	
SHELTER	HILLSBOROUGH	2:48:34	Other Weather	
Traffic_Signal	HILLSBOROUGH	2:48:34	Other Weather	
COMM TOWER	HILLSBOROUGH	2:48:34	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	1:37:37	Other Weather	
WASTEWATER	HILLSBOROUGH	1:53:18	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	1:53:18	Other Weather	
WASTEWATER	HILLSBOROUGH	1:53:18	Other Weather	
WASTEWATER	HILLSBOROUGH	1:53:18	Other Weather	
WASTEWATER	HILLSBOROUGH	1:53:18	Other Weather	
School_Private	HILLSBOROUGH	1:53:18	Other Weather	
COMM TOWER	HILLSBOROUGH	1:53:18	Other Weather	
WASTEWATER	HILLSBOROUGH	1:53:18	Other Weather	
AGRICULTURE	HILLSBOROUGH	3:50:03	Other Weather	
Traffic_Signal	HILLSBOROUGH	3:50:03	Other Weather	
AGRICULTURE	HILLSBOROUGH	3:50:03	Other Weather	
AGRICULTURE	HILLSBOROUGH	3:50:03	Other Weather	
COMM TOWER	HILLSBOROUGH	3:50:03	Other Weather	
Transmitter_Station	HILLSBOROUGH	3:50:03	Other Weather	
AGRICULTURE	HILLSBOROUGH	7:57:34	Other Weather	
AGRICULTURE	HILLSBOROUGH	7:57:34	Other Weather	
WASTEWATER	HILLSBOROUGH	7:57:34	Other Weather	
WASTEWATER	HILLSBOROUGH	4:47:24	Other Weather	
COMM TOWER	HILLSBOROUGH	4:47:24	Other Weather	
Grocery Dist/Large Cold Storage Facilities	HILLSBOROUGH	1:26:02	Other Weather	
COMM TOWER	HILLSBOROUGH	1:26:02	Other Weather	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
NURSING HOME	HILLSBOROUGH	2:09:08	Other Weather	
WASTEWATER	HILLSBOROUGH	2:09:08	Other Weather	
FIRE RESCUE	HILLSBOROUGH	2:09:08	Other Weather	
WASTEWATER	HILLSBOROUGH	1:53:06	Vegetation	
WATER	HILLSBOROUGH	1:53:06	Vegetation	
Grocery Dist/Large Cold Storage Facilities	HILLSBOROUGH	1:53:06	Vegetation	
ASSISTED LIVING FACILITY	HILLSBOROUGH	0:00:38	Other Weather	
COMM TOWER	HILLSBOROUGH	0:00:38	Other Weather	
Traffic_Signal	HILLSBOROUGH	0:00:38	Other Weather	
COMM TOWER	HILLSBOROUGH	3:46:17	Other Weather	
SHELTER	HILLSBOROUGH	3:46:17	Other Weather	
WASTEWATER	HILLSBOROUGH	18:47:41	Vegetation	
SCHOOL	HILLSBOROUGH	18:47:41	Vegetation	
Tampa_Bay Water	HILLSBOROUGH	18:47:41	Vegetation	
WASTEWATER	HILLSBOROUGH	18:47:41	Vegetation	
WASTEWATER	HILLSBOROUGH	18:51:35	Vegetation	
WASTEWATER	HILLSBOROUGH	18:51:35	Vegetation	
WASTEWATER	HILLSBOROUGH	19:00:37	Vegetation	
ASSISTED LIVING FACILITY	HILLSBOROUGH	19:00:37	Vegetation	
WASTEWATER	HILLSBOROUGH	19:00:37	Vegetation	
Traffic_Signal	HILLSBOROUGH	2:33:29	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	2:33:29	Other Weather	
Pump_Station	HILLSBOROUGH	2:33:29	Other Weather	
PRIVATE SCHOOL	HILLSBOROUGH	2:33:29	Other Weather	
SHELTER	HILLSBOROUGH	2:33:29	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	3:13:56	Vegetation	
HARDWARE STORE	HILLSBOROUGH	3:13:56	Vegetation	
GROCERY	HILLSBOROUGH	3:13:56	Vegetation	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
School_Private	HILLSBOROUGH	5:36:08	Vegetation	
SAFETY COMMUNICATION - 911	HILLSBOROUGH	1:00:11	Other Weather	
Senior_Center	HILLSBOROUGH	1:00:11	Other Weather	
TRANSPORTATION	HILLSBOROUGH	1:00:11	Other Weather	
ANIMAL FARM	HILLSBOROUGH	1:00:11	Other Weather	
AGRICULTURE	HILLSBOROUGH	1:00:11	Other Weather	
SHELTER	HILLSBOROUGH	1:00:11	Other Weather	
AGRICULTURE	HILLSBOROUGH	1:00:11	Other Weather	
WASTEWATER	HILLSBOROUGH	1:00:11	Other Weather	
GOVERNMENT	HILLSBOROUGH	1:00:11	Other Weather	
AGRICULTURE	HILLSBOROUGH	1:00:11	Other Weather	
WASTEWATER	HILLSBOROUGH	1:00:11	Other Weather	
AGRICULTURE	HILLSBOROUGH	1:00:11	Other Weather	
WASTEWATER	HILLSBOROUGH	1:00:11	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	1:00:11	Other Weather	
COMM TOWER	HILLSBOROUGH	1:00:11	Other Weather	
COMMERCIAL	HILLSBOROUGH	1:00:11	Other Weather	
ANIMAL FARM	HILLSBOROUGH	1:00:11	Other Weather	
ANIMAL FARM	HILLSBOROUGH	1:00:11	Other Weather	
Religious_Worship	HILLSBOROUGH	1:00:11	Other Weather	
ASSISTED LIVING FACILITY	HILLSBOROUGH	4:48:10	Planned Outage	
SHELTER	HILLSBOROUGH	9:39:46	Vegetation	
Pump_Station Wastewater	HILLSBOROUGH	2:25:16	Vegetation	
WASTEWATER	HILLSBOROUGH	0:57:59	Other Weather	
COMM TOWER	HILLSBOROUGH	0:57:59	Other Weather	
WASTEWATER	HILLSBOROUGH	0:57:59	Other Weather	
WASTEWATER	HILLSBOROUGH	0:57:59	Other Weather	
WASTEWATER	HILLSBOROUGH	0:57:59	Other Weather	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
WASTEWATER	HILLSBOROUGH	0:57:59	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	11:38:55	Vegetation	
Traffic_Signal	HILLSBOROUGH	11:38:55	Vegetation	
WASTEWATER	HILLSBOROUGH	22:49:26	Down Wire	
Traffic_Signal	HILLSBOROUGH	22:49:26	Down Wire	
WASTEWATER	HILLSBOROUGH	0:45:17	Planned Outage	
Pump_Station Wastewater	HILLSBOROUGH	0:45:17	Planned Outage	
WASTEWATER	HILLSBOROUGH	0:45:17	Planned Outage	
COMM TOWER	HILLSBOROUGH	0:45:17	Planned Outage	
Pump_Station Wastewater	HILLSBOROUGH	0:45:17	Planned Outage	
AGRICULTURE	HILLSBOROUGH	0:05:45	Vegetation	
AGRICULTURE	HILLSBOROUGH	0:05:45	Vegetation	
Traffic_Signal	HILLSBOROUGH	0:05:45	Vegetation	
AGRICULTURE	HILLSBOROUGH	0:05:45	Vegetation	
COMM TOWER	HILLSBOROUGH	0:00:11	Other Weather	
Traffic_Signal	HILLSBOROUGH	0:00:11	Other Weather	
AGRICULTURE	HILLSBOROUGH	8:08:23	Other Weather	
AGRICULTURE	HILLSBOROUGH	8:08:23	Other Weather	
COMM TOWER	HILLSBOROUGH	17:54:22	Other Weather	
AGRICULTURE	HILLSBOROUGH	0:03:36	Other Weather	
FIRE RESCUE	HILLSBOROUGH	0:03:36	Other Weather	
ANIMAL FARM	HILLSBOROUGH	0:03:36	Other Weather	
SHELTER	HILLSBOROUGH	0:03:36	Other Weather	
AGRICULTURE	HILLSBOROUGH	0:03:36	Other Weather	
COMM TOWER	HILLSBOROUGH	0:48:51	Other Weather	
Traffic_Signal	HILLSBOROUGH	0:48:51	Other Weather	
Medical_Dialysis	HILLSBOROUGH	0:48:51	Other Weather	
COMM TOWER	HILLSBOROUGH	0:35:58	Vegetation	



**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
WATER	HILLSBOROUGH	0:35:58	Vegetation	
GROCERY	HILLSBOROUGH	0:35:58	Vegetation	
Traffic_Signal	HILLSBOROUGH	0:35:58	Vegetation	
ASSISTED LIVING FACILITY	HILLSBOROUGH	0:35:58	Vegetation	
WASTEWATER	HILLSBOROUGH	0:43:19	Vegetation	
Traffic_Signal	HILLSBOROUGH	6:20:03	Vegetation	
WASTEWATER	HILLSBOROUGH	6:20:03	Vegetation	
School_Private	HILLSBOROUGH	6:20:03	Vegetation	
Grocery Dist/Large Cold Storage Facilities	HILLSBOROUGH	6:20:03	Vegetation	
FIRE RESCUE	HILLSBOROUGH	1:28:27	Other Weather	
NURSING HOME	HILLSBOROUGH	1:28:27	Other Weather	
RESIDENTIAL TREATMENT FACILITY	HILLSBOROUGH	1:28:27	Other Weather	
AGRICULTURE	HILLSBOROUGH	1:01:42	Vegetation	
Traffic_Signal	HILLSBOROUGH	1:01:42	Vegetation	
GROCERY	HILLSBOROUGH	1:01:42	Vegetation	
SCHOOL	HILLSBOROUGH	1:01:42	Vegetation	
AGRICULTURE	HILLSBOROUGH	1:01:42	Vegetation	
WASTEWATER	HILLSBOROUGH	1:01:42	Vegetation	
GOVERNMENT	HILLSBOROUGH	1:01:42	Vegetation	
Fire_Stations Main	HILLSBOROUGH	1:01:42	Vegetation	
COMM TOWER	HILLSBOROUGH	1:01:42	Vegetation	
Pump_Station Wastewater	HILLSBOROUGH	1:01:42	Vegetation	
Pump_Station Wastewater	HILLSBOROUGH	1:01:42	Vegetation	
Pump_Station Wastewater	HILLSBOROUGH	1:01:42	Vegetation	
Pump_Station Wastewater	HILLSBOROUGH	1:01:42	Vegetation	
Telecon_	HILLSBOROUGH	1:01:42	Vegetation	
Traffic_Signal	HILLSBOROUGH	1:01:42	Vegetation	
Medical_Dialysis	HILLSBOROUGH	7:41:10	Lightning	

**Hurricane Hermine – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring
COMM TOWER	HILLSBOROUGH	7:41:10	Lightning	
School_Public	HILLSBOROUGH	1:42:21	Vegetation	
Traffic_Signal	HILLSBOROUGH	1:42:21	Vegetation	
COMM TOWER	HILLSBOROUGH	1:42:21	Vegetation	
SHELTER	HILLSBOROUGH	1:42:21	Vegetation	
COMM TOWER	HILLSBOROUGH	1:54:06	Other Weather	
COMM TOWER	HILLSBOROUGH	7:13:09	Vegetation	
SHELTER	HILLSBOROUGH	7:13:09	Vegetation	
WASTEWATER	HILLSBOROUGH	0:49:44	Vegetation	
WATER	HILLSBOROUGH	0:49:44	Vegetation	
Grocery Dist/Large Cold Storage Facilities	HILLSBOROUGH	0:49:44	Vegetation	
Pump_Station Wastewater	HILLSBOROUGH	1:34:30	Other Weather	
SCHOOL - PUBLIC SPECIALTY	HILLSBOROUGH	1:34:30	Other Weather	
WASTEWATER	HILLSBOROUGH	1:34:30	Other Weather	
ASSISTED LIVING FACILITY	HILLSBOROUGH	1:34:30	Other Weather	
School_Private	HILLSBOROUGH	1:34:30	Other Weather	
Pump_Station Wastewater	HILLSBOROUGH	1:34:30	Other Weather	

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
FILED: DECEMBER 15, 2017**

**Hurricane Irma – CF**

CF Name/Type (i.e. Hospital)	County / Location	Restoration Time	Outage Cause	Number of Facilities Requiring	
				Repair	Replace
Fish Farm - 14	HILLSBOROUGH	58:20:24			
Fish Farm - 15	HILLSBOROUGH	58:20:24		Transmission	
Fish Farm - 18	HILLSBOROUGH	58:20:24		Structures	
Fish Farm - 19	HILLSBOROUGH	58:20:24		Substations	
Fish Farm	HILLSBOROUGH	54:12:26		<b>Total</b>	
Strawberry Farm	HILLSBOROUGH	70:22:13		Distribution	
TBW - BUDWELL NO. 2	HILLSBOROUGH	67:57:52		Poles	<b>184</b>
PC Well Field #5	HILLSBOROUGH	64:15:39		Substation	
Communication Tower	HILLSBOROUGH	58:20:24		Feeder OH	
Wellfield #6	HILLSBOROUGH	60:48:42		Feeder UG	
HCSO Child Protective Investigations (CPI)	HILLSBOROUGH	62:17:11		Feeder Combined	
HCSO Falkenburg Road Jail	HILLSBOROUGH	62:17:11		Lateral OH	
HCSO Radio Antenna	HILLSBOROUGH	58:20:24		Lateral UG	
HCSO Firearms Training Range	HILLSBOROUGH	58:20:24		Lateral Combined	
HCSO Bloomingdale Community Station	HILLSBOROUGH	20:29:26		<b>Total</b>	
HCSO Radio Antenna	HILLSBOROUGH	18:37:40		Service	
PC Plant City Police	HILLSBOROUGH	19:04:13		Service OH	
BLS AMR	HILLSBOROUGH	48:12:56		Service UG	
HCFR Station 04	HILLSBOROUGH	15:44:03		Service Combined	
HCFR Station 21	HILLSBOROUGH	60:59:37		<b>Total</b>	
PC Plant City Fire 1	HILLSBOROUGH	19:04:13			
COT TFR Station 14	HILLSBOROUGH	0:00:35			
COT TFR Station 14	HILLSBOROUGH	52:17:10			
COT TFR Station 18	HILLSBOROUGH	67:57:52			
Citrus Grove -36	HILLSBOROUGH	70:22:13			
Wal-Mart at Mango Square	HILLSBOROUGH	76:57:49			
Finaled Lift Station	HILLSBOROUGH	58:20:24			
Foundation Christian Academy	HILLSBOROUGH	20:29:26			

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Legacy Christian Academy	HILLSBOROUGH	3:00:38		
Legacy Christian Academy	HILLSBOROUGH	53:55:47		
Living Stone Academy - Seffner	HILLSBOROUGH	67:57:52		
Resurrection Christian School	HILLSBOROUGH	60:31:52		
Reserve at South Fork Ph 1	HILLSBOROUGH	58:20:24		
Chemical Formulator	HILLSBOROUGH	7:26:12		
Chemical Formulator	HILLSBOROUGH	12:08:17		
Lithia Pinecrest (pending)	HILLSBOROUGH	20:29:26		
General & Support Services Division - FRW	HILLSBOROUGH	62:17:11		
Falkenburg Rd / Woodberry Master	HILLSBOROUGH	62:17:11		
Sunshine State Dairy	HILLSBOROUGH	64:15:39		
Seffner Valrico Rd	HILLSBOROUGH	64:07:34		
Wal-Mart at Gandy	HILLSBOROUGH	18:17:17		
Seaboard Cold Storage - Tampa	HILLSBOROUGH	57:52:59		
Seaboard Cold Storage - Plant City	HILLSBOROUGH	20:36:49		
Sysco International	HILLSBOROUGH	19:04:13		
Traffic Signal	HILLSBOROUGH	70:22:13		
Traffic Signal	HILLSBOROUGH	20:20:55		
Traffic Signal	HILLSBOROUGH	55:35:12		
Traffic Signal	HILLSBOROUGH	19:04:13		
Traffic Signal	HILLSBOROUGH	19:04:13		
Traffic Signal	HILLSBOROUGH	70:22:13		
Lift Station P-9	HILLSBOROUGH	19:04:13		
Pine St # 2	HILLSBOROUGH	15:44:03		
Falk.Rd.BSOC Lab	HILLSBOROUGH	62:17:11		
Florida Gas Transmission	HILLSBOROUGH	18:37:40		
TECO - Western Service Area Operations Center	HILLSBOROUGH	48:12:56		
HRS Hynick	HILLSBOROUGH	71:14:29		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
HRS Brennan	HILLSBOROUGH	9:09:16		
HC Hillsborough County Animal Services	HILLSBOROUGH	62:17:11		
COT WATER Hope Park PS	HILLSBOROUGH	17:24:42		
SDHC Plant High School	HILLSBOROUGH	0:00:35		
SDHC Plant High School	HILLSBOROUGH	52:17:10		
Tampa Charter School	HILLSBOROUGH	22:54:44		
Tampa Charter School	HILLSBOROUGH	73:27:26		
HCC Hillsborough Community College	HILLSBOROUGH	55:35:12		
SDHC Maintenance West	HILLSBOROUGH	20:19:38		
PS Academic Achievement Cent	HILLSBOROUGH	18:37:40		
PS Countryside Montessori Ac	HILLSBOROUGH	9:09:16		
PS Libertas Academy	HILLSBOROUGH	63:31:14		
PS Seffner Christian Academy	HILLSBOROUGH	15:44:03		
SDHC Alafia Elementary	HILLSBOROUGH	20:29:26		
SDHC Colson Elementary	HILLSBOROUGH	67:57:52		
SDHC Cypress Creek Elementary	HILLSBOROUGH	19:33:39		
SDHC Kenly Elementary School	HILLSBOROUGH	17:24:42		
SDHC Lincoln Elementary	HILLSBOROUGH	55:35:12		
SDHC Lithia Springs Elementary	HILLSBOROUGH	20:29:26		
Mango Elementary	HILLSBOROUGH	76:57:49		
SDHC McDonald Elementary	HILLSBOROUGH	18:37:40		
SDHC Northwest Elementary	HILLSBOROUGH	9:09:16		
SDHC Seffner Elementary	HILLSBOROUGH	64:07:34		
SDHC Thonotosassa Elementary	HILLSBOROUGH	18:37:40		
SDHC Bloomingdale High School	HILLSBOROUGH	60:31:52		
SDHC Marshall Middle School	HILLSBOROUGH	60:48:42		
SDHC Nelson Elementary	HILLSBOROUGH	71:14:29		
SDHC Shields Middle School	HILLSBOROUGH	19:33:39		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Sunnydays Nursery and Land	HILLSBOROUGH	12:23:08		
Sunnydays Nursery and Land	HILLSBOROUGH	20:23:04		
SDHC Lopez Elementary	HILLSBOROUGH	3:00:38		
SDHC Lopez Elementary	HILLSBOROUGH	53:55:47		
South County Career Center	HILLSBOROUGH	49:16:17		
Hills. Alt. Res. Prog.	HILLSBOROUGH	18:37:40		
Strawberry Fields	HILLSBOROUGH	20:20:55		
FAHSA Plant City Towers	HILLSBOROUGH	60:48:42		
Dialysis West Tampa Dialysis	HILLSBOROUGH	62:16:36		
ALF Aguila Adult Care Cen	HILLSBOROUGH	52:26:42		
ALF At Home with Friends	HILLSBOROUGH	50:01:24		
Citrus grove - 5	HILLSBOROUGH	16:44:16		
ALF Clearview Manor	HILLSBOROUGH	0:00:35		
ALF Clearview Manor	HILLSBOROUGH	52:17:10		
ALF Country Manor	HILLSBOROUGH	20:20:55		
Strawberry Fields	HILLSBOROUGH	70:22:13		
ALF Inn Aston Gardens Tam	HILLSBOROUGH	52:26:20		
ALF Pleasant Manor ALF, I	HILLSBOROUGH	71:14:29		
ALF Southern Live-in of M	HILLSBOROUGH	3:00:38		
ALF Southern Live-in of M	HILLSBOROUGH	53:55:47		
ALF Sunshine Manor	HILLSBOROUGH	70:22:13		
ALF Town 'n Country ALF	HILLSBOROUGH	22:54:44		
ALF Town 'n Country ALF	HILLSBOROUGH	73:27:26		
ALF Trinity Assisted Livi	HILLSBOROUGH	63:31:14		
ALF Wellswood Care Center	HILLSBOROUGH	70:17:23		
Alborada INC.	HILLSBOROUGH	22:49:11		
Benrac Home ALF	HILLSBOROUGH	60:31:52		
Cameron ALF	HILLSBOROUGH	22:49:11		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
NH Rehabilitation and Healthcare Center	HILLSBOROUGH	52:26:42		
Ontario Residential	HILLSBOROUGH	70:17:23		
GTE Switching	HILLSBOROUGH	12:23:08		
GTE Switching	HILLSBOROUGH	20:23:04		
TIA Radar Site(FAA)	HILLSBOROUGH	62:16:36		
HCSO Cuban Haitian Community Station	HILLSBOROUGH	22:49:11		
Sterile Recoveries	HILLSBOROUGH	52:26:20		
Sweet Bay/KnK/Food Lion	HILLSBOROUGH	19:04:13		
Sweet Bay	HILLSBOROUGH	12:23:08		
Sweet Bay	HILLSBOROUGH	20:23:04		
Sweet Bay	HILLSBOROUGH	52:26:42		
Publix	HILLSBOROUGH	20:20:55		
Citrus Grove - 19	HILLSBOROUGH	60:31:52		
Publix	HILLSBOROUGH	9:43:39		
Publix	HILLSBOROUGH	19:48:29		
Winn Dixie	HILLSBOROUGH	62:42:57		
Bank of America Operations	HILLSBOROUGH	18:17:17		
Imc Phosphates Company	HILLSBOROUGH	58:20:24		
Meisner Marine	HILLSBOROUGH	7:26:12		
Meisner Marine	HILLSBOROUGH	12:08:17		
Rtg Furniture Corp	HILLSBOROUGH	15:44:03		
Treasure Chest Advertising	HILLSBOROUGH	18:17:17		
Conrad Randy S	HILLSBOROUGH	12:23:08		
Conrad Randy S	HILLSBOROUGH	20:23:04		
Woodberry Master	HILLSBOROUGH	62:17:11		
Hills Cnty Juvenile Jail	HILLSBOROUGH	62:17:11		
Hills Sheriff Operations	HILLSBOROUGH	17:24:42		
HOSP University Comm Hospital	HILLSBOROUGH	22:49:11		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Communication Tower	HILLSBOROUGH	0:00:35		
Communication Tower	HILLSBOROUGH	52:17:10		
Media Clear Channel Comm.	HILLSBOROUGH	18:17:17		
Media WEND Radio Transmitter	HILLSBOROUGH	18:37:40		
Atkore Plastic Pipe Corp	HILLSBOROUGH	57:52:59		
Davis's Nursery	HILLSBOROUGH	58:20:24		
HCSO Seffner Community Station	HILLSBOROUGH	67:57:52		
HCSO Central Brandon Community Station	HILLSBOROUGH	62:17:11		
HCWRS Providence Lakes #1 PS	HILLSBOROUGH	60:53:13		
HCWRS Brushey Creek PS	HILLSBOROUGH	59:33:01		
HCP&R Mango Recreation Center	HILLSBOROUGH	76:57:49		
Pedestrian Walk Bridge	HILLSBOROUGH	84:34:36		
Pedestrian Walk Bridge	HILLSBOROUGH	84:34:36		
COT Sanitation Brush Site	HILLSBOROUGH	59:41:05		
COT WATER Palma Ceia Elevated Tank	HILLSBOROUGH	0:00:35		
COT WATER Palma Ceia Elevated Tank	HILLSBOROUGH	52:17:10		
Teleplace	HILLSBOROUGH	17:24:42		
The Raquet Club	HILLSBOROUGH	22:49:11		
COT WATER Gunlock PS	HILLSBOROUGH	63:31:14		
Traffic Signal	HILLSBOROUGH	52:26:42		
HCWRS TNC SwimClub	HILLSBOROUGH	22:54:44		
HCWRS TNC SwimClub	HILLSBOROUGH	73:27:26		
Traffic Signal	HILLSBOROUGH	84:34:36		
Fish Farm	HILLSBOROUGH	58:20:24		
Traffic Signal	HILLSBOROUGH	59:41:05		
Traffic Signal	HILLSBOROUGH	63:00:03		
HC WRS Henry PS	HILLSBOROUGH	57:52:59		
Traffic Signal	HILLSBOROUGH	18:17:17		



**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Traffic Signal	HILLSBOROUGH	0:00:35		
Traffic Signal	HILLSBOROUGH	52:17:10		
Traffic Signal	HILLSBOROUGH	20:29:26		
Traffic Signal	HILLSBOROUGH	52:26:20		
Traffic Signal	HILLSBOROUGH	60:48:42		
Traffic Signal	HILLSBOROUGH	66:51:36		
Traffic Signal	HILLSBOROUGH	17:24:42		
Traffic Signal	HILLSBOROUGH	54:12:26		
Traffic Signal	HILLSBOROUGH	16:44:16		
Traffic Signal	HILLSBOROUGH	49:16:17		
Traffic Signal	HILLSBOROUGH	60:31:52		
Traffic Signal	HILLSBOROUGH	52:26:20		
Traffic Signal	HILLSBOROUGH	16:44:16		
Traffic Signal	HILLSBOROUGH	0:00:35		
Traffic Signal	HILLSBOROUGH	52:17:10		
Traffic Signal	HILLSBOROUGH	70:17:23		
Traffic Signal	HILLSBOROUGH	70:17:23		
HC WRS Windhorst #2 PS	HILLSBOROUGH	64:07:34		
HC WRS Windhorst West PS	HILLSBOROUGH	62:17:11		
Traffic Signal	HILLSBOROUGH	66:30:35		
Fish Farm	HILLSBOROUGH	58:20:24		
Traffic Signal	HILLSBOROUGH	18:37:40		
Traffic Signal	HILLSBOROUGH	15:44:03		
Traffic Signal	HILLSBOROUGH	15:44:03		
Traffic Signal	HILLSBOROUGH	15:44:03		
Traffic Signal	HILLSBOROUGH	60:48:42		
Traffic Signal	HILLSBOROUGH	60:48:42		
Traffic Signal	HILLSBOROUGH	60:48:42		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Traffic Signal	HILLSBOROUGH	60:48:42		
Traffic Signal	HILLSBOROUGH	12:23:08		
Traffic Signal	HILLSBOROUGH	20:23:04		
Traffic Signal	HILLSBOROUGH	49:16:17		
Traffic Signal	HILLSBOROUGH	20:19:38		
Traffic Signal	HILLSBOROUGH	20:19:38		
Traffic Signal	HILLSBOROUGH	70:17:23		
Traffic Signal	HILLSBOROUGH	50:01:24		
Traffic Signal	HILLSBOROUGH	50:01:24		
Traffic Signal	HILLSBOROUGH	50:01:24		
HCWRS Brandon Lakes PS	HILLSBOROUGH	64:07:34		
Traffic Signal	HILLSBOROUGH	22:49:11		
PC WATER PS P-14	HILLSBOROUGH	64:15:39		
PC WATER PS #32	HILLSBOROUGH	19:04:13		
PC WATER PS P-10	HILLSBOROUGH	19:04:13		
PC WATER PS #29	HILLSBOROUGH	55:35:12		
PS #27	HILLSBOROUGH	55:35:12		
SWFWMD Lake Pretty	HILLSBOROUGH	9:09:16		
HC WRS Erindale WWPS	HILLSBOROUGH	20:29:26		
HC WRS Lithia Pinecrest #1 WWPS	HILLSBOROUGH	20:29:26		
HC WRS Guiles NO 1 WWPS	HILLSBOROUGH	60:31:52		
HC WRS Valrico # 5 WWPS	HILLSBOROUGH	60:31:52		
HC WRS Merry Water WWPS	HILLSBOROUGH	9:43:39		
HC WRS Merry Water WWPS	HILLSBOROUGH	19:48:29		
Tatiana	HILLSBOROUGH	60:31:52		
HC WRS Colonial Ridge WWPS	HILLSBOROUGH	60:31:52		
HC WRS Comanche #1 WWPS	HILLSBOROUGH	57:52:59		
Race Track	HILLSBOROUGH	52:26:20		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
HC WRS Kingsway #2 WWPS	HILLSBOROUGH	3:00:38		
HC WRS Kingsway #2 WWPS	HILLSBOROUGH	53:55:47		
CR 579	HILLSBOROUGH	76:57:49		
HC WRS Seminole Sky WWPS	HILLSBOROUGH	11:41:40		
HCWRS Comanche Master PS	HILLSBOROUGH	57:52:59		
Forest Breeze	HILLSBOROUGH	62:42:57		
HC WRS Guiles #2 WWPS	HILLSBOROUGH	60:31:52		
HC WRS Durant # 2 WWPS	HILLSBOROUGH	71:14:29		
HC WRS Nova WWPS	HILLSBOROUGH	63:00:03		
Coade Stone	HILLSBOROUGH	3:00:38		
Coade Stone	HILLSBOROUGH	53:55:47		
Apache	HILLSBOROUGH	3:00:38		
Apache	HILLSBOROUGH	53:55:47		
HC WRS Pine St #1 WWPS	HILLSBOROUGH	76:57:49		
HC WRS Providence Lakes #3 WWPS	HILLSBOROUGH	60:53:13		
HC WRS Excalibur WWPS	HILLSBOROUGH	62:42:57		
Winn Arthur	HILLSBOROUGH	16:44:16		
Fish Farm	HILLSBOROUGH	58:20:24		
HC WRS Cold Creek WWPS	HILLSBOROUGH	20:29:26		
HC WRS Camelot Ridge WWPS	HILLSBOROUGH	62:42:57		
Philip Lee	HILLSBOROUGH	62:17:11		
HC WRS Waterchase #3 WWPS	HILLSBOROUGH	66:51:36		
HC WRS Lumsden #6 WWPS	HILLSBOROUGH	60:31:52		
HC WWPS Stanwyck	HILLSBOROUGH	52:26:20		
HC WRS John Moore #2 WWPS	HILLSBOROUGH	62:42:57		
HC WRS York Oak WWPS	HILLSBOROUGH	11:41:40		
HC WRS Headland Hills WWPS	HILLSBOROUGH	59:33:01		
HC WRS Soring Trail WWPS	HILLSBOROUGH	63:00:03		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Casa Lago	HILLSBOROUGH	66:51:36		
HC WRS Hudson PS	HILLSBOROUGH	50:01:24		
12th Street	HILLSBOROUGH	12:23:08		
12th Street	HILLSBOROUGH	20:23:04		
HC WRS Alambra #1 WWPS	HILLSBOROUGH	66:30:35		
HC WRS Waterchase #2 WWPS	HILLSBOROUGH	66:51:36		
Montara	HILLSBOROUGH	67:57:52		
HC WRS Lumsdedn #5 WWPS	HILLSBOROUGH	60:31:52		
Green Oasis	HILLSBOROUGH	71:14:29		
HC WRS Lady Elaine WWPS	HILLSBOROUGH	64:07:34		
Salida Del Sol	HILLSBOROUGH	19:33:39		
HC WRS Graycliff WWPS	HILLSBOROUGH	62:42:57		
HC WRS Woodside Manor WWPS	HILLSBOROUGH	57:19:23		
HC WRS Trent Creek WWPS	HILLSBOROUGH	19:33:39		
Beumont Center	HILLSBOROUGH	22:54:44		
Beumont Center	HILLSBOROUGH	73:27:26		
HC WRS Ayersworth Glen WWPS	HILLSBOROUGH	58:20:24		
HC WRS Orange Springs WWPS	HILLSBOROUGH	19:33:39		
Equestrian	HILLSBOROUGH	9:09:16		
HC WRS Hutchinson Rd #2 WWPS	HILLSBOROUGH	9:09:16		
Hutchinson #3	HILLSBOROUGH	9:09:16		
Mira Lago	HILLSBOROUGH	11:41:40		
HC WRS Tampa Gateway WWPS	HILLSBOROUGH	18:37:40		
HC WRS Rye Lane WWPS	HILLSBOROUGH	9:09:16		
HC WRS Craven Dr WWPS	HILLSBOROUGH	67:57:52		
HC WRS Valencia Park WWPS	HILLSBOROUGH	67:57:52		
Atlantic	HILLSBOROUGH	12:23:08		
Atlantic	HILLSBOROUGH	20:23:04		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
HC WRS Clouds Peak WWPS	HILLSBOROUGH	9:09:16		
HC WRS Business Support Operations Complex (BSOC)	HILLSBOROUGH	62:17:11		
Communication Tower	HILLSBOROUGH	49:16:17		
Communication Tower	HILLSBOROUGH	52:26:20		
Communication Tower	HILLSBOROUGH	20:19:38		
Communication Tower	HILLSBOROUGH	18:37:40		
Communication Tower	HILLSBOROUGH	9:43:39		
Communication Tower	HILLSBOROUGH	19:48:29		
Communication Tower	HILLSBOROUGH	58:20:24		
Communication Tower	HILLSBOROUGH	22:54:44		
Communication Tower	HILLSBOROUGH	73:27:26		
Communication Tower	HILLSBOROUGH	66:51:36		
Communication Tower	HILLSBOROUGH	12:23:08		
Communication Tower	HILLSBOROUGH	20:23:04		
Communication Tower	HILLSBOROUGH	62:17:11		
Communication Tower	HILLSBOROUGH	63:31:14		
Communication Tower	HILLSBOROUGH	12:23:08		
Communication Tower	HILLSBOROUGH	20:23:04		
Communication Tower	HILLSBOROUGH	50:58:31		
Communication Tower	HILLSBOROUGH	18:37:40		
Communication Tower	HILLSBOROUGH	54:12:26		
Communication Tower	HILLSBOROUGH	62:17:11		
Communication Tower	HILLSBOROUGH	20:19:38		
Communication Tower	HILLSBOROUGH	20:19:38		
Communication Tower	HILLSBOROUGH	22:54:44		
Communication Tower	HILLSBOROUGH	73:27:26		
Communication Tower	HILLSBOROUGH	18:37:40		
Communication Tower	HILLSBOROUGH	50:58:31		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Communication Tower	HILLSBOROUGH	49:16:17		
Communication Tower	HILLSBOROUGH	50:58:31		
Communication Tower	HILLSBOROUGH	67:57:52		
Communication Tower	HILLSBOROUGH	58:20:24		
Communication Tower	HILLSBOROUGH	50:58:31		
Communication Tower	HILLSBOROUGH	50:58:31		
Communication Tower	HILLSBOROUGH	49:16:17		
Communication Tower	HILLSBOROUGH	62:16:36		
Communication Tower	HILLSBOROUGH	22:49:11		
Communication Tower	HILLSBOROUGH	58:20:24		
Communication Tower	HILLSBOROUGH	63:00:03		
Communication Tower	HILLSBOROUGH	66:30:35		
Communication Tower	HILLSBOROUGH	9:09:16		
Communication Tower	HILLSBOROUGH	22:49:11		
Communication Tower	HILLSBOROUGH	50:58:31		
Communication Tower	HILLSBOROUGH	50:58:31		
SDHC Hammond Elementary	HILLSBOROUGH	9:09:16		
HCPW Countywide Construction Unit	HILLSBOROUGH	50:58:31		
HC WRS Sun City WTP	HILLSBOROUGH	49:16:17		
HC WRS Winchester PS	HILLSBOROUGH	64:07:34		
Communication Tower	HILLSBOROUGH	20:19:38		
ALF Abuelo's Ana	HILLSBOROUGH	52:26:42		
North Habana Surgery Center	HILLSBOROUGH	52:26:42		
Center For Specialized Surgery	HILLSBOROUGH	52:26:42		
Prescott	HILLSBOROUGH	7:26:12		
Prescott	HILLSBOROUGH	12:08:17		
Communication Tower	HILLSBOROUGH	19:04:13		
Home Depot(CALL CENTER)	HILLSBOROUGH	66:30:35		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Home Depot	HILLSBOROUGH	62:17:11		
Doubletree Suites	HILLSBOROUGH	53:35:39		
Embassy Suites Westshore	HILLSBOROUGH	53:35:39		
HCFR Station 17	HILLSBOROUGH	12:23:08		
HCFR Station 17	HILLSBOROUGH	20:23:04		
Information Services Division - ISD	HILLSBOROUGH	62:17:11		
HCSO	HILLSBOROUGH	62:17:11		
HCSO	HILLSBOROUGH	62:17:11		
HCWRS Northwest Regional WWTP	HILLSBOROUGH	9:09:16		
HCWRS Lake Park WTP	HILLSBOROUGH	9:43:39		
HCWRS Lake Park WTP	HILLSBOROUGH	19:48:29		
Fish Farm	HILLSBOROUGH	58:20:24		
Fish Farm	HILLSBOROUGH	58:20:24		
DCA Operations Center	PASCO	51:24:12		
Embarq Florida Inc.	PASCO	51:24:12		
Bellaire Investments	PASCO	60:09:29		
Bellaire Investments	PASCO	60:09:29		
PS RCMA Wimauma Academy	PASCO	95:36:19		
City of San Antonio	PASCO	58:32:38		
Cole Jeff A. DBA	PASCO	95:36:19		
Country Aire Manor	PASCO	60:09:29		
Orange Lakes MHP Inc	PASCO	60:09:29		
PASCO	PASCO	95:36:19		
PASCO	PASCO	58:32:38		
PASCO	PASCO	50:09:10		
WDCF Radio-Civil Defense	PASCO	60:09:29		
City of Dade City Water	PASCO	51:24:12		
Dade City Fire Station	PASCO	51:24:12		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Dade City Police Dept	PASCO	51:24:12		
Gambro Community Dialysis	PASCO	15:29:45		
Newcare Hospital Corp.	PASCO	51:24:12		
Dade City Geriatric Cntr.	PASCO	15:29:45		
Retirement Care Center	PASCO	73:00:05		
York Hanover Nursing Ctr	PASCO	15:29:45		
Communication Tower	PASCO	95:36:19		
TECO - DCA Operations Center	PASCO	51:24:12		
Communication Tower	PASCO	60:09:29		
Tampa Bay Downs	PINELLAS	52:26:20		
Sweet Bay/KnK/Food Lion	POLK	19:04:13		
Sweet Bay/KnK/Food Lion	POLK	19:04:13		
Publix	POLK	77:28:10		
Wal Mart / Auburndale Store	POLK	67:07:37		
Wal Mart Dis. Ctr.	POLK	64:09:32		
Winter Haven Fire Station 2	POLK	69:14:50		
Bond Clinic	POLK	18:16:47		
Publix Supermarkets	POLK	11:52:13		
Publix Supermarkets	POLK	51:16:00		
Publix Supermarkets	POLK	19:23:33		
Publix Supermarkets	POLK	64:09:32		
Publix Supermarkets	POLK	91:54:26		
Grand Court	POLK	57:12:54		
TLC Retirement Center	POLK	1:15:08		
TLC Retirement Center	POLK	51:02:41		
City of Auburndale Sewer	POLK	65:16:51		
Lena Vista Elementary	POLK	67:07:37		
City of Auburndale Water	POLK	61:41:18		



**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
International Paper	POLK	19:23:39		
Auburndale Main Water Pit	POLK	20:36:49		
Auburndale Main Swr Sta	POLK	19:23:39		
SuperCool/ComCar	POLK	77:28:10		
Verizon Switching Sta	POLK	69:14:50		
Polk Co. Wtr Pump St	POLK	11:52:13		
Polk Co. Wtr Pump St	POLK	51:16:00		
Auburndale High School	POLK	19:30:29		
Polk County Health Clinic	POLK	13:08:20		
Polk County Health Clinic	POLK	64:50:34		
Westwood Middle	POLK	13:08:20		
Westwood Middle	POLK	64:50:34		
Inwood Water	POLK	68:01:19		
Jan Phyl Sewer Plant	POLK	11:49:49		
Jan Phyl Sewer Plant	POLK	51:14:35		
Achievement Academy - Winter Haven	POLK	68:01:19		
Eagle Lake Fire Station	POLK	13:31:12		
Eagle Lake Fire Station	POLK	15:39:14		
Eagle Lake Fire Station	POLK	55:41:51		
Garner Elementary	POLK	68:01:19		
Eagle Lake Water	POLK	13:31:12		
Eagle Lake Water	POLK	15:39:14		
Eagle Lake Water	POLK	55:41:51		
Eagle Lake Christian School	POLK	11:49:49		
Eagle Lake Christian School	POLK	51:14:35		
Inwood Elementary	POLK	13:18:01		
Inwood Elementary	POLK	16:18:47		
Gilbert Airfield	POLK	68:01:19		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Lake Region High School	POLK	60:13:26		
Pinewood Elementary	POLK	60:13:26		
Career Development Center	POLK	1:15:08		
Career Development Center	POLK	51:02:41		
Snively Elementary School of Choice	POLK	56:32:33		
Winter Haven Sewer PS	POLK	56:32:33		
Lake Alfred-Addair Middle	POLK	13:38:39		
Renal Treatment (DaVita)	POLK	57:12:54		
Discovery Academy of Lake Alfred	POLK	13:38:39		
Gessler Clinic	POLK	91:54:26		
Karen M. Siegel Academy	POLK	13:38:39		
Rifle Range Fire Station	POLK	60:13:26		
Wahneta Water System	POLK	60:13:26		
Denison Jr High School	POLK	18:16:47		
Wahneta Elementary	POLK	60:13:26		
Urgent Care	POLK	18:16:47		
UF Citrus Experiment Station	POLK	13:38:39		
Palm Garden Conval Ctr	POLK	62:02:34		
Life Care Center	POLK	19:47:01		
Elbert Elementary	POLK	15:48:07		
Sherwin Williams Distribution	POLK	69:14:50		
Sherwin Williams	POLK	69:14:50		
WH Fire Station	POLK	69:14:50		
Brandywyne Nursing Home	POLK	15:48:07		
Callen Water	POLK	20:14:08		
Woodmont Nursing Home	POLK	19:23:33		
Garden Grove East Water	POLK	66:34:25		
Garden Grove Elementary	POLK	13:33:31		

**Hurricane Irma – CF**

<b>CF Name/Type (i.e. Hospital)</b>	<b>County / Location</b>	<b>Restoration Time</b>	<b>Outage Cause</b>	<b>Number of Facilities Requiring</b>
Garden Grove Elementary	POLK	50:44:03		
Eagle Lake Elementary	POLK	58:38:43		
Medical Center	POLK	62:02:34		
Polk County Sherrifs Dept.	POLK	77:28:10		
Polk Co Fire/EMS	POLK	77:28:10		
Westwood Jr H.S.	POLK	77:28:10		
Altera Clare Brdg/Sterling Hse	POLK	19:23:33		
Communication Tower	POLK	65:16:51		
Communication Tower	POLK	66:34:25		
Communication Tower	POLK	13:47:13		
Communication Tower	POLK	77:00:28		
Communication Tower	POLK	77:00:41		
Auburndale Central Elementary	POLK	20:36:49		
Eagle Lake Elementary	POLK	58:38:43		
Lake Shipp Elementary	POLK	13:00:57		
Lake Shipp Elementary	POLK	74:30:54		
Velda Farms	POLK	72:54:03		
Brigham Academy	POLK	18:16:47		

## Underground Facilities

**36.** Please provide an assessment of the performance of underground facilities during Hurricanes Matthew, Hermine, Irma, Maria, and Nate. As part of this assessment please summarize the number of underground facilities that required repair or replacement for each event.

**A.** Tampa Electric is very pleased with the performance of the underground facilities during Hurricanes Hermine, Irma and Matthew. In addition, the company's underground facilities were not significantly impacted by flooding or storm surge related to the storms listed above. Below is a summary of the number of underground facilities that required repair or replacement for Hurricane Matthew, Hermine and Irma:

Hurricane Matthew:

- One underground service required replacement
- One underground lateral required replacement

Hurricane Hermine:

- One underground feeder required repair
- One underground feeder required replacement
- Five underground services required repair

Hurricane Irma:

- Tampa Electric does not have the outage data at this time to provide a summary for Hurricane Irma

Hurricanes Maria and Nate did not impact Tampa Electric.

**TAMPA ELECTRIC COMPANY  
DOCKET NO. 20170215-EU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 37  
PAGE 1 OF 1  
FILED: DECEMBER 15, 2017**

**37.** Please provide a discussion what programs/tariffs the utility has in place to promote

- a. Undergrounding of new construction (e.g., subdivisions)
- b. Conversion of overhead to underground

**A.** a. Tampa Electric does not have any programs/tariffs that “promote” undergrounding of new construction. The company has approved tariffs that provide the standard charges for and non-refundable deposits for cost estimates for undergrounding electric distribution facilities. Tampa Electric does not believe there is a need to promote undergrounding of new construction associated with subdivisions as nearly all electric facilities associated with subdivision construction in the company’s service area has been underground for many decades at the request of the customer or developer.

Additionally, Tampa Electric has designated some areas, such as in downtown Tampa, which are designated underground areas. While not a promotion measure or program per se, these underground areas have existed for many decades and underground service is provided within them generally without requiring payment for the underground nature of the facilities. If a new customer is building a facility outside of these designated areas and chooses to have their service installed underground, the company will provide them credits toward this underground construction. The credit is based upon several factors including the original cost to provide the overhead service, the cost to construct the facilities underground and the base load that the customer will require.

b. Tampa Electric does not have any programs/tariffs that “promote” conversion of overhead to underground. The company has approved tariffs that provide the standard charges for and non-refundable deposits for cost estimates for converting overhead to underground.