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January 19, 2018

**E-PORTAL FILING**

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

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

**Dear Ms. Stauffer:**

Attached for filing, please find the Responses of Florida Public Utilities Company to Commission Staff's First and Second Sets of Data Requests to the Company.

Thank you for your assistance with this filing. As always, please don't hesitate to let me know if you have any questions whatsoever.

Kind regards,

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MEK

**Docket No. 20170215-EU - Review of electric utility hurricane preparedness and restoration actions.**

Florida Public Utilities Company's Response to Staff's First Data Request

**Staging for Utility Personnel and Mutual Aid**

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.

**Company Response:**

Pre-storm preparations and coordination start prior to any storm being identified. Prior to each storm, the Company reviews its hurricane procedures and runs hurricane drills with all employees. When a storm becomes named and has a forecast track that potentially affects the Company's service territory two critical internal actions begin. First, companywide pre-storm planning calls are scheduled. The frequency and duration of these calls is dependent on the storm track and potential impact to the Company's territory. These calls include participants from executive and operational management, system planning, safety, customer care, marketing, regulatory, finance and information services. Topics of these internal calls include storm track, system, customer and employee needs, communication strategy, resource planning/staging, potential mutual aid needs, logistics planning for hotels and food, site preparation, security strategy and any actions required prior to the next scheduled meeting. Second, each sub group (i.e. customer care, safety, operations, information services) begin scheduling calls within their groups between Company-wide calls. Any needs that arise from the sub-groups are communicated at the next scheduled Company-wide call unless it requires attention that is more urgent. These company-wide pre-storm calls continue as long as a storm threat or restoration need remains.

As the pre-storm internal calls begin the operations, customer care and marketing groups begin evaluating the need for external communications. The primary focus of these activities is on our potential operational needs for requesting/volunteering mutual aid, communicating to our customers in the potential impact areas.

In addition to internal and customer care preparations, the Company opens dialogue with the local municipalities. For example, if there is the potential for a hurricane impact in the Company's northeast division, the governmental relations staff begins face-to-face meetings with Fernandina Beach's mayor, city manager, fire and police chiefs. Likewise, in the Company's northwest division may be impact, the Company initiates dialogue with the county managers of each potentially impacted area. These open discussions continue until the threat subsides, or restoration is complete.

- a. Of Hurricanes Hermine, Matthew, Irma, Maria and Nate the Company scheduled calls for Hermine, Maria, Matthew and Irma. The dates of those calls follow:

Hurricane Hermine:

August 26, 2016  
August 29, 2016  
August 30, 2016  
September 1, 2016  
September 2, 2016.

Hurricane Maria:  
September 20, 2017.

Hurricane Matthew:  
October 3, 2016  
October 4, 2016  
October 5, 2016  
October 6, 2016  
October 7, 2016  
October 8, 2016.

Hurricane Irma:  
September 5, 2017  
September 6, 2017  
September 7, 2017  
September 8, 2017  
September 9, 2017  
September 10, 2017  
September 11, 2017.

b. For Hermine we had the following calls related to Mutual Aid:

August 25, 2016 SEE Mutual Assistance call (Tropical Disturbance Invest 99)  
August 26, 2016 SEE Mutual Assistance call (Tropical Disturbance Invest 99)  
August 29, 2016 SEE Mutual Assistance call (Tropical Disturbance Invest 99)  
August 30, 2016 SEE Mutual Assistance call (Tropical Disturbance Invest 99)  
August 31, 2016 SEE Mutual Assistance call  
September 1, 2016 SEE Mutual Assistance call  
September 2, 2016 SEE Mutual Assistance call  
September 3, 2016 SEE Mutual Assistance call

For Matthew, we had the following calls related to Mutual Aid:

October 4, 2016 SEE Mutual Assistance call  
October 5, 2016 SEE Mutual Assistance call  
October 6, 2016 SEE Mutual Assistance call  
October 7, 2016 SEE Mutual Assistance call  
October 8, 2016 SEE Mutual Assistance call  
October 9, 2016 SEE Mutual Assistance call  
October 10, 2016 SEE Mutual Assistance call

For Irma we had the following calls related to Mutual Aid:

September 5, 2017 SEE Mutual Assistance call  
September 6, 2017 SEE Mutual Assistance call  
September 7, 2017 SEE Mutual Assistance call  
September 8, 2017 SEE Mutual Assistance call  
September 9, 2017 SEE Mutual Assistance call  
September 10, 2017 SEE Mutual Assistance call  
September 11, 2017 (2) SEE Mutual Assistance calls  
September 12, 2017 (2) SEE Mutual Assistance calls  
September 13, 2017 (2) SEE Mutual Assistance calls  
September 14, 2017 SEE Mutual Assistance call

For Nate we had the following call for Mutual Aid:

October 6, 2017 SEE Mutual Assistance call

There were no calls for Maria.

- c. FPUC did not request Mutual Aid for Hermine, Maria, or Nate.

For Matthew we had the following Mutual Aid:

October 5, 2016 FPUC Requested 20 Distribution Lineman from SEE to arrive October 7, 2016.

October 8, 2016 FPUC Requested additional 20 Distribution Lineman, an additional 10 From Gulf Power were assigned to FPUC from SEE.

For Irma we had the following Mutual Aid:

September 6, 2017 FPUC Requested 30 Distribution Lineman and 10 Tree Resources from SEE to arrive September 9, 2017, FPUC was assigned 40 Distribution Line Resources.

September 7, 2017 FPUC was assigned 8 Tree Resources from SEE.

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.

**Company Response:**

As part of FPUC’s storm preparation and restoration activity personnel are tasked, on an as needed basis, to support the preparation and restoration efforts by being assigned additional duties. Non-operational groups such as customer care, administration, finance, regulatory affairs, energy logistics, IS and marketing, which includes approximately 24 employees, are tasked with activities such as logistics planning, distribution and social media communications, while operational personnel are tasked with specific, training and skill based tasks as shown in the following chart.

<b>EMPLOYEE</b>	<b>STORM DUTIES</b>	<b>NUMBER ASSIGNED</b>
Buddy Shelley, Director Electric Operations	Responsible for overall electric restoration efforts	45 FPUC Employees
Warren DiNapoli, Senior Operations Manager	Responsible for pre-storm inspections, damage assessment, requesting and allocating line resources both internal and external, and system restoration	38 FPUC Employees
Chris Hebert, Assistant Operations Manager, NE	Responsible for the NE Division line crews and Northeast Division system restoration	6 FPUC Employees
Clint Brown, Assistant Operations Manager, NW	Responsible for the NW Division line crews and Northwest system restoration	10 FPUC Employees
Donna Fowler, Stores Manager	Responsible for both Divisions materials inventory and material procurement	9 FPUC Employees
Janine Roye, Administrative Assistant	Responsible for NW Division logistics	0 FPUC Employees
Shane Magnus, Engineer	Responsible for Damage Assessment	0 FPUC Employees
Jarvis Hunter, Engineer	Responsible for Damage Assessment	0 FPUC Employees
Curtis Boatright, Assistant Engineer	Responsible for Damage Assessment	0 FPUC Employees
Steve Toole, Senior Engineer	Responsible for Damage Assessment, Monitoring OMS and dispatching resources	0 FPUC Employees
Donnie Tew, Assistant Engineer	Responsible for monitoring OMS and Dispatching resources	0 FPUC Employees
Mary Atkins, Assistant Engineer	Responsible for monitoring OMS and Dispatching resources	0 FPUC Employees

Mark Cutshaw	Assists in running lines and identifying system planning/operational issues	0 FPUC Employees
Jorge Puentes	Completes outage tracking and reporting and system engineering	0 FPUC Employees

3. When did the costs for Hurricanes Hermine, Matthew, Irma, Maria, and Nate begin to accrue for receiving mutual aid?

**Company Response:**

The Company did not receive any mutual aid for Hurricanes Hermine, Maria or Nate. The first accrual for mutual aid for Matthew was accrued November 30, 2016. The first accrual for Hurricane Irma was September 30, 2017.

**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.

**Company Response:**

The Company’s sequence of restoration for all the storms, after the winds subside to a safe working level, is as follows. Any deviations that occurred for the individual storms were not significant enough to document.

- 1) Check substations (Investigation) – Asses Damages
  - a. Verify Transmission Service from service providers
  - b. Asses Equipment Damage
  - c. Identify Feeder Lockouts
  
- 2) Transmission Line Patrols
  - a. JEA Nassau Tap substation to Step-down substation
  - b. Step-down substation to Amelia Island Plantation substation
  - c. Step-down to JLT

- d. JL Terry substation to WestRock substation
- e. JL Terry substation to Eight Flags substation

3) Isolate & Restore Process

This phase will be occurring immediately following the passing of the storm and the area has been designated as being safe. The Storm Director will identify feeders that are out and prioritize them for the *isolate and restore* process based upon the priority feeder list and observed outages. Feeder patrols shall be performed by two person line crews.

4) Damage Assessments

After the isolate and restore phase, the damage assessment (DA) teams will patrol the backbone portion of the feeders that have been isolated and restored first.

The Damage Assessment Form to be completed and returned as soon as possible after the storm/emergency.

5) Restoration Order

- A. Feeders
- B. Undamaged primaries (fuse replacement only)
- C. Damaged primaries
- D. Secondary's
- E. Services
- F. Street lights

See the response to No. 5 below on how our initial damage assessment is disseminated.

No contractors were involved in damage assessment for any storm. For Hermine, five employees were involved in damage assessment. For Matthew, 15 employees were involved and for Irma 19 employees were involved. No employees were involved for Maria or Nate. No photos or other media were gathered as part of the damage assessment process.

5. Please provide a description of how damage assessment data is updated and communicated internally.

**Company Response:**

Local damage assessment teams record the results of the patrols on Damage Assessment Data Forms. The form records spans of wire, trees, poles and material needed for repairs. The forms are collected and summarized after each patrol by the Operations Director. These are used by the Operations Director and Storm Director to prioritize and schedule the restoration process, determine manpower and equipment requirements, and monitor storeroom material requirements.

**Restoration Workload**

6. Please provide a detailed description of how the utility determines when and where to start restoration efforts.

**Company Response:**

During the early stages of the emergency, restoration will be handled in the usual manner. All service is restored as soon as possible.

As the storm intensifies and trouble reaches major proportions, the main restoration activities are limited to keeping main feeders energized by clearing trouble without making repairs. When the intensity of the storm is such that work can no longer be done safely, all work ceases and personnel report to the office or other safe location. Ariel work is not conducted when wind speed reach 40 miles per hour. When the storm has subsided to a reasonable level and it is safe to begin restoration activities damage assessment and restoration of main feeders to critical customers begins.

Restoration activities will continue in an effort to restore service in the following manner:

- 1) Transmission
- 2) Substations
- 3) Main feeders to critical customers
- 4) Other main feeders
- 5) Undamaged primary
- 6) Damaged primary, secondary, service, street lights, security lights

These guidelines are not intended to prevent responding to emergency situations. Any life threatening emergency is handled immediately, in such a manner as to not endanger the lives of others.



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

Personnel Responsible for Restoration Workload Assignments		
Title	Years of experience	Number of crews managed

**Company Response:**

**Hermine**

Title	Years of Experience	Number of Crews Managed
Assistant Operations Manager - NE	33	7

**Matthew**

Title	Years of Experience	Number of Crews Managed
Operations Manager - NW	31	5
Assistant Operations Manager - NE	33	7
Safety Coordinator – NE	15	10
Safety Coordinator – NW	20	5
Engineer	18	10

**Irma**

Title	Years of Experience	Number of Crews Managed
Assistant Operations Manager - NW	12	10
Assistant Operations Manager - NE	33	22
Safety Coordinator – NE	15	20
Safety Coordinator – NW	20	5
Engineer	18	10

- Maria/Nate – N/A

8. Please provide a description of how restoration workload adjusts based on work completed and updates to damage assessments.

**Company Response:**

The Operations Director and Storm Director utilize the damage assessment data to prioritize and schedule the restoration process, determine manpower and equipment requirements, and monitor storeroom material requirements. As work is completed and updated in the Outage Management System (OMS) manpower requirements and material needs are evaluated and adjusted as necessary.

9. If applicable, please describe how mutual aid was determined to be no longer needed following Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

**Company Response:**

FPUC only received mutual aid assistance during Hurricanes Matthew and Irma. Our determination of when mutual aid assistance was no longer needed, for both storms, was when all affected customer services that could be restored were complete. Only customer services that required repairs before they could be restored were still without power.

**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.

**Company Response:**

- a. Hermine, Maria and Nate – zero days.  
Matthew 10 Individuals - 5 days.  
Irma 16 Individuals - 5 days.
- b. Hermine, Maria and Nate zero days.  
Matthew 44 Individuals – 3 days.  
Irma 48 Individuals - 9 days.
- c. Hermine, Maria and Nate zero meals.

Matthew 279 meals.  
Irma 324 meals.

- d. Hermine, Maria and Nate zero meals.  
Matthew 396 meals.  
Irma 1,088 meals
- e. None for any storm.
- f. None for any storm.
- g. None for any storm.
- h. None for any storm.

11. Please provide a detailed description of when your Utility was considered fully restored from each named storm event.

**Company Response:**

FPUC defines “fully restored” to mean all affected customer services, that could be restored, have been.

For Hurricane Hermine FPUC was fully restored on September 2, 2016 at 16:59.

For Matthew FPUC was fully restored on October 10, 2016 at 14:48

Fr Irma FPUC was fully restored on September 15, 2017 at 20:20.

**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

**Company Response:**

- a. Hermine: Calhoun 30 customers  
Jackson 14 customers  
Liberty 4 customers  
Nassau 10,733 customers
- Matthew: Nassau 15,693 customers
- Irma: Calhoun 408 customers

Jackson 3,657 customers  
Nassau 16,075 customers

- b. Hermine: Calhoun 2 customer outages  
Jackson 4 customer outages  
Liberty 1 customer outages  
Nassau 18 customer outages

Matthew: All of Nassau County's 15,693 customers were without power when we were allowed to return to Amelia Island after the mandatory evacuation and our OMS was unable to provide an accurate number of peak outages which occurred at that time.

Irma: Calhoun 7 customer outages  
Jackson 67 customer outages  
All of Nassau County's 16,036 customers were without power when we were allowed to return to Amelia Island after the mandatory evacuation and our OMS was unable to provide an accurate number of peak outages which occurred at that time.

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

**Company Response:**

Call center customer service representatives are utilized to handle incoming customer calls and other contacts, such as email, written correspondence and face to face visits at our walk-in locations. This utilization of personnel did not change before, during, or after the storm.

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?

**Company Response:**

The Company had 27 customer service representatives during Matthew and 26 representatives during Irma. Since the Company had no impact from Hermine, Maria & Nate we maintained our normal staffing.

- a. During Matthew and Irma we also had additional personnel working in the call center and had a 3<sup>rd</sup> party vendor handle calls. There were 10 additional employees working during Matthew and 16 for Irma. The 3<sup>rd</sup> party vendor had 20 employees during Matthew and 17 during Irma.

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

**Company Response:**

Hermine, Maria, & Nate – no calls were specifically identified as relating to these storms.  
Matthew – 5,072 customer calls  
Irma – 2,868 customer calls

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.

**Company Response:**

FPUC utilizes the following methods to submit and collect customer contacts before, during and after storms: telephony system, written correspondence, email and walk-in customer inquiries. Additionally, the communications team established a strategy for each of the Hurricanes that impacted FPUC's service territory to share information and respond to customers online through our social media channels (company website, storm landing page, Facebook and twitter pages) before, during and after storms. The communications team also utilized strategically placed team members to gather information internally and from our local Emergency Operation Centers. The team partnered with local, trade and national media providing storm and real time updates. Customers were able to contact us through our Facebook page, Twitter, and website, which was monitored 24/7 until power was restored to all customers.

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.

**Company Response:**

Customer Contacts are segmented according to the manner the customer self-identifies within our upfront telephony system to ensure efficient handling. Customer contacts regarding a gas leak, power outage, electric emergency or other power problem are provided priority. In major storm events, FPUC may transition to handling emergency calls only. During Hurricane Matthew FPUC transitioned to emergency only mode from October 6, 2016 through October 7, 2016. During Hurricane Irma emergency only mode was from September 9, 2017 at noon through September 13, 2017 at 2pm. All other

times, customers can select from various options to include billing inquiries, payment matters, establishing service, and propane in both English and Spanish. During each incoming customer call the call center customer service representatives performs a verification process to validate the customer(s) of record, confirms the customers contact information and has a series of steps they perform based on the specific customer request(s).

- a. No restoration delays were as a result of addressing customer contacts.

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?

**Company Response:**

Customer Contacts are segmented according to the manner the customer self-identifies within our upfront telephony system to ensure efficient handling. The system tracks customer contacts in the following categories: Emergency Responders, Electrical Emergency, Outage, Gas Leaks, Billing, New Service, Collection Call Backs, Spanish, and Kiosk. In addition, social media contacts are categorized by the type of inquiry. Any customer inquiry reported with the potential to cause harm to a person or property, such as the smell of gas, a downed power line, or widespread power outage is reported immediately to designated personnel for handling.

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?

**Company Response:**

Customer service representatives are provided with overall hurricane preparedness and communications (i.e. – talking points for restoration, safety, outage updates, storm landing page, etc.) before, during and after storms. In addition, our operations team members provide real-time restoration information to assist the customer service representatives with the handling of customer inquiries before, during and after storm events.

- a. Talking points are provided to guide customer service representatives in their discussions regarding restoration progress. These are developed with input from key stakeholders (operations, communications team, etc.). In addition, during new hire training, employees are provided emergency scripts that are used before, during and after storm events.

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.

**Company Response:**

The Company's current OMS platform requires a field representative record each individual outage. In large outage situations, such as the recent hurricanes, all of the northeast division customers were out, so an operations technician would need to manually estimate an outage for each location in order to get an estimated time of restoration. Rather than entering in estimated data, and delaying the restoration effort, FPUC places a system map showing areas that have been restored on the Company's website and as customers begin to call they are referred to the system map. As outages begin being resolved, and resources can be deployed, the OMS is updated.

- a. Refer to the Company's Response above.
- b. Refer to the Company's Response above.
- c. Refer to the Company's Response above.
- d. Refer to the Company's Response above.

**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

**Company Response:**

In the Company's Northeast Division, fuel was procured through local fueling stations, as well as the addition of a portable 500 gallon storage tanks for diesel and regular fuel. In the Northwest division a local vendor is contracted to deliver fuel to the operation center and fuel vehicles after hours.

- a. In the Northeast Division, portable 500 gallon storage tanks for diesel and regular fuel are brought in before each storm season.
  - b. The Company did not experience fuel shortage for Hermine, Matthew, Irma, Maria and Nate.
  - c. The Company did not experience delays due to fuel for Hermine, Matthew, Irma, Maria and Nate.
  - d. There were enough vehicles and no issues.
22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

**Company Response:**

FPUC had no delays or shortages of materials for any of the Hurricanes listed.

**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.

**Company Response:**

The Company had no impact from Maria or Nate.

Hermine: Started staging internal crews on September 1, 2016 in both Divisions, no mutual assistance requested.

First outage reported on September 2<sup>nd</sup> at 22:13 in the NW Division

First outage reported on September 2<sup>nd</sup> at 1:03 in the NE Division

Deployment began around September 1 at 22:15 in the NW Division

Deployment began around September 2 at 1:40 in the NE Division

Last outage restored September 2<sup>nd</sup> at 10:16 in the NW Division and 16:39 in the NE Division

Matthew: October 3, 2016 Activated Storm Plan

October 4, 2016 staging sites secured

October 6, 2016 Staged internal and mutual assistance crews

October 7, 2016 Amelia Island evacuated



October 8, 2016 Damage assessment and restoration begins on Amelia Island. All customers on Amelia Island are out of power.  
October 9, 2016 Additional mutual assistance crews deployed  
October 10, 2016 Restoration completed at 14:48  
October 11, 2016 Mutual assistance crews released

Irma: September 5, 2017 Activated Storm Plan  
September 9, 2017 Staged mutual assistance distribution line crews in Jacksonville and tree crews in Marianna  
September 11, 2017 Damage Assessment and restoration begins in both Northwest and Northeast Divisions  
September 12, 2017 Restoration completed in the Northwest Division  
September 13, 2017 Northwest internal crews and tree resources deployed to the Northeast Division  
September 15, 2017 Restoration completed at 20:20  
September 16, 2017 Mutual Assistance crews released

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.

**Company Response:**

- a. The Company reviews and revises storm preparation plans every year prior to storm season to make sure all information is current and any lessons learned from past storms are addressed. Every storm is different, so minor departures from the plan occur and are assessed to determine whether those departures are warranted. A post storm "lessons learned" meeting is held after each major storm which reviews and validates adherence and departures from our plans.
- b. Please refer to the Company's response to question 24 a. above.
- c. Several minor modifications have been made to the storm preparation plans especially in the areas concerning logistics and safety. Our highest priority in any storm is the safety of our employees, mutual assistance crews and the public. Therefore, additional emphasis has been incorporated in our plans to stage personnel in safer and more secure locations. Other modification to our plans deal with making sure fuel is available for vehicles by providing fueling tanks at specific accessible locations.

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.

**Company Response:**

- a. The Company goes thru the same process as explained in response to question 24 a above to validate adherence and departures from our Storm Restoration Plan.
- b. Please refer to the Company’s response to question 24 a above.
- c. We have not experienced any departures from our restoration plan that resulted in permanent modifications to our plan from 2015 to 2017.

**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.

**Company Response:**

Please refer to the Company’s response to questions 12 a 12 b above.

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.

Weather Impact				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)

**Company Response:**

FPUC is dependent on meteorological data obtained from public sources, as such the following table does not necessarily reflect data specific to FPUC's system, but rather is extrapolated from national sources to reflect the best estimate for the Company's territory.

There were no impacts from Hurricane Maria or Nate.

<b>Weather Impact</b>					
<b>Hurricane</b>	<b>County</b>	<b>Max. Sustained Winds (MPH)</b>	<b>Max. Gusts (MPH)</b>	<b>Max. Rainfall (inches)</b>	<b>Max. Storm Surge (Feet)</b>
Irma	System	45-50	71	8-12	7.8
Matthew	System	39	87	6-7	7.0
Hermine	System	30	64	2-3	NA

**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.

**Company Response:**

Please see Attachment 1.

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>		

**Company Response:**

The Company had no damage to storm hardened facilities.

30. Please complete the table below summarizing 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>		

**Company Response:**

<b>Hermine 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	12	
Feeder UG		
Feeder Combined		
Lateral OH	10	
Lateral UG		
Lateral Combined		
<b>Total</b>		
<b><i>Service</i></b>		
Service OH		
Service UG		
Service Combined		
<b>Total</b>		

<b>Matthew 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	4	1
Substations	1	
<b>Total</b>		
<b><i>Distribution</i></b>		
Poles		13
Substation		
Feeder OH	13	
Feeder UG		
Feeder Combined		
Lateral OH	166	
Lateral UG		
Lateral Combined		
<b>Total</b>		
<b><i>Service</i></b>		
Service OH	5	
Service UG		
Service Combined		
<b>Total</b>		

<b>Irma 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	9	1
Substations	1	
<b>Total</b>		
<b><i>Distribution</i></b>		
Poles		35
Substation		
Feeder OH	51	1
Feeder UG		
Feeder Combined		
Lateral OH	250	
Lateral UG		
Lateral Combined		
<b>Total</b>		
<b><i>Service</i></b>		
Service OH		
Service UG		
Service Combined		
<b>Total</b>		

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.

**Company Response:**

Matthew: 1. Vegetation

Hermine: 1. Vegetation

Irma: 1. Vegetation

Maria: No outages

Nate: No outages



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

**Company Response:**

Matthew:                   1. Clearing Vegetation  
                                  2. Winds over 40 mph  
                                  3. Traffic  
                                  4. Flooding  
                                  5. Administration

Hermine:                   1. Clearing Vegetation  
                                  2. Winds over 40 mph  
                                  3. Traffic  
                                  4. Rain  
                                  5. Administration

Irma:                        1. Clearing Vegetation  
                                  2. Winds over 40 mph  
                                  3. Traffic  
                                  4. Flooding  
                                  5. Administration

Maria:                     No outages

Nate:                       No outages

33. If applicable, please describe any damage prevented by flood monitors during Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

**Company Response:**

Not applicable.

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.

**Company Response:**

Not applicable since FPUC had no automated feeder switches during these hurricanes.

**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
				<i>Transmission</i>		
				Structures		
				Substations		
				<b>Total</b>		
				<i>Distribution</i>		
				Poles		
				Substation		
				Feeder OH		
				Feeder UG		
				Feeder Combined		
				Lateral OH		
				Lateral UG		
				Lateral Combined		
				<b>Total</b>		
				<i>Service</i>		
				Service OH		
				Service UG		
				Service Combined		
				<b>Total</b>		

**Company Response:**

Please see Attachment 2.

**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.

**Company Response:**

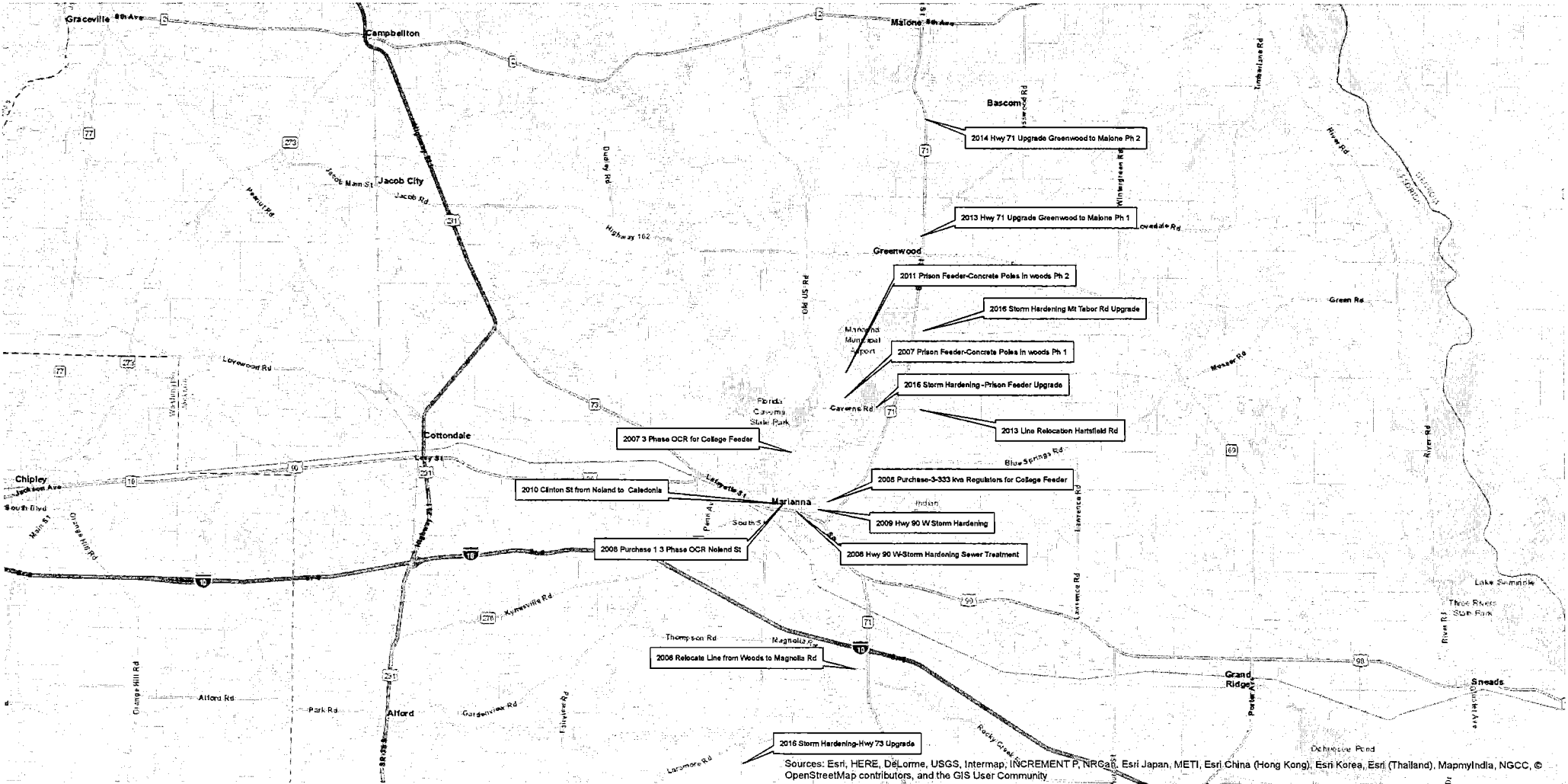
For Hurricanes Matthew, Hermine, Maria and Nate there were no repairs or replacements of underground facilities.

For Hurricane Irma there was one transformer and three switchgears that failed and were replaced.

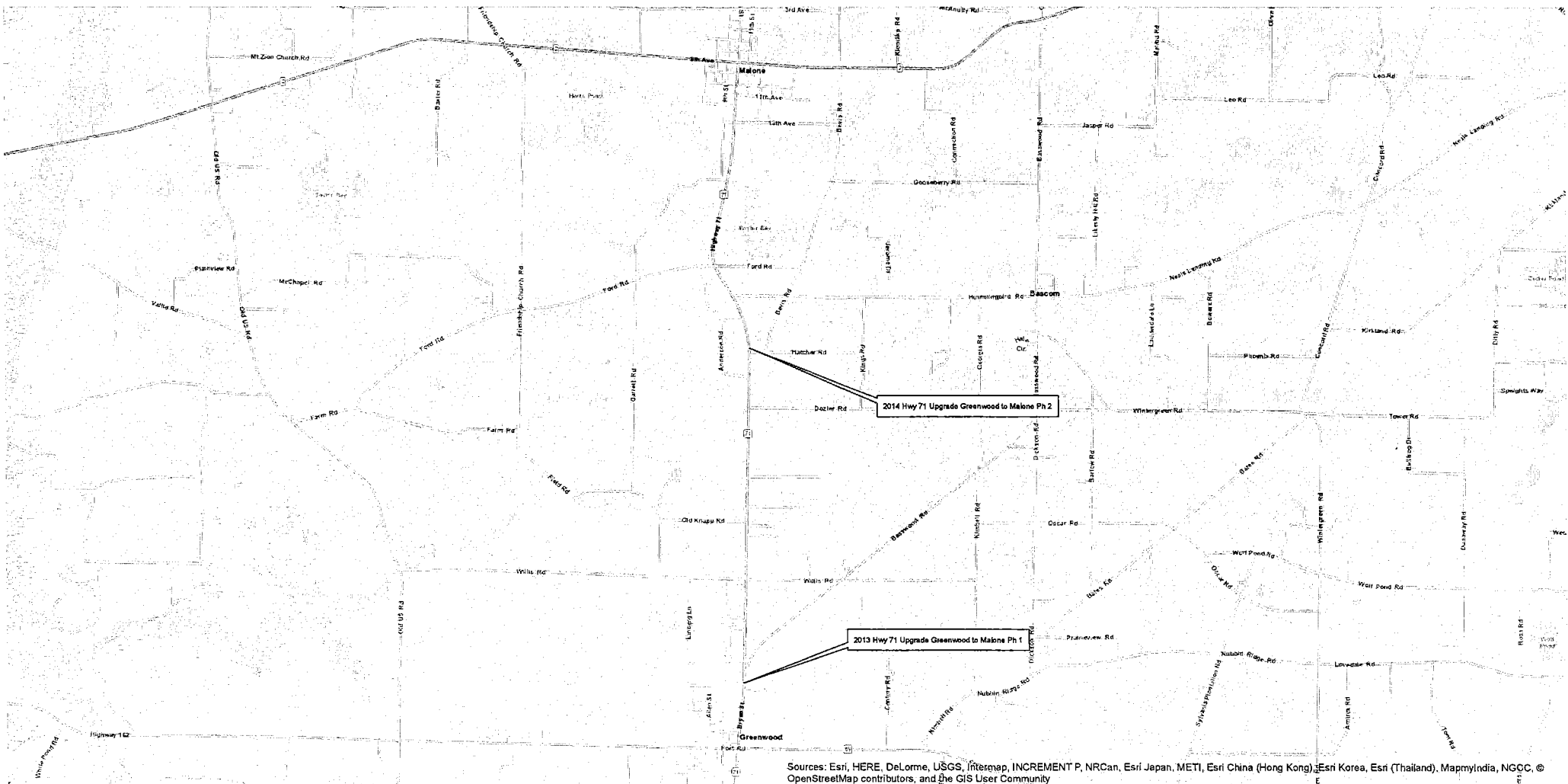
37. Please provide a discussion what programs/tariffs the utility has in place to promote
- a. Undergrounding of new construction (e.g., subdivisions)
  - b. Conversion of overhead to underground

**Company Response:**

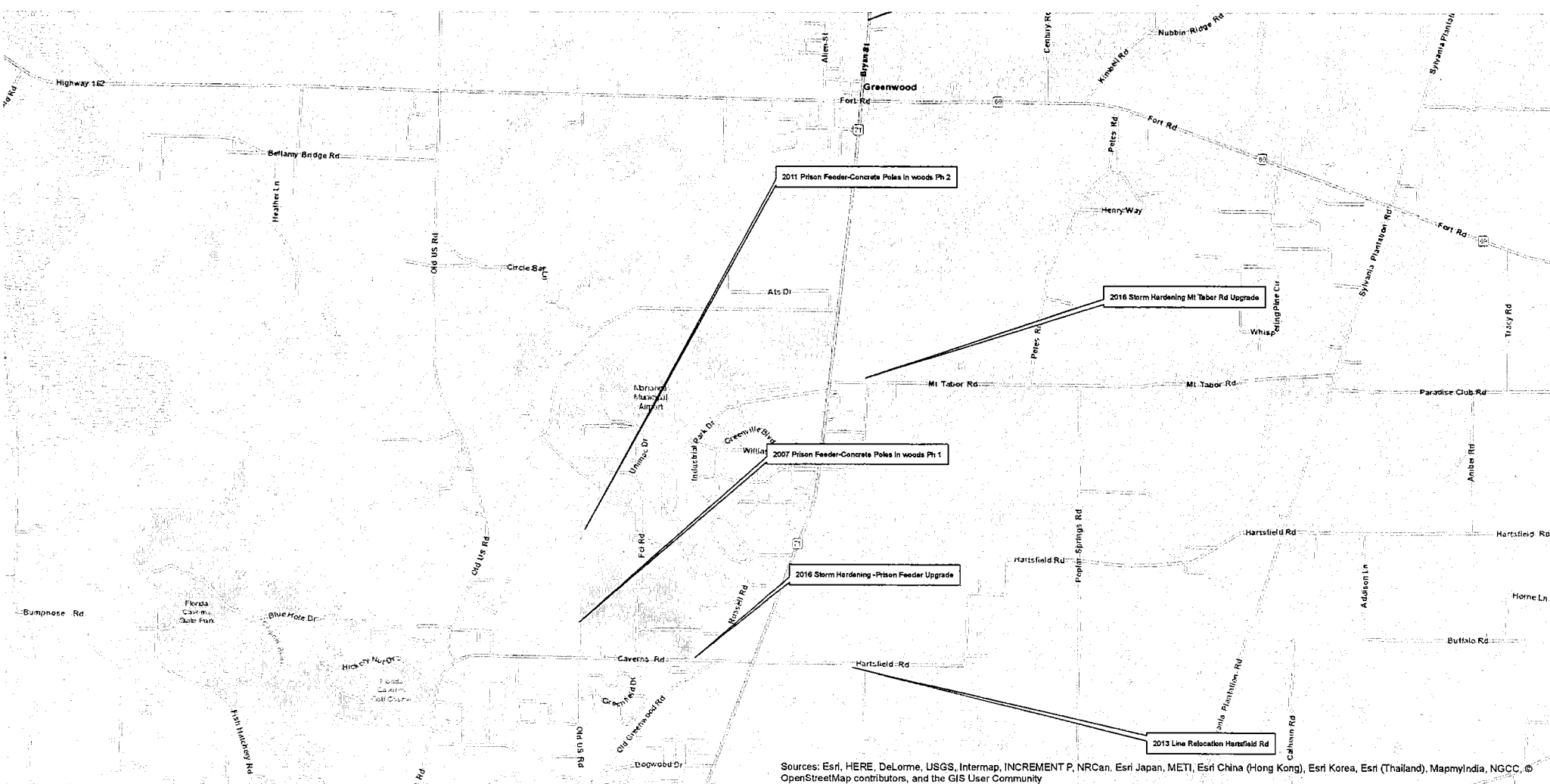
- a. Tariff Sheet No. 17 discusses underground services. The Company will install and own the underground service from the meter location to the pole from which connection is to be made, including the necessary run of cable or conduit up the side of the pole if the customer will pay in advance to the Company the estimated difference in the cost of the underground service and or equivalent overhead service. Tariff Sheets No. 19 to 25 discuss Undergrounding of new construction lines in accordance with Rule 25-6.064 FAC. The Company will provide underground extensions of its facilities for new residential subdivisions and multiple-occupancy buildings, if the developer will pay an amount equal to the difference in cost between and underground system (exclusive of supply system feeders) and an equivalent overhead system. The Company will make underground extensions to residential, commercial or industrial customers provided that the applicant agrees to pay an amount equal to the estimated difference in cost to provide underground service instead of overhead service to the Applicant(s) plus the amount, if any, by which the estimated cost to provide an overhead service exceeds the maximum amount of no-charge construction. The amounts are computed in accordance with Rule 25-6.0342, FAC.
- b. Tariff Sheet No. 23 provides the non-refundable estimates for conversions for residential and commercial customers. Tariff Sheet No. 24 contains the facilities charge for conversion.



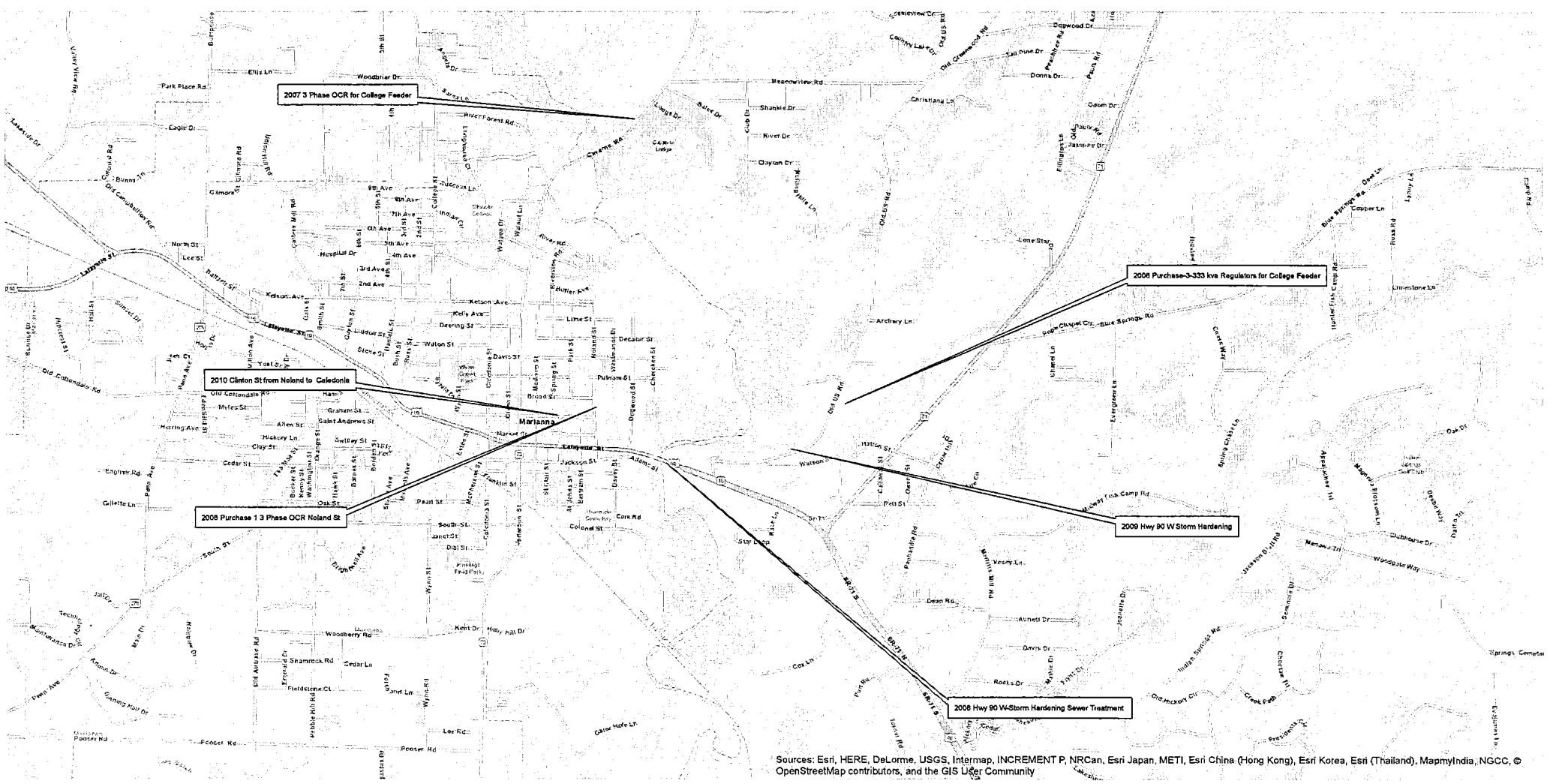
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCA, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



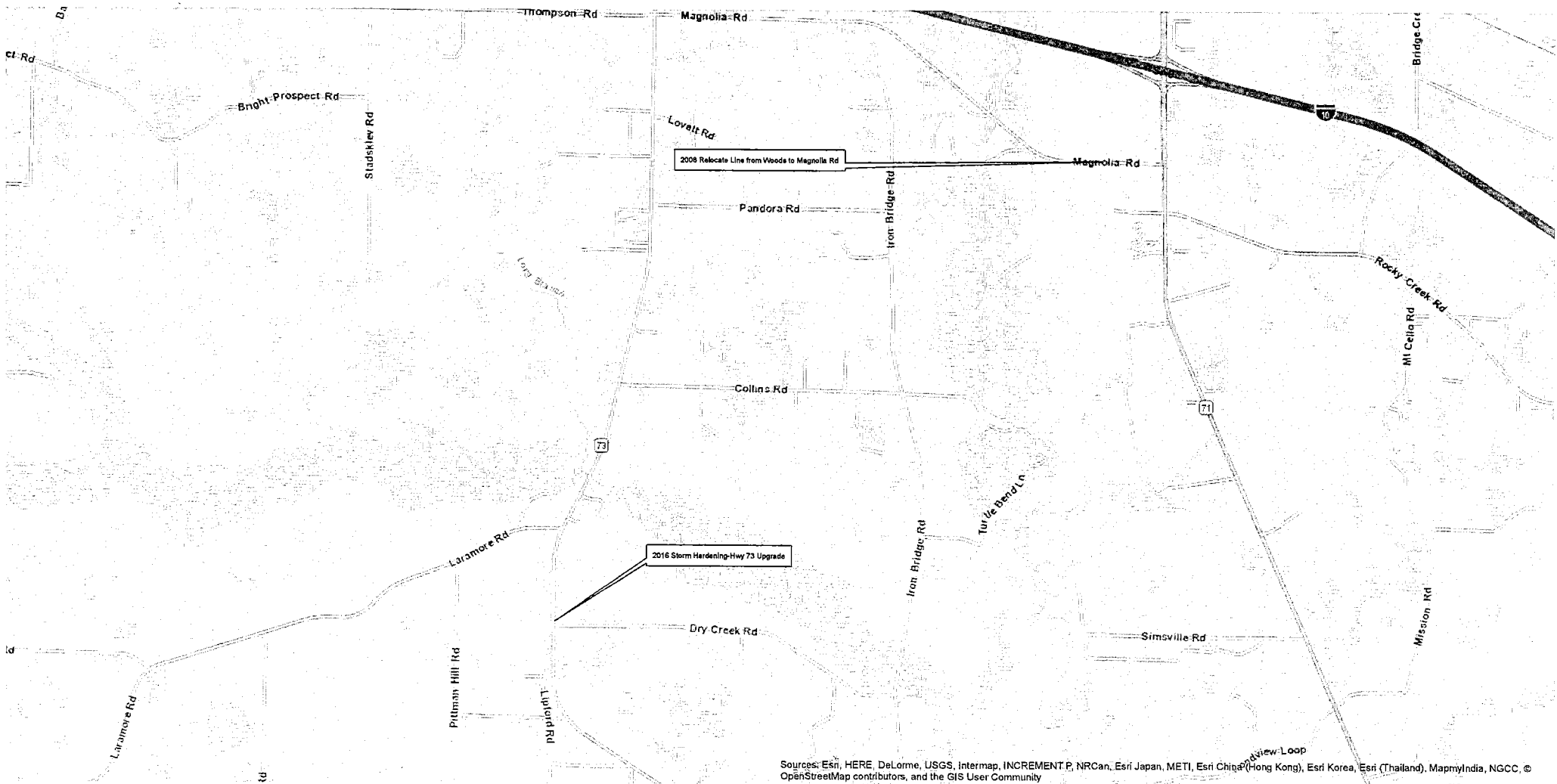
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



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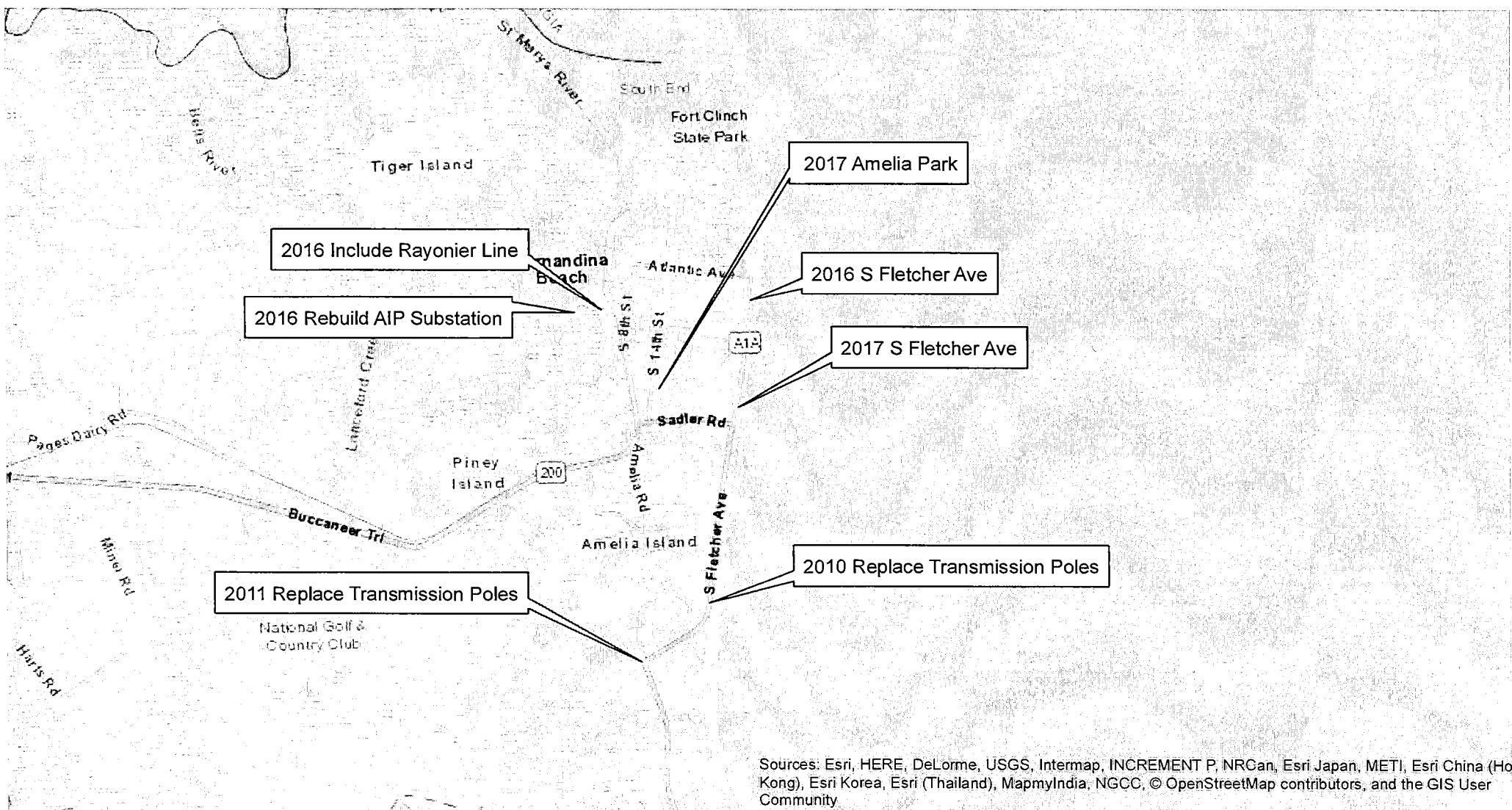


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



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**Florida Public Utilities Company**

<u>Name</u>	<u>Type</u>	<u>County/Location</u>	<u>Restoration hh/mm</u>	<u>Outage Cause</u>	<u>Number of Facilities Requiring Repair</u>
14th St Fire Dept	Fire Department	Nassau/Fernandina Beach	0:04	Wind/Debris	OH equipment-primary
Amelia City Fire Dept	Fire Department	Nassau/Fernandina Beach	1:11	Wind/Debris	OH trans. Equipment
Osprey Village	Assisted Living Facility	Nassau/Fernandina Beach	2:14	Wind/Debris	Trees

## Florida Public Utilities Company

Name	Type	County/Location	Restoration hh/mm	Outage Cause	Number of Facilities Requiring Repair
Baptist Medical	Hospital	Nassau/Fernandina Beach	29:06	Wind/Debris	OH equipment-primary
FB Police	Police	Nassau/Fernandina Beach	29:06	Wind/Debris	OH equipment-primary
14th St Fire Dept	Fire Department	Nassau/Fernandina Beach	29:06	Wind/Debris	OH equipment-
S. Fletcher Fire Dept	Fire Department	Nassau/Fernandina Beach	23:42	Wind/Debris	OH equipment-
Amelia City Fire Dept	Fire Department	Nassau/Fernandina Beach	47:28	Wind/Debris	OH equipment-primary
Lime St Sewer Plant	Sewer Treatment Plant	Nassau/Fernandina Beach	47:15	Wind/Debris	Loss of feeder - Closed Breaker
1st Coast Hwy Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	34:45	Wind/Debris	Loss of feeder - Closed Breaker
Sadler Rd Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	41:07	Wind/Debris	Loss of feeder - Closed Breaker
11th St Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	13:10	Wind/Debris	Loss of feeder - Closed Breaker
Airport Rd Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	21:07	Wind/Debris	Loss of feeder - Closed Breaker
Savannah Grand	Assisted Living Facility	Nassau/Fernandina Beach	25:21	Wind/Debris	Replaced 3 arrestors
Pepper Tree	Assisted Living Facility	Nassau/Fernandina Beach	29:06	Wind/Debris	Loss of feeder - Closed Breaker
Osprey Village	Assisted Living Facility	Nassau/Fernandina Beach	47:29	Wind/Debris	Loss of feeder - Closed Breaker
Jane Adams House	Assisted Living Facility	Nassau/Fernandina Beach	29:06	Wind/Debris	Loss of feeder - Closed Breaker
Quality Health	Assisted Living Facility	Nassau/Fernandina Beach	01:10	Wind/Debris	Loss of feeder - Closed Breaker

### Florida Public Utilities Company

Name	Type	County/Location	Restoration hh/mm	Outage Cause	Number of Facilities Requiring Repair
Baptist Medical	Hospital	Nassau/Fernandina Beach	17:39	Wind/Debris	Loss of Supply - None
FB Police	Police	Nassau/Fernandina Beach	17:39	Wind/Debris	Loss of Supply - None
14th St Fire Dept	Fire Department	Nassau/Fernandina Beach	34:50:00	Wind/Debris	OH equipment-primary
S. Fletcher Fire Dept	Fire Department	Nassau/Fernandina Beach	21:57	Wind/Debris	Loss of Supply - None
Amelia City Fire Dept	Fire Department	Nassau/Fernandina Beach	67:05:00	Wind/Debris	OH equipment-primary
Lime St Sewer Plant	Sewer Treatment Plant	Nassau/Fernandina Beach	47:15	Wind/Debris	Loss of feeder - Closed Breaker
1st Coast Hwy Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	34:45	Wind/Debris	Loss of feeder - Closed Breaker
Sadler Rd Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	41:07	Wind/Debris	Loss of feeder - Closed Breaker
11th St Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	13:10	Wind/Debris	Loss of feeder - Closed Breaker
Airport Rd Water Plant	Water Treatment Plant	Nassau/Fernandina Beach	21:07	Wind/Debris	Loss of feeder - Closed Breaker
Savannah Grand	Assisted Living Facility	Nassau/Fernandina Beach	21:57	Wind/Debris	Loss of feeder - Closed Breaker
Pepper Tree	Assisted Living Facility	Nassau/Fernandina Beach	13:48	Wind/Debris	Loss of Supply - None
Osprey Village	Assisted Living Facility	Nassau/Fernandina Beach	67:05	Wind/Debris	Transmission line - broken pole
Jane Adams House	Assisted Living Facility	Nassau/Fernandina Beach	13:38	Wind/Debris	Loss of Supply - None
Quality Health	Assisted Living Facility	Nassau/Fernandina Beach	13:48	Wind/Debris	Loss of Supply - None
City of Marianna	Sewer Sprayfield	Jackson County	1:22	Wind/Debris	OH Equipment-Primary Conductor - Repaired Primary
City of Marianna	Sewer Sprayfield	Jackson County	2:48	Wind/Debris	OH Equipment-Primary Conductor - Repaired Primary/Closed Recloser
City of Cottondale	Sewer Treatment Plant	Jackson County	0:45	Wind/Debris	Repaired Primary/Cleared Tree
NF Chipola LLC	Nursing Home	Jackson County	0:46	Wind/Debris	OH Equipment-Fuse /Switch - Replaced Fuse
Federal Prison	Prison	Jackson County	17:10	Wind/Debris	Loss of Supply - None
Marianna	Shelter	Jackson County	17:10	Wind/Debris	Loss of Supply - None

**Docket No. 20170215-EU - Review of electric utility hurricane preparedness and restoration actions.**

Florida Public Utilities Company's Responses to Staff's Second Data Request

**Underground Facilities**

- For each year, please complete the following tables summarizing the number of miles of transmission and distribution underground facilities by county from 2006 through 2017.

<b>Transmission</b>			
<b>Year</b>			
<b>County</b>	<b>Overhead to Underground</b>	<b>New Construction</b>	<b>Total Miles</b>

<b>Distribution</b>			
<b>Year</b>			
<b>County</b>	<b>Overhead to Underground</b>	<b>New Construction</b>	<b>Total Miles</b>

**Company Response:**

**The Company does not have any underground transmission facilities.**

**The Company has not tracked underground distribution installations by year or by county, but following are the total miles of underground distribution facilities, all of which are related to new construction:**

<b>Jackson County</b>	<b>87.3 miles</b>
<b>Calhoun County</b>	<b>3.12 miles</b>
<b>Liberty County</b>	<b>4.03 miles</b>
<b>Nassau County</b>	<b>292.01 miles</b>

**Forensic Data**

2. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide a complete copy of the utility's post-storm forensic review of damaged infrastructure. If a forensic review was not performed or not documented, please explain why.

**Company Response:**

**FPUC's system was not affected by Hurricanes Maria and Nate.**

**For Hurricanes Hermine, Matthew and Irma no post storm forensic review of damaged infrastructure was performed. All damage from these storms was a result of falling trees and limbs.**

**Coordination**

3. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide the name, frequency, and description of non-Emergency Operations Centers related coordination efforts with local governments before, during, and after restoration, including the following.
  - a. Storm preparation
  - b. Critical infrastructure
  - c. Tree trimming, planting or relocation of trees
  - d. Hardening and underground projects
  - e. Shared facilities
  - f. Other

**Company Response:**

- a. **Storm preparation: Government Relations Management participated with the City of Fernandina Beach and Nassau County Emergency Management Team. The management team included the City and County Manager, Mayor, Fire Chief, Police Chief and Facilities Manager.**

**Dates are as follow:**

- **Matthew**
  - **Before**
    - **October 4<sup>th</sup> and 5<sup>th</sup> 2016 with the City of Fernandina Beach.**
  - **During**
    - **October 6<sup>th</sup> and 7<sup>th</sup> 2016 at the Nassau County Emergency Center.**
  - **After**
    - **October 9<sup>th</sup>, 2016 at the City of Fernandina Beach.**
- **Irma;**
  - **Before**
    - **September 7<sup>th</sup> and 8<sup>th</sup> 2017 with the City of Fernandina Beach.**
  - **During**
    - **September 9<sup>th</sup> and 10<sup>th</sup> 2017 at the Nassau County Emergency Center.**
  - **After**
    - **September 12<sup>th</sup> 2017 at the City of Fernandina Beach.**

**b. Did not coordinate.**

**c. Did not coordinate.**

**d. Did not coordinate.**

**e. Did not coordinate.**

**f. Did not coordinate.**

4. Please complete the following tables on county and state Emergency Operations Centers staffing for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

<b>Staffing for County Emergency Operations Centers</b>		
<b>Number of Utility Personnel</b>	<b>Function</b>	<b>Total Man-Hours</b>

<b>Staffing for State Emergency Operations Center</b>		
<b>Number of Utility Personnel</b>	<b>Function</b>	<b>Total Man-Hours</b>

**Company Response:**

**The Company did not staff either the County or State Emergency Operations Centers for Hurricanes Hermine, Maria or Nate.**

**For Hurricane Matthew:**

<b>Staffing for County Emergency Operations Centers</b>		
<b>Number of Utility Personnel</b>	<b>Function</b>	<b>Total Man-Hours</b>
Ramiro Sicre	Utilities Liaison	32 Hours
David Richardson	Utilities Liaison	36 Hours

**For Hurricane Irma:**

<b>Staffing for County Emergency Operations Centers</b>		
<b>Number of Utility Personnel</b>	<b>Function</b>	<b>Total Man-Hours</b>
Ramiro Sicre	Utilities Liaison	41 Hours
David Richardson	Utilities Liaison	38 Hours

**Solar**

5. Please provide the following information for utility interconnections with customer-owned solar generation that did not operate as designed and consistent with the tariff during the extreme weather events that occurred in 2015 through 2017.
  - a. The number of failures.
  - b. A description of the cause or causes of such failures.
  - c. Possible failure remediation and associated cost.
  - d. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact.



- e. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact.

**Company Response:**

- a. **The Company did not experience any failures.**
- b. N/A
- c. N/A
- d. N/A
- e. N/A

- 6. Please provide the following information for utility interconnections with customer-owned solar generation that operated as designed and consistent with the tariff during the extreme weather events that occurred in 2015 through 2017.

- a. Discuss whether these interconnections contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact.
- b. Discuss whether these interconnections increased or decreased the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact.

**Company Response:**

- a. **There were no impacts to FPUC's restoration efforts by customer-owned solar generation.**
- b. N/A

7. Without compromising safety, are there changes to the utility's interconnection with customer-owned solar generation that would enable the customer's facilities to be energized by its solar generation should the utility be unable to provide electric service due to a future storm damaging utility infrastructure?
- a. If yes, please provide the following information:
- Please describe the suggested changes to the utility's interconnection.
  - If the utility is not pursuing the interconnection changes please explain why.

**Company Response:**

**No, there are no changes. The Company's current requirements do not prevent customer solar generation from being energized to serve the customers own load when the Company's facilities are unable to due to storm damage.**

8. Without compromising safety, please describe potential changes to a customer's facilities that the customer can implement to enable the customer's facilities to be energized by its solar generation should the utility be unable to provide electric service due to a future storm event that damages utility infrastructure. Include in your response whether the utility makes it a practice to inform the customer of such options.

**Company Response:**

**Customers could install automatic transfer equipment that would instantly switch from the Utility power source to their solar generation when Utility power is lost. FPUC has not offered this as a possible solution to its solar generation customers.**

9. Without compromising safety, please describe any potential changes to rules or tariffs pertaining to utility interconnections with customer-owned solar generation that would enable the customer's facilities to be energized by its solar generation should the utility be unable to provide electric service due to a future storm event that damages utility infrastructure.

**Company Response:**

**We are not proposing any changes.**

10. Please provide the following information for utility interconnections with utility-scale solar generation that did not operate as designed during the extreme weather events that occurred in 2015 through 2017.
- a. The number of failures.
  - b. A description of the cause or causes of such failures.
  - c. Possible failure remediation and associated cost.
  - d. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact.
  - e. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact.

**Company Response:**

- a. **The Company has no Utility Scale solar generation directly interconnected to its electric system from 2015 to 2017.**
- b. **N/A**

- c. N/A
- d. N/A
- e. N/A

11. Please provide the following information for utility interconnections with utility-scale solar generation that operated as designed during the extreme weather events that occurred in 2015 through 2017.

- a. Discuss whether these interconnections contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact.
- b. Discuss whether these interconnections increased or decreased the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact.

**Company Response:**

- a. **The Company has no Utility Scale solar generation directly interconnected to its electric system from 2015 to 2017.**
- b. N/A

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

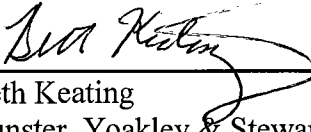
In re: Review of electric utility hurricane preparedness and restoration actions. | DOCKET NO. 20170215-EU

**CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of the foregoing Responses of Florida Public Utilities to Commission Staff's 1<sup>st</sup> and 2<sup>nd</sup> Data Requests in the referenced docket have been served by Electronic Mail this 19th day of January, 2018, upon the following:

Wesley Taylor Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850 <a href="mailto:djanjic@psc.state.fl.us">djanjic@psc.state.fl.us</a> <a href="mailto:sbrownle@psc.state.fl.us">sbrownle@psc.state.fl.us</a>	James D. Beasley/J. Jeffrey Wahlen Ausley Law Firm Post Office Box 391 Tallahassee, FL 32302 <a href="mailto:jbeasley@ausley.com">jbeasley@ausley.com</a> <a href="mailto:jwahlen@ausley.com">jwahlen@ausley.com</a>
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