

STATE OF FLORIDA

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Public Service Commission

November 14, 2017

STAFF'S FIRST DATA REQUEST
via email

To:

Duke Energy Florida, LLC (Matthew.Bernier@duke-energy.com, dianne.triplett@duke-energy.com)
Florida Power & Light Company (ken.hoffman@fpl.com)
Gulf Power Company (jastone@southernco.com, rab@beggslane.com)
Tampa Electric Company (jbeasley@ausley.com)
Municipal Group (AZubaly@publicpower.com)
Lee County (dennie.hamilton@lcec.net)
Cooperative Group (mhershel@feca.com)

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

To Whom It May Concern:

By this letter, the Commission staff requests that each utility provide responses to the following data requests.

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. **For INV 99, Bartow Electric Utility held one emergency storm preparation meeting on August 26, 2016 to review our emergency plan and procedures with the entire utility staff. Hermine was no threat to our utility service area. For Mathew we held two emergency storm preparation meetings one on October 4, and another on October 7, 2016, from October 4-7, 2016, our utility was in storm preparation mode for Matthew. Fortunately, Mathew's impact was minimal to Bartow's service territory, resulting in only two power outages. For Irma, we held three storm preparation meetings to review our updated emergency plan and transition into storm preparation mode, the meeting dates were September 6, 7 and 8, 2017. For Maria, we were busy with restoration efforts from Irma and the forecasted track did not impact Florida, we did not hold any internal meetings. For Nate, we**

- did not hold any internal meetings due to the forecasted track being far to the west of Florida.
- b. Dates and topics of external communication pertaining to mutual aid held after each storm was named. I have no record of dates for discussion pertaining to mutual aid however, these discussions did take place with Barry Moline, Amy Zubaly and Cheryl Anderson before and after each event. In addition, after Hermine, Bartow provided mutual aid as a four man crew to Clay County Co-Op on 9/2/2016 and the City of Tallahassee on 9/3-9/10/2016. For Mathew no mutual aid was needed by our utility and Bartow offered a four man crew to assist but the assistance was not needed. For Irma there were several phone calls with Governor Scott and FMEA in advance of the storm. The purpose of the calls was to make sure every utility was preparing for Irma and that we all had everything we needed. Those calls were very helpful for Bartow, we were able to acquire cots for emergency sleeping arrangements and the acquisition of generators for the Bartow Civic Center for logistical support if they were needed. For Maria and Nate there was no need for mutual aid discussions.
- c. Date mutual aid was requested and nature of request. For Hermine, mutual aid assistance was requested by Barry Moline of FMEA on 9/2/2016. For Irma, request for mutual aid to assist Bartow was made on September 11, 2017. At that time assessment projections and calculations of crew hours required for a six day restoration we requested 100 line workers, we ended up receiving 146 line workers and trimmers through FMEA from Texas, Oklahoma, Ohio, Boston, Virginia, North Carolina, South Carolina, and Alabama. In addition, over 90 tree trimmers were brought in to trim Right of Ways, Parks, and Cemeteries as well.
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.

Director of Electric Utilities

Pre Storm Season Preparations (April 1 each year):

Schedule Pre Storm Season Meeting

During the meeting discuss communication with the EOC City Manager, Commissioners, FMEA, and News Media.

Discuss employee concerns, locating families, a family plan for emergency, day care.

FMEA: verify information in the Mutual Aid Directory, understand mutual aid agreements, make sure agreements with other states are available and contracts are up to date.

Pre Storm Actions Starting 96 Hours Prior:

Schedule Pre Storm Actions Meeting

Establish a Storm Command Center

Pre Storm Actions Starting 48 Hours Prior:

Pre Storm Actions Starting 24 Hours Prior:

Close the Utility if authorized to do so in order to give employees time to prepare

Verify communications lines for employees to learn the status of the utility, when and where to report back to work after the storm.

Assistant Director

Pre Storm Season Preparations (April 1 each year):

Verify our independence regarding electric, water, and waste water supply. Discuss fuel supply and generator needs.

Discuss Storm Command Center Locations and redundancy options Civic Center, IT, Library.

Discuss acquisition of emergency food & medical supplies (i.e. pre-packaged meals, first-aid kits, etc).

Pre Storm Actions Starting 96 Hours Prior:

Notify employees who are on vacation or off work that they are on notice and subject to be called in to work if the storm appears to be a threat.

Check supply of rain suits, flashlights, safety glasses, ear plugs; verify supply of barricades with Public Works. Other items to check include; gloves, shovels, rakes, rubber boots, and garbage bags.

Pre Storm Actions Starting 48 Hours Prior:

Communicate with all employees on the hazards associated with emergency recovery work and the conditions to expect.

Pre Storm Actions Starting 24 Hours Prior:

Secure complex by overseeing the line division boarding of windows and removing any loose material that may become a projectile.

Discuss options of staging vehicles and materials at multiple locations.

Administrative Assistant

Pre Storm Season Preparations (April 1 each year):

Update list of **Electric Personnel & Emergency Phone Numbers** with plans to give to all emergency and standby personnel.

Update list of **Emergency Phone Numbers** for our power provider, local utilities, insurance provider, FEMA, and FMEA.

Address agreements with motels, caterers, restaurants, launderers, equipment rental companies, etc

Pre Storm Actions Starting 96 Hours Prior:

Revisit our plan to house outside crews; verify Motel accommodations and backup plan (cots) if needed. Also verify our meal agreements with local restaurants and equipment availability with rental companies.

Engineering Supervisor

Pre Storm Season Preparations (April 1 each year):

Evaluate inventory levels of critical material. Address long lead time items & make arrangements to secure these items.

Pre Storm Actions Starting 96 Hours Prior:

Evaluate levels of critical inventory and notify suppliers of potential need.

Pre Storm Actions Starting 24 Hours Prior:

Make sure all coolers are full of ice and water. Fill extra coolers with ice.

Substation Supervisor

Pre Storm Season Preparations (April 1 each year):

Review **Sequence of Feeder Restoration** list.

Review **Substation Feeder Recovery Procedure**.

Assess switching capabilities of all main feeders.

Pre Storm Actions Starting 96 Hours Prior:

Test run appropriate generators, prepare outside generators if necessary.

Line Clearance Supervisor

Pre Storm Season Preparations (April 1 each year):

Assess tree trimming status.

Pre Storm Actions Starting 48 Hours Prior:

Prepare chain saws and equipment for debris removal.

IT Supervisor

Pre Storm Season Preparations (April 1 each year):

Discuss multiple lines of communication (i.e. employee hot line, hand held radios, etc.) and discuss establishment of call center to answer customer calls.

Pre Storm Actions Starting 96 Hours Prior:

Verify computer systems backup for all computers.

AFTER STORM/EMERGENCY ACTIONS

Director of Electric Utilities

Provide the City Manager with updates, hourly if possible detailing the current state of our electrical system with accurate information regarding the condition of our substations, feeders, customers without power, mutual aid assistance ordered for restoration, and the number of customers who have had their power restored.

Use information provided by the primary assessment to determine the amount of mutual aid assistance to request.

Assign one person to handle communications with media, citizens, city manager, commissioners, etc.

Assistant Director

Call all personnel to work using the "hotline" if established or whatever means available. Use the emergency contact list if needed.

Once personnel have assembled we will have a job briefing to review our safety policies and procedures. Emphasize the importance of proper documentation of damages during the assessment and restoration.

After the primary assessment has started and damage is located assign crews restoration work according to the critical circuits list.

After primary and secondary assessments are complete assign managers to manage line crew and service crew restoration work if needed. Their duties will include:

- a. Show out of town or local crews where their work assignments are.
- b. Receive work assignments for crews from the Storm Command Center.
- c. Be aware of and keep a log of all work being performed on all circuits and laterals
- d. Report status of work on their circuits or laterals to the Storm Command Center.
- e. Report completed jobs to the Storm Command Center.
- f. Be responsible for notifying all personnel working within the limits of their assigned circuit before re-energizing any feeders.
- g. Notify other crews that may have personnel nearby working on adjoining circuits or laterals before re-energizing any feeders.
- h. Know the boundaries of the circuits they are working on and what substation feeds them.
- i. Confirm the positions of all switches that are noted normally open on the Bartow Electric single line diagram.
- j. Note and report the locations of all grounds that are installed on their circuits.
- k. De-brief at the end of each day at the storm command center to:

- i. Report all work progress and accomplishments.
 - ii. Report status of restoration within their boundaries.
 - iii. Receive work assignments for the next day.
 - iv. Confirm single line diagrams with all managers, make changes if necessary.
3. When did the costs for Hurricanes Hermine, Matthew, Irma, Maria, and Nate begin to accrue for receiving mutual aid? **October 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.
 1. **Begin the primary assessment stage. All 17 feeders will be ridden and assessed for damages according to the critical circuits list. All damages will be reported to our Storm Command Center. All damages and time estimations will be noted on our maps and used to determine the number of customers we have out of power and what crews we initially assign to restoration and where. Needs for mutual aid assistance will be determined from this assessment. IT personnel will be utilized to assess the condition of the communications systems. This is a main feeder assessment only. Do not assess laterals, they will be assessed later. Assessment Personnel**
 2. Damage assessment was completed using 3 teams of two assessors, damages were recorded for each of the 17 feeders and submitted to our engineering department to be used for calculations of mutual aid assistance needed for restoration and to assemble job packets for each feeder.

5. Please provide a description of how damage assessment data is updated and communicated internally. **Damage assessment data is recorded on damage assessment forms. Each damage location is noted at the storm command center on a large map using a push pin and is assigned a value for crew hours required to repair the damage. Next, a work order is assigned to the location and is used to let the line crew(s) or mutual aid crew(s) know where repairs are needed and is used for future documentation.**

Once a total number of hours required for repair is determined for each feeder, those hours are entered into a spreadsheet which calculates the number of personnel needed to achieve a total restoration of the electric grid in the number of days we have selected as our goal for grid restoration.

Restoration Workload

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

The Director of Electric Utilities evaluates when conditions are safe for restoration work to begin. When winds have subsided to a safe level for assessments to begin, all utility personnel are called to work using the Motorola digital radio system.

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

Personnel Responsible for Restoration Workload Assignments
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Title	Years of experience	Number of crews managed
Interim Director of Electric	38.9	Managed overall restoration
Metering Supervisor	32	3, 2 man service crews
Electric Crew Supervisor	34	Managed 4 Crews
Electric Line Technician	21	Managed 4 Crews
Electric Line Technician	31	Managed 4 Crews
Electric Line Technician	29	Managed 4 Crews
Substation Line Technician	30	Managed 3 Crews
Electric Inst. Technician	34	Managed 3 Crews

8. Please provide a description of how restoration workload adjusts based on work completed and updates to damage assessments. Managers are assigned to each substation, and they are responsible for restoring the feeders fed by each, using mutual aid crews and city crews, when the workload in each substation becomes less, crews are shifted to areas where they are needed and they work under managers of different substations.
9. If applicable, please describe how mutual aid was determined to be no longer needed following Hurricanes Hermine, Matthew, Irma, Maria, and Nate. When the electric grid was entirely restored on day seven, packets of calls from customers were given to crews and they were assigned sections of our system to ride and check for anything that was missed, such as leaning poles or low wires or lines down. After all sections of our territory were ridden and checked, the determination that mutual aid was no longer needed was made, and we released the mutual aid crews to other utilities or to return home.

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) After Hurricane Hermine, 4 Bartow Utility Employees were provided lodging for 9 days from 9/2/2016-9/10/2016
 - b. Days of lodging provided for mutual aid partners (Person-Days) After Hurricane Irma, 146 Mutual aid partners were provided lodging for 8 days by Bartow.
 - c. Number of meals provided for Utility personnel After Hurricane Hermine, 4 Bartow Utility Employees were provided three meals a day for 9 days from 9/2/2016-9/10/2016 for a total of 108 meals. After Hurricane Irma 28 Utility personnel were provided 3 meals a day for 10 days for a total of 840 meals

- d.
 - e. Number of meals provided for mutual aid partners **After Hurricane Irma 146 mutual aid partners were provided 3 meals a day for 8 days for a total of 3,504 meals.**
 - f. Number of Utility personnel injuries **0 injuries**
 - g. Number of mutual aid partner injuries **0 injuries**
 - h. Number of Utility personnel fatalities **0 fatalities**
 - i. Number of mutual aid partner fatalities **0 fatalities**
- Please note any delays in restoration associated with items e-h above.

11. Please provide a detailed description of when your Utility was considered fully restored from each named storm event. **Bartow Electric Utility's electric grid was considered fully restored on Sunday September 18, after seven days. There were two locations which power was routed around, that required several broken poles to be replaced. Those repairs were made by mutual aid crews on September 19, and 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 **11,920 customer accounts**
 - b. Peak number of outages. **Estimated 10,000 customers were out of power after Hurricane Irma.**
13. Please provide how call center customer service representatives were utilized before, during and after Hurricanes Hermine, Matthew, **Irma**, Maria, and Nate. **Storm updates, Shelter locations, Restoration Updates in relation to Hurricane Irma were provided by the Fire Chief, Electric Director, Assistant City Manager and City Manager to the Customer Service Staff daily so that they were equipped with the most updated information to provide our customers as they called in.**
14. Please provide the number of customer service representatives the Utility had during Hurricanes Hermine, Matthew, **Irma**, Maria, and Nate. **. The City of Bartow had 8 Customer Service Staff answering calls prior to Hurricane Irma and after the storm hit.**
- 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? **We added 4 personnel from the Public Library for a total of 12 Customer Service Staff answering calls.**
15. Please provide the number of customer contacts received by the customer call center(s) during Hurricanes Hermine, Matthew, **Irma**, Maria, and Nate. **531 contacts on 5/12/17 the day after the storm as we did not man the phones on the day of the storm. This number does not include contacts that the Library staff fielded. The Library staff fielded hundreds of calls from customers**

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. **Call center, email, Utility Website, and a local radio station were utilized to submit and collect contacts before, during and after Hurricane Irma.**
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. **To our knowledge there were no delays in restoration as a result of addressing customer contacts before, during or after Hurricane Irma.**
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? **The customer contacts were handled in the order in which they came into the call center. Any contacts with specific issues that warranted immediate attention were routed to the proper department to be taken care of.**
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? . **As stated in #13, Daily restoration updates were generated from the Assistant City Manager with the most updated information. We had no script.**
20. Please describe the process the Utility uses to notify customers of approximate restoration times. The response should include at a minimum: **In addition to answering the calls that were coming into the call center, our Electric Director gave updates on the local radio station several times daily with restoration estimates for each area. Customers were encouraged to tune into that station as well as contacting us for updated information**

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 **Yes, we keep fuel on site. 1,100 gallons of Diesel and 300 gallons of gasoline.**
 - b. Whether or not fuel shortage was an issue during these events. **There were no fuel shortages for the City of Bartow**
 - c. Whether or not there were any delays due to fuel shortage. **There were no delays**
 - d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews. **No vehicle shorages**

22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, **Irma**, Maria, and Nate. **No complications due to advance planning to supply critical levels of emergency inventory.**

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.
1. **Irma Storm preparation mode began at 7 am on Wednesday September 6, 2017.**
 2. **Employees prepared their trucks and the utility on 9/6, 9/7/9/8, 2017.**
 3. **Employees were sent home for the weekend at 3:30 pm on 9/8/2017.**
 4. **Employees were called back to work at 7 am on 9/11/2017.**
 5. **Mutual aid was received on Wednesday 9/13/107 at 11 am.**
 6. **The electric grid was restored on 9/18/2017.**
 7. **Release of mutual aid began on 9/19/2017, all mutual aid was released by 9/20/2017.**
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. Departures from our emergency plan are made typically during and after the emergency has occurred, but sometimes departures are made based on knowledge gained by networking with others ahead of the emergency. Validations are made before the emergency based on experience and knowing the right thing to do. Validations of these departures are also made during the emergency as they are implemented and evaluated for effectiveness.**
 - b. **If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not. As departures and changes are made to the Emergency Plan, they are memorialized by entering them into the plan as changes made based on the recent implementation of the changes.**
 - 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. Yes, modifications to the City of Bartow Electric Utility Emergency Plan will be made based on recent experiences and knowledge gained from Hurricane Irma. The changes will include having the Bartow Civic Center as the Logistical Hub for Mutual Aid support such as signing in and receiving badges, a location for breakfast lunch and dinner meals, restoration planning, emergency sleeping in case Hotels are not available, storing and parking equipment, receiving donations of food, water and Laundry from the community etc. Having agreements in place in advance with caterers and local restaurants for meals, also having agreements in advance with local Hotels for lodging. Documentation of which City Departments the Electric Utility worked closely with during the event, such as the Parks Department for the Civic Center, Fleet Maintenance for fuel, Public Works for debris cleanup on the Rights of Ways, Parks and, Cemeteries, the Library staff for customer service (answering phones),**

and the Golf Course for meals. Police and Fire departments before and after the storm.

25. Please explain how the Utility validates adherences and departures from its storm restoration plan. See above explanation; details departures from the restoration plan are made in the same way they are made in the preparation plan. They are validated and implemented by judging how much more efficient they made the restoration. If the departures and changes were effective, they will be memorialized in the plan.
- a. If the Utility does not assess departures from its storm restoration plan, explain why not.n/a
 - b. If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.n/a
 - 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. See explanation above; there are a couple of restoration plan changes that will be memorialized in the plan, one will be to recruit a team of assessors in advance and have an agreement with them so that they can assess our entire system in an efficient and accurate manner. Also we created a spreadsheet that calculates the mutual aid help we will need to restore the system in based on man hours required for the number of days you choose for restoration.

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. **During Hurricane Irma Polk County customers only were impacted.**

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 Hurricane Irma				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
Polk	51	76	11	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. **The attached map on the following page references the Utility's infrastructure that has been storm hardened.**

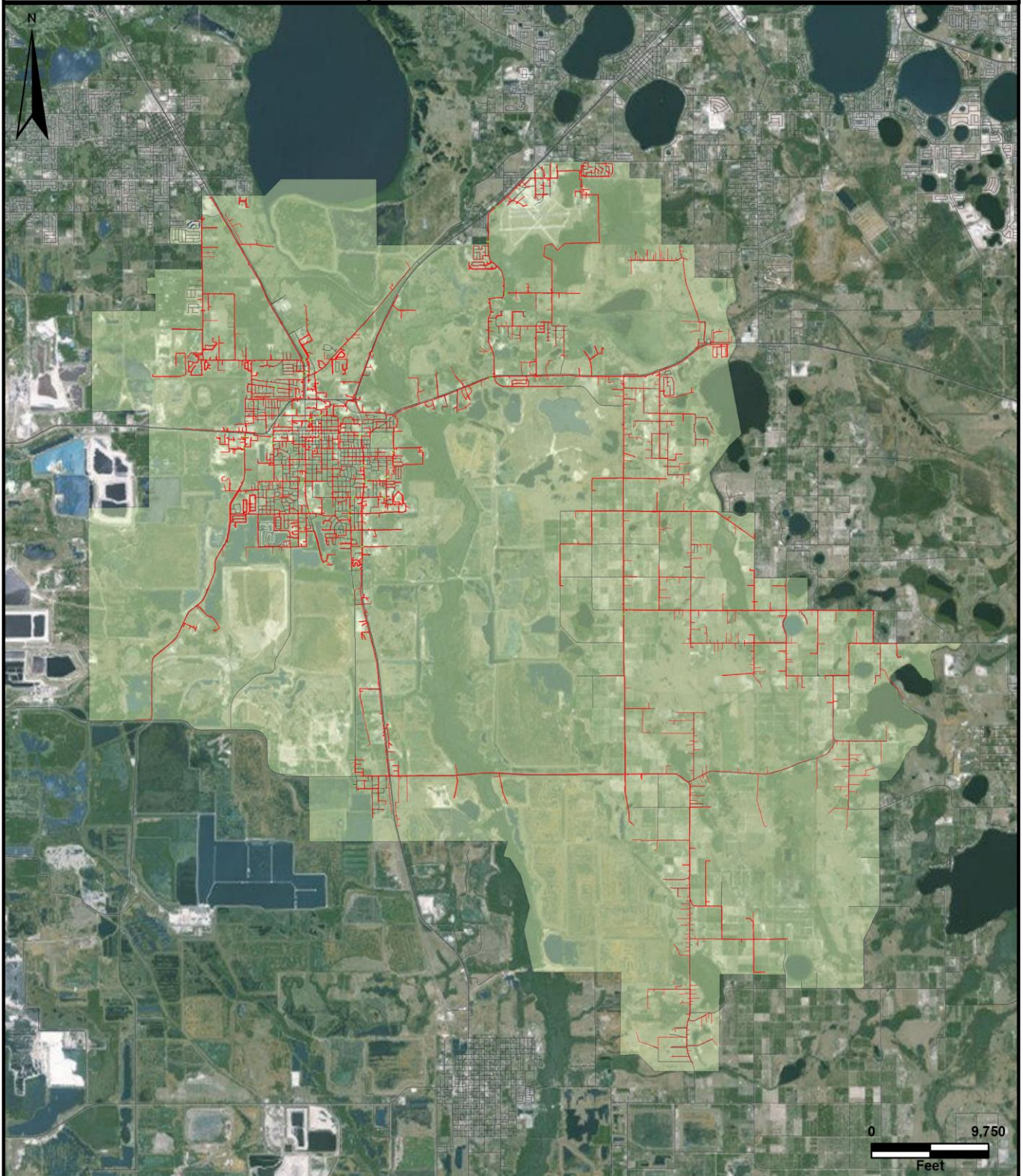


**City of Bartow
Electric Department**

915 Stearman St.
Bartow, FL 33830

Storm Hardening Area for City of Bartow's

Electric Utility Infrastructure



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.

Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures	n/a	
Substations	n/a	
Total	0	
<i>Distribution</i>		
Poles	119	
Substation	1	
Feeder OH	17	
Feeder UG	1	
Feeder Combined	17	
Lateral OH	80	
Lateral UG	0	
Lateral Combined	80	
Total		
<i>Service</i>		
Service OH	400	400
Service UG	0	
Service Combined	400	
Total	400	

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.

Non-Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures		
Substations		
Total		
<i>Distribution</i>		
Poles		
Substation	1	
Feeder OH		
Feeder UG	1	
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		
<i>Service</i>		
Service OH		400
Service UG		
Service Combined		
Total		

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.

1. Poles broken by wind.
2. Poles broken by falling trees
3. Conductors broken by wind.
4. Conductors broken by falling trees and limbs.
5. Poles and conductors damaged by other falling structures creating a domino effect.

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

1. **Irma pushed northward through Florida causing delays in restoration crews traveling south from the north.**
2. **Did not receive mutual aid until September 13, 2017. Because of the above stated problem.**
3. **Customer's services were damaged and could not be repaired until an electrician made repairs.**

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

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. **No outages were avoided by automated feeder switches.**

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		
				Total		
				<i>Distribution</i>		
	Polk	7 days	Wind/Trees	Poles		119
	Polk	14 days	Wind/Trees	Substation	1	
	Polk	7 days	Wind/Trees	Feeder OH	17	
		30 days	Wind/Trees	Feeder UG	1	1
		7 days	Wind/Trees	Feeder Combined	17	
	Polk	7 days	Wind/Trees	Lateral OH	80	
				Lateral UG	0	
				Lateral Combined	80	
				Total	185	119
				<i>Service</i>		
	Polk	7 days	Wind/Trees	Service OH		400
				Service UG	0	
				Service Combined	0	
				Total		400

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. **Underground facilities such as subdivisions were the easiest to restore after the storm while we were restoring substation feeders, customers in the u.g. subdivisions were brought back on line easily when the spine of the feeder was restored in the area.**

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

- Undergrounding of new construction (e.g., subdivisions) **New subdivisions are required by service policies to be underground fed, new individual homes are encouraged to be underground fed.**

- b. Conversion of overhead to underground. Existing homes and businesses are allowed by our service policies to convert their electric services from overhead to underground feed.

Please file all responses electronically no later than December 15, 2017 from the Commission's website at www.floridapsc.com, by selecting the Clerk's Office tab and Electronic Filing Web Form. Please contact me at wtaylor@psc.state.fl.us or at 850.413.6175 if you have any legal questions, or contact Emily Knoblauch for technical questions at eknoblau@psc.state.fl.us or at 850.413.6632.

Sincerely,

/s/Wesley Taylor

Wesley Taylor
Attorney

WDT/as

cc: Office of Commission Clerk
Office of Public Counsel (kelly.jr@leg.state.fl.us, sayler.erik@leg.state.fl.us)