Cover Letter

Lakeland Electric

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

To Whom It May Concern:

The following pages are answers to the proposed questions. The questions are in red, our responses are in black.

We have only answered questions for Hurricane Irma as the others did not require any action unless otherwise noted.

Thank you,

SuzanneMcCarthy
Planning Specialist, System Control
Lakeland Electric | City of Lakeland
501 E. Lemon St. Lakeland, Fl. 33801
863/834-6321 (PH)
863/669-7576 (CELL)

STATE OF FLORIDA

OFFICE OF THE GENERAL
COUNSEL
KEITH C. HETRICK
GENERAL COUNSEL
(850) 413-6199

Public Service Commission

November 14, 2017

STAFF'S FIRST DATA REQUEST
via email

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

Staging for Utility Personnel and Mutual Aid

1. Please describe the pre-storm coordination process for Hurricane Irma. The description should include:

EOP Core Team

Purpose is to reduce restoration time by key personnel meeting prior to, during and after an emergency to establish restoration plans, including damage assessments, logistics, need for foreign crews, policies, address areas of concern, etc. Develop a consistent message for internal & external customers.

EOP Core Team Activation

The AGM of Delivery is responsible for organizing and managing the EOP Core Team. Meetings will be scheduled prior to and after an emergency. All members are required to attend. The meeting format will be round-table discussion. All functions will be responsible for updating/reporting on their area. The Manager of Electric System Control will develop an agenda based on the emergency.

- During Restoration, EOP Core Team meetings will be held at 6am and 6pm in Conference Room 1A&B

- To effectively communicate we will utilize the Outlook E-Mail "EOP Core Team" & "EOP Core Team Text".

- After EOP Core Team meetings members will communicate their respective message(s) to their team members. There will be no Restoration Team meetings during activation unless needed.

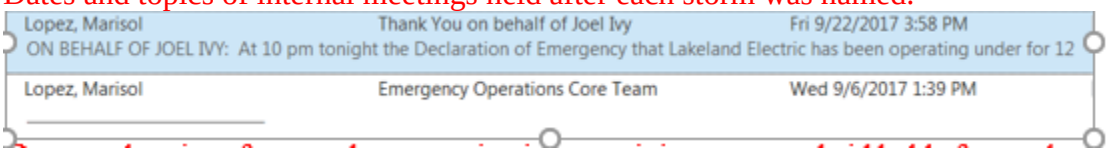
- "EOP" is a prefix in Outlook for all emergency related teams. EOP Restoration Teams is a mailbox for ALL emergency support team leads & their alternates.

- Electric Succession
  General Manager
  Assistant General Manager – Energy Delivery
  Manager of System Control & reliability

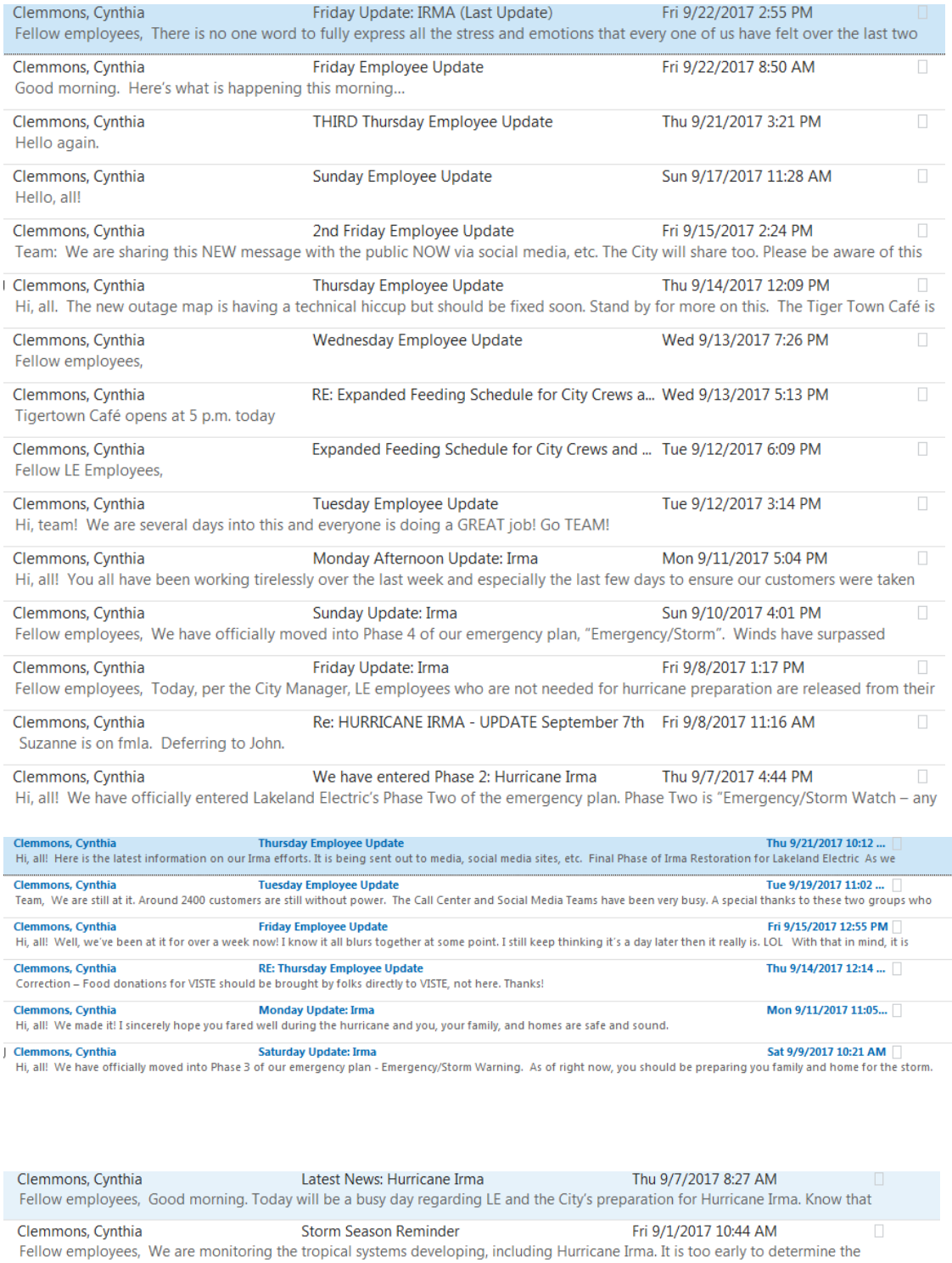
EOP Core Team List

Function	First	Last	Office	Cell
Communications, LE PIO	Cindy	Clemmons	[redacted]	[redacted]
Customer Service	David	Kus	[redacted]	[redacted]
Customer Service	Mike	Trevett	[redacted]	[redacted]
Delivery - Restoration	John	McMurray	[redacted]	[redacted]
LE Emergency Operations Center	John	Adkinson	[redacted]	[redacted]
Engineering	Jamel	Muhieddine	[redacted]	[redacted]
Engineering - Damage Assessment Teams	Morris	Willet	[redacted]	[redacted]
Fiscal Operations - City EOC (Alternate)	Gina	Jacobi	[redacted]	[redacted]
General Manager – City EOC Alternate	Joel	Ivy	[redacted]	[redacted]
IT	Terry	Brigman	[redacted]	[redacted]
Logistics Manager	Lane	Dorminy	[redacted]	[redacted]
Logistic Rations	Alan	Lukhaub	[redacted]	[redacted]
Logistic Lodging	Joey	Tamondong	[redacted]	[redacted]
Mutual Aid Team	Clarke	Freed	[redacted]	[redacted]
Production	Mike	Beckham	[redacted]	[redacted]
Production	Ron	Kremann	[redacted]	[redacted]
Warehouse - Risk	Mark	Raiford	[redacted]	[redacted]
Warehouse – Purchasing	Fred	Henderson	[redacted]	[redacted]
Safety - Risk	Jimmy	Horner	[redacted]	[redacted]
SMART Grid – City EOC	Darrin	McCorvey	[redacted]	[redacted]
Substation Operations & System Protection	TBA			
System Control - Restoration	Joey	Curry	[redacted]	[redacted]
Troublemen	David	Brice	[redacted]	[redacted]
EOP Coordination	Suzanne	McCarthy	[redacted]	[redacted]
T&D Operations	Dwayne	Goostree	[redacted]	[redacted]
City EOC Representative	Jim	Howard	[redacted]	[redacted]
City EOC Representative	Kris	Hayes	[redacted]	[redacted]

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.



Clemmons, Cynthia	Friday Update: IRMA (Last Update)	Fri 9/22/2017 2:55 PM
Fellow employees, There is no one word to fully express all the stress and emotions that every one of us have felt over the last two		
Clemmons, Cynthia	Friday Employee Update	Fri 9/22/2017 8:50 AM
Good morning. Here's what is happening this morning...		
Clemmons, Cynthia	THIRD Thursday Employee Update	Thu 9/21/2017 3:21 PM
Hello again.		
Clemmons, Cynthia	Sunday Employee Update	Sun 9/17/2017 11:28 AM
Hello, all!		
Clemmons, Cynthia	2nd Friday Employee Update	Fri 9/15/2017 2:24 PM
Team: We are sharing this NEW message with the public NOW via social media, etc. The City will share too. Please be aware of this		
Clemmons, Cynthia	Thursday Employee Update	Thu 9/14/2017 12:09 PM
Hi, all. The new outage map is having a technical hiccup but should be fixed soon. Stand by for more on this. The Tiger Town Café is		
Clemmons, Cynthia	Wednesday Employee Update	Wed 9/13/2017 7:26 PM
Fellow employees,		
Clemmons, Cynthia	RE: Expanded Feeding Schedule for City Crews a...	Wed 9/13/2017 5:13 PM
Tigertown Café opens at 5 p.m. today		
Clemmons, Cynthia	Expanded Feeding Schedule for City Crews and ...	Tue 9/12/2017 6:09 PM
Fellow LE Employees,		
Clemmons, Cynthia	Tuesday Employee Update	Tue 9/12/2017 3:14 PM
Hi, team! We are several days into this and everyone is doing a GREAT job! Go TEAM!		
Clemmons, Cynthia	Monday Afternoon Update: Irma	Mon 9/11/2017 5:04 PM
Hi, all! You all have been working tirelessly over the last week and especially the last few days to ensure our customers were taken		
Clemmons, Cynthia	Sunday Update: Irma	Sun 9/10/2017 4:01 PM
Fellow employees, We have officially moved into Phase 4 of our emergency plan, "Emergency/Storm". Winds have surpassed		
Clemmons, Cynthia	Friday Update: Irma	Fri 9/8/2017 1:17 PM
Fellow employees, Today, per the City Manager, LE employees who are not needed for hurricane preparation are released from their		
Clemmons, Cynthia	Re: HURRICANE IRMA - UPDATE September 7th	Fri 9/8/2017 11:16 AM
Suzanne is on fmla. Deferring to John.		
Clemmons, Cynthia	We have entered Phase 2: Hurricane Irma	Thu 9/7/2017 4:44 PM
Hi, all! We have officially entered Lakeland Electric's Phase Two of the emergency plan. Phase Two is "Emergency/Storm Watch – any		

Clemmons, Cynthia	**Thursday Employee Update**	**Thu 9/21/2017 10:12 ...**
Hi, all! Here is the latest information on our Irma efforts. It is being sent out to media, social media sites, etc. Final Phase of Irma Restoration for Lakeland Electric As we		
Clemmons, Cynthia	**Tuesday Employee Update**	**Tue 9/19/2017 11:02 ...**
Team, We are still at it. Around 2400 customers are still without power. The Call Center and Social Media Teams have been very busy. A special thanks to these two groups who		
Clemmons, Cynthia	**Friday Employee Update**	**Fri 9/15/2017 12:55 PM**
Hi, all! Well, we've been at it for over a week now! I know it all blurs together at some point. I still keep thinking it's a day later then it really is. LOL With that in mind, it is		
Clemmons, Cynthia	**RE: Thursday Employee Update**	**Thu 9/14/2017 12:14 ...**
Correction – Food donations for VISTE should be brought by folks directly to VISTE, not here. Thanks!		
Clemmons, Cynthia	**Monday Update: Irma**	**Mon 9/11/2017 11:05...**
Hi, all! We made it! I sincerely hope you fared well during the hurricane and you, your family, and homes are safe and sound.		
Clemmons, Cynthia	**Saturday Update: Irma**	**Sat 9/9/2017 10:21 AM**
Hi, all! We have officially moved into Phase 3 of our emergency plan - Emergency/Storm Warning. As of right now, you should be preparing you family and home for the storm.		

Clemmons, Cynthia	Latest News: Hurricane Irma	Thu 9/7/2017 8:27 AM
Fellow employees, Good morning. Today will be a busy day regarding LE and the City's preparation for Hurricane Irma. Know that		
Clemmons, Cynthia	Storm Season Reminder	Fri 9/1/2017 10:44 AM
Fellow employees, We are monitoring the tropical systems developing, including Hurricane Irma. It is too early to determine the		

c. Date mutual aid was requested and nature of request.

- September 8th line crews & line clearance.
- September 11 mutual aid was confirmed to be arriving.

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.

LAKELAND ELECTRIC - EMPLOYEE RESPONSIBILITY
All employees are assigned an emergency role and are considered Mission Critical.

- All employees, unless unable due to issues related to the emergency, are expected to report to work if directed by their supervisor or emergency role.
- Some employees may work different hours and locations depending on the need.
- All employees should call the Emergency Hotline for specific instructions for their division/emergency role.
- If the hotline is unavailable or you haven't received direction from a supervisor as to where and when to report to work, report to the Lakeland Electric Administration Building if it is safe to drive.
- If you are unable to report to work, first try calling your supervisor. If not available, call the Electric Emergency Operations Center at [redacted]

RESTORATION SUPPORT
Each division has specific roles to ensure a safe and effective restoration. Most employees' job duties remain the same during an emergency. Others will perform functions unrelated to their normal job but assist in restoration efforts. The following are descriptions of the support roles and the number of employees assigned to each team.

The following are an approximate number:

Command Center (Team Members 4): Will be the working location for the General Manager and Assistant General Managers for a centralized location for internal and external communications. Information and updates from the Emergency Operations Center, Logistics, and System Control will be provided to the Command Center throughout an emergency.

Damage Assessment Teams (Team Members 43): Managed by Supervisor of Maintenance & Service Engineering. Made up of Engineering, Field Services, Substation Planners, Relay Technicians, and others, who go out immediately following an emergency and conduct surveys of the damage so restoration plans can be developed.

Emergency Operations Center (EOC) (Team Members 10): Managed by Manager of Energy & Business Services. The EOC will act as the central contact point for employees who are unable to reach their supervisor, the coordination of the Wire Down Guards, primary contact for the City's EOC and provide assistance to System Control.

Lodging (Team Members 13): Managed by Training Specialist and Document Control Supervisor. Provide lodging for critical city, mutual aid, and contract employees. Facilitate the registration and tracking of all personnel. Coordinate with Logistics Team for related services including food, transportation, and laundry.

Rations (Team Members 14): Managed by Pricing/Reporting and Planning. Coordinate the purchase, storage, and dissemination of rations. Feed and hydrate city support members, mutual aid, and contract employees that are expressly involved in the utility's restoration efforts.

EOP Core Team (Team Members 27): Managed by AGM of Delivery. Ensure all departments effectively communicate on key functions such as damage assessments, crew coordination, logistics, policies, etc. Restoration plans will be developed from these meetings based on damage assessments, available crews, materials, weather conditions, etc.

Wire Down Guards (Team Members 9): Managed by Senior Lineman Trainer, Lineman Trainer, and the Chief Meter Technician. They will be coordinated out of the EOC. Wire Down Guards will go out immediately following an emergency event to identify and mark downed wires.

Communications Team (Team Members 6): Managed by Utility Marketing Manager. Develop a consistent, timely message for internal and external customers based on the emergency using multiple communication vehicles including the Lakeland Electric website and social media, as well as coordinating messages with our internal partners.

Transportation (Team Members 11): Managed by Field Services Supervisor and Coordinator. Receive and dispatch all requests for transportation and procure additional vehicles as needed. Provide delivery and or pick up of materials, equipment, and personnel.

Logistics (Team Members 38): Managed by Manager of Field Services. Logistics will be responsible for Transportation, Lodging, and Rations for all Electric employees including mutual aid and contract employees brought in to assist during restoration.

Mutual Aid Team (5): Managed by Contract Coordination Supervisor and T&D Supervisor. Responsible for coordination of outside utilities assisting Lakeland Electric restoration efforts.

Delivery

Linemen & Line Clearance	86
Substation	27
System Protection	15
System Control	24
System Planning	11
SMART GRID	11

Production

Eng. Support, Storm Prep	17
Environmental	2
OSS Storm Coord/Ride-out Team	4
Storm Prep & Ride Out Teams	146
Warehouse Operations	5
Restoration Support	3

Finance

Assist in other logistic roles above	30

Customer Service

Call Center 49

3. When did the costs for Hurricanes Irma begin to accrue for receiving mutual aid?

- Costs started incurring for Mutual Aid on 9/12/17. We also entered into some Line Clearance agreements for assistance on 9/8/17.

Damage Assessment Process

4. Please provide a detailed overview of the initial damage assessment process for Hurricane Irma, 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.

Purpose:
Following a major storm or emergency the Delivery - Engineering groups will conduct damage assessments of the electrical system and report findings to Electric System Control (ESC) where all dispatching and storm restoration will be coordinated.

Objectives:
Conduct assessments of the Distribution System
If needed, assist with conducting assessments of the Transmission Lines

Definitions:

Circuit Priority
There are 122 distribution feeder/circuits that will be prioritized prior to every storm season by the Account Managers, ESC and the Damage Assessment Team (DAT) Coordinator. They'll be sorted into 3 categories:

- **Critical Community:** Priority 1, life safety, Fire/Police, Hospitals/Clinics, Public Shelters, Utility Services electric, water/wastewater.

- **Priority:** Priority 2, Home Supply Stores, Nursing/Retirement Homes, Food Stores, Pharmacies, Major Water/Wastewater Pumping Stations.

- **Normal:** Priority 3, primarily residential.

Circuit Maps (Maps) System Planning and M&SE will develop GIS distribution Maps based on priority circuits. These maps will be used for gathering the damage data by the DAT's in the field. They will be stored on the ground floor of the Administration Building in Reproduction.

Damage Data Collection Forms (Forms) Appendix A & B for examples: will be used to record the information from the Maps. System Planning will support the DAT's with entering the damage data into the Forms. These forms will be used by ESC and the DAT coordinator to help formulate restoration plans.

Damage Assessment Teams (DAT)
15 two man teams
Assigned teams consist of Delivery Engineering, Field Services, and if available Substation Engineering. These teams will meet on the 7th floor of the Lakeland Electric Administration Building for their field assignments as soon as it is safe to travel to work.

DAT Coordinator: Supervisor that will coordinate and manage the DAT's based on the emergency

Procedures

Activation of the DAT's:

If ESC activates the Emergency Operations Plan (EOP) based on the Initial Restoration Field Assessment (See document in the EOP Manual) conducted by the Trouble Trucks, T&D Supervisors and the Operational Engineer, or there is an alternate need, the DAT's will be activated.

Substations:
Assessments will be directed by ESC based on SCADA reports the field assessments will be conducted by the Substation Group in accordance to their individual Emergency Operations Plan.

Transmission System Assessment:

- Performed by the Trouble Trucks and/or the DATS depending on damage.
- A prioritized list of Transmission line segments will be developed for restoration with a number of different possible system contingencies.
- Transmission One Line diagrams will be used to identify major damage to the transmission Lines.
- Transmission one line maps will be forward to the ESC for review and a determination will be made on energizing transmission line segments.
- System Planning may run system load studies to determine the restoration order of generation and transmission assets determinant on what facilities are still available to operate.
- Lakeland Electric's (LE) Standard Operating Procedures outline a restoration plan based on most assets being available and focuses on cranking paths to start additional generation units that will be followed for the restoration of the transmission lines.

Distribution System Assessment:
The Manager of Engineering and the DAT Coordinator will meet with ESC to discuss system damage. Based on this information the DAT Coordinator and the Manager of Engineering will formulate a plan for the DAT's to assess the circuits.

Assessing Process

Critical/Priority assessment will be conducted on the Critical Community and Priority circuits. The goal is to quickly collect damage information to provide a report to the DAT Coordinator and ESC so a restoration plan can be formulated.

Line Crews
ESC and the DAT Coordinator will provide the Manager of T&D Operations with the highest critical/priority circuits with damage. These circuits will be assessed and repaired by the T&D

Line Crews. The T&D Supervisors will record the damage and repairs made on the circuits and report that information to ESC.

DAT's
The remaining critical/priority and normal circuits will be assessed by the DAT's using the Maps

First Assessment Phase
The goal is to complete the first assessment in two days or less on all Critical Community/Priority circuits to the last critical/priority location on the feeder.

A. DAT's will use Maps and start the assessment at the substation and continue to a switch point located beyond the last Critical Community/Priority location.
B. The assessment will consist of the main line feeder only, no lateral taps unless it is serving the Critical Community/Priority location.
C. DAT's will note on the Maps basic damaged such as Trees, Conductor, Poles, and Equipment
D. DAT's will note on the maps where they stopped the assessments for the First Phase.
E. Dat's will return maps to the DAT Coordinator at the end of the work day or sooner if requested.
F. Delivery Engineering and System Planning will enter data from the Maps into the Forms to create a damage synopsis of all assessed circuits. These Forms will be forward daily, or sooner if requested, to ESC and the DAT Coordinator
G. Copies of the Circuit Maps will be made by the Reproduction Group for tree trimming and line crews.

Second Assessment Phase (Detailed assessment)
Will start after the Critical/Priority assessments are complete. Depending on field conditions and amount of data collection required this Phase may take several days to complete. The assessment will include the remaining portions of the Critical/Priority circuits, the normal circuits, and all lateral taps.

The assessment process will work the same as the First Assessment Phase E-G, except detailed information will be gathered on specific pole and/or equipment numbers which will be included on the Maps.

Data/Map Retention
When assessments are complete, all maps, forms, and related data will be stored by Delivery Engineering, for documentation, if requested/needed by FEMA.

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

- Information was manually placed on maps, than forwarded to the system operators to determine restoration plans for the following day

Restoration Workload

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

As soon as it's safe to send crews out (winds below 40mph) restoration begins in the following manor:

1. Initial clearing of main transmission lines that carry bulk electrical from various generating sources. These facilities must be energized first or there would be no way to get power from the generation units to the end user.
2. Repair of main distribution lines (called feeders) to service essential customers that provide health and safety services. For example, hospitals, police stations, fire stations, etc.
3. Restoration of selected distribution lines where it is possible to energize large groups of customers by making minor repairs.
4. Block by block restoration of remaining power lines.

7. For Hurricanes Irma, please complete the following table on workload priority:

Personnel Responsible for Restoration Workload Assignments		
Title	Years of experience	Number of crews managed
Manager of System Control & Reliability	30	Overall Restoration Efforts
Manager of T&D Operations	30	Overall Restoration Efforts
T&D Supervisor	30	16
T&D Supervisor	30	16
T&D Supervisor	30	16
T&D Supervisor	30	16

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

Workload adjustments follow the response to question 6.

9. If applicable, please describe how mutual aid was determined to be no longer needed following Hurricane Irma.

- When restoration was complete for our service territory, (except for a small number of induvial outages), crews were released.

Staffing Considerations

10. Regarding Hurricane Irma, please respond to the following, please provide the following:

	Staffing Considerations Irma		
a	Days of lodging provided for Utility personnel (Person-Days)	1 Person	3 Days
b	Days of lodging provided for mutual aid partners (Person-Days)	401 Mutual	9-12-17 thru 9-23-17

		Aid Workers	Not all crews stayed entire time. Approx. 10 day stay each
c	Number of meals provided for Utility & Mutual Aid personnel	15,084	Did not break down #'s
d	Number of meals provided for mutual aid partners	N/A	
e	Number of Utility personnel injuries	0	
f	Number of mutual aid partner injuries	0	
g	Number of Utility personnel fatalities	0	
h	Number of mutual aid partner fatalities	0	
Please note any delays in restoration associated with items e-h above.		N/A	

11. Please provide a detailed description of when your Utility was considered fully restored from each named storm event.
    - 9-22-2017 when most of our customers had power except for a few individual accounts.

Customer Communication

12. Regarding Hurricane Irma, please respond to the following for each county in the Utility's service territory affected by the storms.
    a. Total number of customer accounts
        - 129,000
    b. Peak number of outages
        - 78,000

13. Please provide how call center customer service representatives were utilized before, during and after Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
    - We increased their hours and the hours of operation for the Call Center, including remaining open on the first two weekends of the storm and aftermath.

14. Please provide the number of customer service representatives the Utility had during Hurricane Irma & Matthew.
    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?
        - It varied. Matthew: 31
        - Irma: 30; however, including our Revenue Management CSRs who assisted, it was about 44.

15. Please provide the number of customer contacts received by the customer call center(s) during Hurricane Irma.
    - Irma: Approximately 149,000 calls.

16. Please provide all methods (call centers, email, Utility website, etc.) utilized to submit and collect customer contacts before, during, and after Hurricanes Matthew & Irma.
    - Phone, Email, Website, social media.

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.
    - This question is unclear, makes no sense. We receive calls from customers; we do not call or contact them. We wait for their contact then address their concerns and issues if able.

    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.
    - Only when City official inserted themselves into the process. They would delay the work of restoration.

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?
    - No, the only triage was whether or not there were live power lines down, which could injure or kill people or cause fires.

19. Please provide a detailed description of how customer service representatives are informed of restoration progress.
    - They received daily updates and could monitor outages during later stages of the restoration process.

    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?
    - Yes and no. They were provided wording from LE PIO/Marketing, but were not mandated to repeat all of it. They could use it as necessary. Public IO/Marketing would issue daily progress reports.

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.
    - Restoration times were determined in our daily EOP Core Team meetings based on restoration progress the day before, the number of crews and the anticipated work load for the day.

    b. How customers are notified.
    - Customers were notified of general restoration times via multiple methods, that included social media, our website, the news media, and our call center

    c. How restoration time estimates are updated.
    - Restoration times were updated daily by work load completed and available resources.

    d. How restoration time estimates are disseminated internally, to the county and state Emergency Operations Centers, and to the public.
    - Employees were provided daily email updates once or twice a day, and had access to all the sources mentioned above.
    - We provided daily updates to the public and employees on restoration time estimates.

Material Considerations

21. Regarding Hurricane Irma, 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
- For the vehicle fleet, we have two emergency fuel tankers we keep full of unleaded and diesel at all times, 8000 gallons per tanker. We have our mobile fuel truck always topped off with 1400 gallons diesel and 800 gallons unleaded. This is in addition to, our normal fuel station capacity of 15000 gallons diesel and 15000 gallons unleaded. Our fuel vendor, FleetWing, prioritizes us as number one during emergency operations so we're first on the list for fuel deliveries

b. Whether or not fuel shortage was an issue during these events
- No. We were fully prepared and ensured we were topped off at the fuel station, the fuel truck, and the emergency tankers. When the port opened back up and started issuing fuel, we were receiving deliveries daily from FleetWing, so we never even tapped our emergency tankers

c. Whether or not there were any delays due to fuel shortage
- No, per above reply

d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews
- No vehicle shortages. Fleet surged all maintenance for utilities vehicles to ensure nothing was in the shop for recovery and we prioritized any repairs to turn trucks around within hours from any breakdowns

22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.
- None

Restoration Process

23. Please provide a summary timeline of the utility's restoration process for hurricane: Irma. 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.
- Staging: 9-12-17
- Stand Down: 9-18-17
- Deployment: No crews deployed for Irma, Crews for Maria mutual aid left on 11-3-17
- Mutual Aid 9-12-17 (Line workers) & 9-8-17 (line Clearance)
- Last outage restored

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

- For Irma, we sent out a survey to all LE Employees asking for their experiences, everything from validation to departures in planning. The results of the survey will be reflected in the updates to the Emergency Operations 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.

- Damage Assessment Teams and Wire Down Guard Teams were utilized and activated differently after Hurricane Matthew. It was a more direct activation from System Control.

25. This is a repeat of question 24. 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.

Outages

26. Please identify all counties, including reporting regions/division for each county if applicable, that were impacted (had outages or damage) due to Hurricane Irma:

- Polk County

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 Hurricane Irma.

Weather Impact				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
Polk	115	130	unavailable	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.

- Hardening of the system after 2006 was a pole management effort. All poles throughout the system were/are inspected by OSMOSE.

29. Please complete the table below summarizing hardened facilities that required repair or replacement as a result of Hurricanes Irma.

- This information was not tracked for the poles or any other facility

Hardened Facilities		
Hurricane	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures		
Substations		
Total		
Distribution		
Poles		
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		
Service		
Service OH		
Service UG		
Service Combined		
Total		

30. Please complete the table below summarizing non-hardened facilities that required repair or replacement as a result of Hurricane Irma.

Non-Hardened Facilities		
Hurricane	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures		
Substations		
Total		
Distribution		
Poles		
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		
Service		
Service OH		
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.
- Wind
- Trees
- Down Conductors
- Broken Poles

32. For Hurricanes Matthew, Hermine, Irma, Maria, and Nate, please provide a ranking of the top five drivers that protracted service restoration time.
- Minimal Number of Line Clearance Crews
- Minimal Number of Tree Clearance Crews
- Path of Hurricane prevented close staging areas for crews coming into the state
- Heavy damage to the service area

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.

- We have no 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**		
Primary Energy Control Center	Polk	25 minutes	wind		**Repair**	**Replace**
Back up Control Center	***Polk***	***8hours***	***wind***	***Transmission***		
Lakeland Regional Hospital	Polk	1 hour	wind	Structures		
				Substations		
				Total		
				Distribution		
				Poles		
				Substation		
				Feeder OH		
				Feeder UG		
				Feeder Combined		
				Lateral OH		
				Lateral UG		
				Lateral Combined		
				Total		
				Service		
				Service OH		
				Service UG		
				Service Combined		
				Total		

Underground Facilities

36. Please provide an assessment of the performance of underground facilities during Hurricane Irma. As part of this assessment please summarize the number of underground facilities that required repair or replacement for each event.

- Underground facilities mostly unaffected

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

- We don't currently have a tariff or formal program in place for undergrounding. If a subdivision or business area wishes to go underground with their electric service, it will be handled on a case by case basis.

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)