CENTRAL FLORIDA ELECTRIC COOPERATIVE, INC.
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December 15, 2017

To:

Florida Public Service Commission Staff

Re: Docket No. 20170215-EU - Review of electric utility hurricane preparedness and restoration actions. (Staff's First Data Request)

To Whom It May Concern:

Central Florida Electric Cooperative, Inc. with this document is responding to the Commission staff's first data request. The cooperative's answers are for Hurricanes Hermine, Matthew, and Irma. They do not include for Hurricanes Maria and Nate due to them not affecting the cooperative.

Please contact me at mcampbell@cfec.com or at (352) 493-2511 or Ben Dawson, COO at bdawson@cfec.com or at (352) 493-2511 for any questions.

Sincerely,

Mike Campbell
Executive VP/General Manager

Cc: Wesley Taylor, PSC
Michelle Hershel, FECA

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.

Prior to each storm, management and staff met to discuss the track of each storm, the possible severity each storm could bring to the cooperative's system, the manpower possibly needed to be able to restore power in a timely manner (both its own utility crews, current in-house contractors, as well as mutual aid/contractors), materials, equipment, food, and lodging.

Hurricane Hermine -

a.) Management and Staff met Monday, 08/29/2016, to discuss the status and prediction of the storm. On Tuesday, 08/30/2016, the Operations Manager met with all operational employees to review job responsibilities, vehicles, and area assignments.

b.) From 08/29/2016 thru 09/01/2016, contact was being made with contract and mutual aid crews, checking availability, and determining if they would be released from their home utilities before or after the storm made landfall.

c.) On 08/30/2016, and 09/01/2016, assistance was officially requested for mutual aid and contract crews to assist from other towns and states, construction crews and right-of-way crews were also requested.

Hurricane Matthew -

a.) Management and Staff met Wednesday, 10/04/2016, Thursday, 10/05/2016, and Friday, 10/06/2016, to discuss the status and prediction of the storm. On Thursday, 10/06/2016, the Operations Manager met with all operational employees to review job responsibilities, vehicles, and area assignments.

b.) From 10/03/2016 thru 10/05/2016, contact was being made with contract and mutual aid crews, checking availability, and determining if they would be released from their home utilities before or after the storm made landfall.

c.) On 10/05/2016, assistance was officially requested for right-of-way and construction mutual aid and contract crews from out of town to assist in the anticipated restoration efforts. Following our storm restoration, the cooperative sent two (2) cooperative crews to a neighboring cooperative to assist in restoration.

Hurricane Irma -

a.) Management and Staff met Wednesday, 09/06/2017, Thursday, 09/07/2017, and Friday, 09/08/2017, to discuss the status and prediction of the storm. On Wednesday afternoon, 09/06/2017, the Operations Manager met with all operational employees to review job responsibilities, vehicle, and area assignments.

b.) From 09/05/2017 thru 09/07/2017, contact was being made with contract and mutual aid crews, checking availability, and determining if they would be released from their home utilities before or after the storm made landfall.

c.) On Thursday, 09/07/2017, mutual aid/contractor assistance was officially requested to come in from other towns and states. Friday afternoon, 09/08/2017, in-house right-of-way and construction contract crews were placed on standby prior to the storm. Additional mutual aid/contract construction and right-of-way crews were called in from Florida, Mississippi,

Arkansas, Alabama, Delaware and Maryland. In addition, we requested assistance from the Florida Forestry for right-of-way needs.

Hurricane Maria –
Not Applicable, no impact to system

Hurricane Nate –
Not Applicable, no impact to system

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.

Duty Title	Description	# of Utility Personnel Assigned
Storm Coordinator	Ensures plan is in place, resources allocated and coordinated, also coordinates information and is the contact to the State EOC, other state agencies and "Statewide" Florida Electric Cooperative Association	2
EOC Coordinator	Point of contact for all local EOC's	1
Logistics	Coordinates all material, food, hotel rooms and supplies	5
Accounting/FEMA	Coordinates all needed information for accounting and FEMA	2
Control Center/Dispatch	The main point of contact between restoration crews and storm managers	5
Field Supervisors	Roaming field supervisors that oversee crews	2
Storm Managers	Analyzes storm outages and assigns crew resources where needed per the storm plan	4
Fleet Services/Garage	Ensures fuel availability and upkeep of all fleet and contract vehicles	2
Technical/System Assessment	Engineers assigned to assess and trouble shoot any substation, transmission or distribution lines/equipment.	3
Call Center	Customer service representatives answering phones	13
Communications/Member Relations	Communicates all press releases, messages, website, "App", radio notifications, also deals with focused area door to door contacts	3
Information Technology	Coordinates all IT related processes and ensures they are in working order before and during storm restoration	4
Warehouse	Ensures adequate material and supplies are stocked and replenished for restoration crews and takes material to crews when needed	4
Restoration Crews	Lineman and other operation personnel working in field restoring power	42

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

Hurricane Hermine-8/31/2016
Hurricane Matthew-10/16/2016
Hurricane Irma-9/8/2017

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.

Hurricane Hermine and Irma- Once the hurricane passed and conditions warranted, crews began at their assigned substation and assessed damage to the substation. If any substation had equipment damage the correct personnel were to be notified immediately following the assessment. Once the substation was evaluated the crews began assessing the main line feeders and the taps off the main line feeders. In conjunction with field assessments, the Control Center and Storm Managers used the Advanced Meter Infrastructure (AMI) system and Outage Management System (OMS) to analyze which meters were without power. As the assessment progressed, some crews were reassigned to start restoration of critical infrastructure facilities when identified. Damage was documented and reported to System Control to help expedite repairs. Storm Managers with field assessment information and OMS data prioritized restoration efforts. Sixteen (16) crews (36 personnel) for the initial assessment were utilized.

Hurricane Matthew- Not enough outages or damage to warrant an assessment.

Hurricane Maria and Nate- Not applicable.


CAUTION

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

Damage assessment team members report back any data to the Control Center and Storm Management personnel which meets on a continuous basis during the storm restoration process. The Storm Management team resides in the Control Center and receives information on damages from outside crews reported through the Control Center and reports generated by our Outage Management System. Continual review of manpower requirements, equipment availability, and resource needs are discussed throughout the process. Work assignments for outside personnel are delegated through the supervisors for each initial daily assignment and then by the Control Center throughout the rest of the day as tasks are completed and other issues discovered.

Restoration Workload

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

SEQUENCE OF RESTORATION: List below is shown in order of priority and can be done in order or parallel with lower priorities depending of number and severity of higher incidents. Restoration philosophy, besides prioritizing critical infrastructure facilities, is to restore large, quick repair areas first, then smaller, more difficult areas, and lastly in the list are individual transformers or meters.

A. Transmission
B. Substations
C. Main Line Feeders (Critical Infrastructure Facilities Priority)
D. Large Lateral Taps of Line Feeders
E. Small Lateral Taps
F. Individual Transformers/Meters

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

Hurricane Hermine, Matthew and Irma				
Personnel Responsible for Restoration Workload Assignments				
Title	Years of experience	Number of crews managed		
		Hermine	Matthew	Irma
Operations Manager	44	33	29	39
System Control Supervisor	36	33	29	39
Right-of-Way Supervisor	35	9	13	12
Operations Superintendent	29	23	16	27

Hurricane Maria and Nate- Not applicable

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

Following the passing of a storm, crews are sent out to assess the damage, start restoring any critical infrastructure facilities, and priority hazardous situations (i.e. lines down across state and county highways.) Any problem areas are isolated on main feeders and large taps to restore power to as many meters as possible. As power is restored in higher priority areas, crews are shifted to areas of need based on critical infrastructure, number of meters served by line, and resources required in other areas. The management team and system control meets throughout the day to evaluate the progress being made and to plan what areas are still out. This determines what resources need to be assigned for each area the following day. Crews are continually calling system control each time they restore power to an area or meter. This information is inputted into a system that tells how many meters have been restored and how many are still out. With this, the management team can adjust its workforce based on the number of meters still out in an area.

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

When 99% or more of the meters are restored we will begin to release mutual aid crews. We will maintain enough mutual aid crews to ensure we can restore all meters within 24 hours of initial release. We will also keep additional mutual aid crews to assist in completing any repairs that were temporary in nature that helped the quick restoration of 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)-
Hurricane Hermine- None
Hurricane Matthew- None
Hurricane Irma- 24 Person-Days

b. Days of lodging provided for mutual aid partners (Person-Days)-
Hurricane Hermine- 338 Person-Days
Hurricane Matthew- 61 Person-Days
Hurricane Irma- 729 Person-Days

c. Number of meals provided for Utility personnel-
Hurricane Hermine- 350 Meals
Hurricane Matthew- None
Hurricane Irma- 2,100 Meals

d. Number of meals provided for mutual aid partners-
Hurricane Hermine- 885 Meals
Hurricane Matthew- None
Hurricane Irma- 2,845 Meals

e. Number of Utility personnel injuries-
Hurricane Hermine- None
Hurricane Matthew- None
Hurricane Irma- 1 Employee

f. Number of mutual aid partner injuries- None

g. Number of Utility personnel fatalities- None

h. Number of mutual aid partner fatalities- None

Please note any delays in restoration associated with items e-h above. -None

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

Hurricane Hermine – 98% System Restored, midnight of September 4th, 2016
100% System Restored, evening of September 5th, 2016
Hurricane Matthew – 98% System Restored, evening of October 7th, 2016
100% System Restored, midnight of October 7th, 2016
Hurricane Irma – 98% System Restored, midnight of September 16th, 2017
100% System Restored, evening of September 18th, 2017
Hurricane Maria and Nate- Not Applicable

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

	Hurricane Hermine		Hurricane Matthew		Hurricane Irma	
County	**Total # of Meters**	***Peak # of Outages**	**Total # of Meters**	***Peak # of Outages**	**Total # of Meters**	***Peak # of Outages**
Alachua	846	711	846	399	875	729
Dixie	7,624	4,003	7,624	228	7,664	5,897
Gilchrist	7,239	5,243	7,239	1,389	7,379	6,198
Lafayette	8	0	8	0	7	7
Levy	17,255	7,302	17,255	94	17,469	13,328
Marion	10	10	10	0	9	9
Total	**32,982**	**17,269**	**32,982**	**2,110**	**33,403**	**26,168**

* Peak # of Outages is the highest total system peak

Hurricane Maria and Nate – Not Applicable

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

Customer Service Representatives were used before Hurricanes Irma, Hermine, and Matthew to answer questions from members concerning potential problems due to the storms. During the storm Customer Service Representatives were utilized to answer phones regarding outages and enter them into the outage reporting system. The Customer Service Representatives were not utilized after the storm operations stopped. They were released to their normal job duties.

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

The amount of customer service representatives used during Hurricane Hermine, Matthew and Irma was 13. Hurricanes Maria and Nate are not applicable.

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

A third-party customer care center was utilized to assist with customer concerns and questions during Hurricane Irma. The number of representatives the third-party provider used is unknown.

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

During Hurricane Irma, the total number of customer contacts was approximately 21,078. During Hurricane Hermine, the cooperative answered approximately 2,490 calls and did not use any third-party customer care centers. The automated outage reporting system received 10,201 calls during Hurricane Irma and 6,632 calls during Hurricane Hermine. During Hurricane Hermine and Irma the cooperative had a mobile app (CFEC Connect) that members could report and view outages system wide.

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.

The methods the cooperative used to submit and collect customer contacts before, during and after Hurricane Hermine and Hurricane Irma was, email, website, social media, local news radio, an automated outage reporting system, customer service representatives, mobile app (CFEC Connect) and a third-party customer care center.

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.

Pre-Irma

- Press releases, Facebook posts and website updates regarding "CFEC Hurricane Preparedness" began Tuesday morning, September 5th.
- Continuous communications were made preceding the arrival of Irma (Sept. 5-10):
    - Multiple times each day, Facebook posts were updated covering a variety of topics such as:
        - Overall hurricane preparedness tips
        - Scam alerts
        - Directions on how to report outages
        - Shared topics and weather updates posted by local Emergency Management, Sheriff's Departments, and the National Hurricane Center.
        - Arrival of help from outside the area before the storm
        - Outage updates, office closings, and reminders to download our mobile app
        - Medically essential account information
        - Power restoration process information
        - Gas availability, shelter updates, county curfews, and evacuations
- Radio advertisements were run 6 times per day on 4 different radio stations.

During & After Irma

- 78% of the system was without power on Monday, September 11th. The cooperative reached 98% of system restoration by Saturday night, September 16th.
- Press releases, Facebook posts, and website updates entitled "CFEC Outage Updates" began Monday morning, September 11th.
- Two Member Service Field Representatives distributed door hangers September 11-15 with the message: CFEC crews are in your area working safely & quickly to restore power. We have increased our workforce & are prepared to bring in more work crews, as needed.
    - The website was updated multiple times per day giving outage updates by county and office closing information.
    - Approximately 5-7 Facebook posts were made each day that included regular outage updates and other information such as:
        - Photos of damage, photos of cooperative crews, photos of truck logos from the other areas including Mississippi, Alabama, Delaware, Arkansas, and Texas
        - All private Facebook messages received an automated response that explained how to report an outage and how to view outages
        - Updates regarding the cooperative substations powered by Duke Energy when outages existed

- Goal of reaching full restoration by the night of Saturday, September 16th, except to those with flooding
- Newspaper thank you sent to all workers, community, and members
- Frequently asked questions (FAQ)
- Office updates and reminders to download the mobile app or visit the website to view the outage map
- Information to pay-as-you-go members regarding billing procedures
- Information to medically essential accounts and explanation of priority status
- Scam alerts and reminders
- Information regarding food donations

- Post- hurricane radio advertisements were utilized 4 times per day on 4 different radio stations.

Facebook Statistics:

- The cooperative's Facebook currently has 2,065 likes and 2,205 followers. Before Irma, we had less than 300 followers.

- According to Facebook's statistics, 85,152 people were reached through our Facebook page from September 10-16th.

Pre-Hermine

- Press releases and website updates regarding "CFEC Hurricane Preparedness" began Monday morning, August 29th.
- Continuous communications were made preceding the arrival of Hermine (August 30-31):
  - Multiple times each day, the website was updated regarding:
    - Overall hurricane preparedness tips
    - Scam alerts
    - How to report outages
    - Shared topics and weather updates posted by local Emergency Management, Sheriff's Departments and the National Hurricane Center
    - Outage updates and reminders to download our mobile app
    - Information to medically essential accounts and explanation of priority status
    - Information on how the power restoration process works
    - Shelter updates

During & After Hermine

- Press releases and website updates regarding "CFEC Outage Updates" began Monday morning, September 2nd.
  - The website was updated multiple times per day giving outage updates by county along with other topics and reminders.

- Overall hurricane preparedness tips
- Scam alerts
- How to report outages
- Shared topics and weather updates posted by local Emergency Management, Sheriff's Departments and the National Hurricane Center
- Outage updates and reminders to download our mobile app
- Information to medically essential accounts and explanation of priority status
- Information on how the power restoration process works
- Shelter updates

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.

The cooperative did not recognize any restoration delays because of notifying our customers with any of the named storms.

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 cooperative used an internal service order processing system and outage management system to track the types of calls received by customers during all storms.

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

The customer service representatives are informed via email each morning of the number of customers that have been restored per county and how many customers are remaining without power per county. The Customer Service Representatives utilize the internal outage mapping system to view the location of the outages and to see how many customers are still without power.

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?

The cooperative provides the customer service representatives with a script to use during each storm. The script is created by the Manager of Customer Service prior to the storm making landfall and is updated daily.

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.

At CFEC, restoration times are not estimated nor are the members notified. However, members can view outages within their service area on a real-time basis. This information can be viewed on our website and mobile app. Additionally, CFEC works closely with Emergency Operations Centers to disseminate crucial information to the community.

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:

Fuel is procured through a local fuel distributor and a backup fleet fuel card to be used at participating fuel retailers.

a. Whether or not the Utility has fuel stored for these types of events-

Hurricane Hermine – Yes, had fuel stored.
Hurricane Matthew – Yes, had fuel stored.
Hurricane Irma – Yes, had fuel stored.

b. Whether or not fuel shortage was an issue during these events-

Hurricane Hermine – No fuel shortage issues.
Hurricane Matthew – No fuel shortage issues.
Hurricane Irma – Yes, fuel shortage issues, very uncertain if fuel supplier would have enough fuel to support the restoration effort, also see answer to part d below.

c. Whether or not there were any delays due to fuel shortage-

Hurricane Hermine – No delays due to fuel shortage.
Hurricane Matthew – No delays due to fuel shortage.
Hurricane Irma – Yes, see answer to part d below.

d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews-

Hurricane Hermine – No issues with vehicles or mobilization.
Hurricane Matthew – No issues with vehicles or mobilization.
Hurricane Irma – No issues with vehicles but issues with mobilization. Mutual aid/contract crews from out of state had issues finding fuel, long fuel lines, lodging while travelling and/or highly trafficked roadways, which all led to most crews taking twice as long to drive thus delaying arrival times.

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 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.

Hurricane Hermine:

08/30/2016 – All CFEC crews were placed on standby ready to be deployed to initial storm outages. Additional outside construction and right-of-way mutual aid/contract crews were officially requested.
08/31/2016 – All CFEC crews, in-house contract crews staged at or near the cooperative office.
09/01/2016 – All CFEC crews, in-house contract crews staged at or near the cooperative office. High winds were impacting service area.
09/02/2016 – 52% of meters were without power. All CFEC crews, in-house line construction crews, and right-of-way crews started restoration process.
09/03/2016 – 26% of meters were without power. Restoration process was on going and mutual aid/contract crews from out of area arrived and started restoration efforts.
09/04/2016 – 9% of meters were without power. Restoration process was on going and mutual aid/contract crews from out of area arrived and started restoration efforts.
09/05/2016 – 1% of meters were without power. Restoration process was on going and mutual aid/contract crews were released throughout the day. 100% of capable (non-flooded) meters were restored by the end of the day.

Hurricane Matthew:

10/05/2016 – Outside construction and right-of-way mutual aid/contract crews were officially requested.
10/06/2016 – All CFEC crews and in-house contract crews were placed on standby ready to be deployed to initial storm outages.
10/07/2016 – Restoration of small outages occurred throughout the day. 100% of the meters were restored by the evening. All outside requested mutual aid/contract crews were cancelled and/or diverted to other utilities to assist in their restoration efforts. Also, in-house contract crews were released to assist other utilities in restoration.

Hurricane Irma:

09/07/2017 – Outside construction and right-of-way mutual aid/contract crews were officially requested.
09/08/2017 – All CFEC crews and in-house contract crews were placed on standby ready to be deployed to initial storm outages. Crews were called out and deployed to outages that afternoon.
09/09/2017 – All CFEC crews and in-house contract crews were called out and deployed to outages throughout the day.
09/10/2017 – All CFEC crews and in-house contract crews were called out and deployed to outages until the winds reached an unsafe level.
09/11/2017 – 78% of meters were without power. All CFEC crews, in-house crews started restoration process. Out of area mutual aid/contract crews started to arrive that evening.
09/12/2017 – 61% of meters were without power. Restoration process was ongoing and additional mutual aid/contract crews from out of the area arrived and started restoration efforts.
09/13/2017 – 44% of meters were without power. Restoration process was ongoing and all initially requested mutual aid/contract crews from out of the area arrived and started restoration efforts.
09/14/2017 – 23% of meters were without power. Restoration process was ongoing.
09/15/2017 – 13% of meters were without power. Restoration process was ongoing.
09/16/2017 – 5% of meters were without power. Restoration process was ongoing. Additional mutual aid that had been released from other utilities was requested.
09/17/2017 – 2% of meters were without power. Restoration process was ongoing. The additional mutual aid, that was requested, arrived and started restoration efforts.
09/18/2017 – 0.1% of meters were without power. Approximately half the mutual aid was released that morning. The remaining crews continued the restoration process and completed 100% restoration by that evening.
09/19/2017 – The CFEC crews and in-house contract crews worked on facilities that were temporarily fixed to restore power but needed to be permanently fixed. All remaining mutual aid crews were released that morning.

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.

We assess departures or changes any time we must deviate from our initial plan while preparing for the storm.

b. If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not.

We document any changes to be made concerning our storm plan as we get updated information from our local EOC's. Example – accounts, dates, times, criteria changes, etc.

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, we have developed a storm preparation plan that considers possible departures can develop at any given time, which in turn, could change the preparation plan. We have allowed ourselves flexibility to be able to reallocate out personnel and equipment as needed to cover any possible circumstance that may come up until further assistance can be gathered. One example of modification to the storm plan is that we have added more communication paths (social media) to our members in giving them pre-storm and during storm information.

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.

We assess departures from our initial restoration plan. We prepare for a storm situation and once it passes and damage assessments are complete, we plan accordingly to see that the restoration of power is completed to our members in a safe and timely manner.

b. If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.

We document any situation that may result in a temporary change to the plan and have a post-storm debrief to assess whether the change needs to be made to our official storm restoration plan.

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.

Yes, we have also developed a storm restoration plan that considers possible departures can develop at any given time, which in turn, could change the restoration plan. We had a post-storm debrief to assess whether change(s) need to be made to our official storm restoration plan. As an example, after the 2016 hurricanes, we learned we needed to improve our call overflow to customer service representatives. We contracted with a third-party call center to handle the additional call load during the storm and restoration process.

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.

County	With Damage		
	Hermine	Matthew	Irma
Levy	Yes	Yes	Yes
Dixie	Yes	Yes	Yes
Gilchrist	Yes	Yes	Yes
Alachua	Yes	Yes	Yes
Lafayette	Yes	No	Yes
Marion	Yes	No	Yes

Hurricanes Maria and Nate – Not Applicable

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.

Data not available

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.

Not applicable

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.

Not applicable

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-Hermine	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures	0	0
Substations	0	0
Total	0	0
Distribution		
Poles		49
Substation		
Feeder OH	7	
Feeder UG		
Feeder Combined	7	0
Lateral OH	56	36
Lateral UG		
Lateral Combined	56	36
Total	63	85
Service		
Service OH	1	
Service UG		
Service Combined		
Total	1	

Non-Hardened Facilities		
Hurricane-Matthew	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures		
Substations		
Total		
Distribution		
Poles		3
Substation		
Feeder OH		
Feeder UG		
Feeder Combined		
Lateral OH		
Lateral UG		
Lateral Combined		
Total		3
Service		
Service OH		
Service UG		
Service Combined		
Total		

Non-Hardened Facilities		
Hurricane Irma	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures	0	0
Substations	0	0
Total	0	0
Distribution		
Poles		148
Substation		
Feeder OH	13	
Feeder UG		
Feeder Combined	13	0
Lateral OH	58	107
Lateral UG		
Lateral Combined	58	107
Total	71	255
Service		
Service OH	17	
Service UG		
Service Combined		
Total	17	

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.

	Causation		
	Hermine	**Matthew**	**Irma**
1	Tree Limbs	Tree Limbs	Tree Limbs
2	Trees	Trees	Trees
3	Lines Down	Lines Down	Loss of Third Party Transmission
4	Broke Poles	Lightning	Broke Poles
5	N/A	N/A	Lines down

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

	Protracted		
	Hermine	**Matthew**	**Irma**
1	Number of outages	Tree Limb	Number of outages
2	Trees	Trees	Loss of Third Party Transmission
3	Lines Down	Lightning	Broke Poles
4	Broke Poles	Lines Down	Trees
5	Tree Limbs	N/A	Lines down

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

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.

Not applicable

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 (Hermine) – CIF						
CIF Name/Type (i.e. Hospital)	**County/ Location**	**Restoration Time**	**Outage Cause**	**Number of Facilities Requiring**		
					Repair	**Replace**
Bell High School Shelter	Gilchrist	10 hrs 28 mins	Tree(s)	***Transmission***		
Bell Elementary School Shelter	Gilchrist	10 hrs 28 mins	Tree(s)	Structures	Not available	Not availabe
Gilchrist EOC	Gilchrist	10 hrs 28 mins	Tree(s)	Substations	Not available	Not availabe
Levy EMS Chiefland	Levy	7 hrs 3 mins	Material/Equip.	**Total**	Not available	Not availabe
Yankeetown Fire	Levy	1 day 7 hrs 44 mins	Broke Poles/ Tree(s)	***Distribution***	Not available	Not availabe
US Coast Guard	Levy	1 day 7 hrs 16 mins	Broke Poles/ Tree(s)	Poles	Not available	Not availabe
FAA Radar Site	Dixie	1 day 22 hrs 48 mins	Tree(s)	Substation	Not available	Not availabe
Chiefland Elementary School Shelter	Levy	7 hrs 5 mins	Tree Limb(s)	Feeder OH	Not available	Not availabe
				Feeder UG	Not available	Not availabe
				Feeder Combined	Not available	Not availabe
				Lateral OH	Not available	Not availabe
				Lateral UG	Not available	Not availabe
				Lateral Combined	Not available	Not availabe
				Total	Not available	Not availabe
				Service	Not available	Not availabe
				Service OH	Not available	Not availabe
				Service UG	Not available	Not availabe
				Service Combined	Not available	Not availabe
				Total	Not available	Not availabe

Hurricane (Matthew) – CIF						
CIF Name/Type (i.e. Hospital)	**County/ Location**	**Restoration Time**	**Outage Cause**	**Number of Facilities Requiring**		
					Repair	**Replace**
None				***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		

Hurricane (Irma) – CIF						
CIF Name/Type (i.e. Hospital)	**County/ Location**	**Restoration Time**	**Outage Cause**	**Number of Facilities Requiring**		
					Repair	**Replace**
US Coast Guard	Levy	21 hrs 4 mins	Broke Pole(s)	***Transmission***		
Yankeetown Fire	Levy	21 hrs 4 mins	Broke Pole(s)	Structures	Not available	Not availabe
Old Town EMS	Dixie	3 days 5 hrs 42 mins	Broke Pole(s)	Substations	Not available	Not availabe
Gilchrist Trenton EMS	Gilchrist	3 days 11 hrs 57 mins	Broke Pole(s)	**Total**	Not available	Not availabe
FAA Radar Site	Dixie	19 hrs 16 mins	Tree(s)	***Distribution***	Not available	Not availabe
Chiefland Elementary School Shelter	Levy	20 hrs 17 mins	Tree(s)	Poles	Not available	Not availabe
				Substation	Not available	Not availabe
				Feeder OH	Not available	Not availabe
				Feeder UG	Not available	Not availabe
				Feeder Combined	Not available	Not availabe
				Lateral OH	Not available	Not availabe
				Lateral UG	Not available	Not availabe
				Lateral Combined	Not available	Not availabe
				Total	Not available	Not availabe
				Service	Not available	Not availabe
				Service OH	Not available	Not availabe
				Service UG	Not available	Not availabe
				Service Combined	Not available	Not availabe
				Total	Not available	Not availabe

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.

The performance of such facilities fared well. During Hurricane Irma there were two underground transformers damaged from falling trees. During Hurricane Hermine there were underground facilities impacted from storm surge and flooding along coastal communities. Some underground facilities may have been indirectly affected because of connected overhead facilities, such as riser poles, that were damaged.

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

No policies in place to promote undergrounding. Central Florida Electric Cooperative is in an evaluation process at to review and analyze all new secondary services.