



Wesley Taylor
Public Service Commission
Capital Circle Office Center
2450 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Reference: Docket No. 20170215-EU – Review of Electric Utility Hurricane Preparedness and Restoration Actions

Dear Mr. Taylor:

Attached you will find Withlacoochee River Electric Cooperative, Inc.'s response to Docket No. 20170215-EU.

Please do not hesitate to contact me if you have any questions.

Respectfully,

David Lambert

Manager of Member Relations

Withlacoochee River Electric Cooperative, Inc.

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Re: Docket No. 20170215-EU-Review of Electric Utility Hurricane Preparedness and Restoration Actions

Note: WREC was not impacted by Mathew, Maria or Nate.

Staging for Utility Personnel and Mutual Aid

- 1. WREC holds pre-storm meetings at the beginning of Hurricane season each year. The hurricane/disaster plan is reviewed and updated at this time. All senior management participates in this meeting.
 - A. WREC held its first meeting on Hermine on August 29, 2016, and September 8, 2017 on Irma. The topics included but were not limited to safety, staff levels, damage assessments, material, food, lodging, communications, EOC, and other aspects of our Hurricane response plan.
 - B. WREC did not request additional contract crews for Hurricane Hermine so there were no external communications on this issue. WREC contacted Pike Electric on September 8th for additional contract crews. We already had 26 Pike Contract Personnel working on our system during Hurricane Hermine and Irma along with 115 contract tree trimming personnel. At WREC's request, Pike sent an additional 22 personnel for Hurricane Irma. These crews were from Tennessee and arrived on September 14, 2017.
 - C. Mutual Aid was requested for Hurricane Irma on September 8, 2017. The request was for qualified line personnel, bucket trucks, digger derricks, and supervising foremen.

2. Storm duties allocation

IRMA

Job Title	Description	Qty
General Manager	Oversees all Cooperative aspects of WREC restoration.	1
Customer Service	Answers customer questions	27
Restoration	Restores power, repairs damaged utility infrastructure	219
Engineer	Engineering	5
Warehouse	Distribute and order material	10
IT	Updates website, analyze computer problems, maintains electronic data flow	16
Food and lodging prep	Prepares, acquires, and delivers food. Adequate lodging for contract crews	46
Right Of Way Management	Supervises removal of tree debris	4
Purchasing	Purchase and acquire material	3
Parts Technician	Acquires parts for damaged equipment	2
Dispatch	Dispatch crews, emergency phone calls from EOC, takes calls from general public	11
Communications	Updates social media, phone system, updates EOC. Deals with media.	2
Finance and Accounting	Financial Matters	2
Generator Crew	Repairs and fuel generators	4
Electronic Technician	Insures communication between substation to control center	6
Safety	Insures crew, staff and general public safety.	2
Damage assessment	Assess damage to WREC system	39
District Manager	Oversees all functions in a designated geographic area	4
Human Resources	Directs Human Resource needs	1
Custodial	Cleans buildings	8
Control Center	Monitors and operates WREC electric grid electronically	9

Call Center	Answers customer questions, posts	66
	outage to outage management system	
Mechanic	Repairs vehicles and equipment.	11

Hermine

Job Title	Description	Qty
General Manager	Oversees all Cooperative aspects of WREC restoration	1
Customer Service	Answers customer questions	19
Restoration	Restores power, repairs damaged utility infrastructure	216
Engineer	Engineering	21
Warehouse	Distribute and order material	8
IT	Updates website, analyze computer problems, maintains electronic data flow	17
Food and lodging prep	Prepares, acquires, and delivers food. Adequate lodging for contract crews	50
Right Of Way Management	Supervises removal of tree debris	4
Purchasing	Purchase and acquire material	3
Parts Technician	Acquires parts for damaged equipment	2
Dispatch	Dispatch crews, emergency phone calls from EOC, takes calls from general public	10
Communications	Updates social media, phone system, updates EOC. Deals with media.	2
Finance and Accounting	Financial Matters	2
Generator Repairs	Repairs and fuel generators	4
Electronic Technician	Insures communication between substation to control center	6
Safety	Insures crew, staff and general public safety.	2
Damage assessment	Assess damage to WREC system	27
District Manager	Oversees all functions in a designated geographic area	5
Human Resources	Directs Human Resource needs	3
Custodial	Cleans buildings	8
Control Center	Monitors and operates WREC electric grid electronically.	9

	Answers customer questions, posts outage to outage management system	62
Mechanic	Repairs vehicles and equipment.	12

3. WREC did not use contract crews for Hurricane Hermine. WREC began to receive invoices from contractors for Hurricane Irma on 10/30/2017.

Damage Assessment Process

- 4. WREC utilizes trained personnel to perform damage assessments. Damage assessment employees include Engineers, Meter Readers, Meter Technicians, Engineering Service Technicians, and other qualified personnel that have power line experience. Their duties are to identify and record damage to the system. During the initial phase, assessment crews patrol critical infrastructure and circuits to identify damage. Each line segment is tagged with a list of damage to the segment (pole class and type that is damaged, wire that is damaged, and material that is needed to repair, and vegetation that needs to be trimmed). This information is communicated to a central dispatch area and noted at each of the four districts throughout WREC service territory. Restoration crews are assigned based on information provided by damage assessment personnel.
- 5. Damage assessment data is communicated back to a central dispatch area in each district. The information is tagged to a specific segment of line on a circuit. This information is then sent to the line department, engineering, and warehouse for service and dissemination.

Restoration Workload

- 6. WREC focuses on restoration as a matter of public safety and restores power as follows:
 - A. occupied county shelters, hospitals, police, fire, and rescue station
 - B. water, sewer, sanitation plants, prisons, schools, and nursing homes

- C. public service providers such as those who provide food, lodging, and pharmacy's, gas stations, and traffic signals
- D. distribution circuits that can restore power to the largest number of members
- E. Individual lines and secondary repairs.

7. Work load priorities for restoration table.

Hermine

Title	Years of experience	Number of crews managed	
Superintendent	23	3 - ROW	
Crew Chief	39	7 - Restoration	
Crew Chief	30	13 - Restoration	
Superintendent	46	6 - Restoration	
Crew Chief	29	7 - Restoration	
Crew Chief	29	7 - Restoration	
Superintendent	38	2 - ROW	
Crew Chief	36	10 - Restoration	
		1 - ROW	
Crew Chief	28	10 - Restoration	
		1 - ROW	
Crew Chief	26	3 - Restoration	
		3 - ROW	
Crew Chief	38	6 - Restoration	
		3 - ROW	
Crew Chief	34	8 - Restoration	
		2 - ROW	
Crew Chief	34	6 - Restoration	
		2 - ROW	
Crew Chief	38	5 - Restoration	
		2 - ROW	

* Each truck has 2 to 3 personnel

Irma

Title	Years of Experience	Number of crew managed	
Superintendent	23	2 - ROW	
		1 - ROW	
Crew Chief	39	7 - Restoration	
Crew Chief	30	13 - Restoration	
Superintendent	39	2 - ROW	

		3 - ROW
		5 - Restoration
Crew Chief	37	7 - Restoration
		1 - ROW
Crew Chief	29 1/2	8 - Restoration
		1 - ROW
Crew Chief	26	6 - Restoration
		3 - ROW
Crew Chief	38	6 - Restoration
		3 - ROW
Crew Chief	34	8 - Restoration
		2 - ROW
Crew Chief	34	6 - Restoration
		2 - ROW
Crew Chief	38	5 - Restoration
		2 - ROW
Superintendent	46	12 - Restoration
		2 - ROW
Superintendent	47	5 - Restoration
		1 - ROW
Crew Chief	30	5 - Restoration
		1 - ROW
Crew Chief	30	5 - Restoration
		1 - ROW

^{*} Each truck has 2 to 3 personnel

- 8. Restoration workloads adjust based on our order of restoration as outlined in question 6 of this document. As crews complete restoration of shelters, hospitals, police, fire, and rescue stations they are moved to the next phase of restoration which is water, sewer, sanitation plants, prisons, schools, and nursing homes. Then restoration begins on public service providers such as gas stations, pharmacy's, grocery stores, restaurants, hotels, and shopping malls. Line segments with the largest member base are next and then individual members.
- 9. WREC does not release mutual aid/contractors until we are considered fully restored and approved by the General Manager.

^{**} ROW = Right-of-way

Staffing Considerations

- 10. None for Hermine/Below references Irma
 - A. 0
 - B. 6
 - C. 5,112
 - D. 14,688
 - E. 5
 - F. WREC does not track contractor injuries
 - G. None
 - H. None
- 11. WREC was not impacted by Matthew, Maria, or Nate. We did not use contractors for Hurricane Hermine or request aid from them. WREC looks at releasing contractors when we are 98% restored but did not release contract crews until we were 100% restored with Hurricane Irma. This does not include customers who had damage to their homes or could not receive power due to flooding.

Customer Communications

12.

	Hermine		Irma	
	Total	Peak (9/2/16 3AM)	Total	Peak (9/11/17 12PM)
Citrus	6220	384	23284	21345
Hernando	14738	10523	77727	71255
Pasco	14252	802	82276	74124
Polk	508	0	523	523
Sumter	869	869	911	909

13. Call center and customer service representatives were used as follow:

Before the storm our CSR's answered general questions from the membership and performed their usual daily tasks. They included safety tips (stay away from downed power lines, etc.) along with providing Emergency Operations Center contact information, and answered member's questions on our order of operations for restoration. They also aided in preparing our locations for storm response after the storm.

During the storm our call center representatives and customer service representatives were in shelters and safe places with their families. They reported to work as soon as the storm passed.

After the storm passed our call center was staffed 24/7 and our employees worked extended shifts based on call volume. They also helped prepare and distribute meals to operations personnel in the field.

14.WREC had the following customer service representatives for:

Hermine: 81

IRMA: 93

There were no 3rd party entities utilized during either hurricane.

15.Hermine 7,572, Irma 16,798

16.WREC uses the following methods to collect contacts:

- A. Before the storm: Four District Offices plus our Corporate Office was opened and fully staffed to engage customers during normal business hours before the storm. Our call center operated normal hours 8-5 as well during the storm. Member could submit questions through our website, Facebook, or our SmartHub app 24/7. Also members could contact our 24/7 control center (to report outages) before the storm.
- B. During the storm our Control Center was fully staffed. Our offices were closed during this time.

- C. After the storm our four District Offices plus our Corporate Office was opened and fully staffed to engage customers and collect contacts after the storm. Our call center operated 24/7 as well until we were fully restored. Member could submit questions, report outages, safety issues or other issues through our website, Facebook, or our SmartHub app 24/7. Also members could contact our 24/7 control center (to report outages, safety issues, and other issues) after the storm. Our Control Center also serves as a direct link year round for first responders and there is a dedicated line for them, and is answered 24/7 year round.
- 17. All customer contacts are handled the same before, during, and after a storm based on the level of severity and difficulty.
 - A. Customer engages the Cooperative
 - B. Customer Service Representative locates the customer's account and verifies customer data.
 - C. Customer Service Representatives log the power outages in our outage management system, and answer general questions.
- 18.Customer contacts are categorized and broken down based on categories. Example: If a customer is reporting a power outage it is categorized in our system as a power outage and a crew is dispatched to restore power. If it is a billing concern it is set in a different category specifically for billing issues.
- 19.Customer service personnel are updated multiple times per day on storm progress. Also, customer service personnel have access to our outage managements system. This system provides detailed information on outages and restorations efforts for WREC'S entire service territory. They can review the information at any time for real time updates.
- 20.In storm situations restoration times are determined by the following:
 - A. Damage assessment reports

- B. WREC updates members through a variety of channels. Facebook, EOC'S, News Media (Radio, Print, and Television), Website, Outage Management System, Online Outage Map, and through our phone messaging system.
- C. WREC uses software that predicts outages, and their intensity by numbers of consumers without power on a specific line segment. This technology allows operation managers to better forecast restoration time. At the end of each day operation managers analyze progress to determine restoration time estimates. Members are updated daily on restoration progress.
- D. Restoration times are disseminated a variety of ways. Internally employees are briefed every morning and throughout the day as outages numbers are updated. Also customer service employees and dispatchers have access to outage numbers on a real time basis. Counties are updated through their EOC's three times a day. The State is updated through their EOC at the end of each day. The public is updated 3 times a day through multiple channels. Every group discussed has access to our website, and online outage map. This map shows outage numbers, outages down to a geographic area, and crew location.

Material Considerations

- 21.WREC has a fuel contract through a qualified vendor. This contract covers all WREC'S year round fueling requirements including storm requirements. WREC has 5 fueling sites at offices located in Pasco (3), Hernando (1), and Citrus (1) counties. WREC also has storage capacity at two additional locations. Our supplier fully stocked WREC prior to the storm in compliance with our storm plan. Contractors fuel at one of these five sites during a storm or natural disaster situation.
 - A. WREC keeps excess diesel fuel stored for fueling in emergencies.

 Diesel is our largest requirement.

- B. A fuel shortage was not an issue during these events. However, we were within 36 hours of running out of fuel after 5 days of no fuel deliveries.
- C. There were no delays due to fuel except for contractors coming in from out of state that had to wait in long lines for fuel.
- D. There were no issues related to mobilizing crews for the storm due to fuel. However, the storm was so large, and included multiple states; line crew availability was an issue. WREC received contract crews from Tennessee but these crews could not get here until approximately 5 days after the storm's impact.
- 22.WREC uses multiple vendors for supplies plus we keep 5 fully stocked warehouses throughout our service territory. The only storm where there was a shortage was Hurricane Irma. During this storm there were only two items (fuses, and automatics) WREC ran short on. Those items were at our supplier's warehouse but delivery times were lengthened due to traffic and fuel issues getting into the state. WREC has now increased the on hand supply of each of these items.

Restoration Process

23.Restoration Timeline for Hermine: 8/30/16 Full Hurricane Activation, 9/1/16 Started Restoration Efforts, 9/2/16 Fully Restored

Irma: 9/09/17 Full Hurricane Activation, 9/11/17 began restoration, 9/15/17 Substantially Restored, 9/19/17 Fully Restored

- 24.WREC typically adheres to its storm preparation plan. The storm plan has been prepared and revised by historic data and situations that occurred for each event.
 - A. In rare instances where there is a departure from the preparation portion of the plan WREC'S senior management team reviews and preliminarily approves the departure, with final approval resting on the General Manager or his designee.

- B. WREC does memorialize the departure and when the storm plan is reviewed, if warranted the departure is incorporated into the overall plan.
- C. WREC did not have any departures from the storm preparation plan that resulted in modifications of our storm plan from 2015 through 2017.
- 25.WREC adheres to its storm restoration plan and does not depart from it unless it is absolutely necessary. WREC has an order of operations when restoring power. During the last two storms Hermine and Irma there was no departure from the plan.
 - A. WREC does assess departures from its storm restoration plan.
 - B. WREC does document its departures from its storm restoration plan.
 - C. WREC did not depart from its storm restoration plan during 2015 to 2017 therefore there were no changes to our plan.

Outages

- 26.WREC had outages and damage due to Hurricane Hermine and Irma in its entire service which includes Pasco, Polk, Hernando, Citrus, Sumter counties.
- 27. Data not available

Hardened and Non-Hardened Structures

- 28. Data not available
- 29. Data not available
- 30. Data not available
- 31. Trees falling on power lines, 2. Flooding, 3-5. Unknown
- 32. Hermine 1. Tree removal, 2. Flooding 3-5. Unknown. Irma 1. Other utilities restoring their transmission lines or delivery point of service to WREC substations, 2. Flooding 3. Debris blocking road ways, 4-5. Unknown

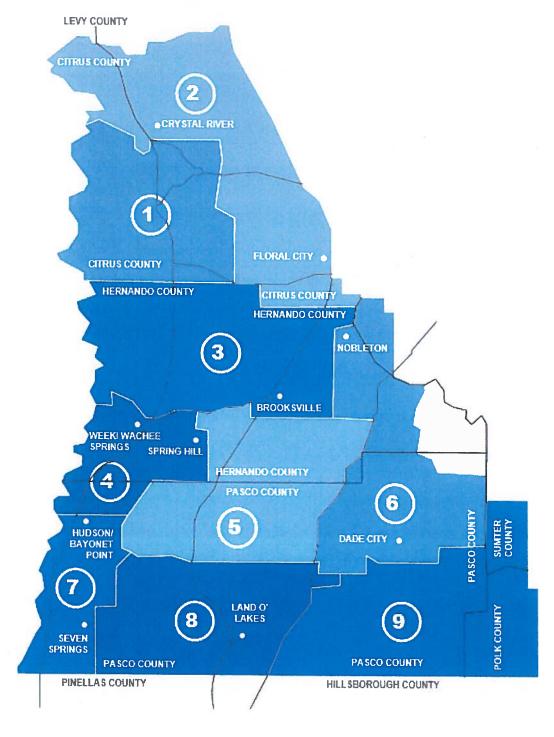
33.Not applicable

34. There were no outages avoided by automated feeder switches during Hurricanes Hermine and Irma.

35.Data not available

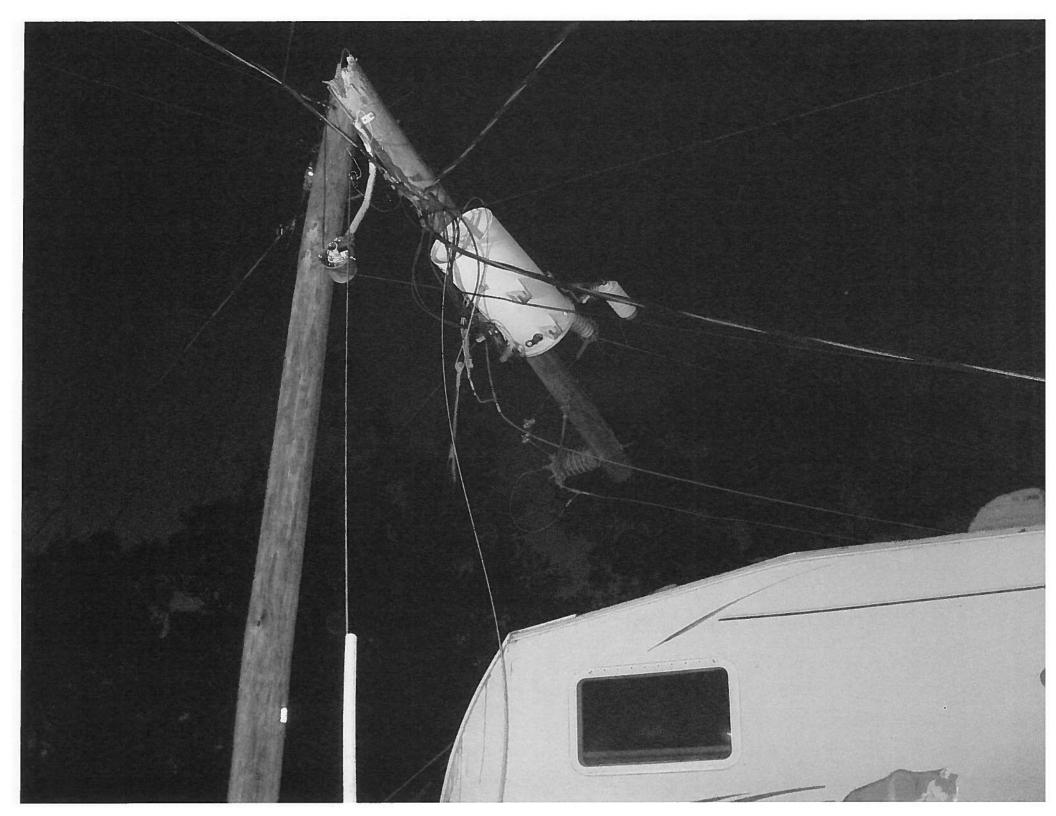
- 36.Underground facilities performed well during Hermine and Irma. WREC replaced 1 underground transformer and 960 ft. of underground cable due to damage caused by Hermine. WREC replaced 3 underground transformers and 180 ft. of underground cable due to damage caused by Irma.
- 37.WREC has no special programs/tariffs to promote undergrounding of new construction, or conversion of overhead to underground.

Service Map Area



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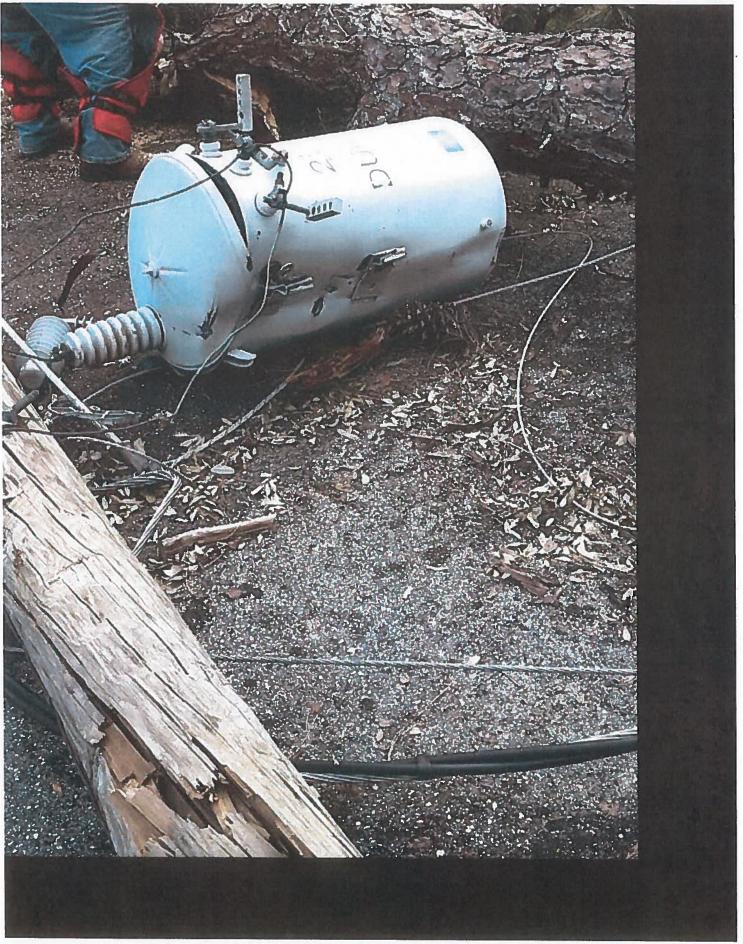












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