

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for limited proceeding for recovery of incremental storm restoration costs related to Hurricanes Irma and Nate by Duke Energy Florida, LLC

Docket No. 20170272-EI

Dated: July 16, 2018

DUKE ENERGY FLORIDA, LLC'S RESPONSE TO STAFF'S SECOND SET OF INTERROGATORIES (NOS. 13-27)

Duke Energy Florida, LLC ("DEF"), subject to and without waiving the contemporaneously served objections to these requests, responds to the Staff of the Florida Public Service Commission ("Staff") Second Set of Interrogatories to DEF (Nos. 13-27) as follows:

13. Please refer to the direct testimony of witness Cutliffe, page 5, lines 19-20. Please define native and non-native contractors.

Answer:

Native contractors are resources that are currently working for Duke Energy Florida (i.e., in a non-storm response function). Non-native contractors are any resources that are not currently in a working relationship with Duke Energy Florida and were therefore brought onto the system solely for storm response support.

14. Please refer to the direct testimony of witness Cutliffe, page 5, line 25 and page 6, lines 1-2. Witness Cutliffe testified that depending on the projected event timing and intensity, some resources would be mobilized and pre-positioned ahead of the impact. Does DEF's Emergency Response Plan specify a time frame for the mobilization and pre-positioning of resources?
- a. If so, what is that time frame?
- b. If not, why not?

Answer:

- a. It can vary depending on the origination of the tropical threat, but generally the decision for mobilization and prepositioning takes place at approximately 72 hours from potential landfall.
- b. N/A

15. Please refer to the direct testimony of witness Cutliffe, page 6, lines 10-11. Please explain whether or not the additional 1,667 persons utilized during Hurricane Irma were sufficient to address customer contacts.

Answer: DEF was sufficiently staffed to address customer contacts during our Hurricane Irma response. Our staffing included in-house Customer Care Specialists, third party vendor specialists and internal staff augmentation, allowing us to answer 2.6 million customer contacts, ~600,000 of which were handled outside of technology (live voice). Our staffing plan ensured we could respond to customers during peak periods as well as support customer needs 24 hours a day.

16. Please refer to the direct testimony of witness Cutliffe, page 8, lines 12-14. Please identify how often customers the participated in DEF's outage communications program received updates.

Answer:

Outage Alerts: With outage alerts, we proactively notify customers by text, voice message or email when they have an outage.

We'll also send status updates and estimated restoration times.

Customers can sign up and manage contact information online.

Customers receive: Restoration time & status updates; Information about outage causes; Notification when power is restored

Customers can text **REG to 57801 to register for outage alerts service**: Once enrolled, other commands include:

Text **OUT** to report an outage; Text **STATUS** to get updates on existing outages; Text **HELP** for instructions and a customer service number; text **STOP** to stop receiving outage alert texts; Text **RESUME** to receive outage alert texts again.

In general, proactive outage texts are triggered to customers when crews update ETRs and other information in OMS. In addition, customers can text **STATUS** to us and they receive a return status update text with the details the crews have entered into OMS. However, during Irma, this functionality was not available due to the technical issues OMS experienced.

17. Please refer to the direct testimony of witness Cutliffe, page 11, lines 24-25 and page 12, lines 1-2. Witness Cutliffe testified that DEF has converted 67 miles of primary lines and completed 31 feeder ties.

- a. As of what date did DEF accomplish the conversion of the 67 miles of primary lines and the completion of the 31 feeder ties?
- b. How many more miles of primary lines does DEF plan to convert? Please provide a timeline for DEF's plan to convert.
- c. How many more feeder ties does DEF plan to complete? Please provide a timeline for DEF's plan to complete.

Answer:

- a. These totals were current as of March 1, 2018.
- b. DEF plans to continue the converting primary lines as part of the storm hardening plan. Future plans will be filed by May 1st, 2019 as part of the 3 year storm hardening plan for 2019-2021.
- c. DEF plans to continue feeder ties as part of the storm hardening plan. Future plans will be filed by May 1st, 2019 as part of the 3 year storm hardening plan for 2019-2021.

18. Please refer to the direct testimony of witness Cutliffe, page 12, lines 6-13. Witness Cutliffe testified to the number of wooden poles inspected since 2006.

- a. How many poles were replaced and repaired as a result of the inspections?
- b. What is the typical type of pole used for replacement?
- c. Please provide a description of the treatment and reinforcement used by DEF to extend pole life.
- d. How does DEF determine if a pole needs replacement versus a treatment?

Answer:

a.

Year	Poles Replaced
2006	1,156
2007	1,130
2008	1,903
2009	3,018
2010	3,070
2011	2,887
2012	4,670
2013	5,722
2014	5,597
2015	8,420
2016	4,429
2017	2,654

DEF began tracking pole reinforcements separately in 2016.

Year	Poles Reinforced
2016	3,248
2017	763

b. CCA treated wood pole

c. TREATMENTS:

Cobra rods are a copper boron rod that are inserted into the pole through a ½” treatment hole drilled into the pole at a 30 degree downward angle. The hole is then sealed with a tight fitting plastic plug. Over time the copper boron rod will dissolve and dissipate through the wood.

MP-500-Ext Paste is a brush on paste applied to poles from the groundline, down to a depth of 18” below grade. The paste is a copper borax compound that is brush on, then wrapped with a vapor barrier.

REINFORCEMENTS:

CTRUSS metal brace

d. A pole with remaining circumference between 50% and 87% of original is a candidate for reinforcement or replacement, dependent upon field conditions as identified by field inspector; a pole with less than 50% remaining circumference of original is a candidate for replacement only.

19. Please refer to the direct testimony of witness Cutliffe, page 17, line 22, through page 18, line 3. Please explain how DEF determines the number of mutual aid workers that will be needed for the restoration process.

Answer:

Duke Energy uses the latest available forecast information (winds, track and intensity) provided by our meteorologist to populate modeling tools to estimate potential damage by location and estimated number of line, tree and DA resources required above our native Duke Energy Florida resources.

20. Please refer to the direct testimony of witness Cutliffe, page 18, lines 11-16. Witness Cutliffe testified to how DEF uses the information from predictive storm models.

- a. What is the typical time frame to begin securing commitments for restoration prior to the storm impacting DEF’s service territories?
- b. Is this time frame part of DEF’s Emergency Response Plan?
- c. If not, what is the time frame in DEF’s Emergency Response Plan and why did DEF deviate from its Plan?

Answer:

- a. It can vary depending on the origination of the tropical threat, but generally the decision to begin securing commitments takes place at approximately 72 hours from potential landfall.
- b. Yes
- c. N/A

21. Please refer to the direct testimony of witness Cutliffe, page 19, lines 16-18. Witness Cutliffe testified to opening mustering sites and base camps.

- a. How far in advance of a storm impacting DEF's service territory are mustering sites and base camps established?
- b. Is this time frame part of DEF's Emergency Response Plan?
- c. If not, what is the time frame in DEF's Emergency Response Plan and why did DEF deviate from its Plan?

Answer:

- a. It can vary depending on the origination of the tropical threat, but generally the decision takes place at approximately 72 hours from potential landfall. Setup and activation takes place once the storm exits impacted areas and conditions are safe.
- b. Yes.
- c. N/A

22. Please refer to the direct testimony of witness Cutliffe, page 21, lines 5-22, page 22, lines 12-24, and page 23, lines 1-5. Witness Cutliffe testified as to how DEF responds after a storm passes its service territory.

- a. Approximately how soon after a storm passes through DEF's territory do the damage assessment teams report their findings to the outage management system?
- b. How are the findings reported, for example, via tablets while still in the field?
- c. Approximately how soon after the damage assessment teams report their findings are restoration crews dispatched for repairs?
- d. Is this time frame part of DEF's Emergency Response Plan?
- e. If not, what is the time frame in DEF's Emergency Response Plan and why did DEF deviate from its Plan?

Answer:

- a. Damage Assessment teams begin assessing damage once the "all clear" is reported. Once assessed, the teams return completed damage forms to the Field Coordinators for creation of work packets; dependent upon distance and amount of damage, this can take anywhere from two to six hours.

- b. Findings are reported electronically via tablets, laptops or smart phones.
- c. Crews are dispatched for repairs to the largest outages prior to DA being completed while DA is focusing on smaller outages, ensuring that all resources are productive once the “all clear” is reported.
- d. Yes
- e. N/A

23. Please refer to the direct testimony of witness Cutliffe, page 24, lines 13-23 and page 25, lines 1-12. Witness Cutliffe testified that after restoration efforts are concluded, DEF conducts electrical and physical condition sweeps of the feeders and identifies the issues that require mitigation to return the distribution system to its pre-storm condition.
- a. When restoring service, do restoration crews report what equipment still needs repair but is working safely?
 - b. If so, are these reports a starting point for the sweep of the system in identifying where repairs should be made?
 - c. If not, what is the starting point?

Answer:

- a. During restoration efforts, crews focus on restoring service as quickly and safely as possible; therefore, crews do not document additional issues identified that will later require repair, rather those issues are identified during the system sweeps performed after restoration efforts are completed.
- b. N/A
- c. Any feeder that went through the Assess, Isolate, Restore process is assigned for final sweep as well as any other areas identified by the ICS that would warrant additional review.

24. Please refer to the direct testimony of witness Cutliffe, Exhibit JC-1.
- a. Is this the same assessment study that was provided in response to OPC’s first request of production of documents, number 4?
 - b. Please identify the primary cause or major causes of pole failures determined by Accenture Consulting.
 - c. Please identify any lessons learned to date to mitigate pole damage in the future.

Answer:

- a. Yes

- b. While no predominate causal factor was identified, nearly seventy-two percent (71.8%) of pole failures involved a tree. The Accenture report noted that, “Results from both simple and multiple analyses did not have a high correlation with the actual cause of pole failures. This suggests that other causal factors contributed to pole failures, e.g., damage to surrounding vegetation and additional loading on distribution facilities.”
- c. The report validated DEF’s prior conclusion that trees and vegetation outside of the right of way is one of the most significant risks to the distribution grid. The report validated that the DEF Pole Inspection and Replacement program is working and that pole age or deterioration were not causal factors for broken poles.

25. Please refer to the direct testimony of witness Matthews, page 14, lines 1-2. Please explain what is meant by “grid security.”

Answer:

The use of ‘grid security’ references prioritizing transmission lines within the grid in FL as ‘secured and stabilized’ based on the overall condition of the State’s grid (multiple transmission providers-FERC/NERC oversight) as well as DEF’s transmission lines. It is not a defined term, it was used in testimony to state the nature of prioritization of the transmission system; DEF coordinates with other utilities, adhering to FRCC policies and procedures and NERC reliability requirements, to establish DEF’s transmission system priorities and ensure the safe-guarding and securing of DEF and the State’s electrical grid.

26. Please refer to the direct testimony of witness Matthews, page 17, lines 1-9. Witness Matthews testified as to when and how DEF implements its Transmission Department Storm Plan.

- a. How is it determined which resources, helicopters or truck patrols, should be deployed first?
- b. What is the time frame before the second patrol is sent out to assess damage?

Answer:

- a. Typically, helicopters are deployed first, however, weather (wind speeds) dictates if/when any damage assessment patrols may begin. Truck / Ground patrols are done simultaneously to air patrols, based on outages, expediency and safe mode to travel, and the ability to get to facilities.
- b. As noted in testimony and Q26a, the truck / ground patrols can be conducted simultaneously, as soon as it is safe to travel, and immediately upon notification of outages impacted areas, the air and ground patrols commence.

27. Please refer to the direct testimony of witness Matthews, page 21, lines 13-16. Witness Matthews testified that following the restoration effort, DEF would conduct sweeps of the transmission system to identify further storm-related damage that needs repair or replacement.
- a. When restoring service, do the restoration crews report that equipment still needs repair but is working safely?
 - b. If so, are these reports a starting point for the sweep of the system in identifying where repairs should be made.
 - c. If not, what is the starting point?

Answer:

During the restoration phase, transmission receives notifications of the facilities that were out of service, dispatches appropriate assessment resource and then schedules crews to fix based on prioritization. During the repair process, if additional damage is discovered, it is reported and prioritized for repair as well. At the conclusion of the restoration process, DEF then “sweeps” (detailed patrol) the Transmission system via helicopter to identify any unknown potential future causes of an outage. In some instances, where DEF is satisfied that an area of the system was not impacted by a storm, a sweep will not be conducted on this portion of the system.

- a. Yes. If restoration resources identify a system component, or item, which is able to continue to provide electrical service, yet may cause a future outage, it will be reported to the respective area storm center. The issue will then be moved into the list of identified restoration items to be addressed according to its priority.
- b. No, these reports are not the ‘starting point’ for identifying where repairs should be made.
- c. ‘Starting point’ for the final sweep is when all known (identified and prioritized) restoration work is complete.

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF Seminole

I hereby certify that on this 16 day of July, 2018, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared ROBERT MATTHEWS, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 25 through 27, of STAFF'S SECOND SET OF INTERROGATORIES TO DUKE ENERGY FLORIDA, LLC (NOS. 13-27) in Docket No. 20170272-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 16 day of July, 2018.



ROBERT MATTHEWS



Notary Public
State of Florida, at Large

My Commission Expires:  **KAROL ANN CARR**
MY COMMISSION # GG010042
EXPIRES July 10, 2020

(407) 398-0183 FloridaNotaryService.com

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this _____ day of _____, 2018, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared JASON CUTLIFFE, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 13 through 24 of STAFF'S SECOND SET OF INTERROGATORIES TO DUKE ENERGY FLORIDA, LLC (NOS. 13-24) in Docket No. 20170272-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this _____ day of _____, 2018.

JASON CUTLIFFE

Notary Public
State of Florida, at Large

My Commission Expires:
