

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: February 19, 2018
TO: Carlotta S. Stauffer, Commission Clerk, Office of Commission Clerk
FROM: Emily Knoblauch, Engineering Specialist, Division of Engineering *EK RS*
RE: Docket No. 20170215-EU- Review of electric utility hurricane preparedness and restoration actions.

Please file the attached DEF's response to OPC's 1st set of interrogatories (Nos. 1-43) in the above mentioned docket file.

Thank you

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Review of electric utility hurricane preparedness and restoration actions

Docket No. 20170215-EU

Dated: February 1, 2018

**DUKE ENERGY FLORIDA, LLC'S RESPONSE TO
CITIZENS' FIRST SET OF INTERROGATORIES (NOS. 1-43)**

Duke Energy Florida, LLC ("DEF"), subject to and without waiving the contemporaneously served objections to these requests, responds to the Citizens of the State of Florida, through the Office of the Public Counsel's ("Citizens" or "OPC") First Set of Interrogatories to DEF (Nos. 1-43) as follows:

Storm hardening and vegetation management activities

1. Please describe the Company's storm hardening activities on an annual basis from 2006 through 2017 to date excluding vegetation management and tree trimming activities.

Answer:

This information is contained within DEF's annually-filed Service Reliability reports. The 2017 information will be submitted by March 1, 2018.

**DEF's Reliability Reports for the years 2004-2016 are available at:
<http://www.psc.state.fl.us/ElectricNaturalGas/ElectricDistributionReliability> (last visited Jan. 22, 2018).**

2. How much did the Company spend (capital and O&M expenditures) on storm hardening activities on an annual basis from 2006 through 2017 to date excluding vegetation management and tree trimming activities?

Answer:

This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.

3. For storm hardening activities 2006 through 2017 to date,
- a. How much did the Company budget annually for storm hardening activities? Please provide a break-out for transmission, distribution, pole replacement, line replacement, and other storm hardening activities.
 - b. How much did the Company spend annually on storm hardening activities? Please provide a break-out for transmission, distribution, pole replacement, line replacement, and other storm hardening activities.
 - c. Please explain the year-by-year variances between the budgeted amount and actual amount, and why the variances occurred.
 - d. How much of the hardening costs were capitalized to rate base and how much was expensed?
 - e. Were those cost recovered through base rates or some other mechanism?

Answer:

- a. This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.**
- b. This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.**
- c. Resources are forecasted to complete this work at the beginning of the year, however other factors require the resources to be redistributed such as emergent restoration events (significant storms, hurricanes and ice storms) on and off system, changes in customer driven work, crew safety retraining (as necessary) or attrition of resources.**
- d. Without reviewing each storm hardening project individually, DEF cannot quantify the amounts expensed versus capitalized for the given time period. However, given the nature of storm hardening activities, the majority of the costs would be capitalized while the relatively smaller amount of O&M costs would be expensed.**
- e. Storm hardening costs are recovered through base rates.**

4. Please describe the Company's vegetation management and tree trimming activities (tree trimming) on an annual basis from 2006 through 2017 to date. Please include if there is a long-range plan, how the process is staffed (whether through employees or outside contractors, or a mix of both), the cyclical time frames, any geographical considerations, and other priorities.

Answer:

The IVM program consists of at least the following subprograms: routine maintenance "trimming," herbicide applications, vine removal, customer request work "tickets," and right-of-way floor brush "mowing." In 2014, DEF adopted an expanded technical specification to allow for an Integrated Vegetation Management approach, which includes careful pruning, selective herbicide application and hazard tree felling. This allows us to evaluate power line areas and determine the best method for maintaining reliable service. Additionally, to reduce the outage risk during severe weather, declining or dead trees outside of the ROW are targeted as they are less stable than healthy, live trees and have a greater chance for failure in even minor storm events. All tree trimming and herbicide program activities are performed by a contract workforce. Tree trimming activities occur throughout the calendar year and herbicide application typically occurs March - November depending on climate conditions.

5. How much did the Company spend (capital and O&M expenditures) on vegetation management and tree trimming activities on an annual basis from 2006 through 2017 to date?

Answer:

See the attachment bearing Bates Numbers DEF OPCROG1-5-0001.

6. For vegetation management and tree trimming activities 2006 through 2017 to date,
 - a. How much did the Company budget annually for tree trimming activities?
 - b. How much did the Company spend annually on tree trimming activities?

- c. Please explain the year-by-year variances between the budgeted amount and actual amount, and why the variances occurred.
- d. How much, if any, of the tree trimming costs were capitalized to rate base and how much was expensed?
- e. Were those cost recovered through base rates or some other mechanism?
- f. How did the Company decide which areas were to be trimmed each year?
- g. Were some areas trimmed more frequently than others, if so, how often, and how did the Company make those decisions?

Answer:

- a. See the attachment bearing Bates Number DEF OPCROG1-6-0001 for both a and b.
- b. See the attachment bearing Bates Number DEF OPCROG1-6-0001 for both a and b.
- c. Actual spending versus initial budget can vary during any particular year based on a number of factors which may include timing, changes in priorities within the program, resource availability and unforeseen events such as major storms and other factors. Funding needs are predicated on specific circuit information, reliability data and other indicators to prioritize lines for tree pruning and removal which varies year over year.
- d. \$1,325,992.55 capitalized.
- e. Yes. Recovered through base rates.
- f. As part of the IVM program, DEF has implemented a comprehensive circuit prioritization model to help ensure that tree caused outages are minimized by focusing on the circuits that rate high in the model. Prioritization ranking factors are based on past circuit performance and probable future performance. Some of the criteria used in circuit prioritization include the number of customers per mile, the number of tree caused outages in prior years, outages per mile, the percentage of outages on backbone circuits, the percentage of total tree outages categorized as preventable (i.e., outages caused by trees within DEF rights-of-way), and total tree customer minutes of interruption (“CMI”).
- g. Yes. As provided in response 6f , a prioritization model is run annually to determine the circuit trim plan. The results of this prioritization could require a circuit to be trimmed on a greater frequency. DEF also utilizes a reactive program as part of the IVM to perform mid-cycle trimming.

7. For wooden poles inspected from 2006 through 2017 to date:
- a. Please describe the Company's wooden pole inspection cycle.
 - b. How many wooden poles were planned to be inspected each year
 - c. How many wooden poles were inspected each year,
 - d. Please explain the variance between the planned number and actual number inspected each year.

Answer:

- a. **This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.**
 - b. **This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.**
 - c. **This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.**
 - d. **The variance from planned to actuals on an annual basis is due to the location of the poles on the system, however the entire plant was inspected as planned within the eight year cycle.**
8. For wooden poles replaced from 2006 through 2017 to date:
- a. Please describe the Company's wooden pole replacement plan.
 - b. How many wooden poles were planned to be replaced annually?
 - c. How many wooden poles were replaced annually?
 - d. Please explain the variance between the planned and replaced number of poles.
 - e. In each named storm since 2006, how many wooden poles were affected (damaged requiring repair or replacement) during the named storm?

Answer:

a. See Answer 7A regarding Duke Energy wooden pole inspection plan. Poles are prioritized for replacement with the worst priority poles replaced first. In addition, where possible poles are re-enforced to restore the pole to better than original strength.

b.

Year	Number of Wooden Poles Planned for Replacement
2006	1,724
2007	1,233
2008	3,092
2009	3,510
2010	3,136
2011	3,227
2012	4,600
2013	6,000
2014	6,264
2015	10,110
2016	8,505
2017	6,670

c.

Year	Number of Wooden Poles Replaced
2006	1,156
2007	1,081
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	2,555

d. Resources are forecasted to complete this work at the beginning of the year, however other factors require the resources to be redistributed such as emergent restoration events (significant storms, hurricanes and ice storms) on and off system, changes in customer driven work, crew safety retraining (as necessary) or attrition of resources.

- e. The table below reflects the number of poles replaced during the three storms that caused direct impact to the Duke Energy system since 2006. Other storms did not significantly impact the Duke Energy system and were not tracked through the Duke Energy Major Storm reporting process. Duke Energy does not track wooden pole repairs during Major Storm events.

Year	Storm	Number of Wooden Poles Replaced
2016	Hermine	75
2016	Matthew	213
2017	Irma	1841

9. For poles upgraded to concrete from 2006 through 2017 to date:
- Please describe the Company's plan to replace poles with concrete poles.
 - How many poles were planned to be replaced with concrete annually?
 - How many wooden poles were replaced with concrete annually?
 - What other types of poles were replaced with concrete and of those how many were replaced annually?
 - Please explain the variance between the planned and replaced number of poles.
 - In each named storm since 2006, how many concrete poles were affected (damaged requiring repair or replacement) during the named storm?

Answer:

TRANSMISSION:

This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.

DISTRIBUTION:

- DEF does not replace distribution wood poles with steel or fiberglass reinforced poles.**
- DEF Distribution does not conduct forensic analysis on non-wooden poles and does not have data for concrete poles affected during named storms.**

10. Were any wooden poles replaced with steel for fiberglass reinforced poles from 2006 through 2017 to date? Please give the number of poles replaced by different type each year.

Answer:

TRANSMISSION:

This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.

DISTRIBUTION:

DEF does not replace primary voltage distribution wood poles with steel or fiberglass reinforced poles.

11. In each named storm since 2006, how many steel or fiberglass reinforced poles were affected (damaged requiring repair or replacement) during the named storm?

Answer:

TRANSMISSION:

This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.

DISTRIBUTION: DEF does not install primary voltage distribution steel or fiberglass reinforced poles, therefore, there were no repairs or replacements to track.

12. Please describe the distribution system inspection cycle and hardening efforts.

Answer:

This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.

13. Please describe the transmission structure inspection cycle and the hardening of those structures.

Answer:

This information is contained within DEF's annually-filed Service Reliability reports (please see the response to interrogatory number 1, above). The 2017 information will be submitted by March 1, 2018.

14. Please describe the tree trimming quality control review performed by the Company on the work of its contract tree trimming crews?

Answer:

A 100% quality audit is conducted and documented by the VM inspectors per circuit to ensure the clearing specifications and contract terms and conditions have been fully met. Overall quality results are provided to contractors once inspection is completed. Work identified not meeting technical specifications requires rework by the contractor within a defined time period.

15. Please describe the tree trimming quality control review performed by the Company on the work of its employees performing tree trimming?

Answer:

Not applicable. Maintenance tree trimming is not performed by DEF employees.

16. Please describe whether the Company was prohibited or restricted in its tree trimming activities by local governments, ordinances, or franchise agreements, and if so, where and why.

Answer:

The Transmission Vegetation Management Group is restricted from applying herbicide in the Apalachicola National Forest and the Ocala National Forest. The permitting and vetting process to allow for this application is extremely time consuming and labor intensive from a community relations perspective with no guarantee of approval. Our current maintenance practice in these areas is to mow the right of ways more frequently than our normal maintenance cycles. We have approximately 72 miles of transmission line in the Apalachicola National Forest and 28 miles in the Ocala National Forest.

Historically, the Distribution Vegetation Management Group has been restricted in gaining full clearances to our contract specifications in isolated areas of specific circuits in the following municipalities/entities: Town of Micanopy, Floral City, Crystal River, Stetson University, City of Maitland, Winter Garden, and the City of Edgewood. Restrictions are of varying degrees including limiting overhang removal, restricting removals on several species types, reducing side clearance, and in general reducing our ability to fully utilize our integrated vegetation management program. There are other communities which require detailed and time consuming communication, but thus far we have managed to obtain full clearances (e.g. McIntosh, Apalachicola, Casselberry, Town of Bellaire, Marion County, and Howey in the Hills).

Communication

17. Please describe the ways the Company communicates information to its customers prior to, during, and after a named storm since 2015.

Answer:

Before a Storm

- **Prepares news releases to inform the public that the company is preparing for severe weather and encouraging customers to prepare as well - includes storm and safety tips, how to report and outage and encourages customers to receive outage information via text alerts. Similar information is shared via social media platforms.**
- **Pro-actively contacts media to ensure news releases are picked up and participates in numerous media interviews.**

- **Pitches media events at our operations centers to show how the company and our crews are preparing.**
- **Places banners on company website linking customers to storm and safety information.**
- **Develop and launch new storm page dedicated to the emergency event as a resource for all storm related information and links.**
- **Storm director video with "we're prepared" message**
- **Outbound calls are placed to customers with Medical Alert status on their accounts in the potentially affected areas/counties.**
- **Develop media messages and talking points for external stakeholders, customer care and internal audiences.**
- **Customer emails to residential, small business and large business customers.**
- **Internal communication to employees regarding storm preparation efforts.**
- **Public service announcements**

During the Storm

- **Develop daily messages to be used with external stakeholders, media, customers, social customer care and field personnel. Also develop evergreen messages and messages to manage rumors and unique issues as needed.**
- **Develop at least one news release per day.**
- **Ongoing updates to social media on various topics: storm damage, estimated times of restoration, crews working, out of town resources, staging areas -- we look for numerous ways to tell the story of restoration through various operational and personal angles.**
- **Ongoing updates on dedicated storm page with resources, links and daily storm director video updates focused on the assessment and restoration processes.**
- **Reactive and proactive media -- local, regional and national. Also participate in press conferences and news briefings. Arrange events to host media at staging locations or crew work locations to see damage and restoration efforts. Embed and send media liaisons to field locations to host media, post on social media, capture storm damage and tell stories from the field of our crews working to restore power, call center operations, logistics team at staging locations, etc.**
- **If information changes - supplement normal customer channel communications (customer care specialists, text alerts, online outage maps) with news releases, emails, outbound calls, updated messages on the storm webpage and social media.**
- **Paid public/customer service announcements are also an option if deemed necessary to reach customers based on the extent of the storm - to inform the public of estimated times of restoration, etc.**
- **Social customer care responds to customers via online platforms**

After the Storm

- **Prepare wrap-up messages to be shared with customers and external stakeholders**
- **News release to provide final outage-related numbers, thank customers for their patience, local first responders and the companies that provided off-system resources.**
- **Thank you customer email to residential, small and large account customers**
- **Social media postings to thank customers, first responders, community agencies and other utilities that provided assistance.**

Also, please see DEF's Response to Staff's First Data Request, Question #17.

18. Please describe the ways customers can communicate information to the Company prior to, during, and after a named storm since 2015.

Answer:

- **All Call Centers (inbound calls)**
- **External Website (Environmental Inquiry form, customer service emails)**
- **Inbound outage texts**
- **Social Media (Facebook/Twitter)**
- **Direct emails/Calls/Letters (Executives, CRMs, Consumer Affairs etc.)**
- **Media Line**
- **FPSC**
- **BBB**
- **Attorney General**
- **Florida Department of Agriculture and Consumer Services**
- **Pinellas County Consumer Protection**
- **Business Consumer Alliance**
- **Legislative Offices (Senators, Representatives)**
- **Issues redirected from state and county EOCs**
- **Surveys (Fastrack, Customer Perception Tracker, On-Line (pre-storm and post restoration))**

19. Please describe how customers can report power outages.

Answer:

DEF provides its' customers with multiple avenues to report power outages as follows:

- **Telephone – Customers can report an outage by contacting DEF via a dedicated IVR outage line at 800-228-8484 or by calling Customer Care at 1-800-700-8744 , 727-443-26441, 407- 629-1010 and selecting option “1” to report a power outage or option “0” to speak with a Customer Care Specialist.**
- **Website/Mobile – Customers can report an outage at <http://www.duke-energy.com> / <http://m.duke-energy.com> by selecting the “Outage” option on the home page or going to “My Account” and selecting “ Report an Outage” for customers who have registered their account online. This option provides customers with DEF dedicated outage telephone number to report the outage and/or via the website.**
- **Telephone, Text, or Email Alerts: Customers can enroll in outage alerts. Customers are notified by text, voice message or email when they have an outage. DEF sends status updates and estimated restoration times as they become available.**

20. Please describe how customers can report maintenance needs such as leaning poles or overgrown lines, both during a storm recovery and in ongoing operations.

Answer:

DEF provides its' customers with multiple avenues to report maintenance needs as follows:

- **Telephone – Customers can report all maintenance needs by contacting DEF’s Customer Care at 1-800-700-8744, 727-443-2641, or 407- 629-1010.**
- **Social Media – Customers can contact DEF via social media sources to request most maintenance needs.**
- **Website/Mobile – Customers can request street light maintenance.**

21. Several customers filed comments stating they were unable to communicate with the Company regarding unsafe conditions such as live downed power lines or trees on wires. Does the Company have a process for these people to report such conditions? Please describe and explain how it functioned after Irma.

Answer:

DEF provides its customers with multiple avenues to report unsafe conditions, trees in wires and other valuable details to aid in the company's restoration efforts. Due to Hurricane Irma's severe impact and resulting outages, the company experienced an unprecedented volume of customer contacts. While the systems used to report outages including unsafe conditions such as downed live power lines and trees on wires were taxed, which led to sporadic system issues, customers were able to contact the company to report such conditions utilizing the methods listed below. All company employees who are engaged to take calls or otherwise respond to customer requests are trained to include details related to unsafe conditions in the system when shared by customers.

- Telephone – Customers can report an outage by contacting DEF via a dedicated IVR outage line at 800-228-8484 or by calling Customer Care at 1-800-700-8744 , 727-443-26441, 407- 629-1010 and selecting option “1” to report a power outage or option “0” to speak with a Customer Care Specialist.
- Website/Mobile – Customers can report an outage at <http://www.duke-energy.com> / <http://m.duke-energy.com> by selecting the “Outage” option on the home page or going to “My Account” and selecting “ Report an Outage” for customers who have registered their account online. This option provides customers with DEF dedicated outage telephone number to report the outage and/or via the website.

22. Please describe smart phone apps, website services, social media, and other means of relaying information to customers prior to, during, and after a named storm.

Answer:

Before a Storm

- Prepares news releases to inform the public that the company is preparing for severe weather and encouraging customers to prepare as well - includes storm and safety tips, how to report and outage and encourages customers to receive outage

- information via text alerts. Similar information is shared via social media platforms.
- Pro-actively contacts media to ensure news releases are picked up and participates in numerous media interviews.
 - Pitches media events at our operations centers to show how the company and our crews are preparing.
 - Places banners on company website linking customers to storm and safety information.
 - Develop and launch new storm page dedicated to the emergency event as a resource for all storm related information and links.
 - Storm director video with "we're prepared" message
 - Outbound calls are placed to customers with Medical Alert status on their accounts in the potentially affected areas/counties.
 - Develop media messages and talking points for external stakeholders, customer care and internal audiences.
 - Customer emails to residential, small business and large business customers.
 - Internal communication to employees regarding storm preparation efforts.
 - Public service announcements

During the Storm

- Develop daily messages to be used with external stakeholders, media, customers, social customer care and field personnel. Also develop evergreen messages and messages to manage rumors and unique issues as needed.
- Develop at least one news release per day.
- Ongoing updates to social media on various topics: storm damage, estimated times of restoration, crews working, out of town resources, staging areas -- we look for numerous ways to tell the story of restoration through various operational and personal angles.
- Ongoing updates on dedicated storm page with resources, links and daily storm director video updates focused on the assessment and restoration processes.
- Reactive and proactive media -- local, regional and national. Also participate in press conferences and news briefings. Arrange events to host media at staging locations or crew work locations to see damage and restoration efforts. Embed and send media liaisons to field locations to host media, post on social media, capture storm damage and tell stories from the field of our crews working to restore power, call center operations, logistics team at staging locations, etc.
- If information changes - supplement normal customer channel communications (customer care specialists, text alerts, online outage maps) with news releases, emails, outbound calls, updated messages on the storm webpage and social media.

- Paid public/customer service announcements are also an option if deemed necessary to reach customers based on the extent of the storm - to inform the public of estimated times of restoration, etc.
- Social customer care responds to customers via online platforms

After the Storm

- Prepare wrap-up messages to be shared with customers and external stakeholders
- News release to provide final outage-related numbers, thank customers for their patience, local first responders and the companies that provided off-system resources.
- Thank you customer email to residential, small and large account customers
- Social media postings to thank customers, first responders, community agencies and other utilities that provided assistance.

23. How many complaints did the Company receive during and after the named storm?

Answer:

DEF received 861 complaints/inquiries.

24. Please provide the number of maintenance requests (e.g., leaning poles, overgrown lines, trees on poles/lines, etc.) per year from 2006-present from customers and how each request was resolved.

Answer: Subject to and without waiving DEF's objections filed contemporaneously with these responses, please see the attached response which details maintenance requests received from customers in 2016 and 2017 (per Agreement with OPC). DEF does not maintain a database that matches up maintenance requests received from customers with the resolution; however, each such request is addressed in the ordinary course of business and is resolved in accordance with DEF's engineering best practices.

For 2016, PQR&I requests totaled 3130. For 2017, PQR&I requests totaled 3584.

For 2016, vegetation requests totaled 13,991. For 2017, vegetation requests totaled 13,395.

25. Please describe how customers with medically necessary equipment are identified, how they are communicated with, and if they receive a higher priority for restoration efforts.

Answer:

Customers enrolled in the company’s Medical Essential program are designated in DEF’s Customer Service System. As part of the company’s comprehensive storm plan – typically at the 96-hour timeline prior to the storm – planning begins to determine if/when medical alerts will be initiated. ME customers receive outbound calls in advance of the storm alerting them to the impending storm, reminding them to make all necessary arrangements in the event power is interrupted due to severe weather. ME customers do not receive a higher priority for restoration and customers are made aware of this during program enrollment.

The following is the verbiage included in the outbound calls to DEF’s Medical Essential customers prior to Hurricane Irma:

“This is Duke Energy with an important update. Hurricane Irma is forecast to move through the area over the next few days. We want you to be prepared. Our records indicate that you or someone at this location has special needs or relies on electric-powered life support equipment. We encourage you to consider now the actions you would take in the event you lose power and restoration times are extended. Our crews are prepared to respond to the effects of the storm and will restore outages as quickly as possible. If you experience a power outage please call 1-800-228-8485. Thank you”.

26. Please describe how the Company communicates with customers who do not have access to the internet or phone, both during a storm recovery and in ongoing operations.

Answer:

- **Storm Recovery:**
 - **Mass communications**
 - **News releases for television, print and radio (paid and PSAs)**
 - **Proactive media pitching to secure interviews to discuss storm recovery**
 - **Participate in press conferences at county EOCs for mass communications**

- **Purchased media for traditional media TV, print and radio**
- **Direct -- Customer facing employees**
 - **Line crews directly in the field are provided with talking points on status/safety measures, etc.**
 - **Duke Energy employees can engage directly with neighbors, friends, or other customers they encounter to assist with getting issues resolved through the company's ICANHELP service.**
 - **Bills/messages and letters can be tailored to inform customers of pertinent information such as safety information; savings tips; estimated billing information due to storm recovery; or information from the state president.**
 - **Community Relations Managers contacts with community and government leaders to provide status updates to share with constituents as needed.**
- **Ongoing Operations:**
 - **Mass communications**
 - **Television, Radio, newspapers/magazines, billboards**
 - **News releases**
 - **Direct**
 - **Printed communications is provided to customers, including: bill messages, bill inserts, direct mail letters/postcards, brochures, door hangers**
 - **Employees provide speeches and presentations at community events**
 - **Customer forums and town hall meetings are held to inform customers of pertinent issues**
 - **Duke Energy sponsors community networking events, festivals, tradeshow where information can be provided to customers**
 - **Duke Energy field-based employees in their routine work can speak directly with customers to provide information**
 - **Duke Energy employees can engage directly with neighbors, friends, or other customers they encounter to assist with getting issues resolved through the company's ICANHELP service.**

27. Please describe how the Company communicates using the radio or postal service.

Answer:

- **Storm Recovery**
 - **Mass communications –Radio – provide stations with Public Service Announcements, paid advertising and proactively pitching radio interviews to secure placement on stations where we can provide company information and updates to listeners/customers. We provide ongoing updates to radio stations (part of our normal distribution) throughout restoration efforts so talent can have updates for their listening audience. We have spokespersons available 24 hours a day to accommodate media inquiries around the clock.**
 - **Direct (Postal service)**
 - **Bills/messages and letters can be tailored to inform customers of pertinent information such as safety information; savings tips; estimated billing information due to storm recovery; or information from the state president.**
- **Ongoing Operations:**
 - **Mass communications –Radio – provide stations with Public Service Announcements, paid advertising and proactively pitching radio interviews to secure placement on stations where we can provide company information and updates to listeners/customers. We have spokespersons available 24 hours a day to accommodate media inquiries around the clock.**
 - **Direct (Postal service)**
 - **Printed communications is provided and mailed to customers, including: electric service bills, letters, postcards, brochures, magazines with ads. Examples include: Electric service information (Energy Usage and payment status, meter change outs, disconnection information, general information from Duke Energy); and product and service advertising (Home Energy Check and Home Energy Improvement postcards, EnergyWise Home letters, electronic billing enrollment)**

28. Please describe how the Company communicates with customers whose first language is neither English nor Spanish.

Answer:

- **Storm Recovery and Ongoing Operations:**

- **Mass communications – While we currently only translate information into Spanish, we do have contracted translation services to translate communications into other languages as needed.**
 -
- **Direct**
 - **Duke Energy has ensured all of our core customer services (i.e., billing/payment, start/stop service, outage reporting) have Spanish translation in multiple channels (website, IVR, bi-lingual care agents). English and Spanish make up the majority of language needs for Florida customers.**
 - **A language interpretation service is provided through our Customer Care Center for language translation needs outside of Spanish/Portuguese.**

29. Has the Company reviewed all comments addressing customer communication and power restoration (received by the Company, received during post recovery at the Commission, filed for purposes of this docket, as well as complaints received by governmental units and other entities)? What follow up has the Company initiated with the customer?

Answer:

The Company has reviewed all customer comments that have been received by the Company, either directly from customers or from a government agency, and has responded to each such contact as appropriate. The Company is also monitoring the comments filed in this docket and has reached out to customers when a comment pertains to a prospective issue that the Company can resolve.

30. What problem areas has the Company identified with customer communication and power restoration based on experience and customer complaints during the recovery period after Hurricane Irma?

Answer:

DEF has not identified “problem areas” as a result of Hurricane Irma; however, Hurricane Irma reinforced that customers want specific, accurate information about their service restoration as quickly as possible. We know that customers lose trust in us if we are not able to accurately report their estimated time of restoration and meet those commitments. We also learned that reporting outages and receiving information via social media is increasing and customers are engaging and relying on that channel more than ever before. As always, DEF continues to strive to meet and exceed our customers’ expectations.

Many of our traditional customer communications channels were tied to our Outage Management Systems data. Without accuracy in this data, customer information via Proactive Outage alerts, Outage maps, and IVR status updates was hindered but this had no impact on restoration efforts. We used a number of alternate communications channels to share information via live voice, outbound calls, email, social media and web.

Each storm presents different challenges, but having a robust portfolio of channels to communicate that are fortified for extreme volumes allow us to keep communications flowing.

31. How does the Company plan to address these problem areas?

Answer:

A communications channel back up/continuity plan is a part of our Hurricane Irma lessons learned and action items. Contingency plans by channel and across channels are being developed which also includes indicators of channel failures. This will allow us to iterate (if needed) and have contingency plans in place for mass and direct communications.

32. Please explain why some customers lost power prior to the storm making landfall (i.e., high winds experienced in the customers' vicinity).

Answer:

There are several reasons that customers can lose power prior to landfall, i.e. high winds associated with the outer bands of the storm or flooding associated with the storm surge. High winds would cause trees to make contact with power lines, while storm surges would cause flooding of Company facilities.

33. Did the Company de-energize the grid in advance of the storm, if so, when, why, and what was communicated to customers prior to the Company's actions?

Answer:

DEF did not de-energize any portion of its transmission or distribution grid in advance of the storm.

34. How many linear feet of overhead lines does the Company have, and what percentage suffered an outage?

Answer:

DISTRIBUTION: The Company has 17,993 miles of primary overhead distribution lines. DEF data does not reflect the actual number of cumulative line miles that experienced an outage. DEF tracks the number of line miles that are replaced. DEF replaced eighty-three miles of primary overhead line during the Hurricane Irma restoration efforts. This represents .46% of the primary overhead distribution system.

35. How many linear feet of underground lines does the Company have and what percentage suffered an outage?

Answer:

DISTRIBUTION: DEF has approximately 14,130 miles of primary underground distribution cable. Outages in areas with underground cables were either caused by objects impacting the overhead portion of the circuit feeding the underground facilities, by objects impacting the above ground portion of the underground circuit or by flooding. DEF does not track what percentage suffered an outage.

36. What analysis has the Company performed regarding the outage frequency for overhead versus underground power lines, and please describe the results.

Answer: We use data in our outage history database to segment our sustained outage events into non-major event day overhead primary outages and non-major event day underground primary outages. We also have our line mileage segmented by overhead line mileage and underground line mileage which allows us to then calculate an average primary outage rate (primary outages/mile) for the overhead and underground parts of our distribution system. Using this information for our Florida service area over the past several years, we have seen approximately 0.75 primary outages/mile on overhead and approximately 0.25 primary outages/mile on underground.

37. Please explain what caused power outages in areas that had underground power lines.

Answer: See DEF's response to question #35.

38. How many homes that have underground power lines experience power outages?

Answer: DEF does not track outages based on how the service is provided.

39. How many substations does the Company own?

Answer:

DEF owns 501 substations.

40. How many of the Company's substations had to be de-energized due to flooding?

Answer:

None.

41. How many of the Company's substations were taken out of service due to tree or debris damage?

Answer:

None.

42. What does the Company plan to do in the future to eliminate flooding and tree/debris damage at the Company's substations?

Answer:

As of this time, given the performance of DEF's substations there are no current plans to change any substations. DEF keeps current with industry advances regarding substation standards and emergency management.

43. If applicable, has the securitization for the prior 2004 and 2005 storms ended? If yes, when; if not, when?

Answer: N/A.

VM Program
Spend

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
O&M	\$ 17,959,721.00	\$ 19,928,846.00	\$ 18,530,730.00	\$ 20,936,893.00	\$ 30,251,178.00	\$ 19,282,328.00	\$ 24,459,265.00	\$ 31,831,374.16	\$ 32,912,328.00	\$ 34,124,547.00	\$ 29,632,190.00	\$ 28,876,451.11
CAPITAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 583,737.75	\$ 842,221.45	\$ 1,150,780.57	\$ 845,733.48
Total	\$ 17,959,721.00	\$ 19,928,846.00	\$ 18,530,730.00	\$ 20,936,893.00	\$ 30,251,178.00	\$ 19,282,328.00	\$ 24,459,265.00	\$ 31,831,374.16	\$ 33,496,065.75	\$ 34,966,768.45	\$ 30,782,970.57	\$ 29,722,184.59

Response to a and b :

DISTRIBUTION VM**TOTALS - OVERALL**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<i>Spend</i>	\$ 17,949,348.00	\$ 19,626,584.00	\$ 18,911,246.00	\$ 20,931,083.00	\$ 30,251,176.00	\$ 19,280,233.00	\$ 24,459,265.00	\$ 31,831,374.16	\$ 33,496,065.75	\$ 34,966,768.45	\$ 30,782,970.57	\$ 29,722,184.59
<i>Budget</i>	\$ 19,549,350.00	\$ 19,626,804.00	\$ 20,772,801.00	\$ 20,773,029.00	\$ 26,980,049.00	\$ 11,010,823.00	\$ 26,620,891.00	\$ 31,832,385.39	\$ 33,525,092.17	\$ 36,300,942.85	\$ 31,312,783.60	\$ 30,239,222.00

AFFIDAVIT

STATE OF FLORIDA

COUNTY OF PINELLAS

I hereby certify that on this 31st day of JANUARY, 2018, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared KENNETH M. TALBOT, who is personally known to me, and he acknowledged before me that he provided the answers to interrogatory number(s) 17 through 23, and 25 through 31, of OPC'S FIRST SET OF INTERROGATORIES TO DUKE ENERGY FLORIDA, LLC (NOS. 1-43) in Docket No. 20170215-EU, 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 31st day of JANUARY, 2018.



[Handwritten Signature]
KENNETH M. TALBOT

[Handwritten Signature]
Notary Public
State of Florida, at Large

My Commission Expires:
7/02/2021

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) 1 through 16, 24, and 32 through 42, of OPC'S FIRST SET OF INTERROGATORIES TO DUKE ENERGY FLORIDA, LLC (NOS. 1-43) in Docket No. 20170215-EU, 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:
