

21 West Church Street
Jacksonville, Florida 32202-3139

November 15, 2017



Ms. Carlotta S. Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

E L E C T R I C

W A T E R

S E W E R

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

Dear Ms. Stauffer:

Please find attached JEA's response to the FPSC Staff's First Data Request for the referenced docket

Please contact me at 904/509-0521 or via email kilgna@jea.com if you have further questions or need clarification.

We appreciate the opportunity to provide the information to the Commission.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nancy K. Veasey", is written over a faint, larger version of the same signature.

Nancy K. Veasey
Director, Government Relations

cc: Wesley Taylor, Esq., FPSC, via email
Amy Zubaly, FMEA, via email

COMMISSIONERS:
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STATE OF FLORIDA



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Public Service Commission

November 14, 2017

STAFF'S FIRST DATA REQUEST *via email*

To:

Duke Energy Florida, LLC (Matthew.Bernier@duke-energy.com, dianne.triplett@duke-energy.com)
Florida Power & Light Company (ken.hoffman@fpl.com)
Gulf Power Company (jastone@southernco.com, rab@beggslane.com)
Tampa Electric Company (jbeasley@ausley.com)
Municipal Group (AZubaly@publicpower.com)
Lee County (dennie.hamilton@lcec.net)
Cooperative Group (mhershel@feca.com)

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

To Whom It May Concern:

By this letter, the Commission staff requests that each utility provide responses to the following data requests.

JEA Response

Unless otherwise noted, JEA was not impacted by Hurricanes Maria and Nate.

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.

In general, prior to, through and after hurricane season JEA monitors the weather patterns and weather forecasts in the Atlantic, Gulf of Mexico and the Caribbean for the potential development of any tropical system. As tropical waves and Invests develop, JEA will continually track and

monitor the systems. As the storm approaches, sometimes twice daily, internal communications are sent to keep management and staff informed of the situation. If any of these tropical weather systems appear to pose any threat to the southeastern United States, JEA will escalate our readiness and transition from our Blue Sky operations over to our Gray Sky operations. This methodology is in keeping with National Incident Management System's Planning function and in accordance with JEA's Comprehensive Emergency Management Plan (CEMP). Further division of the CEMP includes multiple Functional Response Procedures. These standardized process cycles are repeated and followed until the recovery is complete, then giving JEA the ability to return to its Blue Sky operations.

Also, in preparing for major weather events, JEA establishes contracts with several utility contractors. JEA also has Mutual Aid agreements in place with other utilities such as Public Power entities through Florida Coordinating Group (FCG), Florida Municipal Electric Association (FMEA), American Public Power Association (APPA) and bi-lateral agreements with the large Florida Investor Owned Utilities (IOUs).

Hermine

- a. Dates and topics of internal meetings held after each storm was named.

8/31/2016 (AM) – Weather update, discussed timing and setup of Incident Command Team

8/31/2016 (PM) – Weather update, discussed timing and setup of Incident Command Team

9/1/2016 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points, develop Incident Action Plan

9/1/2016 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/2/2016 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points develop Incident Action Plan

- b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.

Mutual Aid was not requested for Hermine.

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

Mutual Aid was not requested for Hermine.

Matthew

- a. Dates and topics of internal meetings held after each storm was named.

10/3/2016 (AM) – Weather update, discussed timing and setup of Incident Command Team

10/4/2016 (AM) – Weather update, discussed timing and setup of Incident Command Team

10/5/2016 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points, develop Incident Action Plan

10/5/2016 (NOON) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

10/5/2016 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

10/6/2016 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points, develop Incident Action Plan

10/6/2016 (NOON) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

10/6/2016 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

10/7/2016 (AM) – Emergency Declared, Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points, develop Incident Action Plan

10/7/2016 (NOON) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

10/7/2016 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.

None.

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

Mutual Aid was initially requested on 10/4/2016. Additional Mutual Aid requests were made post storm (10/8/2016 through 10/12/2016). Nature of request was for electric distribution restoration personnel (line crews).

Irma

a. Dates and topics of internal meetings held after each storm was named.

9/5/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/5/2017 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/6/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/6/2017 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/7/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/7/2017 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/8/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/8/2017 (AFTERNOON) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/8/2017 (PM) – Emergency Declared, Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/9/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/9/2017 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points, develop Incident Action Plan

9/10/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/10/2017 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/11/2017 (AM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points, develop Incident Action Plan

9/11/2017 (NOON) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

9/11/2017 (PM) – Weather update, Incident Command Team review of current situation, determine any unmet needs, develop internal/external talking points

b. Dates and topics of external communication pertaining to mutual aid held after each storm was named.

None.

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

Mutual Aid was requested on 9/5/2017. Additional Mutual Aid requests were made post storm (9/11/2017 through 9/14/2016). Nature of request was for electric distribution restoration personnel (line crews).

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.

Storm Event Assignment	Description	Number of Personnel
Call Center	JEA Employees Assigned to the JEA Call Center to provide restoration information to customers and take outage reports or other duties as assigned by Call Center management	170
EOC Incident Command Team - Finance	Assignment to specific roles within JEA's ICS Finance Section responsible for managing all financial, administrative & cost analysis tasks for incident. Reporting Units: Cash; Cost Reimbursement	11
EOC Incident Command Team - Liaisons	Assignment to specific roles as JEA's ICS Liaison Officer and Assistants assigned to act as point of contact for assisting and/or cooperating with outside agency representatives	9
EOC Incident Command Team - Logistics	Assignment to specific roles within JEA's ICS Logistics Section responsible for managing all logistical aspects of the incident. Reporting Units: Food; Facilities; Procurement; Supply; Security; Ground Support; Fleet & Fuel; Lodging	14
EOC Incident Command Team - Operations	Assignment to specific roles within JEA's ICS Operations Section principally responsible for executing Incident Action Plan. Reporting Units: Electric; W/WW; CR; TS; HR; (Multiple sub-units including Medical, Communications, etc)	20
EOC Incident Command Team - PIO/Safety	Assignment to specific roles as JEA's ICS Public Information Officer (PIO) and the Safety Officer which are ICS Command Staff assigned to the EOC to provide media briefings (PIO) and identify and mitigate hazardous situations (Safety)	22
EOC Incident Command Team - Planning	Assignment to specific roles within JEA's ICS Planning Section responsible for producing IAP & maintaining status of assigned resources. Reporting Units: Resources; Situation; Documentation; Demobilization; Field Observers; GIS; Weather	19
EOC Incident Command Team - Support	Assignment to provide direct administrative or other specific support for JEA's ICS Command Team in JEA's EOC (includes support for public information, Safety, etc)	16
EOC Incident Commander	Assignment as ICS Incident Commander within JEA's EOC	2

Responder - Customer Relations	Employees specifically assigned to direct storm response in the Customer Relations Operations section other than Call Center (Outreach, Billing, Customer Systems) supporting customers (Account Executives, Community Involvement, Billing, etc)	96
Responder - Electric	Employees specifically assigned to direct storm response in the Electric Operations section (Sys Ops, Generation, Trans & Substation, Damage Assess, Restoration) to restore power	880
Responder - Environmental	Employees specifically assigned to direct storm response to monitor and provide information regarding environmental concerns	50
Responder - Facilities	Employees specifically assigned to direct storm response in protecting and maintaining JEA facilities	33
Responder - Finance	Employees specifically assigned to direct storm response in providing Finance functional support including Cost & Time Reimbursement, Cash & Comp teams	29
Responder - Human Resources	Employees specifically assigned to support overall response efforts by providing HR services (medical unit, temp home repair, employee hotline staff, payroll staff, etc)	26
Responder - Logistics	Employees specifically assigned to support overall response efforts by providing logistical services (purchasing, warehousing, security, fleet, fuel, material distribution, etc)	85
Responder - Technology Services	Employees specifically assigned to direct storm response in providing Technology Services Operations section (Communications, etc) support for network repair, Incident command, and field operations	108
Responder - Water/Wastewater/DES	Employees specifically assigned to direct storm response in the Water/Wastewater Operations section (plants, delivery and collection) to restore water and sewer service, or in JEA's District Energy (chilled water) services	465
Unassigned, available incident support	Employees who are NOT specifically assigned to storm restoration roles (ie other selections in this Oracle Storm Assignment List) so the ICS Command Team can quickly identify personnel to deploy as needed to respond to an incident	7

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

JEA Response:

Hermine – Mutual Aid was not utilized for Hurricane Hermine.

Matthew – 10/5/2016

Irma – 9/6/2017

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.

JEA maintains two distinct distribution systems. One South and East of the St Johns River and another North and West of the St Johns River. There is no connection between the two systems. The Damage Assessment process is set up accordingly.

Hermine and Matthew

Two Engineering Coordinators, reporting to the Engineering Assessment Director, oversaw the assessments. The two Engineering Coordinators dispatched 20 Assessment Teams for each side of town. Each team consisted of an engineer and driver. Engineering Coordinators provided circuit assignment to the assessors. The teams assessed the feeders to the open point first, then continued assessing all primary laterals, secondary busses, service laterals and streetlights. The assessment team generated Field Management System (FMS) tickets along the way. The assessment tickets included repair information, required materials, estimated cost and vegetation issues. Teams that completed an entire circuit were re-dispatched to another unassessed circuit or to aid other assessment teams.

The assessment information was provided to EOC via FMS reports and also provided to Construction and Maintenance as FMS work tickets.

Irma

The organization of the Assessment Team was modeled after the Construction and Maintenance (C&M) storm restoration plan. The service territory was divided to six zones (three on each side of town). Six Engineering Coordinators, reporting to the Engineering Assessment Director, oversaw the assessment. The Engineering Coordinators dispatched 51 Assessment Teams. Each team consisted an engineer and a driver. First, the Assessors completed a quick, high-level, 24 hrs assessment of the entire distribution system. Utilizing a cloud based map, the assessors noted location of poles, transformers and primary conductors down as well as major vegetation damages. The information was disseminated to EOC and C&M real time.

Upon completing the initial assessment, the Assessment Team was divided into two sections. Twenty-two teams were assigned to restoration crews, aiding the restoration effort and completing

detailed assessments ahead of the restoration crews. The remaining teams were assigned to circuits that had yet to be assigned to the restoration crews to complete detailed assessments. The assessment teams utilized the FMS system for detailed assessments. The assessment tickets included repair information, required materials, estimated cost and vegetation issues. The assessment information provided to EOC via FMS reports and also provided to Construction and Maintenance as a FMS work tickets.

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

Please see Item 4 response above.

Restoration Workload

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

JEA has several Functional Response Procedures for various emergencies including electric system restoration. The Functional Response Procedure for Electric Transmission, Substation, and Distribution System Restoration provides guidance for system restoration. The Functional Response Procedure includes priority levels (1-5 with 1 being the highest priority) and critical facilities assigned to the various levels. The service territory is divided up into six (6) geographic areas for restoration and Area Restoration Coordinators assigned to manage the restoration process based on Priority Levels and critical facilities in the assigned geographic areas. Examples of critical facilities for each priority level are below:

Priority Level 1 facilities - Hospitals and dialysis centers.

Priority Level 2 facilities - Emergency Operations Centers, JEA electric generating stations, JEA control centers, JEA service centers, water/wastewater treatment plants, military installations, Police/Fire/Rescue major stations/command centers, Jacksonville International Airport/FAA transmitting towers, JEA/City of Jacksonville two-way radio system, large wastewater lift stations.

Priority Level 3 facilities – Shelters, next level of wastewater lift stations.

Priority Level 4 facilities - COJ City Hall and Motor Pool complexes, next level of wastewater lift stations, FCCJ Downtown Campus, American Red Cross command and communications centers, Florida/Georgia Blood Alliance.

Priority Level 5 facilities – pre-determined major road/street intersections.

After all Priority 1-5 critical facilities have been restored, schools are next level of priority in restoration.

Once the weather and wind subside to the point where JEA deems it is safe to for its employees to begin restoration efforts (winds less than 40 mph for ground activities such as damage assessment, switching, etc.), personnel are deployed to begin damage assessment and perform distribution switching to restore what can be restored based on the priorities listed above without the use of

aerial lifts (bucket trucks) or climbing. Once the winds subside to 30 mph, aerial lifts (bucket trucks) can now be used safely to restore service again based on the priorities listed above.

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

Hermine

Personnel Responsible for Restoration Workload Assignments		
Title	Years of experience	Number of crews managed
Electric Maintenance Coordinator	184	24
Emergency Dispatcher	151	27

Matthew

Personnel Responsible for Restoration Workload Assignments		
Title	Years of experience	Number of crews managed
Electric Maintenance Coordinator	184	80
Emergency Dispatcher	151	27

Irma

Personnel Responsible for Restoration Workload Assignments		
Title	Years of experience	Number of crews managed
Electric Maintenance Coordinator	156	80
Emergency Dispatcher	151	27

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

As described in Item #6, worked is assigned based on Priority Levels and critical facilities in geographic areas. Once each work assignment is complete, the next Priority Level item in that geographic area is assigned and worked. As restoration progresses and the Priority levels are completed, the remaining outages in the assigned geographic areas are worked until complete. Once restoration is complete in an assigned area, the workload in the remaining assigned areas is reviewed and restoration forces are assigned to a different work area to continue restoration efforts until restoration is complete.

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

Hermine – N/A

Matthew – Mutual Aid was determined to no longer be needed when JEA resources were more than adequate to restore the remaining customers still without electric service.

Irma – Mutual Aid was determined to no longer be needed when JEA resources were more than adequate to restore the remaining customers still without electric service.

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)
- b. Days of lodging provided for mutual aid partners (Person-Days)
- c. Number of meals provided for Utility personnel
- d. Number of meals provided for mutual aid partners
- e. Number of Utility personnel injuries
- f. Number of mutual aid partner injuries
- g. Number of Utility personnel fatalities
- h. Number of mutual aid partner fatalities

Please note any delays in restoration associated with items e-h above.

Hermine

- a. Days of lodging provided for Utility personnel (Person-Days) – None
- b. Days of lodging provided for mutual aid partners (Person-Days) – N/A
- c. Number of meals provided for Utility personnel – 0
- d. Number of meals provided for mutual aid partners – N/A
- e. Number of Utility personnel injuries – None
- f. Number of mutual aid partner injuries – N/A
- g. Number of Utility personnel fatalities - None
- h. Number of mutual aid partner fatalities – N/A

Please note any delays in restoration associated with items e-h above.

Matthew

- a. Days of lodging provided for Utility personnel (Person-Days) – 780 Person-Days
- b. Days of lodging provided for mutual aid partners (Person-Days) – 1636 Person-Days
- c. Number of meals provided for Utility personnel – 12,725
- d. Number of meals provided for mutual aid partners – 6,362
- e. Number of Utility personnel injuries – Five (5)
- 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.

Irma

- a. Days of lodging provided for Utility personnel (Person-Days) – 1556 Person-Days
 - b. Days of lodging provided for mutual aid partners (Person-Days) – 1436 Person-Days
 - c. Number of meals provided for Utility personnel – 14,656
 - d. Number of meals provided for mutual aid partners – 6,179
 - e. Number of Utility personnel injuries – Two (2)
 - f. Number of mutual aid partner injuries – One (1)
 - 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.

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

Hermine – Once feeders, laterals, and services to those who could accept power was restored, we considered the storm over and fully restored.

Matthew – Once feeders, laterals, and services to those who could accept power was restored, we considered the storm over and fully restored.

Irma – Once feeders, laterals, and services to those who could accept power was restored, we considered the storm over and fully restored.

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.

Hurricanes Maria and Nate had little or no impact on JEA service territory.

- a. Total number of customer accounts

	Hermine	Matthew	Irma
Total Number Accounts	452,921	453,519	459,929
County Totals			
Duval County	430,556	431,125	437,218
Clay County	4,607	4,613	4,678
St. Johns County	17,758	17,781	18,033

b. Peak number of outages

	Hermine	Matthew	Irma
Peak number of outages	9,685	245,578	284,000

Outages were not tracked by county.

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

	Hermine	Matthew	Irma
Before	Call center agents were deployed on the phones taking normal residential and commercial calls up through Friday September 1st.	Call center agents were deployed on the phones taking normal residential and commercial calls up through Thursday October 6th	Call center agents were deployed on the phones taking normal residential and commercial calls up through Saturday September 9th
During	12 customer service reps arrived around midnight 9/2. an additional 59 (71 total) arrived by 2 a.m. An additional 2 arrived at 4 a.m. (73 total) and 25 by 8 a.m. (98 total). Plus management and support employees. Employees were released by 7:30 p.m. and remaining call volume was handled by the 24 hour outage call center.	69 customer service reps were assigned as storm riders from 7 am 10/7 through 7 am 10/8. Plus management and support employees	68 customer service reps were assigned as storm riders for up to 24 hour schedules starting Sunday afternoon on September 10th. Plus management and support employees
After	By 7 p.m. any remaining outage calls were being handled by the 24 hour outage call center.	Call center agents were assigned 12 hour daily shifts. Shifts covered 24 hours a day and were scheduled based on expected hourly call volumes. As normal residential and commercial billing calls increased, some agents were assigned a portion of their shift to those queues during normal call center open hours.	Call center agents were assigned 12 hour daily shifts. Shifts covered 24 hours a day and were scheduled based on expected hourly call volumes. As normal residential and commercial billing calls increased, some agents were assigned a portion of their shift to those queues during normal call center open hours.

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

	Hermine	Matthew	Irma
Customer Svc Reps	102 agents assigned outage queues as a normal part of their call center profile during this time period. Nearly all were assigned storm shifts for 9/2/16	106 agents assigned outage queues as a normal part of their call center profile during this time period. All would have been assigned storm shifts.	96 agents assigned outage queues as a normal part of their call center profile during this time period. All would have been assigned storm shifts.

- 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?

	Hermine	Matthew	Irma
Additional/3 rd Party	No additional personnel deployed to answer calls.	A total of 194 different employees augmented the call center staffing to answer outage calls in the days after the storm passed.	A total of 167 different employees augmented the call center staffing to answer outage calls in the days after the storm passed.

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

	Hermine	Matthew	Irma
IVR/Call reported tickets	9,026	91,237	126,780
Web reported tickets (logged in)	6,314	53,363	69,381
Web guest reported tickets (not logged in)	802	13,366	23,782
Text reported tickets	168	1,731	2,962
Agent reported tickets	160	5,137	9,976
Overflow calls (receiving a storm message about restoration)	4,526	79,442	81,872

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.

	Hermine	Matthew	Irma
Methods	Call Center Agent IVR Text(requires pre-registration) Web (logged into account) Web outage map as a guest	Call Center Agent IVR Text (requires pre-registration) Web (logged into account) Web outage map as a guest	Call Center Agent IVR Text (requires pre-registration) Web (logged into account) Web outage map as a guest

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.

All events:

Blue Sky (before and after restoration is complete following an event): Receive report, create ticket, assign ticket, assess and repair

Gray Sky (during the event and following event related outages): Receive report, create ticket, batch tickets by circuit, work is assigned within storm restoration protocol based on damage assessment and as areas are restored, tickets are marked complete. Remaining individual outages are worked later in event response process as circuits are restored.

- 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.

All events:

Electric crews were deployed as per our normal grey sky restoration process.

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?

Outage tickets during a storm are not categorized as to concern, complaint, information request, etc.

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

Hermine	Matthew	Irma
Volume of customers experiencing an outage and the short duration for restoration allowed ETRs to be tracked within our outage management software (OMS).	Daily Public Information Officer (PIO) updates detailed the number of customers who were not yet restored on a daily basis along with the number of crews in the field. In addition, talking points were provided based on customer inquiries to assist in responding to customers. The information was provided to customer service representatives and auxilliary call takers through a daily email. Part way through the restoration process and through the end, lists of the circuits assigned crews for restoration each day were distributed to phone representatives in the morning.	Daily Public Information Officer (PIO) updates detailed the number of customers who were not yet restored on a daily basis along with the number of crews in the field. In addition, talking points were provided based on customer inquiries to assist in responding to customers. The information was provided to customer service representatives and auxilliary call takers through a daily email. Part way through the restoration process and through the end, lists of the circuits assigned crews for restoration on each day were distributed to phone representatives in the morning.

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?

Hermine	Matthew	Irma
Restoration ETRs were provided within the outage software and would have been supplied to both customers and customer service representatives.	See above	See above

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.

Hermine	Matthew	Irma
<p>Estimated times of restoration were provided to customers through our normal notification processes (IVR updates, automated outbound phone call updates with changes) during Hermine. Initial ETRs were set with a storm multiplier. As crews worked specific outages, they were able to update the ETR based on the expected restoration time once they identified the outage cause. Any changes to ETR would be reflected within the OMS system as well as through an outbound call for customers who requested updates for any changed ETRs.</p>	<p>Restoration times were contained within the OMS system and initial ETRs were created with a storm mode multiplier. As specific outages are assigned, the crew can update the ETR for customer notification. At one point, JEA released the information that substantially all customers would be restored by a specific date and time which proved to be overly optimistic. ETRs were then turned off in the system. Information about storm damage and assessment is also provided to customers through IVR; call center; social media; media interviews and press conferences; emails; the outage map; and postings on the jea.com web site.</p> <p>Information on outages is sent to local and surrounding EOCs through the Public Information ICS form at least once daily</p>	<p>JEA did not give restoration times specific to an address. However, information about storm damage and assessment is provided to customers through IVR; call center; social media; media interviews and press conferences; emails; the outage map; and postings on the jea.com web site.</p> <p>Information on outages is sent to local and surrounding EOCs through the Public Information ICS form at least once daily; as well as to the State EOC and to the state industry group (Florida Municipal Electric Association).</p>

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:
- a. Whether or not the Utility has fuel stored for these types of events
 - b. Whether or not fuel shortage was an issue during these events
 - c. Whether or not there were any delays due to fuel shortage
 - d. Whether or not there were enough vehicles available during these events/any issues mobilizing crews

JEA has three contract sources of fueling that can be utilized during an emergency event:

1. Gate Petroleum provides gas, diesel and DEF at their retail stations via a fleet fuel card program,
2. The City of Jacksonville authorizes JEA to use their onsite pumps for individual vehicles and for the JEA 1,500 – 3,000 gallon fuel trucks, and
3. JEA has a contract for nightly wet hose fueling with Quick Fuel Fleet Services which includes a clause regarding assistance with fueling efforts during times of emergency, both in delivery of bulk fuel and onsite fueling of vehicles.

These contracts and their emergency fueling clauses were established prior to any of the listed storm emergencies.

- a. JEA does not house any fuel onsite or have the capability to store fuel in an emergency. If onsite bulk fuel is needed, the appropriate contracted fueling vendor can provide onsite fuel tanks for use.
 - b. During any of the listed storms, JEA did not experience any fuel shortages and therefore no delays in fueling efforts were experienced as a result of a fuel shortage.
 - c. JEA was able to leverage the use of fueling vehicles and drivers from Quick Fuel and The City of Jacksonville during Irma restoration efforts as the demand for constant fueling was highest during this event, however, no delay in fueling or shortage occurred as a result. For all of the other storms listed, JEA had adequate resources to maintain fueling requirements.
22. Please detail any complications or delays such as shortage or delayed delivery of materials for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

Hermine – No issues.

Matthew – No issues.

Irma – JEA experienced material delays during Irma. Freight carriers were not crossing the state line when Irma was close to making landfall and were unable to provide updates to our vendors on when deliveries would resume. The delays did not affect JEA's restoration efforts.

Maria – JEA experienced complications with lead times on materials due to the manufacturer's shifting their priorities to help those in Puerto Rico. JEA did not experience major impacts to our system, but we had to adjust order quantities to cover replenishment needs during that time.

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.

Hermine

9/1/2016 – JEA restoration resources are staged. Mutual Aid is not requested. Hermine related outages begin to occur. Partial restoration resources deployed (night crews).

9/2/2016 – Full restoration resources are deployed.

9/3/2016 – Restoration complete and JEA stands down restoration resources.

Matthew

10/6/2016 – JEA restoration resources are staged. Mutual Aid resources begin to arrive.
10/7/2016 – Some additional Mutual Aid resources arrive in Jacksonville. Matthew related outages begin to occur.
10/8/2016 – Restoration resources including Mutual Aid are deployed. Additional Mutual Aid resources arrive in Jacksonville and deployed.
10/9/2016 – Restoration continues. Additional Mutual Aid resources arrive.
10/10/2016 – Restoration continues. Additional Mutual Aid resources are deployed.
10/11/2016 – Restoration continues. Additional Mutual Aid resources arrive and are deployed.
10/12/2016 – Restoration continues. Additional Mutual Aid resources arrive.
10/13/2016 – Restoration continues. Additional Mutual Aid resources arrive.
10/14/2016 – Restoration continues.
10/15/2016 – Restoration complete and JEA stands down restoration resources. Mutual Aid resources are released.

Irma

9/9/2017 – JEA restoration resources are staged. Some Mutual Aid resources arrive in Jacksonville.
9/10/2017 – Irma related outages begin to occur. Some Mutual Aid resources arrive in Jacksonville.
9/11/2017 – Restoration resources including Mutual Aid are deployed.
9/12/2017 – Restoration continues. Additional Mutual Aid resources arrive.
9/13/2017 – Restoration continues. Additional Mutual Aid resources arrive and are deployed.
9/14/2017 – Restoration continues. Additional Mutual Aid resources arrive and are deployed.
9/15/2017 – Restoration continues. Additional Mutual Aid resources arrive and are deployed.
9/16/2017 – Restoration continues.
9/17/2017 – Restoration continues. Some Mutual Aid resources are released.
9/18/2017 – Restoration continues. Additional Mutual Aid resources are released.
9/19/2017 – Restoration completed. Remaining Mutual Aid resources released. JEA stands down restoration resources and returns to normal operations.

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.
 - b. If the Utility does not document or otherwise memorialize departures from its storm plan, explain why not.
 - c. Have departures from the Utility's storm preparation plan resulted in modification of the storm preparation plan during 2015 through 2017? If so, please explain how with examples.

After each major incident, JEA collectively performs a systematic After Action Report (AAR) where each Incident Command Team section reviews the performance of its section to determine

where there were gaps. All of the various ICT Sections create Action Items which are then compiled into a single collective AAR for the entire company. Periodically, the AAR is evaluated/audited for actions taken and status is provided to the ICT Section Chiefs and to JEA's Senior Leadership Team in an effort to focus on the all-important, "What can we do differently next time." The intent is for a continual improvement cycle. Any changes to the procedures are validated during an annual audit of all response procedures. The procedural changes are then operationalized, reinforced, re-iterated or modified, and evaluated during JEA's full-scale integrated week long joint hurricane exercise which is held in the weeks preceding the start of hurricane season.

For Item 24c, the answer is yes. Examples are below.

- Identified a new staging area during Matthew and pre-staged that area before Irma arrived.
- Updated check-in/check-out process during Matthew and used that process in Irma.
- Identified staging process needs such as Technology support, traffic support, etc. in Matthew and addressed those items in Irma.
- Requested Mutual Aid later in Matthew while requesting Mutual Aid earlier before the storm in IRMA.

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.
 - b. If the Utility does not document or otherwise memorialize departures from its restoration storm plan, explain why not.
 - c. Have departures from the Utility's storm restoration plan resulted in modification of the storm restoration plan during 2015 through 2017? If so, please explain how with examples.

After each major incident, JEA collectively performs a systematic After Action Report (AAR) where each Incident Command Team section reviews the performance of its section to determine where there were gaps. All of the various ICT Sections create Action Items which are then compiled into a single collective AAR for the entire company. Periodically, the AAR is evaluated/audited for actions taken and status is provided to the ICT Section Chiefs and to JEA's Senior Leadership Team in an effort to focus on the all-important, "What can we do differently next time." The intent is for a continual improvement cycle. Any changes to the procedures are validated during an annual audit of all response procedures. The procedural changes are then operationalized, reinforced, re-iterated or modified, and evaluated during JEA's full-scale integrated week long joint hurricane exercise which is held in the weeks preceding the start of hurricane season.

For Item 25c, the answer is yes. Examples are below.

- The need for smaller assigned geographic restoration areas was identified in Matthew and implemented in Irma.

- Assigned most of the Electric Troubleshooters to Mutual Aid crews in Matthew and experienced problems responding to emergencies. Only assigned a small number of Electric Troubleshooters to Restoration crews in Irma to better respond to emergencies.

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.

Hermine – Duval, Clay, St. Johns

Matthew – Duval, Clay, St. Johns

Irma – Duval, Clay, St. Johns

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.

Weather Impact Hermine				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
Duval	32	53	2.02	1.4
Clay	25	41	2.02*	.73
St Johns	27	47	.84	.61

Weather Impact Matthew				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
Duval	44	81	9.63	4.69
Clay	36	47	10.3	3.77
St Johns	51	75	9.97	5.2

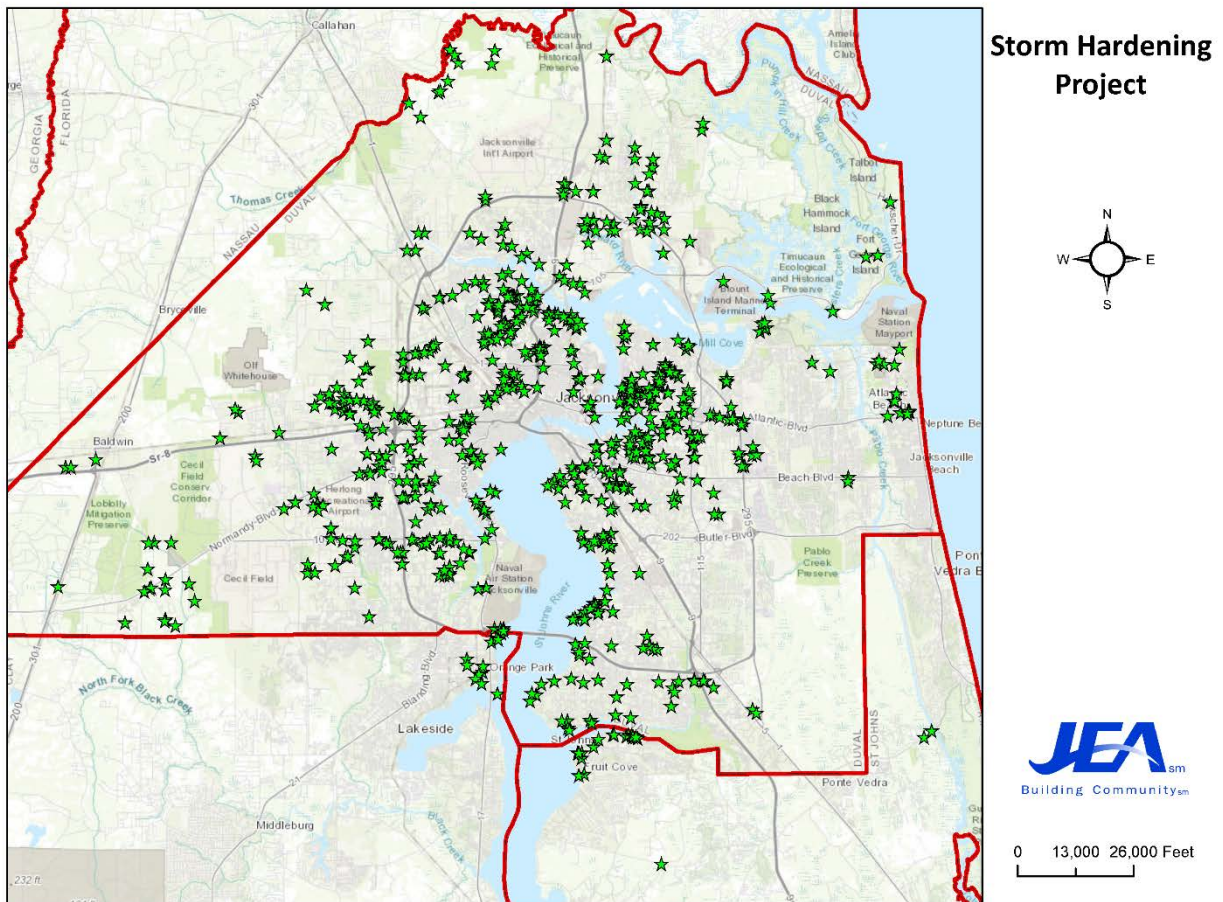
Weather Impact Irma				
County	Maximum Sustained Winds (MPH)	Maximum Gusts (MPH)	Maximum Rainfall (inches)	Maximum Storm Surge (Feet)
Duval	49	88	11.11	5.97
Clay	27	56	11.32	5.97**
St Johns	51	78	10.22	5.61

* No data for JEA service territory in Clay County. Used Duval County data.

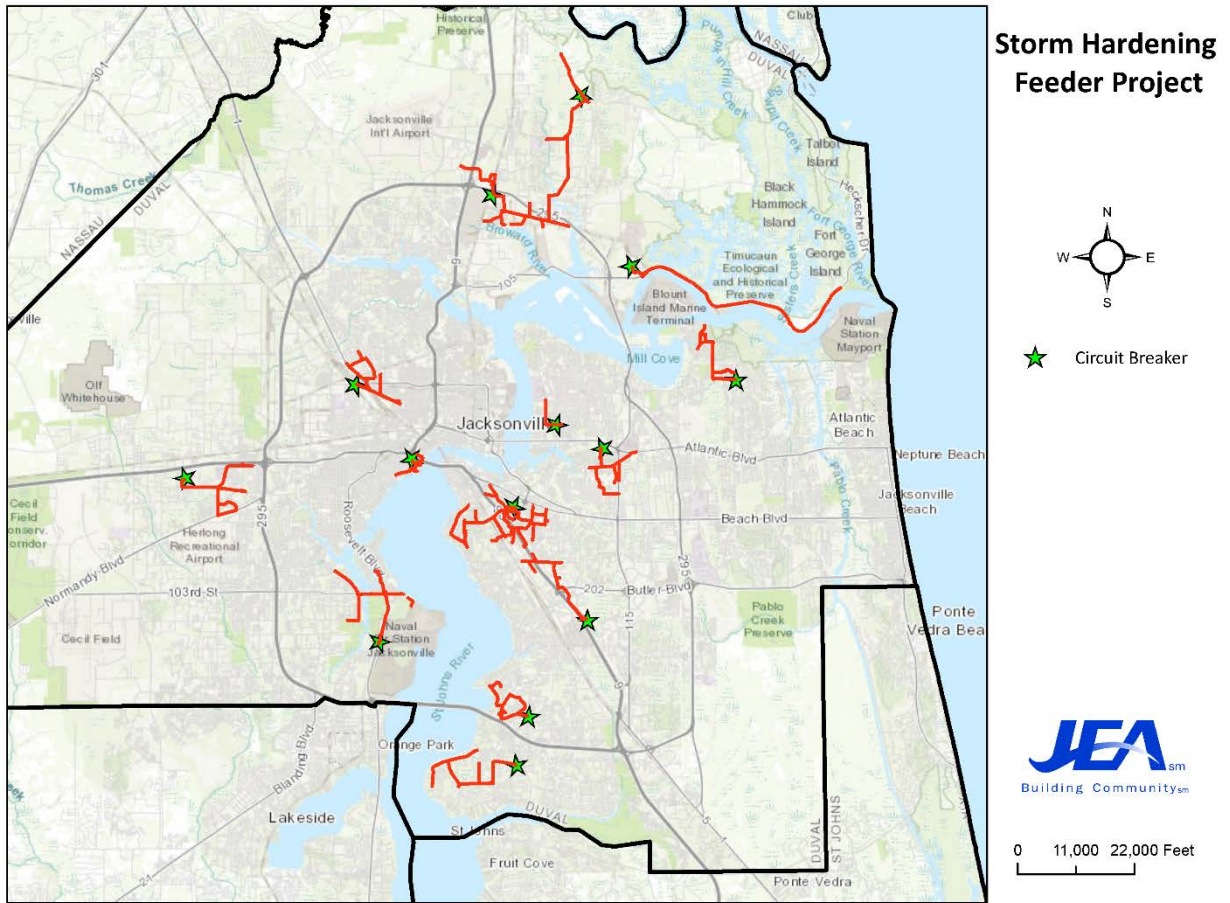
** Clay County data at Black Creek was 30.52 feet and not representative of JEA service territory in Clay County. Used Duval County data.

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.



The stars represent individual locations of storm hardening



The red lines indicate the part of the Three (3) phase feeder that was hardened.

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.

Hardened Facilities		
Hurricane	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures	0	0
Substations	0	0
Total	0	0
<i>Distribution</i>		
Poles	0	0
Substation	0	0
Feeder OH	0	16
Feeder UG	0	0
Feeder Combined	0	16
Lateral OH	0	0
Lateral UG	0	0
Lateral Combined	0	0
Total	0	16
<i>Service</i>		
Service OH	0	0
Service UG	0	0
Service Combined	0	0
Total	0	16

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	Number of Facilities Requiring	
	Repair	Replacement
<i>Transmission</i>		
Structures	1	0
Substations	0	0
Total	1	0
<i>Distribution</i>		
Poles	0	481
Substation	0	3
Feeder OH	0	0
Feeder UG	1	0
Feeder Combined	0	397
Lateral OH	0	0
Lateral UG	0	0
Lateral Combined	0	378
Total	1	1271
<i>Service</i>		
Service OH	0	604
Service UG	0	48
Service Combined	0	0
Total	0	658

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.

Trees were by far the main outage causation during each storm.

Hermine

1. Trees
2. Wire Down
3. Weather/Wind
4. Bad Connection
5. Bad Transformer

Matthew

1. Trees
2. Wire Down
3. Connection Issue
4. Transformer Failure
5. Equipment Failure (lightning arresters, etc)

Irma

1. Trees
2. Wire Down
3. Transformer Failure
4. Weather/Wind
5. Connection Issues

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

Hermine – None.

Matthew –

1. Trees (trees blocking roads)
2. Road closures (Intracoastal bridges for example)

Irma –

1. Trees (trees blocking roads)
2. Flooding
3. Bridge closures

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

34. How many outages were avoided by automated feeder switches during Hurricanes Matthew, Hermine, Irma, Maria, and Nate? Please explain how the data for each event was collected.

None. JEA does not yet have feeder switches which operate automatically to avoid/restore outages. JEA's feeder switches require a system operator to manually or remotely operate them to restore outages.

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.

Restoration time is in hours.

Hurricane Hermine – CIF						
CIF Name/Type (i.e. Hospital)	County/ Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
OFFICE OF THE SHERIFF/JSO SUBSTATION	DUVAL / 936 DUNN AVE	.22	TREE		Repair	Replace
				Transmission		
				Structures	0	0
				Substations	0	0
				Total	0	0
				Distribution		
				Poles	0	0
				Substation	0	0
				Feeder OH	0	0
				Feeder UG	0	0
				Feeder Combined	0	0
				Lateral OH	0	0
				Lateral UG	0	0
				Lateral Combined	0	1
				Total	0	1
				Service		
				Service OH	0	0
				Service UG	0	0
				Service Combined	0	0
				Total	0	0

Hurricane Matthew – CIF						
CIF Name/Type (i.e. Hospital)	County/ Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
					Repair	Replace
SOUTHERN BAPTIST HOSPITAL OF FLORIDA INC / HOSPITAL	DUVAL / 14550 OLD ST AUGUSTINE RD	15.7	TREE LIMB BROKEN	<i>Transmission</i>		
ST JOHNS CO SCHOOL BOARD / SHELTER	ST JOHNS / 1937 LONGLEAF PINE PY	17.6	TREE FELL FROM CITY PROPERTY	Structures	0	0
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 10600 HORNETS NEST RD	16.5	WIRE DOWN PRIMARY	Substations	0	0
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 2445 SAN DIEGO RD	84.2	TREE LIMB BROKEN	Total	0	0
GENESIS HEALTH INC / DIALYSIS CENTERS	DUVAL / 6209 BROOKS BARTRAM DR	24	TREE	<i>Distribution</i>		
CLAY DISTRICT SCHOOLS / SHELTER	CLAY / 1429 PLAINFIELD AVE	22	TREE FELL FROM CITY PROPERTY	Poles	0	0
CITY OF JAX / CORRECTIONAL FACILITY	DUVAL / 4727 LANNIE RD	20	TREE	Substation	0	0
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 328 BOWLAN ST N	21.2	TREE FELL FROM CITY PROPERTY	Feeder OH	0	0
FRESENIUS MEDICAL CARE – MANDARIN / DIALYSIS	DUVAL / 9143 PHILLIPS HY	31.8	TREE FELL FROM CITY PROPERTY	Feeder UG	0	0
ORANGE PARK POLICE DEPARTMENT / POLICE DEPARTMENT	CLAY / 2025 SMITH ST	22	TREE FELL FROM CITY PROPERTY	Feeder Combined	0	0
GENESIS HEALTH INC / DIALYSIS	DUVAL / 3599 UNIVERSITY BLVD S	32.2	TREE	Lateral OH	0	0
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 101 W 12TH ST	17.9	TREE	Lateral UG	0	0
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 5100 HOOD RD	16.5	WIRE DOWN PRIMARY	Lateral Combined	0	14

ARLINGTON DIALYSIS CENTER LLC / DIALYSIS CENTER	DUVAL / 7645 MERRILL RD	16.9	WIRE DOWN PRIMARY	Total	0	14
SHANDS JACKSONVILLE MEDICAL CENTER INC	DUVAL / 655 W 8TH ST	17.9	TREE	<i>Service</i>		
CLAY DISTRICT SCHOOLS / SHELTER	CLAY / 1500 GANO AVE	27.4	TREE LIMB BROKEN	Service OH	0	4
TOWN OF BALDWIN / WASTEWATER TREATMENT PLANT	DUVAL / 801 MAIN ST S	12.2	TREE	Service UG	0	2
CITY OF JAX MOTOR POOL / CITY OF JAX FLEET SUPPORT SERVICES	DUVAL / 2581 COMMONWEALTH AVE	36.3	TREE LIMB BROKEN	Service Combined	0	0
OFFICE OF THE SHERIFF / JSO SUBSTATION	DUVAL / 936 DUNN AVE	6	TREE	Total	0	6
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 12731 ABESS BLVD	40.1	TREE			

Hurricane Irma – CIF						
CIF Name/Type (i.e. Hospital)	County/ Location	Restoration Time	Outage Cause	Number of Facilities Requiring		
					Repair	Replace
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 328 BOWLAN ST N	35	TREE			
MEMORIAL HEALTHCARE GROUP INC / HOSPITAL	DUVAL / 3599 UNIVERSITY BLVD S STE 502	.9	TREE	<i>Transmission</i>		
SYSCO FOOD SERVICES / CITY OF JAX LOGISTICS SUPPORT	DUVAL / 1501 LEWIS INDUSTRIAL DR	13.9	TREE FELL FROM CITY PROPERTY	Structures	0	0
FRESENIUS MEDICAL CARE – MANDARIN / DIALYSIS CENTER	DUVAL / 9143 PHILLIPS HY	45.3	TREE	Substations	0	0
U S MARINE CORPS / MILITARY	DUVAL / 5880 CHANNEL VIEW BV	4.5	WIND	Total	0	0
ST JOHNS CO SCHOOL BOARD / SHELTER	ST JOHNS / 10901 RUSSELL SAMPSON RD	12.6	WIND	<i>Distribution</i>		

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GENESIS HEALTH INC / DIALYSIS CENTER	DUVAL / 6209 BROOKS BARTRAM DR	84.6	WIND	Poles	0	0
U S NAVY PUBLIC WORKS CTR / MILITARY	DUVAL / 8297 ROOSEVELT BV	34	WIND	Substation	0	0
OFFICE OF THE SHERIFF / JSO SUBSTATION	936 DUNN AVE	8	WIRE DOWN PRIMARY	Feeder OH	0	0
TOWN OF BALDWIN / WASTEWATER TREATMENT PLANT	DUVAL / 801 MAIN ST S	16.1	TREE	Feeder UG	1*	0
CITY OF JAX / CORRECTIONAL FACILITY	DUVAL / 4727 LANNIE RD	27.3	WIND	Feeder Combined	0	0
SOUTHERN BAPTIST HOSPITAL OF FLORIDA INC / HOSPITAL	DUVAL / 13720 OLD ST AUGUSTINE RD	59.8	WIND	Lateral OH	0	0
THE KIMMIK CORPORATION / DIALYSIS CENTER	1725 OAKHURST AVE	25.4	WIRE DOWN SECONDARY	Lateral UG	0	0
SHANDS JACKSONVILLE MEDICAL CENTER INC / HOSPITAL	DUVAL / 2119 N DAVIS ST	78.1	TREE LIMB BROKEN	Lateral Combined	0	15
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 10600 HORNETS NEST RD	36.6	WIRE DOWN PRIMARY	Total	1	15
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 143 OCEANWAY AVE	8.8	TREE FELL FROM CITY PROPERTY	<i>Service</i>		
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 5100 HOOD RD	36.6	WIRE DOWN PRIMARY	Service OH	0	3
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 8000 POINT MEADOWS DR	26.9	TREE FELL FROM CITY PROPERTY	Service UG	0	2
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 8085 OLD MIDDLEBURG RD S	3.9	TREE	Service Combined	0	0
DUVAL CO SCHOOL DISTRICT / SHELTER	DUVAL / 9735 R G SKINNER PY	1.8	TREE	Total	0	5
DUVAL COUNTY JAIL / DUVAL COUNTY JAIL	DUVAL / 451 CATHERINE ST	5.6	FLOODING			

* De-energized entire substation network due to flooding which caused the feeder serving Duval County Jail to lose electric service.

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.

Overall, JEA's underground infrastructure performed very well during all events. JEA's underground facilities in low lying areas along the St. Johns River did sustain more damage from the flooding associated with Hurricane Irma than any other event. Hurricanes Maria and Nate did not impact the service area.

A summary of the number of underground facilities that required repair or replacement is below:

Hermine:

- 1 UG Cable Fault (repaired).
- 1 Network Protector (replaced)

Matthew:

- 3 UG Cable Faults (repaired)
- 1 UG Transformer (replaced)

Irma:

- 5 UG Transformers (replaced)
- 20 UG Transformers (repaired)
- 2 Dry-Type Network Transformers (repaired)
- 1 Dry-Type Network Transformer (replaced)
- 2 Pad-Mount Switchgear (replaced)
- 1 Pad-Mount Switchgear (repaired)
- 2 UG Cable Faults (repaired)
- 1 Network Cable Fault (repaired)
- 2 Network Protectors (replaced).

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

The electric distribution facilities in new developments are installed below surface (ground) in accordance with Section 653-134 of the City of Jacksonville Ordinance Code.

There are two avenues for underground conversion.

- For a customer's request, JEA converts the distribution system at the customer's expense with the application of the current Contribution In Aid of Construction (CIAC) policy.
- Within the City of Jacksonville service area, Chapter 714 of the City of Jacksonville Ordinance Code established the Neighborhood Assessment Program (NAP) for Underground Power and Communication Improvements. Citizens of the City may petition the City Council to initiate and introduce legislation to adopt a NAP. Enacting the NAP requires 75% voluntary participation of the neighborhood and approval by the City Council. The conversion scope and costs includes the electric distribution system with the applicable CIAC, telecommunications and/or cable television services. The conversion cost is paid by JEA initially and can be recovered through a special assessment on the property owner's property tax bill with a 10- or 20-year payback. Individual property owner service conversions, if needed, may also be financed as a part of the special assessment process. Other JEA service area jurisdictions (franchise agreement cities) may adopt similar approaches and JEA would cooperate in a similar manner.

Please file all responses electronically no later than December 15, 2017 from the Commission's website at www.floridapsc.com, by selecting the Clerk's Office tab and Electronic Filing Web Form. Please contact me at wtaylor@psc.state.fl.us or at 850.413.6175 if you have any legal questions, or contact Emily Knoblauch for technical questions at eknoblau@psc.state.fl.us or at 850.413.6632.

Sincerely,

/s/Wesley Taylor

Wesley Taylor
Attorney

WDT/as

cc: Office of Commission Clerk
Office of Public Counsel (kelly.jr@leg.state.fl.us, sayler.erik@leg.state.fl.us)