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# Public Service Commission

December 18, 2017

**STAFF'S SECOND DATA REQUEST**  
*via email*

To:

Duke Energy Florida, LLC ([Matthew.Bernier@duke-energy.com](mailto:Matthew.Bernier@duke-energy.com), [dianne.triplett@duke-energy.com](mailto:dianne.triplett@duke-energy.com))  
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**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.

## Underground Facilities

- For each year, please complete the following tables summarizing the number of miles of transmission and distribution underground facilities by county from 2006 through 2017.

| Transmission     |                         |                  |             |
|------------------|-------------------------|------------------|-------------|
| St. Lucie County |                         |                  |             |
| Year             | Overhead to Underground | New Construction | Total Miles |
| 2008             | 0.57                    | 0                | 0.57        |
|                  |                         |                  |             |

| <b>Distribution</b>     |                                |                         |                    |
|-------------------------|--------------------------------|-------------------------|--------------------|
| <b>St. Lucie County</b> |                                |                         |                    |
| <b>Year</b>             | <b>Overhead to Underground</b> | <b>New Construction</b> | <b>Total Miles</b> |
| 2017                    | 0.75                           | 0.20                    | 0.95               |
| 2016                    | 1.86                           | 1.89                    | 3.75               |
| 2015                    | 0.52                           | 1.40                    | 1.92               |
| 2014                    | 0.50                           | 1.51                    | 2.01               |
| 2013                    | 0.64                           | 1.97                    | 2.61               |
| 2012                    | 0.51                           | 1.49                    | 2.00               |
| 2011                    | 0.57                           | 3.93                    | 4.50               |
| 2010                    | 1.42                           | 2.34                    | 3.76               |
| 2009-2006               | N/A                            | N/A                     | N/A                |

### **Forensic Data**

2. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide a complete copy of the utility's post-storm forensic review of damaged infrastructure. If a forensic review was not performed or not documented, please explain why.

*FPUA performs a forensic analysis after every major storm. This analysis looks at infrastructure needs, restoration procedures, communication protocols, staffing requirements, and mutual aid. Exhibit 1 and exhibit 2 are the summary reports of a much wider look at improvements to FPUA procedures.*

### **Coordination**

3. For Hurricanes Hermine, Matthew, Irma, Maria, and Nate, please provide the name, frequency, and description of non-Emergency Operations Centers related coordination efforts with local governments before, during, and after restoration, including the following.
  - a. Storm preparation
  - b. Critical infrastructure
  - c. Tree trimming, planting or relocation of trees
  - d. Hardening and underground projects
  - e. Shared facilities
  - f. Other

*Fort Pierce Utilities Authority works with the City of Fort Pierce, the Fort Pierce Police Department, and the St Lucie County Fire Department to coordinate efforts before, during and after a storm. Prior to storms we will meet to discuss needs for each entity and do preplanning*

*for critical facilities. During the storm we maintain communication so that we can hit the ground running when it is safe to travel. After a storm we work to restore services to critical customers to ensure continuity of life safety needs. We maintain communication with the Public Works Director as to debris removal and street clearing needs. We work closely with the police and fire departments to ensure public safety. Our Director is in constant contact with the Fort Pierce City Commission, the City Manager and the FPUA Board to maintain accurate and up to date information on restoration. When the dust settles we do a storm debrief to see where improvements can be made.*

4. Please complete the following tables on county and state Emergency Operations Centers staffing for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

| <b>Staffing for County Emergency Operations Centers</b> |                 |                        |
|---|-----------------|------------------------|
| <b>Number of Utility Personnel</b>                      | <b>Function</b> | <b>Total Man-Hours</b> |
| See Below   |                 | 122                    |
| See Below   |                 | 144                    |

| <b>Staffing for State Emergency Operations Center</b> |                 |                        |
|---|-----------------|------------------------|
| <b>Number of Utility Personnel</b>                    | <b>Function</b> | <b>Total Man-Hours</b> |
| N/A   |                 |                        |
| N/A   |                 |                        |

*Fort Pierce Utilities Authority assigns 1 employee to be stationed at the St. Lucie County EOC during full activation. We will rotate staff in on a 12 hour shift basis if weather conditions allow. If we are unable to rotate staff the individual that is assigned will stay for the duration.*

*These FPUA employees act as a liaison between the utility and the EOC Director. They provide updates and logistical support related to utility outages and critical infrastructure.*

**Solar**

5. Please provide the following information for utility interconnections with customer-owned solar generation that did not operate as designed and consistent with the tariff during the extreme weather events that occurred in 2015 through 2017.
- a. The number of failures. *0*
  - b. A description of the cause or causes of such failures. *N/A*
  - c. Possible failure remediation and associated cost. *N/A*

- d. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact. *N/A*
  - e. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact. *N/A*
6. Please provide the following information for utility interconnections with customer-owned solar generation that operated as designed and consistent with the tariff during the extreme weather events that occurred in 2015 through 2017.
  - a. Discuss whether these interconnections contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact. *No increase in restoration time perceived*
  - b. Discuss whether these interconnections increased or decreased the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact. *No increase in restoration cost perceived*
7. Without compromising safety, are there changes to the utility's interconnection with customer-owned solar generation that would enable the customer's facilities to be energized by its solar generation should the utility be unable to provide electric service due to a future storm damaging utility infrastructure?
  - a. If yes, please provide the following information:
    - Please describe the suggested changes to the utility's interconnection.
    - If the utility is not pursuing the interconnection changes please explain why.

*The utility could install meters that automatically disconnect from the customer on detection of utility power loss. We are not aware of this metering capability existing.*

8. Without compromising safety, please describe potential changes to a customer's facilities that the customer can implement to enable the customer's facilities to be energized by its solar generation should the utility be unable to provide electric service due to a future storm event that damages utility infrastructure. Include in your response whether the utility makes it a practice to inform the customer of such options.

*Currently, FPUA requires customer-owned generation systems to have an UL 1741 rated inverter, that disables if utility side power is not detected, and a manual disconnect installed. If another piece of equipment was installed between the meter and the panel that could detect utility side power and disconnect the customer from the utility automatically if utility side power was not detected, then the customer would be able to consume its own onsite generation without any risk to utility personnel.*

9. Without compromising safety, please describe any potential changes to rules or tariffs pertaining to utility interconnections with customer-owned solar generation that would enable the customer's facilities to be energized by its solar generation should the utility be unable to provide electric service due to a future storm event that damages utility infrastructure.

*The utility could be required to disconnect and lock off every solar customer, before working on any damaged line. This would require more time for restoration.*

10. Please provide the following information for utility interconnections with utility-scale solar generation that did not operate as designed during the extreme weather events that occurred in 2015 through 2017. *FPUA does not have any utility-scale solar on its system.*
  - a. The number of failures.
  - b. A description of the cause or causes of such failures.
  - c. Possible failure remediation and associated cost.

- d. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact.
  - e. Discuss whether the failures contributed to an increase or decrease in the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact.
11. Please provide the following information for utility interconnections with utility-scale solar generation that operated as designed during the extreme weather events that occurred in 2015 through 2017. *FPUA does not have any utility-scale solar on its system.*
- a. Discuss whether these interconnections contributed to an increase or decrease in the utility's service restoration time and, if possible, provide an estimate of the duration impact.
  - b. Discuss whether these interconnections increased or decreased the utility's service restoration costs and, if possible, provide an estimate of the restoration cost impact.

Please file all responses electronically no later than January 18, 2018 from the Commission's website at [www.floridapsc.com](http://www.floridapsc.com), by selecting the **Clerk's Office** tab and **Electronic Filing Web Form**. Please contact me at [wtaylor@psc.state.fl.us](mailto: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](mailto: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](mailto:kelly.jr@leg.state.fl.us), [sayler.erik@leg.state.fl.us](mailto:sayler.erik@leg.state.fl.us))

## Exhibit 1

# *Hurricane Matthew Debrief*

*The following list of suggested adjustments to the FPUA Storm Manual was compiled during the DOU Direct Reports debriefing of Hurricane Matthew.*

- 1.) Food Vendors – Food vouchers will be provided for all FPUA employees until the caterers are setup and ready for operation. Once this happens all food will be served out of the Foster Ave building. Breakfast and Dinner will be served onsite and lunches will be box type hot meals. After Director of Utilities declares return to normal operations, food services will remain available for restoration staff until restoration is complete. Electric and HR will work on revised food service contracts. Goal is to have 4 contracts in place with one local vendor and three others in various geographic regions.*
- 2.) Payroll – Finance will work on predetermined easy to understand plan to enter time including examples to make payroll entering easy for employees and payroll coordinators.*
- 3.) Anemometers will be installed at ESC to measure wind speeds for safety. Dispatchers will make a blanket statement when sustained wind speeds reach unsafe levels.*
- 4.) ESC War Room
  - a. 12 new chairs will be ordered and stored at ESC for overnight call center operations.*
  - b. Facilities will work with ESC staff to prepare War Room for overnight operations including relocation of Refrigerators and Coffee pots.*
  - c. ITS will have staff onsite to handle any phone or computer issues.*
  - d. Outside contact phone numbers (Comcast, AT&T, City, etc.) will be written on white boards and will include after hour numbers.**
- 5.) Customer Solutions
  - a. Responder and VistaPoint training will be done prior to Hurricane Season.*
  - b. FPUA Restoration process training will be added to our Pre-Hurricane training.*
  - c. A Lead CSR will meet with a designated Dispatcher to get a briefing on system status prior to beginning of shift.*
  - d. CSRs will enter customer outage information into Responder system.*
  - e. CSRs will have a script available for answering customer calls.*
  - f. Business Development Services will handle mutual aid crew check in and hotel room assignments.**
- 6.) Safety
  - a. Flagger training will be done to all employees that may be helping out with flagging.*
  - b. Safety Officer will give daily safety briefings to all crews during breakfast.**
- 7.) Communication
  - a. DOU Direct Reports will meet or discuss system status 2 -3 times per day at designated predetermined times.*
  - b. In order to keep our employees informed, all press releases will be sent out to all FPUA staff.**



8.) *ITS*

- a. *An FPUA employee will be stationed at the IRSC radio tower during the storm.*

## Exhibit 2

### Hurricane Irma Lessons Learned

- *Priority Restoration Lists*
  - *Review and coordinate priority restoration lists between departments*
  - *Assign a label in Cogsdale*
  - *Coordinate with County EOC and City for priorities*
- *Customer Communication*
  - *At beginning of season remind customer about generator maintenance and the importance of testing under load*
  - *Before storm remind medical customers about special needs shelters*
    - *Refrigeration of medication*
    - *Oxygen needs*
    - *Advanced registration*
  - *Send out FPUA policy for water on the beach and disconnection*
  - *Contact subdivisions with master meters about communication with their residents if they are shutting off services*
  - *Pre-scripted responses for CSRs answering phone calls from customers*
    - *Line Down*
    - *Trees down*
    - *Sparking*
  - *Power Restoration Guidelines for Customers*
  - *Work with Customer Service to keep Social Media updated*
  - *Continue to modify canned messages for customers, media, employees*
  - *Continue to refine IVR messages*
  - *Work with EOC liaison to provide press conference messages*
- *Internal Communications*
  - *Look at setting up Customer Service Manager briefings to inform CSRs restoration progression*
  - *Single Points of contact to eliminate misinformation and confusion*
  - *Restoration coordination meetings with key staff to ensure we are all on the same page*
- *Policy Changes*
  - *Ensure that any policy changes are completed prior to Hurricane season*
  - *Continue training on storm policies in May*
  - *Review essential staffing requirements and times needed*
  - *Review FEMA guidelines*
- *Training*
  - *FEMA forms training*
  - *Basic electric material and system training for employees that may be needed during an event*
  - *Time keeping*
  - *Outage Management System (Responder)*

- *IVR system*
  
- *Logistics and Field Operations*
  - *Backup generator at IWRP*
  - *Laptops and MiFi for essential employees not at ESC*
  - *Provide FPUA radio for use at the EOC*
  - *Tablets for field verification of damage and entry into OMS*
  - *Look into field delivery of material*
  - *Improved communication with field devices*
  - *Allocation of CPU memory for OMS*
  - *Develop a plan for the cleaning of substations and insulators from salt spray*
  - *Look into the purchase of a claw attachment for debris pickup and delivery*
  - *Consider pre-staging of mutual aid crews in Fort Pierce*
  - *Portable AC for Deep Well and MOEC Fish Tanks*
  
- *Mutual Aid*
  - *IOU and Coop Mutual Aid agreements*