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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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Lee County ([dennie.hamilton@lcec.net](mailto:dennie.hamilton@lcec.net))  
Cooperative Group ([mhershel@feca.com](mailto: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.

## 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.

<i>TRANSMISSION</i>				
Year	County	% of Overhead (OH) to Underground (UG)	New Construction	Total Miles
2006-2017	Alachua	100% / 0%	None	120

<b>DISTRIBUTION</b>				
<b>Year</b>	<b>County</b>	<b>% of Overhead (OH) to Underground (UG) ***</b>	<b>New Construction ^^^</b>	<b>Total Miles</b>
2017	Alachua	39% / 61%	N/A	1,429
2016	Alachua	39% / 61%	N/A	1,426
2015	Alachua	40% / 60%	N/A	1,419
2014	Alachua	40% / 60%	N/A	1,415
2013	Alachua	40% / 60%	N/A	1,414
2012	Alachua	40% / 60%	N/A	1,422
2011	Alachua	41% / 59%	N/A	1,417
2010	Alachua	41% / 59%	N/A	1,413
2009	Alachua	42% / 58%	N/A	1,405
2008	Alachua	42% / 58%	N/A	1,387
2007	Alachua	43% / 57%	N/A	1,374
2006	Alachua	44% / 56%	N/A	1,347
*** The distribution totals are based on primary only; no secondary or services are included.				
^^^ New construction is not tracked at this time.				

## Forensic Data

- 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.

*Below is a summary of damages to GRU's electric system from Hermine and Irma as compared to the utility's normal renewal and replacement for fiscal year 2016. There were no significant damages to report from Matthew, Maria or Nate. Attached is a spreadsheet from Irma showing all incidents reported and worked. The information shared represents GRU's forensic review for Irma.*

<b>EVENT</b>	<b>Circuit Breaker Lock Outs</b>	<b>Recloser Lock outs</b>	<b>Interruption Incidents</b>	<b>Interruption # of customers (CI's)</b>	<b>Total Incidents requiring response (field or phone)*</b>	<b>Broken Poles</b>	<b>Transformers replaced</b>	<b>Number of customers</b>
<b>FY 2016</b>	34	16	798	81,509		22 (average)		94,002
<b>Irma (9/11/17 to 9/18/2017)</b>	38	35	963	79,267	2,428	89	100	96,115
<b>Hermine (9/2/2016 to 9/4/2016) 98% restoration 2 days</b>	12	5	347	33,633	1,203	22	20	94,002

\* Examples of non-interruption incidents are - limb on wire customer has lights, customer equipment, wire down not GRU Tel or CATV, OK on arrival, OK by call back, etc.

## 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.

*GRU is owned and operated by the City of Gainesville and the utility works very closely with all departments within the City regarding all general utility operations, including restoration efforts. No additional efforts are made at this time to coordinate with Non-Emergency Operations Centers.*

- a. Storm preparation
  - b. Critical infrastructure
  - c. Tree trimming, planting or relocation of trees
  - d. Hardening and underground projects
  - e. Shared facilities
  - f. Other
4. Please complete the following tables on county and state Emergency Operations Centers staffing for Hurricanes Hermine, Matthew, Irma, Maria, and Nate.

*The staffing for Irma is shown below and reflects GRU having two (2) liaisons onsite at both the County and City EOCs from the time when the EOCs are activated until the time when the EOCs stand down. GRU's liaisons worked as two-person teams, and were rotated every twelve hours. Information was provided by John Shaw, Alachua County's Emergency Management Director, as to the number of staff onsite for Clay Electric and Duke. GRU was the only utility present at the City's EOC during the storms.*

<b>Staffing for County Emergency Operations Centers - Irma</b>		
<b>Number of Utility Personnel</b>	<b>Function</b>	<b>Total Man-Hours</b>
GRU (2 Liaisons)	ESF-12 Utilities	
Clay Electric (2 Representatives)	ESF-12 Utilities	
Duke (1 Representative)	ESF-12 Utilities	

<b>Staffing for City Emergency Operations Center - Irma</b>		
<b>Number of Utility Personnel</b>	<b>Function</b>	<b>Total Man-Hours</b>
GRU (2 Liaisons)	ESF-12 Utilities	

## 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.

*GRU does not track customer failures associated with solar at this time.*

- 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.
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.

*There was no increase or decrease in restoration time due to extreme weather events.*

- 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.
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 customer had batteries they could island and run during power outages. There is no need for changes to the Utility's interconnection*

*policies for this application. Currently GRU has 3 customers that have batteries.*

- If the utility is not pursuing the interconnection changes please explain why.

*GRU's current policy allows for back up generation.*

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.

*Battery back-up; GRU allows this interconnection process already and customers are made aware of this option.*

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.

*Currently there are no potential changes to the 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.*

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.

*GRU has no utility scale solar generation interconnections that did not operate as designed during the extreme weather events that occurred in 2015-2017.*

- 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.
- 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 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.  
*No 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))