



COVER LETTER FOR:

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

The following questions only address Hurricane Irma unless otherwise stated in the answers.

**LAKELAND ELECTRIC (LE)
RESPONSES ARE IN RED**

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Planning Specialist
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STATE OF FLORIDA

COMMISSIONERS:
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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, dianne.triplett@duke-energy.com)
Florida Power & Light Company (ken.rubin@fpl.com, kevin.donaldson@fpl.com)
Florida Public Utilities Company (bkeating@gunster.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.

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			
Year 2006-2017			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	0 miles	0 miles

Distribution			
Year 2006			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	28 miles	28 miles

Distribution			
Year 2007			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	32 miles	32 miles

Distribution			
Year 2008			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	16 miles	16 miles

Distribution			
Year 2009			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	5 miles	5 miles

Distribution			
Year 2010			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	2 miles	2 miles

Distribution			
Year 2011			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	25 miles	25 miles

Distribution			
Year 2012			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	5 miles	5 miles

Distribution			
Year 2013			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	23 miles	23 miles

Distribution			
Year 2014			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	6 miles	6 miles

Distribution			
Year 2015			
County	Overhead to Underground	New Construction	Total Miles
Polk	0.2 miles	Inconsistent Data	Inconsistent Data

Distribution			
Year 2016			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	10 miles	10 miles

Distribution			
Year 2017			
County	Overhead to Underground	New Construction	Total Miles
Polk	0 miles	14 miles	14 miles

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.

Address 2 (optional)	City (required)	State (required)	Zip (req)	Latitude (required)	Longitude (required)	Describe Damage (required)	Primary Cause of Damage (required)	% Work Complete (required)	Labor Type (required)	Has received PR grants on this facility in a past? (req)	Applicant priority (required)
501 E Lemon St	Lakeland	FL	33801	28.041998	-81.952494	P1 EPM LE Logistics / EOC / Call Center / MA Lodging / Meals / Sundry Items	Hurricane	100%	FA/C	Y	Urgent
501 E Lemon St	Lakeland	FL	33801	28.041998	-81.952494	P2 Emergency Protective Measures	Hurricane	80%	FA/C	Y	High
Gant Property / Pole Barn	Lakeland	FL	33801	28.045977	-81.922303	Pole Barn roof damaged	Hurricane	0%	C	U	High
	Lakeland	FL	33801	28.041998	-81.952494	Fencing & Gate damages at Substations	Hurricane	100%	C	U	High
501 E Lemon St	Lakeland	FL	33801	28.041998	-81.952494	MAA / costs to assist LE with permanent electric service restoration work	Hurricane	100%	MAA	Y	Urgent
501 E Lemon St	Lakeland	FL	33801	28.041998	-81.952494	C / Line Clearance work to remove vegetative debris to allow permanent electric service restoration	Hurricane	100%	C	Y	Urgent
501 E Lemon St	Lakeland	FL	33801	28.041998	-81.952494	FA / LE costs to replace 155 poles, 110 transformers and approximately 23,000 feet of primary, secondary and service conductor.	Hurricane	90%	FA	Y	Urgent
501 E Lemon St	Lakeland	FL	33801	28.041998	-81.952494	FA/C / Power Plants (Line Item Detail Below)	Hurricane	50%	FA/C	U	High
	Lakeland	FL	33805	28.08005	-81.92336	Ride out operations team	Hurricane	100%	FA	Y	Urgent
	Lakeland	FL	33805	28.08005	-81.92336	Call-out to secure U3	Hurricane	100%	FA	Y	Urgent
	Lakeland	FL	33805	28.08005	-81.92336	Contingency	Hurricane		FA	U	High
	Lakeland	FL	33805	28.08005	-81.92336	Various Trees on Property and debris from generating units & facilities	Hurricane		C	Y	Medium
	Lakeland	FL	33805	28.08479	-81.92307	Coal Tunnel Flooded	Hurricane	100%	C	Y	Urgent
	Lakeland	FL	33805	28.08479	-81.92307	Coal Dewatering/pumping, grading, temporary conveyor	Hurricane	100%	C	Y	Urgent
	Lakeland	FL	33805	28.08479	-81.92307	Plows/electrical motors/lighting/fire system	Hurricane	60%	FA/C		Urgent
	Lakeland	FL	33805	28.08479	-81.92307	A/C damage, flooding	Hurricane		FA/C		
	Lakeland	FL	33805	28.08196	-81.92663	Louvers/panels/MCC cover/cable trays	Hurricane	90%	FA/C		Urgent
	Lakeland	FL	33805	28.07989	-81.92572	Louvers/panels/fire system	Hurricane		FA/C		Low
	Lakeland	FL	33811	28.02746	-82.01648	Tree down/damage to security at entrance/water intrusion	Hurricane	80%	FA/C		Urgent
	Lakeland	FL	33811	28.04880	-81.92350	Various windows/gutter/lighting/	Hurricane	40%	FA/C		Low
	Lakeland	FL	33801	28.04916	-81.92343	CT inlet filters loose & falling	Hurricane	100%			High
	Lakeland	FL	33805	28.08037	-81.92806	Roof/roll-up door	Hurricane		FA/C		Medium
	Lakeland	FL	33805	28.07978	-81.92184	Carpet/roof/ceiling tiles	Hurricane		FA/C		Low
	Lakeland	FL	33805	28.07927	-81.92134	Carports blown off	Hurricane		FA/C		Low
	Lakeland	FL	33805	28.08446	-81.91816	Drain damaged/erosion	Hurricane		FA/C		High
	Lakeland	FL	33805	28.08016	-81.92218	Siding and insulation blown off	Hurricane	100%	FA/C		Urgent
	Lakeland	FL	33805	28.08043	-81.92249	Cap on stack damaged/lifted/cable trays/brick damage	Hurricane	100%	C		Urgent
	Lakeland	FL	33805	28.07925	-81.92496	Siding and skirting/Roof	Hurricane		FA/C		Low
	Lakeland	FL	33805			Carports/cover blown off	Hurricane	50%	FA/C		Medium
	Lakeland	FL	33805	28.08488	-81.92719	Water leaks/ceiling panels	Hurricane		FA/C		Low
	Lakeland	FL	33805	28.08066	-81.92794	Roof and side of storage containment blown away	Hurricane		FA/C		Medium
	Lakeland	FL	33805	28.07931	-81.92274	Hole in roof/maybe from carport blowing off	Hurricane		FA/C		Medium
	Lakeland	FL	33805	28.07959	-81.92427	See w.o. for list	Hurricane		FA/C		Low
	Lakeland	FL	33805			Street lighting/fire cabinet doors	Hurricane	30%	FA/C		Medium
	Lakeland	FL	33805			Damage to fire system, cabinets, etc.	Hurricane		C		High
	Lakeland	FL	33805	28.08356	-81.92934	Damage to siding (int. & ext), cable trays	Hurricane	70%	FA/C		Medium

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

Lakeland City Management held daily Department head meetings and conference calls which included Community Development, Electric, Water/Sewer, Finance, Fire, Human Resources, Information Security, Information Technology, Parks & Recreation, Police, Public Works, and Risk Management prior to and after Hurricane Irma to communicate all efforts. This included Polk County Department interaction through the City’s Risk Management and Polk County’s EOC.

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

Staffing for County Emergency Operations Centers		
Number of Utility Personnel	Function	Total Man-Hours
(2) Risk Management Safety Officers acted as LE’s representative as their job responsibilities are Safety Officers for LE during non-emergency and emergency situations	City Safety Officer	Approx. 220

Staffing for State Emergency Operations Center		
Number of Utility Personnel	Function	Total Man-Hours
0		

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. **No known 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.
 - 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. **This is not an issue because LE's Emergency Operations Plan (EOP) involves disconnection of our Solar Farms from the grid prior to an extreme weather event.**

- 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? **Not applicable because LE requires solar customers to adhere to the tariff which requires invertors that meet UL 1741.**
- 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.
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 would allow for this and is an option for the customer to implement and is written in the interconnection agreement they sign with LE.**
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. **No changes required see question 8.**

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.
 - a. The number of failures. **No known 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. **This is not an issue because LE's Emergency Operations Plan**

(EOP) involves disconnection of our Solar Farms from the grid prior to an extreme weather event.

- 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. The only cost associated with restoration of the solar farms was the labor to reconnect.

Please file all responses electronically no later than January 18, 2018 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)