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November 29, 2018

-VIA ELECTRONIC FILING-

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

Re: Docket No. 20180144-EI – Review of 2019-2021 Storm Hardening Plan, Florida Power & Light Company

Dear Ms. Stauffer:

Enclosed for filing please find Florida Power & Light Company's responses to Staff's First Data Request Nos. 1 through 6 in the above-referenced docket.

If you should have any questions regarding this transmittal, please contact me at (561) 691-2512.

Respectfully submitted,

/s/ Kenneth M. Rubin
Kenneth M. Rubin
Fla. Bar No. 349038

Enclosures
cc: Counsel for Parties of Record (w/encl.)

QUESTION:

Commission staff should collect additional details regarding meeting with local governments regarding vegetation management and identification of critical facilities as part of the Commission’s review of utility storm hardening plans.

Please discuss the Utility’s coordination with local governments. As part of this discussion, please describe any lessons learned following recent storm events. Additionally, please complete the table below for the year 2018.

Meetings with Local Government					
Entity	Date(s)	Topics	Pending Issues/Follow-up Items	Contact information provided to local authorities	
				Y	N

RESPONSE:

Local governments are key to FPL’s restoration efforts. FPL begins meeting with representatives of local governments within the FPL service territory long before storm season. County and other local officials identify critical functions that are a priority for power restoration, such as hospitals, police and fire stations, and other facilities that the local governmental officials determine to be critical to the needs of their local community. They also help FPL identify areas for FPL staging sites to facilitate restoration efforts and so that our crews can be in their communities and able to respond more quickly. During and after a storm, and during the restoration process, we work closely with local officials to address issues in their communities and External Affairs Managers and EOC representatives continue to communicate and receive their feedback throughout the restoration process.

Following Hurricane Irma, the State’s Emergency Operations Center was also critical to restoration, coordinating efforts among many local partners.

Some lessons learned and key improvement areas that are being addressed include: working to enhance the provision of restoration information such as ETRs, educating communities about FPL’s “Right Tree Right Place” (“RTRP”) program, and continuing to invest and execute on proven infrastructure hardening. FPL has determined that the number one cause of outages during Hurricane Irma was trees falling – many of which were located outside of areas where FPL is allowed to trim – into FPL’s power lines and debris blowing into our lines. It is very important to plant trees in the right place, so as not to interfere with power lines. FPL is continuing to work with cities, counties and customers to help them understand the importance of tree maintenance and planting the right tree in the right place.

FPL has conducted many meetings with local government representatives on hurricane preparedness and FPL's restoration philosophy, and vegetation management and FPL's RTRP program is often discussed with local elected officials and city staff in various one-on-ones and meetings on other topics.

Below is a list of specific instances where FPL's External Affairs ("EA") Business Unit has met with representatives of local governments with a primary or significant emphasis on vegetation management issues and the RTRP program:

- Broward County Tree Ordinance – EA collaborated with County commissioners regarding a Broward County vegetation maintenance ordinance and FPL's Vegetation Management team attended meetings with City staff to address coordination of efforts for enforcement of the ordinance and line clearing.
- Broward County – Discussed Broward County Tree Ordinance with Officers of the Broward League of Cities, the West Park City Commission, and the Mayor of Pembroke Pines.
- Miami-Dade County – the FPL team covered hurricane preparedness in meetings with a number of communities including but not limited to Doral, Biscayne Park, North Bay Village, Miami Shores and Sunny Isles Beach. During those meetings FPL representatives have addressed the RTRP program and left FPL brochures explaining the program with the local governments.
- Palm Beach County – Efforts are underway to improve RTRP language in the land use code for unincorporated Palm Beach County.
- Palm Beach County – EA presented to Palm Beach County League of Cities regarding Hurricane Irma, which included a discussion on vegetation management and tree ordinances.
- St. Lucie County – EA met with St. Lucie County Commissioner to discuss vegetation management on 11/16/18.
- Ft. Lauderdale - Post-Irma meeting on 12/19/17 with City Commission. City requested meeting with FPL's Vegetation Management team regarding the coordination of efforts during restoration following a storm event – EA attended. This was followed by a specific meeting on 4/23/18 with the City to discuss potential FPL restoration processes with line clearing. Vegetation Management attended.
- Juno Beach - Routine Juno Beach code compliance alerts us to potential issues involving vegetation encroachment on utility lines & poles. In 2018 we had exchanges in March, July and November.

- Naples - Presentation to Naples City Council regarding Irma restoration on 12/18/17. Vegetation management initiatives were a part of this presentation.
- West Palm Beach - Meeting with WPB staff on 9/18/18 with External Affairs and FPL Vegetation Management to discuss the potential of using city code compliance to help with vegetation growing into our wires from outside of our easements.

Additional meetings with local government officials where vegetation management was addressed by FPL representatives follows;

- 2/15/18 - Meeting with Lighthouse Point to discuss RTRP and current vegetation ordinance.
- 4/24/18 - Meeting with City of Highland Beach to discuss RTRP.
- 5/8/18 - Meeting with Broward County Council on RTRP ordinance.
- 5/22/18 - Meeting with Key Biscayne to discuss RTRP and ordinance reform.
- 7/20/18 - Meeting with Palm Beach County to discuss tree ordinances and RTRP.
- 8/15/18 - Meeting with City of Sarasota tree advisory committee to discuss RTRP.
- 9/18/18 - Meeting with West Palm Beach code enforcement on RTRP and outages.
- 9/24/18 - Meeting with Sarasota County to review tree related ordinances.
- 10/29/18 - Meeting with City of Plantation regarding removal permitting and RTRP.

In addition, Customer Service Customer Advisors have annual meetings with the EOC directors and their staff for Counties that are in our service territory. There is an initial meeting in the first quarter to discuss the mutual objectives, the definition of a Critical Infrastructure Function (CIF) and the CIF restoration process. FPL also discusses service reliability, which includes vegetation management and how FPL has strengthened the electric grid. After the initial annual meetings, FPL obtains written approval from each EOC confirming the selection of functions and facilities selected by the local EOCs to be included on the CIF list within their jurisdiction for that storm season. That list is used for our storm preparation and restoration efforts. Additional meetings may occur throughout the year. Below are the meetings that have taken place in 2018 in which the CIF process has been specifically addressed as the primary or significant purpose of the meeting.

2018 Meetings with Local Government					
Entity	Date(s)	Topics	Pending Issues/Follow-up Items	Contact information provided to local authorities⁽¹⁾	
				Y	N
Alachua	03/12/18	FPL Restoration Process, CIF List	None	Y	
Baker	02/12/18	FPL Restoration Process, CIF List	None	Y	
Bradford	03/14/18	FPL Restoration Process, CIF List	None	Y	
Brevard	02/22/18	FPL Restoration Process, CIF List	None	Y	
Broward	02/15/18	FPL's Pre/Post Storm Presentation to Broward County Municipal Services Branch Working Group	None	Y	
Broward	02/23/18	FPL Restoration Process, CIF List	County asked for Excel Format version of CIF List. Provided on 6/20/18	Y	
Broward	04/23/18	FPL Post- Storm Presentation/Meeting with Ft. Lauderdale EOC	None	Y	
Broward	06/20/18	Broward County Hurricane Planning & Recovery Meeting/FPL Presentation	None	Y	
Broward	08/10/18	FPL's CIF Follow up meeting Broward County Administration	Schedule additional discussions for clarification on 8/15 & 8/16.	Y	
Broward	08/15/18	Broward County and FPL's CIF Discussion meeting	None	Y	

2018 Meetings with Local Government					
Entity	Date(s)	Topics	Pending Issues/Follow-up Items	Contact information provided to local authorities⁽¹⁾	
				Y	N
Broward	08/16/18	Broward County and FPL's CIF Discussion meeting	County has asked for additional detail on functions. Pending final approval of the Broward County Administration and Commission.	Y	
Charlotte	02/20/18	FPL Restoration Process, CIF List	None	Y	
Clay	02/26/18	FPL Restoration Process, CIF List	None	Y	
Collier	02/23/18	FPL Restoration Process, CIF List	None	Y	
Collier	02/20/18	Web EOC Training at EOC	None	Y	
Collier	07/17/18	Collier EOC Hurricane Drill (1)	None	Y	
Collier	07/19/18	Collier EOC Hurricane Drill (2)	None	Y	
Collier	10/05/18	Collier County Web EOC Update Meeting	None	Y	
Columbia	02/21/18	FPL Restoration Process, CIF List	None	Y	
De Soto	02/13/18	FPL Restoration Process, CIF List	None	Y	
Flagler	02/16/18	FPL Restoration Process, CIF List	None	Y	
Glades	02/20/18	FPL Restoration Process, CIF List	None	Y	
Hendry	02/15/18	FPL Restoration Process, CIF List	None	Y	
Indian River	02/19/18	FPL Restoration Process, CIF List	None	Y	

2018 Meetings with Local Government					
Entity	Date(s)	Topics	Pending Issues/Follow-up Items	Contact information provided to local authorities⁽¹⁾	
				Y	N
Lee	02/22/18	FPL Restoration Process, CIF List	Multiple follow-up meetings on various issues over several months.	Y	
Lee	02/28/18	Hurricane Irma After Action Report Operations Section - Infrastructure Branch	None	Y	
Lee	05/05/18	EOC Dry Run and Orientation Meeting	None	Y	
Lee	7/23/18 & 7/30/18	Irma Outage Info/Details for Various County Facilities	None	Y	
Manatee	02/26/18	FPL Restoration Process, CIF List	None	Y	
Martin	02/19/18	FPL Restoration Process, CIF List	None	Y	
Miami-Dade	02/23/18	FPL Restoration Process, CIF List	County asked for electronic version of CIF List. Provided in August. 2018	Y	
Miami-Dade	05/02/18	State Dry Run	None	Y	
Miami-Dade	07/17/18	Meet New EOC Director	None	Y	
Nassau	02/20/18	FPL Restoration Process, CIF List	None	Y	
Okeechobee	02/20/18	FPL Restoration Process, CIF List	None	Y	
Palm Beach	03/08/18	FPL Restoration Process, CIF List	County asked for electronic version of CIF List. Provided in March 2018.	Y	
Palm Beach	08/03/18	Met with EOC Director to discuss a few updates to CIFs	None	Y	

2018 Meetings with Local Government					
Entity	Date(s)	Topics	Pending Issues/Follow-up Items	Contact information provided to local authorities⁽¹⁾	
				Y	N
Putnam	02/14/18	FPL Restoration Process, CIF List	None	Y	
Sarasota	03/08/18	FPL Restoration Process, CIF List	None	Y	
Seminole	02/20/18	FPL Restoration Process, CIF List	None	Y	
St Johns	02/26/18	FPL Restoration Process, CIF List	None	Y	
St Lucie	02/20/18	FPL Restoration Process, CIF List	None	Y	
Suwannee	02/21/18	FPL Restoration Process, CIF List	None	Y	
Union	02/12/18	FPL Restoration Process, CIF List	None	Y	
Volusia	02/13/18	FPL Restoration Process, CIF List	None	Y	

⁽¹⁾ This section indicates if the FPL Customer Advisor provided their contact information to the local authority at the meeting.

QUESTION:

Commission staff should collect additional details regarding utility staffing practices at local EOCs as part of the Commission's review of utility storm hardening plans.

Please discuss the Utility's planned staffing practices at local EOCs. Please address in this discussion the total number of Utility personnel available to work in EOCs, the responsibilities of Utility personnel that work in EOCs, how the Utility communicates with EOCs that may not be staffed, and any lessons learned from storm events.

Additionally, please complete the table below, listing all local EOCs in Utility's service territory.

Utility staffing practices at local EOCs		
EOC in Service Territory	Number of Utility staff	Planned daily hours scheduled for working in the EOC

RESPONSE:

The FPL External Response Team (ERT) manages staffing at EOCs within FPL territory. Staffing levels can vary depending on predicted strength and projected landfall or location of a storm as well as EOC capacity and activation plans. The goal is to staff all county EOCs with two representatives that alternate shifts to match EOC activation needs; we will staff 24/7 when the EOC is open. Some counties with a small population of FPL customers do not have an EOC representative but rather receive assistance, information and support from their FPL External Affairs Manager. In the densely populated tri-county area and in Lee County, FPL provides additional staff. Additionally, Miami-Dade County has city/regional EOCs which we staff as well. The additional staffing for the more densely populated counties and for the city/regional EOCs within Miami-Dade County is identified in the attached chart entitled "Utility Staffing Practices at Local EOCs."

Some counties within FPL's service territory have the capability of hosting FPL personnel (EOC representatives) as the storm is passing (storm riders). Storm riders are provided for any county that requests this type of assistance and is capable of hosting the FPL personnel. In total, approximately 80 FPL employees are trained and ready to support EOCs as an EOC Representative and/or as a storm rider. Several support team members can be used as well as retirees if needed.

EOC Representatives have a variety of responsibilities. EOC Representatives serve as the key FPL point of contact for government stakeholders, delivering key messages and updates to local officials. They ensure that needed services and restoration assistance are provided to aid in the restoration efforts of critical infrastructure functions. EOC Representatives can also serve as regional spokespersons and provide local media assistance. EOC Representatives use a variety of

tools to share restoration and outage data with EOCs. Because all EOCs are different, FPL staff is trained to be flexible and cater to their assigned EOC requirements.

The performance of EOC Representatives is assessed and an improvement action plan is created following all event activations. Some key opportunity areas currently being addressed include: restoration work plan details, restoration verification, wire down reporting, more messaging, and better outage maps.

Utility Staffing Practices at local EOCs		
EOC in Service Territory	Number of Utility Staff	Planned daily hours scheduled for working in the EOC
Alachua	Not Assigned ⁽¹⁾	12-16 hours per shift
Baker	2	12-16 hours per shift
Bradford	1	12-16 hours per shift
Brevard	2	12-16 hours per shift
Broward	4	12-16 hours per shift
Charlotte	2	12-16 hours per shift
Clay	Not Assigned ⁽¹⁾	12-16 hours per shift
Collier	2	12-16 hours per shift
Columbia	2	12-16 hours per shift
Dade	4	12-16 hours per shift
Dade – City of Miami	3	12-16 hours per shift
Dade – Coral Gables	2	12-16 hours per shift
Dade – Hialeah	2	12-16 hours per shift
Dade – Miami Beach	3	12-16 hours per shift
Dade – North Miami	1	12-16 hours per shift
Dade – North Miami Beach	2	12-16 hours per shift
Desoto	1	12-16 hours per shift
Flagler	2	12-16 hours per shift
Glades	Not Assigned ⁽¹⁾	12-16 hours per shift
Hendry	2	12-16 hours per shift
Indian River	2	12-16 hours per shift
Lee	3	12-16 hours per shift
Manatee	2	12-16 hours per shift
Martin	2	12-16 hours per shift
Nassau	1	12-16 hours per shift
Okeechobee	2	12-16 hours per shift
Palm Beach	3	12-16 hours per shift
Putnam	2	12-16 hours per shift
Sarasota	2	12-16 hours per shift

**Florida Power & Light Company
Docket No. 20180144-EI
Staff's First Data Request
Request No. 2
Page 3 of 3**

Seminole	2	12-16 hours per shift
St Johns	1	12-16 hours per shift
St. Lucie	2	12-16 hours per shift
Suwanee	2	12-16 hours per shift
Union	1	12-16 hours per shift
Volusia	2	12-16 hours per shift

⁽¹⁾ FPL pre-assigns representatives to EOCs although those assignments can change. Currently there are three county EOCs that are designated as “Not Assigned” as they are in counties with a smaller number of customers and located in a region with fewer available employees. If a need arises to physically staff those respective EOCs, FPL is committed to do so.

QUESTION:

Commission staff should collect information on how each IOU prepares for and responds to roadway congestion, fuel availability, and lodging accommodation issues as part of the Commission's review of utility storm hardening plans.

Please discuss the Utility's contingency planning for roadway congestion, fuel availability, and lodging accommodation including a timeline for when decisions are made (i.e. route selection, procuring fuel, locating of fuel sources, procuring lodging). As part of this discussion please describe any lessons learned following recent storm events as well as a discussion regarding the use of government resources during a storm event.

RESPONSE:

Planning for storms is a year round activity for FPL. This includes coordinating efforts with vendors, local/state/federal agencies and industry trade organizations. It also includes training, implementing improvements as a result of lessons learned and contingency planning. Below is information regarding contingency planning for roadway congestion, fuel availability and lodging accommodations:

Roadway congestion:

FPL's efforts to address/mitigate roadway congestion during storm restoration events include working with various local, state and federal agencies/organizations. This includes: the state EOC in Tallahassee and working through the appropriate Emergency Support Functions (ESF) and processes; county EOC's; state and local law enforcement agencies; and the National Guard.

At the state EOC, when FPL needs assistance with roadway travel for restoration support resources, supplies and materials (e.g., roadway clearing and traffic control and escorts), it works primarily through the State Coordinating Officer and the ESF 1 – Transportation and ES 16 – Law Enforcement functions. Through these support functions, agency involvement could include the Department of Transportation, state/local law enforcement and the National Guard.

Also, during the year, FPL's Corporate Security Department provides training and awareness of FPL's staging and processing sites, restoration processes and traffic control needs that are unique to each FPL site or service area to local law enforcement agencies.

Additionally, FPL also utilizes information provided by the All Hazards Consortium (AHC), a non-profit organization with over 45,000 stakeholders in industry and government that exists to form a network of organizations and individuals who share a common interest in improving the capacity to prevent, prepare for, respond to and recover from crises. Information provided by AHC that FPL utilizes includes the identification of state emergency declarations, road hazards/road closures and real time data that helps to locate thousands of open and/or closed fuel, food, pharmacy and hotel locations - all of which is utilized to assist with route selection.

Fleet route and movement decisions typically start at 72 hours prior to estimated storm impact and adjust accordingly until the storm hits as well as post landfall.

Recent lessons learned include that the pre-storm training and awareness FPL conducts with local law enforcement on potential traffic control needs provides significant benefits; communicating the need for law enforcement support for large convoys of support resources to and through Florida needs to occur as early as possible; and maintaining documentation on locations experiencing traffic congestion issues helps to identify support needs for future events.

Fuel availability:

FPL procures additional fuel in advance of storm season and maintains bulk storage in multiple areas throughout its service territory, including the Lake City area, Palatka, Ft. Myers, Riviera Beach and Port Everglades. Additionally, FPL owns fixed fuel tanks located at a number of company facilities. Multiple contracts are also in place to guarantee availability of fuel transport/dispensing equipment and additional fuel supply as needed.

At 96 hours prior to estimated storm impact, FPL begins contacting vendors for equipment and personnel availability and also begins to fill generators and fixed fuel tank sites.

At 72 hours prior to estimated storm impact, FPL arranges pre-deployment of vendors to processing site and staging sites that are planned to be open in advance of the storm. The filling of generators and fixed fuel tank sites continues and FPL begins to deploy skid tanks if they are determined as necessary.

At 48 hours prior to estimated storm impact, FPL arranges for equipment/personnel coverage at pre-determined staging sites, completes the fueling of all generators, fixed tank sites and skid tanks and make arrangements for in-route fueling as needed.

At 24 hours prior to estimated storm impact and post storm impact, FPL activates additional fueling assets as conditions warrant and makes arrangements to move them into position, loads and secures all FPL-owned fuel equipment/rental equipment and initiates nightly wet-hose fueling of all storm restoration vehicles at FPL staging sites and other storm support locations.

As a result of lessons learned during Hurricane Irma, additional vendor contracts have been added for fuel transport/dispensing equipment.

Lodging accommodations:

Logistics engages a 3rd party lodging vendor 96-72 hours prior to estimated storm impact at which time the vendor begins to canvass the anticipated areas of lodging needs for room availability. Depending on resource summary (resource count of restoration personnel and staging site selection) rooms are secured. Rooms are assigned for sites that are used for processing and pre-staging, typically within 48 hours prior to estimated storm impact.

In conjunction with traditional lodging (hotels), alternative lodging is secured based on projected need typically 72-48 hours prior to estimated storm impact. Alternative lodging includes mobile sleepers, cots and tents, and cots in fixed facilities. Lodging is adjusted based on updates of the resource summary, both before and after landfall.

Lodging-related lesson learned from recent storm events include the fact that alternative lodging provides multiple benefits, including filling gaps created by hotel unavailability (e.g., overall supply of hotels in the area is limited or already booked) and increasing restoration productivity, as travel time to and from hotels to the staging sites is eliminated where the alternative lodging can be located at or near the FPL staging sites.

QUESTION:

Commission staff should collect information on all viable alternatives considered before selecting a particular storm hardening project as part of the Commission's review of utility storm hardening plans.

Please discuss the Utility's process for identifying storm hardening projects. Please include in this discussion, information regarding the economic considerations, historic reliability considerations, geographic area (including weather impacts), and customer considerations (number of customers).

Additionally, please provide an example of a storm hardening project where alternatives were considered and explain why one alternative was considered over another.

RESPONSE:

As provided in FPL's 3-year hardening plan filings (submitted in 2007, 2010, 2013 and 2016) and in compliance with Rule 25-6.0342, F.A.C., FPL's hardening efforts, to date, have concentrated on:

For Distribution - Hardening feeders (to the NESC's extreme wind loading criteria or EWL) serving critical infrastructure facilities (e.g., hospitals, 911 centers, police/fire stations), other essential community needs (e.g., gas stations, grocery stores, pharmacies), critical poles (i.e., highway crossings, 01 switches) and constructing new facilities to EWL; and hardening 12 above-grade vaults located in areas in the Miami downtown network system that are more susceptible to storm surge/flooding (two-year project, completed in 2015). In its 2016 hardening plan filing, as a result of the actual benefits provided through previous hardening efforts (day-to-day as well as during storms), FPL expanded its hardening efforts to include the hardening of all feeders within FPL's system as well as initiating efforts (in 2018) to harden laterals.

Additionally, FPL's Priority Feeder program (a reliability program initiated in 2014) also hardened feeders to EWL. Also, in 2018, in response to lessons learned from Hurricanes Matthew and Irma, FPL initiated its three-year Storm Secure Underground Program Pilot, whereby certain overhead laterals (based on historical storm/day-to-day reliability) will be converted to underground.

Annual projects discussed above were selected/prioritized as followed: for feeders serving critical infrastructure facilities, annual projects were determined (with input from local EOC's) based on the criticality of the facilities, with the order being: (1) hospitals; (2) 911 centers; (3) EOC's; (4) water/sewage treatment plants; (5) police/fire stations; and (6) other (e.g., critical well fields, critical cellular facilities, and correctional facilities); for feeders serving other community needs, prioritization/selection criteria included the number of essential community needs per feeder, types of customers on a circuit and ensuring that the community feeders were spread throughout all communities in FPL's service territory; and the remainder of FPL's feeders are being selected/prioritized by selecting those existing feeders with the largest

disparity from EWL. The 12 above-grade vaults in the Miami downtown network were completed in two years, six in 2014 and the remaining six in the following year.

Feeders addressed through FPL's Priority Feeder program, were identified as a result of having the highest number of interruptions/momentary events and/or customers interrupted. For FPL's lateral overhead to underground three-year pilot, 280 laterals were identified/selected based on having an outage during Hurricane Matthew or Hurricane Irma, historical vegetation related outages and historical overall reliability issues.

At year-end 2018, FPL expects to have approximately 47% of feeders within its system hardened or placed underground. This includes the hardening of 98% of the feeders serving critical infrastructure facilities and other essential community needs. FPL currently estimates that all feeders within its system will be hardened/underground by 2024.

For Transmission – Annual projects associated with replacing ceramic post insulators on concrete poles and replacing wood transmission structures were selected/prioritized based on criteria including wind exposure, system importance, customer counts and coordination with other storm initiatives; at year-end 2018, approximately 94% of FPL's transmission structures are expected to be concrete/steel. By 2022, FPL expects to have all remaining wood transmission structures replaced in its system; and implementing storm surge/flood initiatives (e.g., water intrusion mitigation, installing flood monitoring systems) at 223 substations more susceptible to flooding were completed in two years, 103 in 2013 and the remaining 120 in 2014.

Regarding an example of where alternatives were considered for a storm project, FPL submits that for feeder hardening projects, every pole on a feeder is evaluated independently, with various alternatives considered for each pole. As a result, there are many instances where one alternative was considered over another. In fact, within the same feeder, there could be several different hardening alternatives utilized. These alternatives include guying, relocating equipment on a pole to another stronger pole, installing an intermediate pole, replacing an existing pole with a higher class pole and converting overhead facilities to underground. The selected alternative would have been determined based on considerations including sound engineering practices and feasibility, potential to mitigate damage, potential to improve restoration efficiencies and overall cost. Also, FPL's underground lateral pilot program provides another example of an alternative for hardening (i.e., underground vs. overhead hardening construction).

QUESTION:

Commission staff should explore the collection of uniform performance data for hardened vs. non-hardened and underground facilities, including sampling data where appropriate, as part of the Commission's review of utility storm hardening plans.

Please discuss the type of data the Utility plans to provide demonstrating performance of hardened vs. non-hardened facilities affected by wind only. Please discuss the type of data the Utility plans to provide to compare overhead to underground facilities on a comparable basis. Please discuss any sampling data that may be readily available. Please include the format, economic considerations, and how the Utility would collect this data.

RESPONSE:

FPL has and will continue to collect/analyze data to assess the performance of its transmission and distribution facilities when they are impacted by storms. Depending on the storm's strength, size, path, damage and speed of restoration, the samples of observations and/or collection of forensic infrastructure storm damage data will vary. Storm damage forensic data will be collected/obtained through field observations (utilizing FPL's Electric Storm Data Assessment (EDSA) tool), which captures forensic storm damage data and pictures, and/or FPL's systems (e.g., TCMS, FPL's trouble call management system).

As it did for Hurricanes Matthew and Irma, FPL plans to continue to provide its comprehensive Power Delivery Performance Report, which provides detailed forensics data and analyses regarding the performance of FPL's transmission and distribution infrastructure, including pole failures by type of damage (e.g., wind only, vegetation, poor soil and debris/other). Additionally, FPL plans to continue to provide the following performance metrics for hardened vs. non-hardened facilities and overhead vs. underground performance, consistent with FPL's response to Staff First Data Request No. 29, which was provided in Docket No. 20170215-EI:

<u>Pole Failures*</u>	<u>Hardened</u>	<u>Non- Hardened</u>	<u>Total</u>
Distribution	XX	XX	XX
Transmission	XX	XX	XX

* Broken/fallen poles that must be replaced to restore service.

	OH Non-Hardened			OH Hardened			Underground			Total		
	<u>Out</u>	<u>Pop</u>	<u>% Out</u>	<u>Out</u>	<u>Pop</u>	<u>% Out</u>	<u>Out</u>	<u>Pop</u>	<u>% Out</u>	<u>Out</u>	<u>Pop</u>	<u>% Out</u>
Distribution Feeders	X	X	X%	X	X	X%	X	X	X%	X	X	X%
Distribution Laterals	X	X	X%	X	X	X%	X	X	X%	X	X	X%
Trans. Line Sections	X	X	X%	X	X	X%	X	X	X%	X	X	X%

The collection of additional data/information should be balanced with other considerations, including resource, cost and service restoration impacts.

QUESTION:

Commission staff should seek additional information on the impact of non-electric utility poles on storm recovery as part of the Commission’s review of utility storm hardening plans.

Please discuss the following:

- a. Procedures followed if a non-electric utility pole is identified as being unstable or on the verge of failing.
 - b. Options an electric utility has if inspection of non-electric utility poles is not occurring.
 - c. Procedures followed when repairing/replacing non-electric utility poles during storm recovery (contact, billing, reimbursement, who does the repair).
 - d. Procedures followed when repairing/replacing non-electric utility poles during non - storm events (contact, billing, reimbursement, who does the repair).
 - e. General locations of poles – throughout the service territory or in a certain location.
- Additionally, please complete the table below.

Electric vs. Non-Electric Utility Poles							
Total Number of Utility Distribution Poles		Total Number of Non-Electric Utility Distribution Poles that the Utility is attached to		Number of Attached Non-Electric Utility Distribution Poles Repaired following Irma		Number of Attached Non-Electric Utility Distribution Poles Replaced following Irma	
Feeders	Laterals	Feeders	Laterals	Feeders	Laterals	Feeders	Laterals

RESPONSE:

- a. Procedures followed if a non-electric utility pole is identified as being unstable or on the verge of failing.

Joint use pole agreements determine responsibilities for pole replacements. Generally, the pole owner is responsible for non-emergency pole replacements. If an emergency pole replacement is required and the non-pole owner replaces the pole, the pole owner is required to reimburse the non-pole owner for all reasonable costs/expenses incurred in replacing the pole.

- b. Options an electric utility has if inspection of non-electric utility poles is not occurring.

FPL’s joint use pole agreements require pole owners, at their own expense, to maintain poles

in a safe and serviceable condition. The agreements do not contain language that specify how that is to be accomplished (e.g., there are no pole inspection requirements/standards to comply with identified within the joint use pole agreements). Options FPL has if the non-electric pole owner is not inspecting joint use poles are somewhat limited. For example, FPL could inspect the non-electric poles, remove FPL's attachments and install them on new FPL poles, remove FPL's attachments and place the facilities underground, or purchase the non-electric poles. However, these options would result in other issues/concerns, e.g., increased costs for FPL and locations with double poles.

- c. Procedures followed when repairing/replacing non-electric utility poles during storm recovery (contact, billing, reimbursement, who does the repair).

Please see FPL's response to (a) above. Also, in 2007, FPL and AT&T negotiated an amendment to its joint use pole agreement that includes more details and specifics associated with pole replacements resulting from named storms/major disasters. This includes details/guidance on items such as how to: identify poles replaced during an event; calculate pole costs, hourly labor rates, pole replacement construction man hours; and pursue dispute resolution. FPL provided its FPL/AT&T joint use agreement, amendment and its associated pole replacement billings (all confidential) in the Hurricanes Matthew and Irma cost recovery/evaluation proceedings (see FPL's responses to OPC's 1st Request for Production of Documents, Request No. 3 provided in Docket Nos. 20160251-EI and 20180049-EI).

While FPL and non-electric utility pole owners can replace each other's poles during storms, FPL replaces far more non-electric poles than non-electric utility pole owners replace FPL poles. For example, in total, during Hurricanes Matthew and Irma, non-electric utility pole owners replaced less than 60 FPL poles, while FPL replaced over 1,000 non-electric utility poles with FPL facilities attached.

Contact/coordination during a storm, if required, occurs at the local level and/or through county/state EOC's.

- d. Procedures followed when repairing/replacing non-electric utility poles during non - storm events (contact, billing, reimbursement, who does the repair).

Please see FPL's response to (a) above. Also, as noted in FPL's response to (c) above, specific language can be reviewed in the FPL/AT&T joint use agreement.

- e. General locations of poles – throughout the service territory or in a certain location.

FPL-owned and non-owned distribution joint use poles are located throughout FPL's system. Additional details (as of 12/31/17):

Total FPL-owned distribution poles – approximately 1.2 million

Total non-owned distribution poles with FPL attached – approximately 224,000

(1 non-electric pole owner owns 97% of all non-electric poles with FPL attached; 5 other non-electric pole owners own the remaining 3%)

Additionally, please complete the table below.

Electric vs. Non-Electric Poles							
Total # of Electric Utility Distribution Poles		Total # of Non-Electric Utility Distribution Poles that the Electric Utility is Attached to		# of Attached Non-Electric Utility Distribution Poles Repaired Following Irma		# of Attached Non-Electric Utility Distribution Poles Replaced Following Irma	
Feeders	Laterals	Feeders	Laterals	Feeders	Laterals	Feeders	Laterals

FPL is not able to provide the requested information segregated by feeders/laterals, as FPL does not maintain its distribution pole data in that level of detail. See FPL's responses to (c) and (e) above for total FPL-owned distribution poles and total non-electric utility-owned distribution poles. Following Hurricane Irma, FPL replaced more than 900 non-electric utility poles with FPL facilities attached. FPL does not track the number of repairs made to non-electric poles following a storm; however, most likely the amount would be minimal, if any, as those poles would be repaired/replaced by the non-electric utility during follow-up work.