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-VIA ELECTRONIC FILING -

February 28, 2020

Adam Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 20200000
Florida Power & Light Company's 2020 Status/Update Report of Storm Hardening/Preparedness and Distribution Reliability

Dear Mr. Teitzman:

Pursuant to Order No. PSC-2006-0781-PAA-EI, I am enclosing for filing in the above docket Florida Power & Light Company's ("FPL") status report and update of its Storm Preparedness Initiatives, which was filed in FPSC Docket No. 20060197-EI on June 1, 2006. Consistent with Staff's request at its October 30, 2006 workshop, FPL has consolidated into the enclosed document the following information:

1. Wood Pole Inspection Report as required by Order No. PSC-2006-0144-PAA-EI, issued in FPSC Docket No. 20060078-EI on February 27. 2006;

2. Distribution Reliability Report as required by Rule 25-6-0455, F.A.C.; and,

3. A discussion of FPL's 2019 results for storm hardening facilities.

Should you have any questions regarding this filing, please contact me at (561) 691-7263.

Sincerely,

s/ David M. Lee
David M. Lee
Florida Bar No. 103152

Attachments
cc: Thomas Ballinger, Director, Division of Engineering

Florida Power & Light Company
Annual Reliability Filing to the Florida Public Service Commission
February 28, 2020

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EXECUTIVE SUMMARY – FPL's MARCH 1, 2020 FILING

In 2019, FPL achieved best-ever Transmission and Distribution ("T&D") System performance results for the System Average Interruption Duration Index ("SAIDI"), the System Average Interruption Frequency Index ("SAIFI") and the Momentary Average Interruption Frequency Index events ("MAIFIe").

Additionally, FPL continued to invest in and take significant steps to strengthen and modernize its electric infrastructure and enhance its emergency response capabilities. Included in this ongoing work were pole inspections, system infrastructure hardening, vegetation management, as well as other storm preparedness and reliability initiatives.

In 2020, FPL plans to continue its efforts to strengthen and modernize its electric infrastructure and improve its excellent everyday reliability for customers.

This filing provides details about these efforts and is organized into two major sections: (1) Storm Preparedness/Infrastructure Hardening; and (2) Reliability. The first section concentrates on FPL's efforts to strengthen its distribution and transmission systems and enhance storm response capabilities. Initiatives addressed in this section include: Pole Inspections; System Hardening; 10 Storm Preparedness Initiatives; and 2020 Storm Season Readiness. The second section of this report includes information about FPL's service reliability, including 2019 results and 2020 plans for the T&D system.

The following are brief overviews of each of these two sections:

Section 1: STORM PREPAREDNESS/INFRASTRUCTURE HARDENING

Pole Inspections

Distribution – In 2019, consistent with its Florida Public Service Commission ("FPSC") -approved plan, FPL continued with the execution of its second eight-year pole inspection cycle.

- In 2019, FPL inspected approximately 1/8 of its pole population and completed all remaining follow-up work resulting from the 2018 pole inspections, with the exception of a few projects that are delayed as a result of issues beyond FPL's control.
- In 2020, FPL plans to complete inspections on approximately 1/8 of its pole population, as well as complete all remaining follow-up work resulting from the 2019 pole inspections.

Transmission – In 2019, FPL completed all transmission pole/structure inspections consistent with its FPSC-approved plan.

- In 2019, FPL completed 100% of its planned inspection of transmission poles/structures. FPL completed ground-level visual inspections on 100% of its transmission poles/structures, 100% of the planned climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle, bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures and pre-construction mitigation patrols on all associated transmission poles/structures. FPL also completed follow-up work resulting from the 2018 inspections.

- In 2020, FPL plans to perform ground-level visual inspections on 100% of its transmission poles/structures, climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle and bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures. FPL also plans to complete all follow-up work identified from the 2019 inspections.

System Hardening

Distribution

Consistent with FPL's FPSC-approved 2019–2021 Electric Infrastructure Storm Hardening Plan (see Order PSC-2019-0301-PAA-EI in Docket No. 20180144-EI), FPL continued to implement its three-prong approach in 2019 by applying: (1) extreme wind loading criteria ("EWL") to critical infrastructure functions ("CIF"); (2) incremental hardening, up to and including EWL, to "Community Project" feeders; and (3) construction design guidelines that require EWL for the design and construction of all new overhead facilities, major planned work and relocation projects. Additionally, FPL continued with its next phase of feeder hardening, which addresses the remaining feeders in its system by targeting current feeders that do not meet EWL criteria (referred to as "wind zone" feeders). FPL also continued with its three-year Storm Secure Underground Program Pilot, which runs from 2018-2020 and converts targeted laterals that are most vulnerable to vegetation related outages during storms from overhead to underground.

- In 2019, FPL continued with its efforts to complete the hardening of all remaining non-hardened/non-underground feeders; and reached the important milestone of having hardened or underground 50% of FPL feeders. In total, FPL completed hardening 230 feeders (94 – 2019 Plan plus 136 – prior years' plans). Of the remaining 218 feeders in the 2019 plan, 209 feeders are in-progress, 5 have been deferred due to permitting issues, and 4 have been placed on hold due to requests for OH-UG conversions. Also, FPL's Design Guidelines were applied to all new construction and other construction activities described above. As of 2/28/20, FPL has hardened 99% of all CIF and "Community Project" feeders in its system, with the exception of a few projects that are delayed as a result of issues beyond FPL's control (e.g., pending

municipal Overhead “OH” to Underground “UG” conversions projects, FDOT roadway projects, permitting issues).

- In 2019, FPL continued with its 3-year Storm Secure Underground Program Pilot (“The Pilot”), which was initiated as a result of lessons learned from Hurricanes Matthew and Irma. The Pilot targets certain overhead laterals (i.e., laterals impacted by recent storms and with a history of vegetation related outages and other reliability issues). To date, 35 laterals have been converted from overhead to underground. Of the remaining 117 laterals in the 2019 plan, 103 are scheduled to be completed between 2020 and 2022, 6 are in pre-construction stage, 7 are delayed due to customer negotiations and 1 lateral was removed and replaced by a feeder as part of area re-development.

- FPL also continued to promote and execute municipal overhead-to-underground conversions in 2019. One municipality signed an agreement under FPL’s Governmental Adjustment Factor (“GAF”) tariff and moved forward with their project. There were also 15 municipal requests for non-binding/order of magnitude estimates for potential overhead-to-underground conversions during 2019.

Transmission

Storm hardening details for Transmission are provided in Storm Preparedness Initiative No. 4 (see below).

Storm Preparedness Initiatives

(1) Vegetation Trim Cycles – In 2019, FPL continued execution of its three-year average cycle and mid-cycle programs for feeders and its six-year average trim cycle for laterals.

(2) Joint Use Audits – Approximately 20 percent of FPL’s jointly used poles are audited annually through its joint use surveys. Additionally, joint use poles are inspected through FPL’s Pole Inspection Program. Survey and inspection results continue to show that through FPL’s joint use processes and procedures, along with cooperation from joint pole owners and third-party attachers, FPL has properly identified and accounted for the joint use facilities on its system.

(3) Transmission Structure Inspection Cycle – In 2019, FPL completed 100% of its planned inspection of transmission poles/structures. FPL completed ground-level visual inspections on 100% of its transmission poles/structures, 100% of the planned climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle, bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures and pre-construction mitigation patrols on all associated transmission poles.

(4) Hardening the Transmission System – In 2019, FPL continued execution of its plan to replace all wood transmission structures in its system. At year-end 2019, 96% of FPL's total transmission structures were steel or concrete.

(5) Distribution Geographic Information System ("GIS") – FPL completed its five originally approved key Distribution GIS improvement initiatives in 2011. These initiatives included developing a post-hurricane forensic analysis tool and the addition of poles, streetlights, joint use survey and hardening level data to the GIS. Updates to the GIS continue as data is collected through inspection cycles and other normal daily work activities.

(6) Post-Storm Forensic Collection/Analysis – FPL has post-storm forensic data collection and analysis plans, systems and processes in place and available for use. In 2019, while no major storm made landfall in FPL's territory, Hurricane Dorian's wind bands did impact areas in FPL's territory. The post storm forensics analysis results for Hurricane Dorian indicate that hardened feeders performed better than non-hardened feeders and no feeder poles came down during the storm, resulting in a faster restoration effort.

(7) OH and UG Storm Performance – FPL has plans, systems and processes in place to capture OH and UG storm performance. The forensics analysis results related to Hurricane Dorian's wind bands indicate that underground performed better than overhead in both feeders and laterals. Vegetation was the primary cause of outages.

(8) Increased Coordination with Local Governments – In 2019, FPL continued its efforts to improve local government coordination. Activities included: (1) meetings with county emergency operations managers to discuss and identify critical infrastructure function locations in each jurisdiction as identified by the local government; (2) invitations to federal and state emergency management personnel to participate in FPL's annual company-wide storm preparedness dry run; (3) improved communication tools, based on input from local governmental officials, have been implemented to provide additional information to those officials during emergency events to better coordinate restoration efforts; and (4) FPL's External affairs ("EA") managers made presentations to educate communities served by FPL on topics of interest including service reliability, energy conservation, storm readiness and power generation. These presentations help address the informational needs of local community-based organizations. EA managers provided over 900 community presentations in 2019.

(9) Collaborative Research on Hurricanes/Storm Surge – Collaborative research efforts led by the Public Utility Research Center ("PURC") continued and the fourth extension of the MOU (through 2020) was approved.

(10) Natural Disaster Preparedness/Recovery Plans – FPL's Storm Emergency Plan identifies emergency conditions and the responsibilities and duties of the FPL

emergency response organization for natural disasters, such as severe weather and fires. The plan covers the emergency organization, roles and responsibilities and FPL's overall severe storm emergency processes. These processes describe the planning activities, restoration practices, public communications and coordination with government, training, practice exercises and lessons-learned evaluation systems. The plan is reviewed annually and revised as necessary.

2020 Storm Season Readiness

FPL's comprehensive storm plan focuses on readiness, restoration and recovery in order to respond safely and as quickly as possible in the event the electrical infrastructure is damaged by a storm. FPL is well-prepared for the 2020 storm season and continues to train and hone its storm preparedness and response capabilities.

In addition to the initiatives to strengthen its system and improve storm preparedness discussed previously, FPL will complete the following additional storm preparedness activities prior to the start of the 2020 storm season:

- Extensive storm restoration training based on employees' storm roles including nine Incident Management Team Workshops throughout our service area;
- Annual company-wide hurricane dry run in early May;
- Management workshops throughout the storm season to keep focus on key storm restoration policies/processes;
- Plans for and review of mutual assistance agreements to ensure they are adequate and ready;
- Continue to focus on improving outage communications and estimated restoration times to customers;
- Clear vegetation from all feeder circuits serving critical infrastructure functions (e.g. CIF hospitals, 911 centers, police and fire stations, etc.) prior to the peak of hurricane season;
- Continue development and utilization of new technology to be utilized by storm damage assessors to improve damage assessment collection/analysis capabilities, including the use of drones to perform equipment assessments in difficult to access facilities; and
- Participate in industry conferences to share best practices from the previous storm seasons across utility companies.

Section 2: RELIABILITY

Total FPL System (Distribution and Transmission) – Overall reliability is best gauged by SAIDI, the most relevant and best overall reliability indicator because it encompasses two other standard industry performance metrics for reliability: SAIFI System Average Interruption Frequency Index ("SAIFI") and Customer Average Interruption Duration Index ("CAIDI"). In 2019, FPL continued to provide excellent overall reliability for its customers, achieving a best-ever total FPL T&D system adjusted SAIDI of 51.4 minutes (2018 – 54.8 minutes). Additionally, FPL achieved a best-ever FPL T&D system adjusted Momentary Average Interruption Frequency Index events ("MAIFIe") of 3.8 momentary events (2018 – 4.6 momentary events).

Distribution – FPL's 2019 overall adjusted distribution reliability results were: SAIDI, a best-ever 49.4 minutes (2018 – 53.2); SAIFI, a best-ever 0.82 interruptions per customer (2018 – 0.89 interruptions); CAIDI, 60.3 minutes (2018 – 60.0 minutes) and a best-ever adjusted MAIFIe, 3.2 momentary events (2018 – 4.0 momentary events).

Transmission – In 2019, FPL's Transmission/Substation adjusted reliability results were: SAIDI, 2.0 minutes (2018 – 1.6 minutes); SAIFI, a best-ever 0.13 interruptions per customer (2018 – 0.13 interruptions); and MAIFIe, 0.6 momentary events (2018 – 0.6 momentary events).

POLE INSPECTIONS

Summary – Pole Inspections

Distribution

In 2019, consistent with its FPSC-approved plan, FPL completed the sixth year of its second eight-year pole inspection cycle.

- In 2019, FPL inspected approximately 1/8 of its pole population, or 149,783 poles, including 129,563 wood poles, and completed all remaining follow-up work identified during the 2018 pole inspections, with the exception of a few projects that are delayed as a result of issues beyond FPL's control.

- In 2020, FPL plans to complete inspections on approximately 1/8 of its pole population, as well as complete all remaining follow-up work identified during the 2019 pole inspections.

Transmission

In 2019, FPL completed all transmission pole/structure inspections consistent with its FPSC-approved plan.

- In 2019, FPL completed 100% of its planned inspection of transmission poles/structures. FPL completed ground-level visual inspections on 100% of its transmission poles/structures, 100% of the planned climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle, bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures and pre-construction mitigation patrols on all associated transmission poles/structures. FPL also completed follow-up work resulting from the 2018 inspections.

- In 2020, FPL plans to perform ground-level visual inspections on 100% of its transmission poles/structures, climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle and bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures. FPL also plans to complete all follow-up work identified from the 2019 inspections.

Distribution

1. Description of the Pole Inspection Program

FPL's eight-year inspection cycle for all distribution poles targets approximately 1/8 of the system annually; however, the actual number of poles inspected can vary somewhat from year to year. To ensure coverage throughout its service territory, FPL

has established nine inspection zones, based on FPL's management areas and pole population, and annually performs pole inspections and necessary remediation in each of these zones.

FPL utilizes Osmose Utility Services ("Osmose"), an industry-leading pole inspection company, to perform the inspection of all distribution poles in its service territory. Osmose utilizes mobile computing technology to record inspection data and to calculate strength and loading. The loading calculation, span lengths, attachment heights and wire sizes are recorded in the mobile computer to determine whether the remaining pole strength capacity exceeds National Electrical Safety Code ("NESC") requirements. This data is then transferred to FPL's GIS. Pole locations inspected by Osmose are randomly audited by FPL to verify that inspections are completed and meet inspection standards.

Inspections include a visual inspection of all distribution poles from the ground-line to the top of the pole to identify visual defects (e.g., woodpecker holes, split tops, decayed tops, cracks, etc.). If, due to the severity of the defects, the poles are not suited for continued service, the poles are designated for replacement. With the exception of Chromium Copper Arsenate treated ("CCA") poles less than 16 years of age (modified in October 2014, see discussion below), if the pole passes the above-ground visual inspection, wood poles are excavated to a depth of 18" (where applicable), and sounded and bored to determine the internal condition of the pole. Poles encased in concrete or asphalt are not excavated but sounded and bored to determine their internal condition. Osmose developed and utilizes an inspection process for this condition called "Shell Boring". All suitable wood poles receive external and/or internal preservative treatment or, if not suitable, are replaced. Strength calculations are also performed on wood poles to determine compliance with NESC requirements.

CCA poles less than 16 years (modified in October 2014, see discussion below) of age are subject to a visual, sound and selective bore inspection, but not excavation. A bore inspection is performed if there is any decay indicated from the visual or sound inspection. To ensure that this exception will not compromise existing safety and storm hardening programs, FPL excavates a one percent sample of the CCA poles that would not normally qualify for full excavation.

In October 2014, the FPSC approved FPL's request to modify its Pole Inspection Program by: (1) increasing the excavation exemption for CCA poles from less than 16 years old to less than 28 years old; and (2) exempting any pole from a loading assessment, during the second eight-year cycle, that tested less than 80% of full load during FPL's initial 8-year cycle. FPL will continue to conduct a one percent sample of exempted CCA poles and will monitor and report on poles with a 70%-80% initial eight-year cycle load test result.

Current NESC guidelines, outlined by Table 261-1A Section 26 of the NESC, require that distribution poles meet a minimum of Grade C construction. Building to Grade C

is the typical standard for the distribution utility industry. However, FPL's strength and loading calculations for its distribution poles and pole inspections are based on the NESC's Grade B construction standard, a higher standard, as outlined by Table 261-1A section 26 of the NESC.

2. 2019 Accomplishments

In 2019, FPL inspected approximately 1/8 of its distribution pole population (149,783 in total, including 129,563 wood poles) throughout its service territory.

Consistent with its Commission-approved exemption, FPL also fully excavated a one percent sample of the CCA poles that would not have been fully excavated under this exemption. From that sample, zero poles failed the excavation portion of the inspection. FPL also met its sample target on poles with a 70%-80% initial eight-year cycle load test result. For 2019, FPL's distribution Pole Inspection Program costs were approximately $51 million, including inspection and remediation costs for wood and concrete poles.

3. 2020 Plan

FPL's 2020 distribution pole inspection plan includes the inspection of approximately 1/8 of its pole population. FPL will also inspect CCA poles and perform load assessment tests, consistent with its recently approved exemptions and monitoring/sampling requirements.

The estimated cost for the 2020 distribution Pole Inspection Program is $50 - $60 million, including inspection and remediation costs for wood and concrete poles.

4. NESC compliance for strength and structural integrity

The following methods are used by FPL's vendor to determine NESC compliance for strength and structural integrity of FPL's poles.

Strength Assessment
On wood distribution poles, a strength assessment is performed to determine compliance to the NESC standards for strength. The strength assessment is based on a comparison of measured circumference versus original circumference of the pole. The effective circumference is measured and data collected to ensure that the actual condition of the pole meets NESC Grade B requirements as outlined in Table 261-1A Section 26 of the NESC. If the pole does not meet the Grade B NESC requirements, the pole will be reinforced or replaced.

Loading Assessment
On all distribution poles, a loading assessment is also performed and includes a combination of field measurements, span length, attachment heights (including third-

party attachments) and wire sizes based on FPL construction standards. If NESC requirements are not met, the pole will be reinforced, replaced or the attachments will be relocated. As noted earlier, in October 2014, the FPSC approved FPL's request to modify its Pole Inspection Program by providing an exemption from performing a load assessment during the second eight-year cycle on any pole which tested less than 80% of full loading during FPL's initial 8-year cycle.

5. Summary data and results of 2019 pole inspections

Florida Power and Light
Annual Wood Pole Inspection Report
(Reporting Year 2019)
(Cycle Year 6 of 8)

a	b	c	d	e	f	g	h	i	j	k	l	m
Total # of Wooden Poles in the Company Inventory	# of Pole Inspections Planned this Reporting Year	# of Poles Actually Inspected this Reporting Year	# of Poles Failing Inspection this Reporting Year	Pole Failure Rate (%) this Reporting Year	# of Poles Designated for Replacement this Reporting Year	Total # of Poles Replaced this Reporting Year	# of Poles Requiring Minor Follow-up this Reporting Year	# of Poles Overloaded this Reporting Year	Method(s) V = Visual E = Excavation P= Prod S = Sound B= Bore R = Resistograph	# of Pole Inspections Planned for Next Reporting Year	Total # of Poles Inspected (Cumulative-to-Date) in the Current 8-Year Cycle	% of Poles Inspected (Cumulative-to-Date) in the Current 8-Year Cycle
1,075,419 (1)	124,915	129,563	Grade B & C 5,345	4.1	Grade B & C 2,446	Grade B & C 2,446	2,899	2,432	V, E, S, B	124,915	776,509 (1)	72.2 (1)

If b - c > 0, provide explanation	FPL exceeded its planned 2019 wood pole inspections, total pole inspections (Wood + Concrete) cycle to date is slightly ahead of schedule (76.78% vs 75%). Program aims to inspect approximately 1/8 of all wood and concrete poles each year; pole inspection counts will vary from year to year. Cycle to date Total Inspections: 891,297 / 1,160,848 = 76.78%
If d - g > 0, provide explanation	Grade B & C poles failing >poles replaced due to: - Of the 5,345 wood poles failing inspection in the 2019, 2,899 are reinforcement (not replacement) candidates. 2,728 poles were reinforced in 2019, including 2,321 poles from the 2019 inspection cycle and 407 poles from the 2018 inspection cycle. Remaining reinforcement candidates from the 2019 Inspection Cycle will be reinforced during 2020. - 2,377 poles, including concrete, were replaced from the 2018 inspection cycle with any remaining to be replaced pending permitting. Replacement candidates identified during the 2019 Inspection Cycle will be replaced during 2020.
Description of selection criteria for inspections	Inspections within FPL's nine established inspection zones are prioritized using inputs such as critical infrastructure facility (CIF) customers (E.G., hospitals, 911 centers, etc.), and reliability performace.

(1) FPL began its second 8-year inspection cycle in January 2014, at which time there were approx. 1,160,848 total distribution poles in the system, 1,075,419 of which were wood. FPL continues to inspect approx. 1/8 of the total population in each year of the cycle.

As previously discussed, poles are remediated if they do not meet the higher NESC Grade B requirement. Remediation is categorized into two groups (Level 1 and Level 2) in order to allow for more effective scheduling and resource allocation.

Level 1 – This group of remediation requires more immediate attention. Urgent needs are addressed immediately.

Level 2 - Remediation that does not require immediate attention.

6. The cause(s) of each pole failure for poles failing inspections, to the extent that such cause(s) can be discerned in the inspection. Also, the specific actions the company has taken or will take to correct each pole failure.

The table below provides a summary of the wood pole inspection findings for the poles identified as poles requiring remediation.

Inspection Type	Remediation Type	NESC Min. (Grade C)	FPL Requirement (Grade B - Higher Standard)	Total Wood Remediation	Primary Cause(s)	Remediation Options
Visual	Restorable	0	n/a	0	N/A	Pole to be strengthened by installing C-Truss
	Non-Restorable	44	n/a	44	Decayed/Split Top, Cracks	Pole to be replaced with new pole.
Strength	Restorable	171	1,682	1,853	Shell Rot	Pole to be strengthened by installing C-Truss
	Non-Restorable	90	926	1,016	Decayed/Split Top, Woodpecker Holes, Shell Rot	Pole to be replaced with new pole.
Loading	Restorable	0	1,046	1,046	Overloaded	Pole to be strengthened by installing ET Truss
	Non-Restorable	32	1,354	1,386	Overloaded	Pole will be evaluated to determine the most cost effective method to address the overloading. Options are: 1. Install intermediate pole(s). 2. Replace pole with a stronger class pole.

Transmission

7. Description of Pole Inspection Program

Consistent with its approved inspection plans, FPL performs annual ground level visual inspections on 100% of its transmission poles/structures – wood, concrete and steel. FPL also performs climbing or bucket truck inspections on all of its transmission poles/structures on a cyclical basis. In addition to the poles/structures being inspected, the condition of various transmission pole/structure components are assessed, including attachments, insulators, cross-arms, cross-braces, foundations, bolts, conductors, overhead ground wires ("OHGW"), guy wires, anchors, and bonding. An overview of FPL's transmission pole/structure inspection procedures are outlined below:

Wood Poles/Structures

Annually, FPL performs ground level visual inspections on 100% of its wood transmission poles/structures, inspecting from the ground-line to the pole top. The visual inspection includes a review of the pole's/structure's condition as well as pole attachment conditions. If a wood transmission pole/structure does not pass visual inspection, it is not tested any further and it is designated for replacement with concrete or steel transmission pole/structure.

FPL also performs a climbing or bucket truck inspection on all wood transmission poles/structures on a six-year cycle. If a wood pole/structure passes this visual inspection, a sounding test is then performed. If the result of a sounding test warrants further investigation, the wood pole/structure is bored to determine the

internal condition of the pole. All bored poles, not designated for replacement, are treated with an appropriate preservative treatment.

Concrete and Steel Poles/Structures

Annually, FPL performs ground level visual inspections on 100% of its concrete and steel transmission poles/structures. The inspection incorporates an overall assessment of the pole/structure condition (e.g., cracks, chips, exposed rebar, and rust) as well as other pole/structure components including the foundation, all attachments, insulators, guys, cross-braces, cross-arms, and bolts. If a concrete or steel pole/structure fails the inspection, the pole/structure is designated for repair or replacement.

From 2006-2013, FPL performed a climbing or bucket truck inspection on all concrete and steel transmission poles/structures on a six-year cycle. From 2014 to present, FPL performed ground-level visual inspections on 100% of its concrete and steel transmission poles/structures and bucket truck inspections on approximately 1/10 of its concrete and steel poles.

8. 2019 Accomplishments

In 2019, FPL completed 100% of its planned inspection of transmission poles/structures. FPL completed ground-level visual inspections on 100% of its transmission poles/structures, 100% of the planned climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle, bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures and pre-construction mitigation patrols on all associated transmission poles/structures. For 2019, the cost for FPL's transmission pole/structures inspections program and follow-up work identified from the 2018 inspections was approximately $52 million.

9. 2020 Plan

In 2020, the estimated cost for the transmission pole/structure inspections program and follow-up work identified from the 2019 inspections is approximately $36 million.

10. NESC compliance for strength and structural integrity

The following methods are used during pole/structure inspections for determining NESC strength and structural integrity compliance:

Strength Assessment

For wood transmission poles/structures, the strength assessment is based upon a comparison of measured circumference versus the original circumference of the pole. If the effective circumference is measured and the actual condition of the pole does not meet NESC requirements as outlined in Table 261-1A Section 26 of the NESC, the pole is designated for reinforcement or replacement with concrete or steel transmission pole/structure.

Loading Assessment

FPL performs a loading assessment on wood transmission poles/structures with 3rd party attachments. This assessment is based on a combination of pole/structure length, framing configuration, span length, attachment heights (including 3rd party attachments) and conductor size. If the loading does not meet NESC requirements, the pole is designated for reinforcement, replacement or relocation of the third-party attachments.

11. Explanation of the inspected pole selection criteria

FPL prioritizes its transmission pole/structure inspections based on factors such as framing configuration (structural loading), transmission components, system importance, customer count, and inspection history for a transmission line section. Other economic efficiencies, such as multiple transmission line sections within the same corridor, are also considered.

12. Inspection Summary Data for the Previous Year

Summarized in the following sections are the 2019 inspection results and causes by transmission pole/structure materials:

Wood Transmission Poles/Structures

FPL's 2019 results from its six-year cyclical wood transmission pole/structure inspections are in the table, below. In addition, FPL performed its annual ground level visual inspections on 100% of its wood poles/structures.

Florida Power & Light Company Annual Wood Pole Inspection Report (Reporting Year 2019)												
a	b	c	d	e	f	g	h	i	j	k	l	m
Total # of Wooden Poles in the Company Inventory as of 01-2019	# of Wood Pole Inspection Planned this Annual Inspection	# of Wood Poles Inspected this Annual Inspection	# of Poles Failing Inspection this Annual Inspection	Pole Failure Rate (%) this Annual Inspection	# of Wood Poles Designated for Replacement this Annual Inspection	Total # of Wood Poles Replaced this Annual Inspection	# of Poles requiring Minor Follow-up this Annual Inspection	# of Poles Overloaded this Annual Inspection	Method(s) V=Visual E=Excavation P=Prod S=Sound B=Bore R= Resistograph	# of Wood Pole Inspections Planned for Next Annual Inspection Cycle	Total # of Wood Poles Inspected (Cumulative) in the 6-Year Cycle to Date	% of Wood Poles Inspeted (Cumulative) in the 6-Year Cycle to Date
4,874	433	432	305	70.6%	345	1,986	n/a	0	V / P / S / B	42	2,535	52%
If b - c > 0, provide explanation		1 pole that was identified as wood for the 2019 inspection cycle was changed out to concrete in 2019.										
If d - g > 0, provide explanation												
Description of selection criteria for inspections		FPL prioritizes its inspections based on factors such as: framing configuration (structural loading), transmission components, system importance, customer count, and inspection history for a transmission line section. Other economic efficiencies, such as multiple transmission line sections within the same corridor, are also considered.										

* Column G represents the total number of transmission poles/structures replaced not only through its inspection program, but also from relocations, proactive rebuilds and system expansion.

Concrete and Steel Transmission Structures

In 2019, FPL completed ground-level visual inspections on 100% of its transmission poles/structures and bucket truck inspections were completed on approximately 1/10 of its concrete and steel poles/structures The table below provides FPL's 2019 concrete and steel transmission pole/structure inspection results.

POLE INSPECTION REPORT Company: Florida Power & Light Summary of Concrete & Steel Transmission Pole Inspections Period: January 2019 thru December 2019			
Type of Inspection:		Concrete & Steel Transmission Structures Visual / Bucket	
Type of Pole:			
	Average Class:	Varies	
	Materials	Concrete & Steel	
	Average Vintage	2003	
	Installed Population as of 1/1/2019	62,945	
		% Planned	% Completed
Percent Inspections Planned & Percent Completed:		100%	100%
Reason for Variance/Plan to Address Backlog:			
No. of inspected poles addressing a prior backlog		0	0
		No. of Structures	% of Inspection
No. of structures identified for reinforcement:		0	0.0%
No. of poles identified for replacement:		23	0.04%
No. of structures identified for a change inspection cycle::		n/a	n/a
No. of structures that required no change in inspection cycle or remediation		62,922	99.96%
No. of structures identified as overloaded		0	0.0%

13. Identified Inspection Items (by Cause)

Summarized below are the cause(s) of the identified transmission pole/structure inspection failures along with specific actions that have or will be taken for each level of priority.

Wood Transmission Structures

Wood Transmission Structures					
Inspection Item	**Level 1**	**Level 2**	**Non-Priority**	**Primary Cause(s)**	**Remediation**
Ground-Line	30	24	109	Decay, Rot, Insects, Voids	Level 1 - Reinforce, Remediate, or Replace in year found Level 2 - Reinforce, Remediate, or Replace the following year Non-Priority – No action required
Above Ground-Line	107	144	161	Wood-Pecker Holes, Decay, Insects	
Overload (3rd Party)	0	0	0	3rd Party Attachments	
Total	137	168	270	Refer to the Above	

To help prioritize and to better plan for future years, FPL has established the following priority levels of inspection reporting:

Level 1 Priority - Identified as approaching the minimum NESC requirements for Grade B construction with the potential to fall below the minimum before the end of the current year. These poles/structures are incorporated into current year work plans for reinforcement, remediation, or replacement with concrete or steel transmission pole/structure. The timeframe for completion is typically driven by customer provided access to the facilities and the coordination of a scheduled outage with other facility clearances scheduled on the grid.

Level 2 Priority - Identified as approaching the minimum NESC requirements for Grade B construction but will not fall below the minimum prior to the end of the following year. These poles/structures are identified for reinforcement, remediation, or replacement with concrete or steel transmission pole/structure as planned work by the end of the calendar year following inspection.

Non-priority – Identified as having reduction in capacity, but still above the minimum NESC requirements. When reported, these structures are documented but do not require specific action until the next inspection.

Concrete & Steel Transmission Structures

Concrete & Steel Transmission Structures					
Inspection Item	**Level 1**	**Level 2**	**Non-Priority**	**Primary Cause(s)**	**Remediation**
Base of Pole (Identified for Replacement)	8	15	5,411	Corrosion / Cracks	Level 1 - Reinforce, Remediate, or Replace in year found
Base of Pole (Identified for Repair)	0	0	0	Cracks	Level 2 - Reinforce, Remediate, or Replace the following year
Total	8	15	5,411	Refer to the Above	Non-Priority – No action required

To help prioritize and to better plan for future years, FPL has established the following priority levels of inspection reporting:

Level 1 Priority - Identified as approaching the minimum NESC requirements for Grade B construction with the potential to fall below the minimum before the end of the current year. These poles/structures are incorporated into current year work plans for reinforcement, remediation, or replacement with concrete or steel transmission pole/structure. The timeframe for completion is typically driven by customer provided access to the facilities and the coordination of a scheduled outage with other facility clearances scheduled on the grid.

Level 2 Priority - Identified as approaching the minimum NESC requirements for Grade B construction and will not fall below the minimum prior to the end of the following year. These poles/structures are identified for reinforcement, remediation, or replacement with concrete or steel transmission pole/structure as planned work by the end of the calendar year following inspection.

Non-priority – Identified as having structural deterioration, but still meets all of the NESC strength requirements. When reported, these structures are documented but do not require specific action until the next inspection.

SYSTEM HARDENING

System Hardening

Distribution

Consistent with FPL's FPSC-approved 2019–2021 Electric Infrastructure Storm Hardening Plan (see Order PSC-2019-0301-PAA--EI in Docket No. 20180144-EI), FPL continued to implement its three-prong approach in 2019 by applying: (1) extreme wind loading criteria ("EWL") to critical infrastructure functions ("CIF"); (2) incremental hardening, up to and including EWL, to "Community Project" feeders; and (3) construction design guidelines that require EWL for the design and construction of all new overhead facilities, major planned work and relocation projects. Additionally, FPL continued with its next phase of feeder hardening, which addresses the remaining feeders in its system by targeting current feeders that do not meet EWL criteria (referred to as "wind zone" feeders). FPL also continued with its three-year Storm Secure Underground Program Pilot, which runs from 2018-2020 and converts targeted laterals that are most vulnerable to vegetation related outages during storms from overhead to underground.

- In 2019, FPL continued with its efforts to complete the hardening of all remaining non-hardened/non-underground feeders; and reached the important milestone of having hardened or placed underground 50% of FPL feeders. In total, FPL completed hardening 230 feeders (94 – 2019 Plan plus 136 – prior years' plans). Of the remaining 218 feeders in the 2019 plan, hardening of 209 feeders are in-progress, 5 have been deferred due to permitting issues, and 4 have been placed on hold due to requests for OH-UG conversions. Also, FPL's Design Guidelines were applied to all new construction and other construction activities described above. As of 2/28/20, FPL has hardened 99% of all CIF and "Community Project" feeders in its system, with the exception of a few projects that are delayed as a result of issues beyond FPL's control (e.g., pending municipal Overhead "OH" to Underground "UG" conversions projects, FDOT roadway projects, permitting issues).

- In 2019, FPL continued with its 3-year Storm Secure Underground Program Pilot ("The Pilot"), which was initiated as a result of lessons learned from Hurricanes Matthew and Irma. The Pilot targets certain overhead laterals (i.e., laterals impacted by recent storms and with a history of vegetation related outages and other reliability issues). To date, 35 laterals have been converted from overhead to underground. Of the remaining 117 laterals in the 2019 plan, 103 are scheduled to be completed between 2020 and 2022, 6 are in pre-construction stage, 7 are delayed due to customer negotiations and 1 lateral was removed and replaced by a feeder as part of area re-development.

- FPL also continued to promote and execute municipal overhead-to-underground conversions in 2019. One municipality signed an agreement under FPL's GAF tariff and moved forward with their project. There were also

15 municipal requests for non-binding/order of magnitude estimates for potential overhead-to-underground conversions during 2019.

Distribution

1. **Describe each Storm Hardening activity undertaken in the field during 2019.**

2019 Feeder Hardening Plan

	County	Feeder #	Substation	Address	Status
1	Palm Beach	408864	ABERDEEN	7520 S Jog Rd	to complete in 2020
2	Palm Beach	408865	ABERDEEN	7520 S Jog Rd	to complete in 2020
3	Miami-Dade	802631	AIRPORT	691 Lee Dr	to complete in 2020
4	Palm Beach	408564	ALEXANDER	15955 Assembly Loop	to complete in 2020
5	Lee	504762	ALVA	2840 Joel Blvd	to complete in 2020
6	Brevard	210532	APOLLO	451 N Apollo Blvd	to complete in 2020
7	De Soto	501432	ARCADIA	100 W Cypress St	to complete in 2020
8	Miami-Dade	802833	ARCH CREEK	12681 NE 14th Ave	to complete in 2021
9	Palm Beach	403236	ATLANTIC	901 Glades Rd	to complete in 2020
10	Sarasota	505762	AUBURN	2235 Venice Ave	to complete in 2020
11	Brevard	204265	BABCOCK	6290 Babcock St SE	to complete in 2020
12	Miami-Dade	812161	BEACON	10750 NW 21st St	to complete in 2020
13	Palm Beach	405340	BEELINE	5101 Bee Line Hwy	to complete in 2020
14	Palm Beach	405335	BEELINE	5101 Bee Line Hwy	to complete in 2020
15	Palm Beach	402538	BELVEDERE	1210 Omar Rd	to complete in 2020
16	Sarasota	504136	BENEVA	4080 Beneva Rd S	to complete in 2020
17	Broward	700837	BEVERLY	6201 Washington St	to complete in 2020
18	Miami-Dade	806936	BIRD	6101 SW 40th St	to complete in 2020
19	Miami-Dade	801834	BISCAYNE	12635 NW 5th Ave	to complete in 2020
20	Miami-Dade	810432	BLUE LAGOON	5590 NW 6th St	to complete in 2020
21	Palm Beach	400738	BOCA RATON	301 W Palmetto Park Rd	complete
22	Palm Beach	400740	BOCA RATON	301 W Palmetto Park Rd	complete
23	Palm Beach	404232	BOCA TEECA	675 Clint Moore Rd	to complete in 2020
24	Lee	502165	BONITA SPRINGS	9491 Bonita Beach Rd	on hold - oh/ug conversion
25	Lee	502168	BONITA SPRINGS	9491 Bonita Beach Rd	to complete in 2020
26	Miami-Dade	808731	BOULEVARD	11130 NE 14th Ave	to complete in 2020
27	Palm Beach	400539	BOYNTON	951 Old Boynton Rd	to complete in 2020
28	Palm Beach	400531	BOYNTON	951 Old Boynton Rd	to complete in 2020
29	Palm Beach	400534	BOYNTON	951 Old Boynton Rd	complete
30	Manatee	500233	BRADENTON	415 3 Ave East	to complete in 2020
31	Manatee	500235	BRADENTON	415 3 Ave East	to complete in 2020
32	Highlands	401232	BRIGHTON	24001 SR 70 West	complete
33	Collier	504062	CAPRI	7507 Isles Of Capri Rd	to complete in 2020
34	Manatee	504663	CASTLE	5020 E SR 64	to complete in 2020
35	Palm Beach	409763	CATCHMENT	8400 Sandy Cay	to complete in 2020
36	Palm Beach	409764	CATCHMENT	8400 Sandy Cay	to complete in 2020
37	Seminole	200263	CELERY	3881 E SR 46	complete
38	Seminole	207263	CHULUOTA	695 Brumley Rd	to complete in 2020
39	Sarasota	500533	CLARK	5813 S Beneva Rd	to complete in 2020
40	Sarasota	500534	CLARK	5813 S Beneva Rd	complete
41	Brevard	202833	CLEARLAKE	33 Dora Ave	to complete in 2020
42	Brevard	200433	COCOA	616 Florida Ave	complete
43	Miami-Dade	800431	COCONUT GROVE	3701 Bird Rd	to complete in 2021
44	Miami-Dade	800448	COCONUT GROVE	3701 Bird Rd	deferred - permits
45	Seminole	204633	COLLEGE	1050 W Lake Mary Blvd	to complete in 2020
46	Charlotte	508061	COOPER	921 Edmund St	complete
47	Lee	507461	CORKSCREW	12461 Corkscrew Rd	to complete in 2020
48	Manatee	500637	CORTEZ	5001 Cortez Rd West	complete
49	Miami-Dade	805938	COUNTRY CLUB	7275 NW 186th St	to complete in 2020
50	Miami-Dade	804835	COUNTY LINE	21500 NW 7th Ave	to complete in 2021

2019 Feeder Hardening Plan (continued)					
	County	**Feeder #**	**Substation**	**Address**	**Status**
51	Miami-Dade	809662	COURT	SW 127 Ave, North of 144 St	to complete in 2020
52	Miami-Dade	809669	COURT	SW 127 Ave, North of 144 St	complete
53	Brevard	201932	COURTENAY	3310 N Courtenay Pkwy	to complete in 2020
54	Brevard	201936	COURTENAY	3310 N Courtenay Pkwy	complete
55	Martin	408264	COVE	7903 SE Federal Hwy	complete
56	Martin	407162	CRANE	4000 SW Sand Tr	to complete in 2020
57	Broward	707661	CROSSBOW	6550 SW 160th Ave	complete
58	Broward	701532	DANIA	301 SE 5th Ave	to complete in 2020
59	Broward	701533	DANIA	301 SE 5th Ave	to complete in 2020
60	Palm Beach	400234	DATURA ST	515 Datura St	complete
61	Broward	703531	DEERFIELD BEACH	1001 S Deerfield Ave	to complete in 2020
62	Broward	703537	DEERFIELD BEACH	1001 S Deerfield Ave	complete
63	Broward	703541	DEERFIELD BEACH	1001 S Deerfield Ave	complete
64	Palm Beach	406931	DELMAR	22950 Powerline Rd	to complete in 2020
65	Palm Beach	406933	DELMAR	22950 Powerline Rd	complete
66	Palm Beach	405865	DELTRAIL	7000 Via Delray	to complete in 2020
67	Broward	702032	DRIFTWOOD	2800 N University Dr	to complete in 2020
68	Broward	702038	DRIFTWOOD	2800 N University Dr	complete
69	St Lucie	411032	EDEN	3733 SE Jennings Rd	to complete in 2020
70	Volusia	101933	EDGEWATER	901 16th St	complete
71	Broward	702633	ELY	516 NW 3rd Ave	complete
72	Broward	702635	ELY	516 NW 3rd Ave	complete
73	Broward	702638	ELY	516 NW 3rd Ave	complete
74	Broward	702639	ELY	516 NW 3rd Ave	complete
75	Lee	503966	ESTERO	4750 Broadway West	to complete in 2020
76	Miami-Dade	811261	EUREKA	17705 SW 147th Ave	to complete in 2020
77	Broward	700731	FAIRMONT	580 NW 31 AVE	to complete in 2020
78	Broward	704465	FASHION	1650 NE 26th St	complete
79	Indian River	411562	FELLSMERE	11755 CR 512	to complete in 2021
80	Miami-Dade	808064	FLAGAMI	195 SW 92nd Ave	to complete in 2020
81	Flagler	101464	FLAGLER BEACH	4173 E Hwy 100	to complete in 2020
82	Broward	707261	FLAMINGO	4601 Flamingo Rd	complete
83	Miami-Dade	803131	FLORIDA CITY	16100 SW 344th St	to complete in 2021
84	Miami-Dade	803133	FLORIDA CITY	16100 SW 344th St	to complete in 2021
85	Palm Beach	405638	FOUNTAIN	4299 Jog Rd	to complete in 2020
86	Miami-Dade	801136	FRONTON	3795 NW 38th Ave	to complete in 2020
87	Sarasota	501066	FRUITVILLE	611 Bell Rd	to complete in 2020
88	Lee	501136	FT MYERS	1835 Lee St	to complete in 2020
89	Miami-Dade	801435	FULFORD	191 NW 167th St	to complete in 2021
90	Miami-Dade	801433	FULFORD	191 NW 167th St	to complete in 2021
91	Miami-Dade	804139	GARDEN	3801 NW 179 St	to complete in 2021
92	Lee	508461	GATEWAY	10633 Buckingham Rd	complete
93	Lee	508464	GATEWAY	10633 Buckingham Rd	complete
94	Lee	508465	GATEWAY	10633 Buckingham Rd	complete
95	St Johns	108362	GATOR	165 Toms Rd	complete
96	Brevard	101540	GENERAL ELECTRIC	1850 Volusia Ave	to complete in 2020
97	Indian River	412061	GIFFORD	5610 43rd St	complete
98	Lee	507665	GLADIOLUS	15830 Winkler Rd	to complete in 2020
99	Collier	504965	GOLDEN GATE	4001 15th Ave	to complete in 2021
100	Collier	504962	GOLDEN GATE	4001 15th Ave	to complete in 2021

2019 Feeder Hardening Plan (continued)					
	County	**Feeder #**	**Substation**	**Address**	**Status**
101	Miami-Dade	806039	GOLDEN GLADES	16700 NW 19th Ave	to complete in 2020
102	Palm Beach	404134	GOLF	950 SW 23rd Av	to complete in 2020
103	Miami-Dade	802936	GRAPELAND	2731 SW 16th Ter	to complete in 2021
104	Palm Beach	401035	GREENACRES	4101 S Military Tr	to complete in 2020
105	Palm Beach	401033	GREENACRES	4101 S Military Tr	to complete in 2020
106	Miami-Dade	802531	GREYNOLDS	2485 NE 163rd St	to complete in 2020
107	Miami-Dade	802534	GREYNOLDS	2485 NE 163rd St	to complete in 2020
108	Columbia	309462	GUMSWAMP	2229 US Hwy 441	complete
109	Broward	708932	HACIENDA	4900 SW 36th St	to complete in 2020
110	Broward	708933	HACIENDA	4900 SW 36th St	complete
111	Volusia	111133	HALIFAX	810 N Clyde Morris Blvd	complete
112	Charlotte	503764	HARBOR	22505 Hancock Ave	to complete in 2021
113	Brevard	203635	HARRIS	4501 Lipscomb St NE	complete
114	Broward	702935	HAWKINS	7010 W Mcnab Rd	to complete in 2020
115	Broward	702937	HAWKINS	7010 W Mcnab Rd	complete
116	Broward	702939	HAWKINS	7010 W Mcnab Rd	complete
117	Brevard	203532	HIBISCUS	635 S Wickham Rd	to complete in 2020
118	Brevard	203537	HIBISCUS	635 S Wickham Rd	to complete in 2020
119	Brevard	203541	HIBISCUS	635 S Wickham Rd	complete
120	Palm Beach	400436	HILLCREST	4800 Dreher Tr N	to complete in 2020
121	Martin	407333	HILLS	12301 SE County Line Rd	complete
122	Palm Beach	404735	HILLSBORO	840 SW 19th St	to complete in 2020
123	Volusia	101034	HOLLY HILL	405 Walker St	to complete in 2020
124	Volusia	101038	HOLLY HILL	405 Walker St	complete
125	Broward	706165	HOLLYBROOK	10501 Washington St	to complete in 2020
126	Palm Beach	408661	HOMELAND	1113 Windsor Lake Rd	to complete in 2020
127	Palm Beach	408663	HOMELAND	1113 Windsor Lake Rd	to complete in 2021
128	Miami-Dade	803231	HOMESTEAD	28250 SW 122nd Ave	to complete in 2020
129	Sarasota	500437	HYDE PARK	2826 Hyde Park St	to complete in 2020
130	Palm Beach	404335	IBM	950 NW Spanish River Blvd	to complete in 2020
131	Brevard	203232	INDIALANTIC	121 Warren Ave	to complete in 2020
132	Brevard	203233	INDIALANTIC	121 Warren Ave	to complete in 2020
133	Brevard	202033	INDIAN HARBOR	2105 South Patrick Dr	complete
134	Brevard	202133	INDIAN RIVER	980 Cheney Hwy	complete
135	Brevard	202135	INDIAN RIVER	980 Cheney Hwy	complete
136	St Lucie	407462	INDRIO	7777 Indrio Rd	complete
137	Miami-Dade	804633	INDUSTRIAL	6050 NW 37th Ave	to complete in 2020
138	Miami-Dade	810264	INTERNATIONAL	1651 SW 117th Ave	to complete in 2021
139	Lee	501765	IONA	17550 San Carlos Blvd	complete
140	Martin	403431	JENSEN	3600 US Hwy 1	complete
141	Martin	403436	JENSEN	3600 US Hwy 1	to complete in 2020
142	Martin	403438	JENSEN	3600 US Hwy 1	complete
143	Palm Beach	402632	JUNO BEACH	11013 US Hwy 1	to complete in 2020
144	Palm Beach	402638	JUNO BEACH	11013 US Hwy 1	to complete in 2020
145	Palm Beach	401832	JUPITER	100 S Delaware Blvd	to complete in 2020
146	St Johns	104732	KACIE	1200 SR 207	to complete in 2020
147	St Johns	104733	KACIE	1200 SR 207	to complete in 2020
148	Palm Beach	406861	KIMBERLY	11000 Yamato Rd	complete
149	Palm Beach	406867	KIMBERLY	11000 Yamato Rd	to complete in 2020
150	Palm Beach	409531	LAKE IDA	1600 Lake Ida Rd	to complete in 2020

2019 Feeder Hardening Plan (continued)					
	County	**Feeder #**	**Substation**	**Address**	**Status**
151	Palm Beach	403935	LAKE PARK	1216 US Hwy 1	to complete in 2020
152	Miami-Dade	810932	LATIN QUARTER	500 SW 17th Ave	deferred - permits
153	Palm Beach	401935	LINTON	200 NE 2nd Ave	to complete in 2020
154	Palm Beach	401934	LINTON	200 NE 2nd Ave	to complete in 2020
155	Miami-Dade	800635	LITTLE RIVER	520 NW 71st St	to complete in 2021
156	Miami-Dade	800638	LITTLE RIVER	520 NW 71st St	to complete in 2020
157	Suwannee	300632	LIVE OAK	Cooper St & Waterman St	complete
158	Palm Beach	407665	LOXAHATCHEE	200 Flying Cow Ranch Rd	to complete in 2020
159	Brevard	108262	LPGA	2594 LPGA Blvd	complete
160	Broward	701140	LYONS	900 E Mcnab Rd	complete
161	Volusia	102235	MADISON	610 Ranney Ave	complete
162	Volusia	102236	MADISON	610 Ranney Ave	complete
163	Broward	704569	MALLARD	8300 Southgate Blvd	to complete in 2020
164	Miami-Dade	803532	MARKET	2145 NW 14th Ave	deferred - permits
165	Palm Beach	410032	MARYMOUNT	1903 Clint Moore Rd	complete
166	St Johns	102531	MATANZAS	800 State Road 206 E	to complete in 2020
167	Broward	702737	MCARTHUR	2000 NW 51 Ave	to complete in 2020
168	Broward	702739	MCARTHUR	2000 NW 51 Ave	complete
169	Miami-Dade	807232	MERCHANDISE	7255 NW 7th St	to complete in 2020
170	Miami-Dade	807234	MERCHANDISE	7255 NW 7th St	to complete in 2021
171	Lee	506161	METRO	11801 Lacy Lane	to complete in 2020
172	Lee	506163	METRO	11801 Lacy Lane	to complete in 2020
173	Lee	506164	METRO	11801 Lacy Lane	to complete in 2020
174	Palm Beach	403035	MILITARY TRAIL	500 S Military Tr	to complete in 2020
175	Palm Beach	403038	MILITARY TRAIL	500 S Military Tr	to complete in 2020
176	Brevard	202232	MIMS	3528 SR 46	to complete in 2020
177	Brevard	201832	MINUTEMAN	105 S Brevard Ave	complete
178	Martin	408334	MONTEREY	999 SE Ruhnke St	complete
179	Broward	704032	MOTOROLA	7641 W Sunrise Blvd	to complete in 2020
180	Broward	704070	MOTOROLA	7641 W Sunrise Blvd	complete
181	St Johns	104934	MOULTRIE	590 Shores Blvd	complete
182	Charlotte	502067	MURDOCK	2025 Tamiami Tr	to complete in 2020
183	Collier	501240	NAPLES	365 12th St NE	on hold - oh/ug conversion
184	Collier	501239	NAPLES	365 12th St NE	to complete in 2020
185	Miami-Dade	805234	NATOMA	2475 SW 16th Ct	deferred - permits
186	Miami-Dade	810361	NEWTON	15951 SW 42nd St	to complete in 2020
187	Broward	706662	NOBHILL	Broward Blvd E/O Nobhill Rd	complete
188	Broward	706664	NOBHILL	Broward Blvd E/O Nobhill Rd	to complete in 2020
189	Miami-Dade	801033	NORMANDY BEACH	8716 Harding Ave	on hold - oh/ug conversion
190	Palm Beach	400331	NORTHWOOD	960 45th St	to complete in 2020
191	Palm Beach	406231	OAKES	2280 S US Hwy 1	on hold - environmental
192	Palm Beach	406235	OAKES	2280 S US Hwy 1	to complete in 2020
193	Broward	700438	OAKLAND PARK	3790 NE 5th Ave	to complete in 2020
194	Okeechobee	401635	OKEECHOBEE	65 SE 6th Ave	complete
195	Manatee	502932	ONECO	508 53rd Ave W	complete
196	Manatee	502938	ONECO	508 53rd Ave W	to complete in 2020
197	St Johns	101863	ORANGEDALE	3885 County Rd 16-A	to complete in 2020
198	St Johns	101864	ORANGEDALE	3885 County Rd 16-A	to complete in 2020
199	Collier	507365	ORANGETREE	625 24th Ave NW	to complete in 2020
200	Putnam	100433	PALATKA	1807 Twigg St	to complete in 2020

2019 Feeder Hardening Plan (continued)					
	County	**Feeder #**	**Substation**	**Address**	**Status**
201	Brevard	201635	PALM BAY	2197 Franklin Dr NE	to complete in 2020
202	Brevard	201638	PALM BAY	2197 Franklin Dr NE	to complete in 2020
203	Sarasota	508864	PANACEA	2295 Commerce Pkwy	to complete in 2021
204	Sarasota	508861	PANACEA	2295 Commerce Pkwy	to complete in 2021
205	Manatee	505361	PARK	5115 University Pkwy	complete
206	Manatee	505365	PARK	5115 University Pkwy	to complete in 2020
207	Brevard	201134	PATRICK	988 Highway A1A N	to complete in 2020
208	Miami-Dade	804237	PERRINE	18400 SW 107th Ave	to complete in 2020
209	Sarasota	503039	PHILLIPPI	2050 Fiesta St	to complete in 2020
210	Broward	705461	PHOENIX	8401 Southgate Blvd	complete
211	Broward	700331	PINEHURST	2101 SW 9th Ave	to complete in 2020
212	Broward	700332	PINEHURST	2101 SW 9th Ave	to complete in 2020
213	Broward	700338	PINEHURST	2101 SW 9th Ave	to complete in 2020
214	Palm Beach	409962	PINEWOOD	16701 South SR 7	complete
215	Broward	701633	PLANTATION	4900 W Broward Blvd	to complete in 2020
216	Broward	701233	PLAYLAND	4750 SW 42nd Ave	complete
217	Broward	701236	PLAYLAND	4750 SW 42nd Ave	complete
218	St Lucie	410162	PLAZA	1165 NW St. Lucie West Blvd	to complete in 2020
219	Palm Beach	408963	PLUMOSUS	725 Indian Creek Pkwy	to complete in 2020
220	Sarasota	507163	POLO	1700 Lakewood Ranch Blvd	complete
221	Broward	700534	POMPANO	1201 N Powerline Rd	complete
222	St Lucie	405532	PRIMAVISTA	6501 S US Hwy 1	to complete in 2020
223	St Lucie	405536	PRIMAVISTA	6501 S US Hwy 1	complete
224	Miami-Dade	801635	PRINCETON	13089 SW 248 St	to complete in 2021
225	Flagler	110361	PRINGLE	9969 N US Hwy 1	complete
226	Sarasota	505163	PROCTOR	6161 Proctor Rd	to complete in 2020
227	Sarasota	505161	PROCTOR	6161 Proctor Rd	complete
228	Broward	709261	PROGRESSO	1430 Progresso Dr	complete
229	Charlotte	501534	PUNTA GORDA	122 E Charlotte Ave	to complete in 2020
230	Charlotte	501531	PUNTA GORDA	122 E Charlotte Ave	to complete in 2020
231	Palm Beach	404434	PURDY LANE	2200 S Military Tr	to complete in 2020
232	Palm Beach	404432	PURDY LANE	2200 S Military Tr	to complete in 2020
233	Miami-Dade	800832	RAILWAY	523 NW 11th St	deferred - permits
234	Volusia	106533	REED	2455 Carmen Dr	complete
235	Flagler	106361	REGIS	US Hwy 1 & Royal Palms Pkwy	to complete in 2020
236	Broward	703431	RESERVATION	6400 Stirling Rd	to complete in 2020
237	Martin	407033	RIO	1351 NE Savannah Rd	to complete in 2020
238	Martin	407035	RIO	1351 NE Savannah Rd	to complete in 2020
239	Miami-Dade	800537	RIVERSIDE	4632 NW 4th St	to complete in 2020
240	Brevard	203134	ROCKLEDGE	2893 Huntington Ln	complete
241	Palm Beach	406333	ROEBUCK	2385 Saratoga Rd	complete
242	Broward	703035	ROHAN	1750 SW 31st Ave	to complete in 2020
243	Indian River	410761	ROSEDALE	5750 12th St	to complete in 2020
244	Indian River	410762	ROSEDALE	5750 12th St	to complete in 2020
245	Miami-Dade	807036	ROSELAWN	1485 W 37th St	to complete in 2021
246	Miami-Dade	807031	ROSELAWN	1485 W 37th St	complete
247	St Lucie	408763	SABAL	350 NW Enterprise Dr	complete
248	Broward	701036	SAMPLE ROAD	1501 E Sample Rd	complete
249	Broward	701043	SAMPLE ROAD	1501 E Sample Rd	complete
250	Lee	507261	SAN CARLOS	7501 Alico Rd	to complete in 2020

2019 Feeder Hardening Plan (continued)					
	County	**Feeder #**	**Substation**	**Address**	**Status**
251	Putnam	108433	SAN MATEO	380 S Hwy 17	to complete in 2020
252	Sarasota	500132	SARASOTA	1025 Orange Ave N	complete
253	Sarasota	500164	SARASOTA	1025 Orange Ave N	to complete in 2020
254	Brevard	204133	SATELLITE	1403 South Patrick Dr	complete
255	St Lucie	406431	SAVANNAH	9015 US Hwy 1	complete
256	St Lucie	406434	SAVANNAH	9015 US Hwy 1	to complete in 2020
257	Broward	707464	SAWGRASS	14299 NW 8th St	to complete in 2020
258	Indian River	405764	SEBASTIAN	11980 74th Avenue	to complete in 2020
259	Indian River	405761	SEBASTIAN	11980 74th Avenue	to complete in 2020
260	Miami-Dade	808537	SEMINOLA	500 W 21st St	to complete in 2020
261	Broward	700134	SISTRUNK	420 NW 6th Ave	complete
262	Miami-Dade	808434	SNAKE CREEK	3876 NW 203rd St	to complete in 2020
263	Sarasota	504835	SORRENTO	1001 Bay St	complete
264	Palm Beach	403632	SOUTH BAY	400 S US Hwy 27	to complete in 2020
265	Volusia	100937	SOUTH DAYTONA	1601 S Palmetto Ave	complete
266	Miami-Dade	802437	SOUTH MIAMI	5797 SW 68th St	to complete in 2020
267	Martin	410862	SOUTHFORK	9781 SW Pratt-Whitney Rd	to complete in 2020
268	Martin	410863	SOUTHFORK	9781 SW Pratt-Whitney Rd	complete
269	Broward	704667	SPRINGTREE	8801 NW 44th St	complete
270	Volusia	106461	SPRUCE	5831 Airport Rd	to complete in 2020
271	Palm Beach	407731	SQUARE LAKE	9202 Howell Ln	to complete in 2020
272	Palm Beach	407732	SQUARE LAKE	9202 Howell Ln	to complete in 2020
273	Palm Beach	407735	SQUARE LAKE	9202 Howell Ln	to complete in 2020
274	St Johns	100234	ST AUGUSTINE	132 Cedar St	to complete in 2020
275	Broward	701732	STIRLING	3941 Thomas St	to complete in 2020
276	Broward	701739	STIRLING	3941 Thomas St	to complete in 2020
277	Broward	704767	STONEBRIDGE	6600 S Flamingo Rd	to complete in 2020
278	Okeechobee	409362	SWEATT	31500 New 224 St	complete
279	Okeechobee	409363	SWEATT	31500 New 224 St	complete
280	Miami-Dade	809765	SWEETWATER	13655 NW 6th St	to complete in 2020
281	Miami-Dade	809767	SWEETWATER	13655 NW 6th St	to complete in 2020
282	Brevard	201731	SYKES CREEK	970 E Merritt Island Cswy	to complete in 2020
283	Brevard	201735	SYKES CREEK	970 E Merritt Island Cswy	to complete in 2020
284	Palm Beach	402134	TERMINAL	1145 23rd St	to complete in 2020
285	Lee	501832	TICE	10675 SR 80	to complete in 2020
286	Broward	705231	TIMBERLAKE	5300 S University Dr	to complete in 2020
287	Broward	705235	TIMBERLAKE	5300 S University Dr	complete
288	St Johns	107631	TOLOMATO	6040 US Hwy 1	to complete in 2020
289	Sarasota	504534	TUTTLE	2890 8th St	to complete in 2020
290	Broward	707933	TWINLAKES	Powerline Rd & NW 45 Ct	complete
291	Miami-Dade	806338	ULETA	16150 NE Miami Dr	to complete in 2020
292	Broward	706266	VALENCIA	200 SW 130th Ave	to complete in 2020
293	Sarasota	505564	VAMO	1851 Marcia St	to complete in 2020
294	Collier	506761	VANDERBILT	Immokalee Rd & Livingston Rd	to complete in 2020
295	Collier	506763	VANDERBILT	Immokalee Rd & Livingston Rd	complete
296	Collier	506764	VANDERBILT	Immokalee Rd & Livingston Rd	to complete in 2020
297	Sarasota	500337	VENICE	425 Albee Farms Rd	to complete in 2020
298	Broward	700631	VERENA	1401 NE FLAGLER DR	complete
299	Broward	700632	VERENA	1401 NE FLAGLER DR	to complete in 2020
300	Broward	700636	VERENA	1401 NE FLAGLER DR	to complete in 2020

2019 Feeder Hardening Plan (continued)					
	County	**Feeder #**	**Substation**	**Address**	**Status**
301	Manatee	506034	WALKER	9083 5th St West	to complete in 2021
302	Miami-Dade	807832	WESTON VILLAGE	18701 NW 2nd Av	to complete in 2020
303	Palm Beach	404035	WESTWARD	5601 Okeechobee Blvd	to complete in 2020
304	Palm Beach	404034	WESTWARD	5601 Okeechobee Blvd	to complete in 2020
305	Miami-Dade	808333	WHISPERING PINES	8501 SW 198 St	to complete in 2021
306	St Lucie	401431	WHITE CITY	641 W Weatherbee Rd	to complete in 2021
307	Manatee	500832	WHITFIELD	1851 Whitfield Ave	to complete in 2020
308	Manatee	500833	WHITFIELD	1851 Whitfield Ave	to complete in 2020
309	Broward	703235	WOODLANDS	5440 NW 44th St	complete
310	Broward	703237	WOODLANDS	5440 NW 44th St	to complete in 2020
311	Manatee	506965	WOODS	6308 33rd St E	to complete in 2021
312	Nassau	301463	YULEE	40 Harts Road	to complete in 2020

2019 Storm Secure Underground Program ("SSUP")

2019 Storm Secure Undergrounding Program ("SSUP")						
Number	**Region**	**Feeder**	**Substation**	**Franchise**	**Lateral #**	**Status**
1	Broward	706266	VALENCIA	Davie	86576094117	to complete in 2021
2	Broward	704062	MOTOROLA	Sunrise	86782166708	Complete
3	Broward	704062	MOTOROLA	Sunrise	86882756708	Complete
4	Broward	702037	DRIFTWOOD	Hollywood	87072269806	to complete in 2021
5	Broward	701637	PLANTATION	Sunrise	87081485001	to complete in 2020
6	Broward	700839	BEVERLY	Hollywood	87171059300	to complete in 2020
7	Broward	703033	ROHAN	Ft Lauderdale	87278314800	to complete in 2020
8	Broward	703032	ROHAN	Ft Lauderdale	87279901105	to complete in 2021
9	Broward	700840	BEVERLY	Hollywood	87372080015	to complete in 2020
10	Broward	703035	ROHAN	Ft Lauderdale	87378970403	to complete in 2020
11	Broward	703032	ROHAN	Ft Lauderdale	87379460301	to complete in 2020
12	Broward	700732	FAIRMONT	Ft Lauderdale	87379773601	to complete in 2020
13	Broward	700731	FAIRMONT	Ft Lauderdale	87380380308	to complete in 2020
14	Broward	700237	HOLLYWOOD	Hollywood	87471977010	to complete in 2020
15	Broward	703036	ROHAN	Ft Lauderdale	87578007600	to complete in 2020
16	Broward	700337	PINEHURST	Ft Lauderdale	87578292304	to complete in 2020
17	Broward	700133	SISTRUNK	Ft Lauderdale	87579427793	to complete in 2021
18	Broward	700335	PINEHURST	Ft Lauderdale	87579965701	to complete in 2021
19	Broward	700232	HOLLYWOOD	Hollywood	87672656108	to complete in 2020
20	Broward	701534	DANIA	Dania	87674509404	to complete in 2020
21	Broward	705532	SOUTHSIDE	Ft Lauderdale	87679881000	to complete in 2021
22	Broward	704136	MOFFETT	Hollywood	87771429700	to complete in 2020
23	Broward	709263	PROGRESSO	Ft Lauderdale	87780436900	Delayed due to customer negotiations
24	Broward	709263	PROGRESSO	Ft Lauderdale	87782182506	to complete in 2020
25	Broward	701931	HOLY CROSS	Ft Lauderdale	87785280703	Complete
26	Broward	700134	SISTRUNK	Ft Lauderdale	87880082103	to complete in 2020
27	Broward	701937	HOLY CROSS	Ft Lauderdale	87884411802	to complete in 2021
28	Broward	701133	LYONS	Pompano	87887942400	to complete in 2020
29	Broward	701133	LYONS	Pompano	87987096001	to complete in 2020
30	Broward	704463	FASHION	Lighthouse Point	88090153501	to complete in 2021
31	Dade	804138	Garden	Miami Gardens	8-6765-8793-0-1E	Complete
32	Dade	807731	Lemon City	Miami	8-7360-8138-0-2	to complete in 2021
33	Dade	807731	Lemon City	Miami	8-7360-8238-0-8	to complete in 2021
34	Dade	803531	Market	Miami	8-7057-7014-1-7	to complete in 2021
35	Dade	806733	Ives	Miami Gardens	8-7268-3364-1-0	Complete
36	Dade	806533	Suniland	Pinecrest	8-6446-5170-0-3	Delayed due to customer negotiations
37	Dade	804833	County Line	Miami Gardens	8-7269-3120-0-0	to complete in 2020
38	Dade	801436	Fulford	North Miami Beach	8-7366-8370-0-2	to complete in 2020
39	Dade	806535	Suniland	Pinecrest	8-6546-5048-1-3	Complete
40	Dade	806535	Suniland	Pinecrest	8-6546-5448-0-7	to complete in 2021
41	Dade	800436	Coconut Grove	Miami	8-6950-0782-0-6	to complete in 2020
42	Dade	800436	Coconut Grove	Miami	8-6950-2595-0-2	to complete in 2020
43	Dade	800436	Coconut Grove	Miami	8-6950-1991-0-1S	to complete in 2020
44	Dade	807733	Lemon City	Miami	8-7360-2538-0-7	Delayed due to customer negotiations
45	Dade	806337	Uleta	North Miami Beach	8-7465-5458-0-4	2020 Design and Outreach Plan
46	Dade	802034	Cutler	Pinecrest	8-6645-7957-0-7	to complete in 2020
47	Dade	805232	Natoma	Miami	8-7153-1362-0-9	to complete in 2021
48	Dade	800442	Coconut Grove	Miami	8-6850-7176-0-0	Delayed due to customer negotiations
49	Dade	806534	Suniland	Pinecrest	8-6446-3602-0-1	Complete
50	Dade	806535	Suniland	Pinecrest	8-6647-4630-0-1	to complete in 2020

2019 Storm Secure Undergrounding Program ("SSUP") (continued)						
Number	**Region**	**Feeder**	**Substation**	**Franchise**	**Lateral #**	**Status**
51	Dade	806535	Suniland	Pinecrest	8-6646-4956-0-0	to complete in 2020
52	Dade	806535	Suniland	Pinecrest	8-6646-4865-0-3	to complete in 2020
53	Dade	808834	Snapper Creek	Pinecrest	8-6648-1711-0-1	to complete in 2021
54	Dade	808834	Snapper Creek	Pinecrest	8-6547-9188-0-8E	to complete in 2020
55	Dade	806339	Uleta	North Miami Beach	8-7465-8235-0-2E	Complete
56	Dade	807831	Weston Village	Miami Gardens	8-7167-6550-0-9	to complete in 2020
57	Dade	807831	Weston Village	Miami Gardens	8-7167-7050-0-6	to complete in 2021
58	Dade	807835	Weston Village	Miami Gardens	8-7267-3780-0-3N	to complete in 2020
59	Dade	808831	Snapper Creek	Pinecrest	8-6746-0906-0-8	to complete in 2021
60	Dade	806535	Suniland	Pinecrest	8-6647-4625-0-1	to complete in 2020
61	Dade	806334	Uleta	North Miami Beach	87365804500	to complete in 2021
62	Dade	807734	Lemon City	Miami	8-7359-4255-1-9	Pre-Construction
63	Dade	807734	Lemon City	Miami	8-7359-4567-0-8	Pre-Construction
64	Dade	807734	Lemon City	Miami	8-7359-4972-0-0	Pre-Construction
65	Dade	807734	Lemon City	Miami	8-7359-4564-0-6	Pre-Construction
66	Dade	807734	Lemon City	Miami	8-7359-4762-0-2	Pre-Construction
67	Dade	800333	Buena Vista	Miami	8-7258-9415-0-7	to complete in 2021
68	West	504532	TUTTLE	Sarasota	51768423396	Complete
69	West	503569	ALLIGATOR	Collier	76478497109	Complete
70	West	503566	ALLIGATOR	Collier	76782883501	Complete
71	West	504133	BENEVA	Sarasota	51765920658	to complete in 2020
72	West	504133	BENEVA	Sarasota	51864198604	to complete in 2020
73	West	504137	BENEVA	Sarasota	51665326197	to complete in 2021
74	West	500433	HYDE PARK	Sarasota	51666513004S	to complete in 2020
75	West	500434	HYDE PARK	Sarasota	51566334403	Delayed due to customer negotiations
76	West	502834	PAYNE	Sarasota	51370975802	Complete
77	West	502835	PAYNE	Sarasota	51267620707E	to complete in 2021
78	West	505166	PROCTOR	Sarasota	52163301703	Complete
79	West	500134	SARASOTA	Sarasota	51469757803	to complete in 2021
80	West	501232	NAPLES	Naples	76282991108	Delayed due to customer negotiations
81	West	501235	NAPLES	Naples	76283659107	to complete in 2020
82	West	501235	NAPLES	Naples	76283658704	to complete in 2020
83	West	501239	NAPLES	Naples	76280874902	Complete
84	West	501239	NAPLES	Naples	76280848103	to complete in 2021
85	West	504133	BENEVA	Sarasota	51765920607	to complete in 2020
86	West	504133	BENEVA	Sarasota	51765890601	to complete in 2020
87	West	504136	BENEVA	Sarasota	51766223004	to complete in 2020
88	West	504137	BENEVA	Sarasota	51665594205	to complete in 2021
89	West	500535	CLARK	Sarasota	51763642707	Complete
90	West	501063	FRUITVILLE	Sarasota	52067396301	to complete in 2020
91	West	500432	HYDE PARK	Sarasota	51566728509E	to complete in 2020
92	West	500434	HYDE PARK	Sarasota	51566682002E	to complete in 2020
93	West	500437	HYDE PARK	Sarasota	51567321909	to complete in 2020
94	West	504535	TUTTLE	Sarasota	51667089001	to complete in 2020
95	West	502166	BONITA SPRINGS	Bonita Springs	76495315102	to complete in 2021
96	West	502168	BONITA SPRINGS	Bonita Springs	76195274711	to complete in 2020
97	West	501235	NAPLES	Naples	76284640701W	to complete in 2020
98	West	501238	NAPLES	Naples	76383073208	to complete in 2021
99	West	501238	NAPLES	Naples	76283733404	to complete in 2021
100	West	501238	NAPLES	Naples	76283684403	to complete in 2021

2019 Storm Secure Undergrounding Program ("SSUP") (continued)						
Number	**Region**	**Feeder**	**Substation**	**Franchise**	**Lateral #**	**Status**
101	West	501239	NAPLES	Naples	76280838906	to complete in 2021
102	West	503133	SOLANA	Naples	76284980901	to complete in 2020
103	West	506034	WALKER	Bradenton	51180360901E	to complete in 2021
104	West	506034	WALKER	Bradenton	51180622108	to complete in 2020
105	West	506035	WALKER	Bradenton	51179583901	to complete in 2022
106	West	506035	WALKER	Bradenton	51179642508	to complete in 2021
107	West	500538	CLARK	Sarasota	51662856403	to complete in 2020
108	West	503564	ALLIGATOR	Collier	76579016102	to complete in 2022
109	West	504965	GOLDEN GATE	Collier	77084178006	to complete in 2020
110	West	506664	LIVINGSTON	Collier	76582762405	to complete in 2020
111	West	504370	PINE RIDGE	Collier	76289738700E	to complete in 2022
112	West	504370	PINE RIDGE	Collier	76289738700W	to complete in 2022
113	West	507762	RATTLESNAKE	Collier	77178131107	to complete in 2021
114	West	502631	COLONIAL	Fort Myers	55715337206	to complete in 2020
115	West	502631	COLONIAL	Fort Myers	55715464607	to complete in 2020
116	East	404733	HILLSBORO	Boca Raton	87895343609	Complete
117	North	408461	ADAMS	St. Lucie	65874402803	Complete
118	North	408461	ADAMS	St. Lucie	65874411519	Complete
119	East	404531	NORTON	West Palm Beach	68120890405	Delayed due to customer negotiations
120	East	404736	HILLSBORO	Boca Raton	88095571204	Complete
121	East	400736	BOCA RATON	Boca Raton	87896779401	Complete
122	East	403231	ATLANTIC	Boca Raton	87797866309	Complete
123	North	401531	FT PIERCE	St. Lucie	66177242700	Complete
124	North	401764	OLYMPIA	Martin	67351874001	Complete
125	North	200731	COCOA BEACH	Cocoa Beach	48542395202	to complete in 2020
126	East	400435	HILLCREST	West Palm Beach	68120170909	Complete
127	North	404933	PORT SEWALL	Martin	67255685001	Complete
128	North	401531	FT PIERCE	St. Lucie	66176248402	to complete in 2021
129	East	401937	LINTON	Delray Beach	68104016208	to complete in 2020
130	East	404038	WESTWARD	West Palm Beach	67923571007	to complete in 2020
131	North	405534	PRIMAVISTA	St. Lucie	66367956307	Complete
132	North	407462	INDRIO	St. Lucie	65784952701	Complete
133	North	403435	JENSEN	Martin	67061612196	Complete
134	North	401762	OLYMPIA	Martin	67649207405W	Complete
135	East	404732	HILLSBORO	Boca Raton	87895677205	Complete
136	East	401932	LINTON	Delray Beach	68105470450	to complete in 2021
137	East	402637	JUNO BEACH	Palm Beach Gardens	68032237401	to complete in 2021
138	North	202631	HOLLAND PARK	Brevard	48918616507W	to complete in 2021
139	East	400834	PAHOKEE	Pahokee	64231303301	to complete in 2021
140	East	404431	PURDY LANE	Palm Springs	67818236701	to complete in 2020
141	East	405264	ACME	Royal Palm Beach	67120856501	Removed, replaced by feeder *
142	North	208165	HIELD	Palm Bay	47918207707N	Complete
143	East	402838	LANTANA	Boynton Beach	68111218406	to complete in 2021
144	East	402838	LANTANA	Boynton Beach	68111218601	to complete in 2021
145	East	409533	LAKE IDA	Delray Beach	67905214206	to complete in 2020
146	East	401938	LINTON	Delray Beach	68005249607	to complete in 2021
147	North	201532	CITY POINT	Cocoa	47644683508E	to complete in 2020
148	North	204261	BABCOCK	Palm Bay	48313399401	Complete
149	North	201633	PALM BAY	Palm Bay	48718263306	Complete
150	East	404133	GOLF	Boynton Beach	68007666701	to complete in 2020
151	East	402837	LANTANA	Boynton Beach	68011990917	Complete
152	North	401531	FT PIERCE	St. Lucie	66177242700	Complete
* Lateral removed and replaced by feeder as part of area re-development						

Proposed 2020 Plans

FPL's Storm Protection Plan for 2020 – 2029 is currently being finalized and will be filed with the FPSC no later than April 6, 2020.

2. Describe the process used by your Company to identify the location and select the scope of feeder hardening and lateral undergrounding projects.

Upon the completion of CIF and "Community Project" feeders, the 2019 plan primarily focused on the next phase of hardening, which addresses the remaining feeders in FPL's system and targets current feeders that do not meet EWL criteria (referred to as "wind zone" hardening); and substations without any hardened feeders (referred to as "geographic" hardening). These feeders were identified and prioritized by our Operations and Reliability teams by the difficulty to restore, the overall performance of the feeders, as well as coordination with other internal and external projects (e.g. vegetation management, system expansion, road relocations projects, etc.).

For lateral undergrounding, FPL is proposing the selection/prioritization of future laterals to be converted utilizing an overall feeder performance methodology, i.e., rather than selecting individual "stand-alone" laterals, FPL will underground all the laterals on a feeder, so that when a hardened feeder that has experienced an outage is restored, all associated underground laterals would then be hypothetically restored. On average, there are currently 20-30 overhead laterals on a feeder. The selection and prioritization of the laterals to be converted will be based on a methodology that considers: all of the overhead laterals on each feeder; whether the laterals experienced an outage (or outages) during the recent Hurricanes Matthew and Irma; the number of vegetation-related and storm outages experienced over the most recent 10 years; and the total number of lateral outages experienced over the most recent 10 years. Once all of the overhead lateral rankings are summed and totaled for each feeder, the feeders will then be ranked for prioritization of undergrounding associated laterals. In order to optimize resources and provide lateral hardening throughout FPL's system, lateral hardening projects will be performed throughout FPL's management areas.

3. Provide the costs incurred and any quantified expected benefits

Total Distribution hardening costs in 2019 were approximately $643 million. This includes costs associated with completing projects initiated in prior years and excludes the incremental costs related to applying Design Guidelines on new construction, relocation projects and daily work, as these costs are not specifically tracked.

For expected benefits, refer to FPL's filings in Docket Nos. 070301-EI, 100266-EI, 130132-EI, 160021-EI and 160061-EI. Also as provided in FPL 3rd Supplemental amended response to FPSC Staff's First Data Request No. 29 in Docket 2017-0215-EU:

- Based on an FPL analysis, the 40-year net present values of the savings related to storm hardening for Hurricanes Matthew and Irma are significant
    - Without storm hardening, restoration construction man hours for Hurricanes Matthew and Irma would have been higher by 36% and 40%, respectively;
    - Without storm hardening, total days to restore for Hurricanes Matthew and Irma would have been higher by 50% and 40%, respectively; and
    - Without storm hardening, restoration costs for Hurricanes Matthew and Irma would have been greater by 36% and 40%, respectively.

Also, hardened feeders are providing significant day-to-day reliability benefits, as hardened feeders have performed approximately 40% better than non-hardened feeders.

It is also important to note that, in addition to restoration cost savings, customers will benefit substantially, in many direct and indirect ways, from the reduced number and duration of storm and non-storm outages resulting from the planned hardening activities. While FPL understands that the Commission considers these customer benefits to be important, FPL expects that they vary substantially from customer to customer and FPL is not in a position to assign a monetary value to them. Therefore, FPL has not attempted to reflect customer benefits in its quantitative benefit/cost analysis.

Under the Commission's storm hardening rule, the criterion by which the plans are to be judged for approval is whether they meet the desired objectives of enhancing reliability and reducing restoration costs and outage times in a prudent, practical, and cost-effective manner to the affected parties. (see Rule 25-6.0342(2), F.A.C.). FPL's storm hardening plan is highly cost- effective,

at many levels, as it has been and remains focused on targeted hardening activities where the most customers will receive the most benefits as quickly as possible.

4. Discuss any 2020 projected activities and budget levels

FPL's 2020 plans for distribution hardening are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020 – 2029 which is to be filed with the FPSC no later than April 6, 2020.

Transmission

1. Description of Hardening Programs

Please refer to FPL's response to Item 1. – Description of Transmission Hardening Programs, in Initiative 4 of the Storm Preparedness Initiatives section of this filing for a description of FPL's transmission storm hardening initiatives.

2. Method of Selection

Please refer to FPL's response to Item 2. – Method of Selection, in Initiative 4 of the Storm Preparedness Initiatives section of this filing for a description of the method FPL used to determine the selection of each transmission storm hardening initiative.

3. 2019 Accomplishments

Please refer to FPL's response to Item 4. – 2019 Accomplishments, in Initiative 4 of the Storm Preparedness Initiatives section of this filing for a summary of the 2019 accomplishments for the replacement of wood transmission structures.

4. 2020 Plans

Please refer to FPL's response to Item 5. Proposed 2020 Plans, in Initiative 4 of the Storm Preparedness Initiatives section of this filing for a summary of the proposed plans for hardening of wood transmission structures.

STORM PREPAREDNESS INITIATIVES

Summary – Storm Preparation Initiatives

Storm Preparedness Initiatives

(1) Vegetation Trim Cycles – In 2019, FPL continued executing its three-year average cycle and mid-cycle programs for feeders and its six-year average trim cycle for laterals.

(2) Joint Use Audits – Approximately 20 percent of FPL's jointly used poles are audited annually through its joint use surveys. Additionally, joint use poles are inspected through FPL's Pole Inspection Program. Survey and inspection results continue to show that through FPL's joint use processes and procedures, along with cooperation from joint pole owners and third-party attachers, FPL has properly identified and accounted for the joint use facilities on its system.

(3) Transmission Structure Inspection Cycle – In 2019, FPL completed 100% of its planned inspection of transmission poles/structures. FPL completed ground-level visual inspections on 100% of its transmission poles/structures, 100% of the planned climbing or bucket truck inspections on its wood transmission poles/structures in accordance with a six-year inspection cycle, bucket truck inspections on approximately 1/10 of its concrete and steel poles/structures and pre-construction mitigation patrols on all associated transmission poles/structures.

(4) Hardening the Transmission System – In 2019, FPL continued executing its plan to replace all wood transmission structures in its system. At year-end 2019, 96% of FPL's total transmission structures were steel or concrete.

(5) Distribution Geographic Information System ("GIS") – FPL completed its five originally approved key Distribution GIS improvement initiatives in 2011. These initiatives included developing a post-hurricane forensic analysis tool and the addition of poles, streetlights, joint use survey and hardening level data to the GIS. Updates to the GIS continue as data is collected through inspection cycles and other normal daily work activities.

(6) Post-Storm Forensic Collection/Analysis – FPL has post-storm forensic data collection and analysis plans, systems and processes in place and available for use. In 2019, while no major storm made landfall in FPL's territory, Hurricane Dorian's wind bands did impact areas in FPL's territory. The post storm forensics analysis results for Hurricane Dorian indicate that hardened feeders performed better than non-hardened feeders and no feeder poles came down during the storm, resulting in a faster restoration effort.

(7) OH and UG Storm Performance – FPL has plans, systems and processes in place to capture OH and UG storm performance. The forensics analysis results related to

Hurricane Dorian's wind bands indicate that underground performed better than overhead in both feeders and laterals. Vegetation was the primary cause of outages.

(8) Increased Coordination with Local Governments – In 2019, FPL continued its efforts to improve local government coordination. Activities included: (1) meetings with county emergency operations managers to discuss and identify critical infrastructure function locations in each jurisdiction as identified by the local government; (2) invitations to federal and state emergency management personnel to participate in FPL's annual company-wide storm preparedness dry run; (3) improved communication tools, based on input from local governmental officials, have been implemented to provide additional information to those officials during emergency events to better coordinate restoration efforts; and (4) FPL's External affairs ("EA") managers made presentations to educate communities served by FPL on topics of interest including service reliability, energy conservation, storm readiness and power generation. These presentations help address the informational needs of local community-based organizations. EA managers provided over 900 community presentations in 2019.

(9) Collaborative Research on Hurricanes/Storm Surge – Collaborative research efforts led by the Public Utility Research Center ("PURC") continued and the fourth extension of the MOU (through 2020) was approved.

(10) Natural Disaster Preparedness/Recovery Plans – FPL's Storm Emergency Plan identifies emergency conditions and the responsibilities and duties of the FPL emergency response organization for natural disasters, such as severe weather and fires. The plan covers the emergency organization, roles and responsibilities and FPL's overall severe storm emergency processes. These processes describe the planning activities, restoration practices, public communications and coordination with government, training, practice exercises and lessons-learned evaluation systems. The plan is reviewed annually and revised as necessary.

STORM PREPAREDNESS INITIATIVE No. 1

Initiative 1 – Vegetation Management Trim Cycles

1. A complete description of the Company's vegetation management program (policies, guidelines, practices) for 2019 and 2020 in terms of both activity and costs.

Tree limbs and branches, especially palm fronds, are among the most common causes of power outages and momentary interruptions. The primary objective of FPL's distribution vegetation management program is to clear vegetation in areas where FPL is permitted to trim from the vicinity of distribution facilities and equipment in order to provide safe, reliable and cost-effective electric service to its customers. The program is comprised of multiple initiatives designed to reduce the average time customers are without electricity as a result of vegetation-related interruptions. This includes preventive maintenance initiatives (planned cycle and mid-cycle maintenance), corrective maintenance (trouble work and service restoration efforts), customer trim requests, and support of system improvement and expansion projects, which focus on long-term reliability by addressing vegetation that will impact new or upgraded overhead distribution facilities.

FPL follows the NESC, the American National Standards Institute ("ANSI") A-300, and all other applicable standards while considering tree species, growth rates and the location of trees in proximity to our facilities when performing line clearing. Danger trees (leaning, structurally damaged, or dead) outside of right-of-way ("ROW") which cannot be effectively maintained by FPL are candidates for customer-approved removal.

On May 30, 2007, the FPSC issued Order No. PSC-07-0468-FOF-EI approving the continuation of FPL's three-year average trim cycle for feeders and the implementation of a six-year average trim cycle for laterals.

FPL maintains its distribution feeder lines on a three-year average trim cycle because it offers the optimal balance of reliability performance and vegetation clearing cost. The primary benefit of properly maintaining feeder lines is that a feeder outage can affect, on average, approximately 1,500 customers, as compared to a lateral line that can affect, on average, approximately 35 customers.

FPL enhances its approved feeder trimming plan through its mid-cycle trimming program, which encompasses patrolling and trimming feeders between planned maintenance cycles to address tree conditions that may cause an interruption prior to the next planned cycle trim. Mid-cycle work units typically have a trim age of 12 to 18 months and usually involve certain fast-growing trees (e.g., palm trees) that need to be addressed before the next scheduled cycle trim date.

Customers often contact FPL with requests to trim trees around lines in their neighborhoods and near their homes. As a result of our discussions with these customers and/or a follow-up investigation, FPL either performs the necessary

trimming or determines that the requested trimming can be addressed more efficiently by completing it through the normal scheduled cycle trimming.

Finally, a very important component of FPL's vegetation program is providing information to customers to educate them on our trimming program and practices, safety issues, and the importance of placing trees in the proper location, i.e., FPL's "Right Tree, Right Place" ("RTRP") program. RTRP is a public education program based on FPL's core belief that providing reliable electric service and sustaining our natural environment can go hand-in-hand and is a win-win partnership between the utility and its customers.

In 2019, FPL continued to maintain three and six-year average trim cycles for feeders and laterals, respectively, and cleared additional feeder miles through its mid-cycle program. Additionally, FPL continued to pursue the challenges associated with palm removals, customer refusals and danger trees outside the right-of-way. Total miles reflect work completed in conjunction with capital projects, restoration activities and customer trim requests.

Cost	Feeder Miles			Lateral Miles
(Millions)	Cycle	Mid-Cycle	Total	Cycle
$60.4	4,256	7,198	11,454	3,822

2. Definitions of terms: danger tree, demand tree, spot trim, mid-cycle trim

Danger Tree – A tree, beyond normal clearance specification, that has high likelihood to fail and impact facilities. Danger tree failure can be associated with factors such as trees that are leaning, structurally damaged, dead or are a certain tree species.

Spot trim – Addresses a specific location vs. entire line segment through hot spot trimming. This includes trouble tickets or reliability-related requests.

Demand Trim/Customer Trim Request ("CTR") – Addresses tree conditions reported by a customer. FPL will inspect and, if trimming is required for safety or reliability, the necessary work will be performed.

Mid-cycle Program – 12 to 18-month patrol and trim cycle to address conditions on feeders that will require trimming prior to scheduled planned maintenance.

3. The criteria used to determine whether to remove a tree, replace a tree, spot trim, demand trim, or mid-cycle trim.

Tree removal – Trees which cannot be effectively maintained to meet clearance specifications and ANSI A-300 are evaluated based on species and cost to remove. Palms are a primary removal candidate, especially for feeders.

Tree replacement – FPL does not have a tree replacement program. On a targeted and very limited basis, contribution toward replacement is considered.

Spot trim – Spot trimming addresses a specific location based on reliability performance.

Demand trim – Tree meeting FPL's existing CTR criteria (See Item 12).

Mid-cycle Program – Any feeder not scheduled for maintenance in the current year is eligible for mid-cycle trimming and typically has a trim age of 12 - 18 months.

4. Provide an analysis of the cost and benefits of the Company's program vs. three-year trim cycle program for feeders and laterals

See Direct Testimony & Exhibits of: Manuel B. Miranda filed December 20, 2006 (Docket No. 060198-EI).

5. Tree clearing practices in utility easements and authorized rights-of-way

FPL's line clearing practice is to pre-notify customers of scheduled maintenance activities. FPL clears lines (within easements, authorized rights-of-way and in limited cases outside of easements) to its clearance specifications to protect its facilities and maintain reliable service.

6. Relevant portions of utility tariffs pertaining to utility vegetation management activities within and authorized rights-of-way

Within easement and rights-of-way:

Rule 2.8 Access to Premises:
The duly authorized agents of the company shall have safe access to the premises of the customer at all reasonable hours for installing, maintaining and inspecting or removing company's property, reading meters, trimming trees within the company's easements and right of way, and other purposes incident to performance under or termination of the company's agreement with the customer, and in such performance shall not be liable for trespass.

Rule 5.6 Unobstructed Access to Company's Facilities:
Company shall have perpetual unobstructed access to its overhead and underground facilities, such as poles, underground cables, pad-mounted transformers and meters in order to perform repair and maintenance in a safe, timely and cost-efficient manner.

7. Tree removal practices for trees that abut and/or intrude into easements and authorized rights-of-way

Trees identified for removal within an easement or ROW will usually involve customer contact and a signed Tree Work Authorization (“TWA”) by the customer. If removal is not possible, FPL will clear to the extent possible while complying with applicable line clearing standards and practices. In addition, FPL routinely communicates with local communities about the various issues concerning tree removals on residential property and in public ROW.

8. Tree clearing practices outside of easements and authorized ROW

FPL will clear, to the extent possible, any vegetation that encroaches upon its facilities, to provide for adequate clearances while complying with applicable line clearing standards and practices.

9. Relevant portions of utility tariffs pertaining to utility vegetation management activities outside easements and authorized ROW

Outside easement:

There are no specific utility rights to remove trees outside a ROW. Through FPL’s RTRP efforts, customers are informed and encouraged to take responsibility and carefully consider the mature height of vegetation planted adjacent to power structures.

10. Tree removal practices for trees outside of easements and authorized ROW

Trees outside an easement or ROW that are targeted for removal will typically involve customer contact and a signed TWA. If a removal is not possible, FPL will clear to the extent possible while complying with applicable line clearing standards and practices.

11. Relevant portions of utility tariffs pertaining to customer vegetation management obligations as a term or condition of electric service

These General Rules and Regulations are a part of the Company's Tariff covering the terms and conditions under which Electric Service is supplied by the Company to the Customer. They are supplemental to the "Rules and Regulations Governing Electric Service by Electric Utilities" issued by the FPSC.

Company tariffs;

Rule 5.5 Interference with Company’s Facilities:

The customer should not allow trees, vines and shrubs to interfere with the Company’s adjacent overhead conductors, service wires, pad-mounted transformers and meter. Such interference may result in an injury to persons, or may cause the customer’s service to be interrupted. In all cases, the customer should request the Company to trim or remove trees and other growth near the Company’s adjacent overhead wires, and under no circumstances

should the customer undertake this work himself, except around service cables when specifically authorized by and arranged with the company.

Rule 2.9 Right of Way:
The customer shall grant or cause to be granted to the Company and without cost to the Company all rights, easements, permits and privileges which, in the opinion of the Company, are necessary for the rendering of service to the customer.

12. Company practices regarding CTRs; also known as "demand trim" requests

CTRs that are inspected and found to involve potentially hazardous conditions are immediately scheduled for clearing. If conditions are inspected and determined not to be potentially hazardous, FPL advises the customer that the work will be deferred to scheduled maintenance.

13. 2020 projected activities and budget levels

FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

14. Include the requirements of applicable orders:

Initiative 1

Three-Year Vegetation Cycle

System Vegetation Management Performance Metrics

2019 System Totals					
Reliability	**Feeders**	**Laterals**			
(A) Total current system miles	12,803	22,974			
(B) Number of Outages	195	3,811			
(C) Customer Interruptions	208,301	141,078			
(D) Customer Minutes of Interruption	9,468,312	21,638,972			
(E) Outages per Mile [B ÷ A]	0.02	0.17			
(F) Vegetation CI per Mile [C ÷ A]	16.3	6.1			
Cycle Maintenance	**Feeders (F)**			**Laterals (L)**	**Totals F + L**
	Cycle	Mid-cycle	Totals	Cycle	
(G) Number of years in the cycle	3			6	
(H) 1st year of this cycle	2019			2019	
(I) Total miles at beginning of this cycle	12,803			22,974	
(J) Total miles cleared this cycle	**0**	**0**	**0**	**3,822**	**3,822**
Miles cleared 2024	0	0	0	0	0
Miles cleared 2023	0	0	0	0	0
Miles cleared 2022	0	0	0	0	0
Miles cleared 2021	0	0	0	0	0
Miles cleared 2020	0	0	0	0	0
Miles cleared 2019	4,256	7,198	11,454	3,822	15,276
(K) Percentage of this cycle completed	0.0%			16.6%	
(L) Planned Maintenance Goal (next year) 2020	4,200	7,200	11,400	3,446	14,846
(M) Number of Hotspot Trims	N/A			N/A	18,334
Cost					**Totals (M)**
(N) All Vegetation Management Costs					$68.6
(P) Vegetation Budget (current year) 2019					$65.8
(Q) Vegetation Budget (next year) 2020					TBD [1]

1. FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

1) REGIONS - Management Area (MA) Vegetation Management Performance Metrics

2019 Dade						
Reliability	**Feeders**	**Laterals**				
(A) Total current system miles	1,979	2,509				
(B) Number of Outages	63	546				
(C) Customer Interruptions	61,790	20,534				
(D) Customer Minutes of Interruption	3,601,532	3,832,673				
(E) Outages per Mile [B ÷ A]	0.03	0.22				
(F) Vegetation CI per Mile [C ÷ A]	31.2	8.2				
Cycle Maintenance	**Feeders (F)**			**Laterals (L)**	**Totals F + L**	
	Cycle	Mid-cycle	Totals	Cycle		
(G) Number of years in the cycle	3			6		
(H) 1st year of this cycle	2019			2019		
(I) Total miles at beginning of this cycle	1,979			2,509		
(J) Total miles cleared this cycle	633	793	1,426	564	1,990	
Miles cleared 2024	0	0	0	0	0	
Miles cleared 2023	0	0	0	0	0	
Miles cleared 2022	0	0	0	0	0	
Miles cleared 2021	0	0	0	0	0	
Miles cleared 2020	0	0	0	0	0	
Miles cleared 2019	633	793	1,426	564	1,990	
(K) Percentage of this cycle completed	32.0%			22.5%		
(L) Planned Maintenance Goal (next year) 2020	661	508	1,169	392	1,561	
(M) Number of Hotspot Trims	N/A			N/A	4,617	
Cost					**Totals**	
(N) All Vegetation Management Costs					$10.2	
(P) Vegetation Budget (current year) 2019					$10.7	
(Q) Vegetation Budget (next year) 2020					TBD [1]	

1. FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

2) REGIONS - Management Area (MA) Vegetation Management Performance Metrics

2019 East					
Reliability	**Feeders**	**Laterals**			
(A) Total current system miles	3,422	3,664			
(B) Number of Outages	35	710			
(C) Customer Interruptions	39,110	29,559			
(D) Customer Minutes of Interruption	1,412,525	4,734,992			
(E) Outages per Mile [B ÷ A]	0.01	0.19			
(F) Vegetation CI per Mile [C ÷ A]	11.4	8.1			
Cycle Maintenance	**Feeders (F)**			**Laterals (L)**	**Totals**
	Cycle	Mid-cycle	Totals	Cycle	**F + L**
(G) Number of years in the cycle	3			6	
(H) 1st year of this cycle	2019			2019	
(I) Total miles at beginning of this cycle	3,422			3,664	
(J) Total miles cleared this cycle	1,154	1,662	2,816	647	3,463
Miles cleared 2024	0	0	0	0	0
Miles cleared 2023	0	0	0	0	0
Miles cleared 2022	0	0	0	0	3,560
Miles cleared 2021	0	0	0	0	0
Miles cleared 2020	0	0	0	0	0
Miles cleared 2019	1,154	1,662	2,816	647	3,463
(K) Percentage of this cycle completed	33.7%			17.7%	
(L) Planned Maintenance Goal (next year) 2020	1,021	1,766	2,787	570	3,357
(M) Number of Hotspot Trims	N/A			N/A	3,919
Cost					**Totals**
(N) All Vegetation Management Costs					$17.9
(P) Vegetation Budget (current year) 2019					$15.9
(Q) Vegetation Budget (next year) 2020					TBD [1]

1. FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

3) REGIONS - Management Area (MA) Vegetation Management Performance Metrics

2019 North						
Reliability	**Feeders**	**Laterals**				
(A) Total current system miles	4,568	9,973				
(B) Number of Outages	74	1,493				
(C) Customer Interruptions	74,514	47,308				
(D) Customer Minutes of Interruption	3,058,158	6,624,929				
(E) Outages per Mile [B ÷ A]	0.02	0.15				
(F) Vegetation CI per Mile [C ÷ A]	16.3	4.7				
Cycle Maintenance	**Feeders (F)**			**Laterals (L)**	**Totals**	
	Cycle	Mid-cycle	Totals	Cycle	**F + L**	
(G) Number of years in the cycle	3			6		
(H) 1st year of this cycle	2019			2019		
(I) Total miles at beginning of this cycle	4,568			9,973		
(J) Total miles cleared this cycle	1,557	2,821	4,378	1,392	5,770	
Miles cleared 2024	0	0	0	0	0	
Miles cleared 2023	0	0	0	0	0	
Miles cleared 2022	0	0	0	0	0	
Miles cleared 2021	0	0	0	0	0	
Miles cleared 2020	0	0	0	0	0	
Miles cleared 2019	1,557	2,821	4,378	1,392	5,770	
(K) Percentage of this cycle completed	34.1%			14.0%		
(L) Planned Maintenance Goal (next year) 2020	1,498	3,004	4,502	1,563	6,065	
(M) Number of Hotspot Trims	N/A			N/A	5,923	
Cost					**Totals**	
(N) All Vegetation Management Costs					$23.2	
(P) Vegetation Budget (current year) 2019					$23.0	
(Q) Vegetation Budget (next year) 2020					TBD [1]	

1. FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

4) REGIONS - Management Area (MA) Vegetation Management Performance Metrics

2019 West					
Reliability	**Feeders**	**Laterals**			
(A) Total current system miles	2,834	6,828			
(B) Number of Outages	23	1,062			
(C) Customer Interruptions	32,887	43,677			
(D) Customer Minutes of Interruption	1,396,097	6,446,378			
(E) Outages per Mile [B ÷ A]	0.01	0.16			
(F) Vegetation CI per Mile [C ÷ A]	11.6	6.4			
Cycle Maintenance	**Feeders (F)**			**Laterals (L)**	**Totals F + L**
	Cycle	Mid-cycle	Totals	Cycle	
(G) Number of years in the cycle	3			6	
(H) 1st year of this cycle	2019			2019	
(I) Total miles at beginning of this cycle	2,834			6,828	
(J) Total miles cleared this cycle	912	1,922	2,834	1,219	4,053
Miles cleared 2024	0	0	0	0	0
Miles cleared 2023	0	0	0	0	0
Miles cleared 2022	0	0	0	0	0
Miles cleared 2021	0	0	0	0	0
Miles cleared 2020	0	0	0	0	0
Miles cleared 2019	912	1,922	2,883	1,219	4,102
(K) Percentage of this cycle completed	32.2%			17.9%	
(L) Planned Maintenance Goal (next year) 2019	1,020	1,922	2,942	921	3,863
(M) Number of Hotspot Trims	N/A			N/A	3,875
Cost					**Totals**
(N) All Vegetation Management Costs					$15.3
(P) Vegetation Budget (current year) 2019					$12.9
(Q) Vegetation Budget (next year) 2020					TBD [1]

1. FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

15. Support for continuation of the Company Program, rather than a Three-Year Cycle program, should be included in this section of the report. Include all tables and additional analysis supporting continuation of the Company Program in this section of the report

No new information is available that would change the initial analysis/results provided by FPL in Docket No. 060198-EI.

16. Local Community Participation

FPL routinely communicates with local communities about the various issues surrounding line clearing. The issues that are most often discussed are the method of trimming, clearances, notification and danger tree removal. FPL's practice is to pre-notify customers of scheduled maintenance activities whose neighborhoods will be affected by line clearing activities. These communications include an overview of the scheduled maintenance activities, a safety message and customer contact number for more information. FPL's RTRP program is also an example of its outreach to communities. The program provides information to customers to educate them on our trimming program and practices, safety issues and the importance of placing trees in the proper location.

a) ROW tree clearing
FPL's line clearing practice is to pre-notify customers of scheduled maintenance activities. FPL clears lines (within easements, authorized ROW and in limited cases outside of easements) to our clearance specifications to protect our facilities.

b) Easement tree clearing
See response to 16 a., ROW tree clearing.

c) Hard-to-access facilities
See response to 16 a., ROW tree clearing.

d) Danger trees not within ROW or easements where the utility has unobstructed authority to remove the danger tree
Danger trees outside an easement or ROW that are targeted for removal will typically involve customer contact and a TWA form, signed by the customer, authorizing the removal. If a removal is not possible, FPL will clear the vegetation to the extent possible while complying with applicable line clearing standards and practices.

e) Trim-back distances
FPL will clear, to the extent possible, any vegetation that may encroach or is in conflict with our facilities to provide for adequate clearances while complying with applicable line clearing standards (NESC) and practices (ANSI).

17. Danger Trees
Danger tree failure can be associated with factors, such as trees that are leaning, structurally damaged and/or dead, as well as certain tree species. While FPL removed approximately 13,120 trees in 2019, some of which were most likely danger trees, FPL does not specifically track the identification/removal of danger trees.

STORM PREPAREDNESS INITIATIVE No. 2

Initiative 2 – Joint Use Pole Attachment Audits

FPL Overview

FPL administers annual audits of joint use facilities (poles owned and attached to by FPL or telephone companies) and attachments to its poles (CATV and telecommunication attachments). Approximately 20% of FPL's service territory is audited annually through its joint use surveys in order to determine the number and ownership of jointly-used poles and associated attachments.

Additionally, joint use poles are inspected as part of FPL's Pole Inspection Program. This is described more fully in FPL's pole inspection reporting requirements response.

Describe the extent of the audit and results pertaining to pole reliability and NESC safety matters. The intent is to assure the Commission that utilities know the status of their facilities and that reasonable efforts are taken to address pole reliability and NESC safety matters.

In addition to FPL's Pole Inspection Program, NESC safety audits are conducted by the FPSC. Apparent NESC variances are identified and recorded by FPSC auditors. FPL investigates the apparent NESC variances and makes corrections where necessary. Additionally, as part of FPL's daily work activities (e.g., construction, maintenance, reliability initiatives, etc.), NESC safety issues may be identified and corrected. While the FPSC variances are tracked, FPL does not specifically track corrective activities completed as part of its daily activities.

a) Percent of system audited.
Feeders: Approximately 20% annually.
Laterals: Approximately 20% annually.

FPL does not specifically maintain/track its joint use audits at this level of detail. See FPL's overview above.

b) Date audit conducted?
Ongoing – See FPL's overview above.

c) Date of previous audit?
Ongoing – See FPL's overview above.

d) List of audits conducted annually. Joint use poles, attachments, strength/loading tests – see FPL's overview above and FPL's pole inspection reporting requirement response.

Suggested Alternatives: None.

JOINT USE AUDITS **(A) Number of company owned distribution poles.** (FPL owned poles at 12/31/19)	1,226,461
(B) Number of company distribution poles leased. (Non-FPL owned poles)	215,158
(C) Number of owned distribution pole attachments. (FPL owned poles w/attachments)	874,315
(D) Number of leased distribution pole attachments. (Non-FPL owned poles w/attachments) (1)	215,158
(E) Number of authorized attachments.	1,374,609
(F) Number of unauthorized attachments.	0
POLE INSPECTIONS – JOINT USE POLES **(G) Number of distribution poles strength tested.**	87,123
(H) Number of distribution poles passing strength test. (2)	Grade B – 85,546
(I) Number of distribution poles failing strength test (overloaded). (2)	Grade B – 24 (0.03%)
(J) Number of distribution poles failing strength-test (other reasons). (2)	Grade B&C 1,553
(K) Number of distribution poles corrected (strength failure).	N/A – see Note 3
(L) Number of distribution poles corrected (other reasons).	N/A – see Note 3
(M) Number of distribution poles replaced.	N/A – see Note 3
FPSC SAFETY AUDITS **(N) Number of apparent NESC violations involving electric infrastructure.**	187
(O) Number of apparent NESC violations involving third-party facilities.	36
Suggested Alternatives:	None

Notes: (1) Non-FPL owned poles with FPL and another attaching entity (e.g., CATV) = 165,308
(2) NESC required standard = Grade C; FPL Higher Standard =Grade B
(3) K, L, M not tracked at the joint use level

State whether pole rents are jurisdictional or non-jurisdictional. If pole rents are jurisdictional, then provide an estimate of lost revenue and describe the company's efforts to minimize the lost revenue.

"Pole rent" revenues are jurisdictional. There are no lost revenues since back-billings for joint use pole ownership true-ups, as well as unauthorized attachments, are made back to the date of the previous audit/true-up.

STORM PREPAREDNESS INITIATIVE No. 3

Initiative 3 – Six-Year Transmission Structure Inspection Cycle

1. Description of Inspection Program

Please refer to FPL's response to Item 7 – Description of Pole Inspection Program, in the Transmission section of the Pole Inspection Report for a description of FPL's transmission structure inspection program. Included in FPL's response are inspection procedures for wood, concrete and steel transmission structures.

2. 2019 Accomplishments / 2020 Plans

Please refer to FPL's response to Item 7 – Description of Pole Inspection Program, in the Transmission section of the Pole Inspection Report as well as the three tables on the following two pages.

6-year Transmission Inspections – Results/Plans

Transmission Circuit, Substation & Other Equipment Inspections

	2019		2019		2020	
	Plan	Actual	Budget $	Actual $	Plan	Budget $
(A) Total transmission circuits	1,278	1,360	N/A	N/A	1,360	N/A
(B) Transmission circuit inspections	1,037	1,037	$1.4M(1)	$1.6M(1)	1,086	$1.1M
(C) Percent transmission circuits inspected	81%	76%	N/A	114%	80%	N/A
(D) Total transmission substations(2)	N/A	645	N/A	N/A	661	N/A
(E) Transmission substations inspected(2)	645	645	$0.4M	$0.8M	661	$0.4M
(F) Percent transmission substations inspected (2)	100%	100%	N/A	N/A	100%	N/A
(G) Transmission equip. inspections (other equip)(3)	(3)	(3)	(3)	(3)	(3)	(3)
(H) Percent trans. equip inspection comp (other equip) (3)	(3)	(3)	(3)	(3)	(3)	(3)

(1) FPL does not budget or track expenditures based on structure materials. As such, the dollar amounts shown in the table above represent all transmission structure inspections regardless of materials.

(2) Values shown for D, E and F include both transmission and distribution substations. FPL does not budget or track these items separately.

(3) Items G and H are included within FPL transmission line and/or substation inspections.

Non-Wood Transmission Structure Inspections

	2019		2019		2020	
	Plan	Actual	Budget $	Actual $	Plan	Budget $
(A) Total non-wood transmission tower structures	62,945	62,945	n/a	n/a	66,074	n/a
(B)Transmission tower structure inspections	62,945	62,945	$1.4M*	$1.6M*	66,074	$1.1M*
(C) Percent of transmission tower structures inspected**	100%	100%	-	114%	100%	-

* FPL does not budget or track expenditures based on structure materials. The dollar amounts shown in the table above represent all transmission structure inspections regardless of materials.

** 100% visually inspected; bucket truck/climbing inspections conducted on cycles.

Wood Transmission Structure Inspections (1)

	2019		2019		2020	
	Plan	Actual	Budget $	Actual $	Plan	Budget $
(A) **Total number** of wood transmission poles.	4,874	4,874	-	-	2,888	-
(B) Number of transmission **poles strength tested.**	433	422	$1.4M(2)	$1.6M(2)	442	$1.1M(2)
(C) Number of transmission **poles passing strength test.**	-	1,827	-	-	-	-
(D) Number of transmission **poles failing strength test (overloaded).**	-	0	-	-	-	-
(E) Number of transmission **poles failing strength tests (other reasons).**	-	305	-	-	-	-
(F) Number of transmission **poles corrected (strength failure)**	0	0	n/a	n/a	0	n/a
(G) Number of transmission **poles corrected (other reasons)**	345	1,986(3)	$31.3M(4)	$49.9M(4)	305	$34.7M(4)
(H) Total transmission poles replaced.	345	1,986(3)	$31.3M(4)	$49.9M(4)	305	$34.7M(4)

(1) In addition to the 2019 results for its six-year cyclical inspection, FPL performed annual ground level visual inspections on 100% of its wood poles/structures.

(2) FPL does not budget or track expenditures based on structure materials. As such, these dollar amounts represent all transmission structure inspections regardless of materials.

(3) The replacement quantities provided in (H) represent the total number of transmission structures replaced through all initiatives/activities including condition assessments, relocations, proactive rebuilds, and system expansion.

(4) Dollar amounts are only for FPL's condition assessment follow-up program.

STORM PREPAREDNESS INITIATIVE No. 4

Initiative 4 – Hardening of Existing Transmission Structures

1. Description of Transmission Hardening Programs

Wood Structure Replacement Program

In 2006, FPL began its Transmission hardening initiative by targeting replacement of single pole un-guyed wood structures. In 2008, FPL enhanced its hardening initiative to include replacement of all wood transmission structures over the next 25 to 30 years. FPL's approved 2013-2015 hardening plan accelerated the replacement of wood transmission pole/structures to within the next 10 to 15 years. Replacements are performed as part of maintenance, hardening, relocations and system expansion programs.

Ceramic Post ("CPOC") Transmission Line Insulators

In 2006, FPL implemented a comprehensive plan for replacing existing ceramic post insulators with polymer post insulators on concrete poles. In 2014, FPL completed this initiative.

Storm Surge/Flood

FPL's approved 2013-2015 hardening plan included several storm surge/flood initiatives to better protect certain transmission facilities and expedite restoration of service to customers. This included water intrusion mitigation, the installation of real-time water level monitoring systems and communication equipment in 223 substations and the purchase of additional mobile fleet equipment. In 2014, FPL completed this initiative.

2. Method of Selection

All wood transmission structures are being replaced as a result of the 2004 and 2005 storm seasons lessons learned. All wood transmission structures are expected to be replaced by 2022.

3. Prioritizing Wood Structures Replacement

Being a network transmission system, FPL's first priority must be the overall system reliability and stability for the State of Florida. Prioritization factors also include proximity to high wind areas, system importance, customer counts, and coordination with other business unit storm initiatives. Other economic efficiencies, such as opportunities to perform work on multiple transmission line sections within the same corridor, are also considered. The transmission plan also incorporates the distribution hardening plans for communities into its prioritization.

4. 2019 Accomplishments

Wood Structure Replacement Program

In 2019, FPL replaced a total of 1,986 wood transmission structures. These structures were replaced with FPL's current design standards of round spun concrete poles. Total 2019 wood transmission structure replacement costs were approximately $81 million. At year-end 2019, 96% of FPL's total transmission structure population is steel or concrete.

5. 2020 Plans

Consistent with the approved 2019-2021 Hardening Plan, FPL will replace a total of 1,400 - 1,600 wood structures in 2020. Transmission hardening costs for 2020 are estimated to be $50-55 million. Additional transmission hardening plans for 2020 are being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

STORM PREPAREDNESS INITIATIVE No. 5

Initiative 5 – Distribution Geographic Information System (GIS)

Efforts Undertaken at FPL to Meet the Commission Initiative - FPL has completed the following originally approved key initiatives which support the Commission's objective:

1. **Distribution GIS Improvements – Post-Hurricane Forensic Analysis**
   FPL developed a mobile electronic inspection tool that creates routes within the hurricane-force wind area. Field employees travel the routes collecting observed damage and documenting the cause of the damage. This field data is uploaded to a database for further analysis by our staff engineers. This tool replaced the sampling methodology used in 2005.

2. **Distribution GIS Improvements – Poles**
   FPL has added inspection records and pole attributes in coordination with its Pole Inspection Program ("PIP"). Updates to the GIS pole data are on-going with inputs from PIP, hardening and daily work activities.

3. **Distribution GIS Improvements – Joint Use Data**
   By year-end 2008, all Joint Use data was added to the GIS. Updates are on-going as audits are completed and data is received from FPL's Joint Use vendor.

4. **Distribution GIS Improvements – Level of Hardening**
   Level-of-hardening attributes have been added to the GIS system including the load calculation and hardening level. The system continues to be updated as hardening projects and activities are completed

5. **Distribution GIS Improvements – Streetlights**
   FPL completed the initial loading of all streetlight data into the FPL Distribution GIS in 2011. As on-going audits and changes in the streetlight inventory from daily work activities are loaded into FPL's GIS, an interface to its Customer Information System ensures continued accuracy.

STORM PREPAREDNESS INITIATIVE No. 6

Initiative 6 – Post Storm Forensic Data Collection/Analysis

1. **Has Forensics Team been established?**

   Yes.

2. **Have forensic measurements been established? If yes, please describe/provide.**

   Forensic measurements have been established and are entered into portable field computers at forensic locations.

   At each forensic location:

   - Pictures are taken to show the specific damage and the surrounding area.
   - GPS Coordinate information is recorded
   - A data collection form is completed, detailing information such as:
     - Pole specific information
     - Wire specific information
     - Framing and loading information
     - Tree conditions
     - Foreign attachments
     - Surrounding area characteristics
     - Debris conditions
     - Soil conditions
     - Wind speed rating

3. **Has a forensics database format been established?**

   Yes. The information captured from the portable field computers via FPL's mobile mapping and field automation software is uploaded into a PostgreSQL database.

4. **Describe/provide GIS and forensic data tracking integration**

   Storm track information is imported via a shape file to FPL's mobile mapping and field automation software for identification of storm affected equipment. From the storm affected feeders and FPL's Trouble Call Management System, forensics team routing is selected.

   FPL's mobile mapping and field automation software visually identifies the facilities to be patrolled and provides the tools needed to perform forensic work, such as audit trail of route traveled and data collection forms.

5. Describe/provide forensics and restoration process integration

(Established and documented processes to capture forensic data during a restoration process)

General Process – Overhead Distribution

- Obtain information on the storm path and responding wind bands.
- Assigned area teams cover specific areas in the path of the storm.
- Provide route/track to each forensic team.
- Utilize the "Tracking" or audit trail function in FPL's mobile mapping and field automation software to document areas patrolled.
- Perform an investigation at each damage location encountered that meets patrol criteria. Damage locations are to include poles, wires or any other equipment that is damaged or that has caused a customer outage.
- Utilize portable field computers to complete a data collection form for each observation.

Hardened Forensic Process – Overhead Hardened Distribution Feeders

- Obtain information on the storm path and corresponding wind bands.
- Assigned forensic teams will cover a statistically significant sample of hardened overhead distribution feeders that experience an interruption within the storm impacted area.
- Utilize the "Tracking" or audit trail function in FPL's mobile mapping and field automation software to document areas patrolled.
- Perform a forensic investigation at each damage location encountered that meets patrol criteria. Damage locations are to include poles, wires or any other equipment that is damaged or that has caused a customer outage.
- Utilize portable field computers to complete a data collection form for each observation.

6. Describe/provide any forensic data sampling methodology

The General Process – Overhead Distribution will rely on FPL's mobile mapping system, utilizing it to patrol damaged facilities. Observations will be made at all damage locations along the routes, including poles, wires, and distribution equipment.

The Hardened Forensic Process will rely on FPL's mobile mapping system, utilizing it to cover a statistically significant sample of hardened overhead distribution feeders. Observations will be made at all damage locations within the selected feeders including poles, wires, and other distribution equipment.

7. Describe/provide forensic reporting format used to report forensic results to the Company and Commission

Please reference forensics report for Hurricane Matthew (Docket No. 20180215-EU Staff's Second Data Request No. 2, Attachment 2) and Irma (Docket No. 20180215-EU Staff's Second Data Request No. 2, Attachment 3) for reporting format used to report forensics results to the Company and Commission.

8. Forensic activities and costs incurred in 2019

FPL has post-storm forensic data collection and analysis plans, systems and processes in place and available for use. In 2019, while no major storm made landfall in FPL's territory, Hurricane Dorian's wind bands did impact areas in FPL's territory. The post storm forensics analysis results indicate that hardened feeders performed better than non-hardened feeders, and no feeder poles came down during the storm, resulting in a faster restoration effort.

Forensic costs are not tracked separately but will be dependent on storm events and the subsequent deployment of the forensic teams.

Feeder Type	Outage	Population
Hardened	22	1194
Non-Hardened	52	1,733

9. 2020 projected activities and costs

Forensic costs are not tracked separately but will be dependent on storm events and the subsequent deployment of the forensic teams.

STORM PREPAREDNESS INITIATIVE No. 7

Initiative 7 – Overhead and Underground Storm Performance Data

Items a–j (all tables) – Though both system and district level data for these metrics are for the most part available during storms on a non-differentiated basis, they are not available for overhead and underground separately. The primary reason is that FPL's feeders are mostly overhead/underground hybrids. Therefore, FPL is not able to classify a large portion of the data required to calculate these metrics as either overhead or underground. Furthermore, performing the calculations on a subset of data that could be differentiated could yield misleading results. Though not of direct concern for these tables, item b cannot be provided even on a non-differentiated basis because codes are not available during storms.

Item k (all tables) – Prospectively, equipment performance by type may be available from forensics depending on the specific characteristics associated with any given storm. Data gathering is highly dependent on the storm having sufficient intensity to result in a restoration lasting a number of days. Otherwise, there will be insufficient time for the forensics teams to collect adequate data. Additionally, depending on the nature of the storm, certain types of equipment may not be impacted. For example, there may be little flooding or storm surge. Or, a given storm's location may disproportionately impact areas with predominantly wood poles or front lot construction. In any case, results will only be statistically significant on a system-level basis and, therefore, cannot be provided at a district level.

FPL Alternative Plan – FPL can fulfill the spirit of the requested set of metrics with alternatives that demonstrate the performance differences between the overhead and underground facilities during storms. As previously stated, because FPL's feeders are almost universally overhead/underground hybrids, differentiated performance would be difficult to determine. However, laterals are typically comprised of only a single type of construction so they will be used as a proxy for differentiated system performance. The relative performance results will be derived from two sources. First, forensic field data collection will be conducted during restoration using statistically valid samples drawn daily for both overhead and underground tickets. Second, post-restoration analysis of available ticket comments will be performed, particularly for underground damage since problems with buried equipment may not be field-observable.

FPL Alternative Plan Metrics:

- **Relative proportion of infrastructure damaged:**
  - Percent of overhead circuits with damage relative to the total overhead circuits in the storm-impacted areas.
  - Percent of underground circuits with damage relative to the total underground circuits in the storm-impacted areas.

- **Count of facility damage observed by type (item k on a system level basis).** This will include an evaluation of statistical validity based on samples achieved (due to storm characteristics discussed previously).
    - Overhead – total quantities stratified by pole type, location on lot, etc. (as available)
    - Underground – total quantities stratified by cable construction method, etc. (as available)

- **Primary root cause of damage by type**. In those instances, that can be determined through field observation or post-restoration ticket comments review.

- **Estimated repair time**. Due to the complexity of underground construction and possible undetected damage, field estimates of repair time are impractical. Instead a system wide estimate of UG damage will be interpolated by multiplying the observed damage counts by equipment type by the typical estimated construction man-hours required to repair.

- **UG Performance.** The forensics analysis results related to Hurricane Dorian's wind bands indicate that underground performed better than overhead in both feeders and laterals. Vegetation was the primary cause of outages.

Type	Outages	
	Feeder	Lateral
OH/Hybrid	74	707
UG	0	81

STORM PREPAREDNESS INITIATIVE No. 8

Initiative 8 - Increased Coordination with Local Governments

FPL Overview

FPL's ("EA") organization consists of manager-level employees who are dedicated to meeting the information and communication needs of local governments and communities every day. These individuals interface with members of local governments and community leaders to identify and resolve issues of common concern to the company and the communities it serves. EA is engaged with local governments on critical infrastructure functions, line clearing, storm readiness, joint use of public rights-of-way, fuel/rate adjustments, undergrounding and other day-to-day issues.

FPL's Account Managers assigned to governmental accounts provide customer service to government accounts and are available to assist with many of the issues that affect local governments, including storm readiness, restoration and recovery. They are also especially helpful to local governments on account issues such as billing, fuel costs, construction and service reliability.

FPL's Customer Service ("CS") organization conducts meetings with county emergency operations managers to discuss critical infrastructure functions locations in each jurisdiction and to allow local EOCs to designate CIFs specific to the respective communities, within certain limits. Agreed-upon locations are factored into FPL's storm restoration and capacity shortage plans. FPL invites local, state and federal emergency response personnel to participate in its annual storm dry-run. This exercise provides FPL the opportunity to share its plans to improve service reliability and storm communications, and solicit input on how FPL and government agencies can better collaborate in emergency situations.

FPL maintains an External Response Team that consists of trained representatives who assist EA in meeting the needs of local governments in times of emergency. This team of more than 70 employees, staffs county EOCs and interfaces with local officials throughout the FPL service territory. By staffing EOCs, FPL is physically present to provide company updates to county and city officials, as well as obtain information from the EOC to help FPL's restoration efforts.

Describe extra tree trimming and underground conversion projects implemented. Describe any special considerations or options local governments attempted to secure and the utility's response.

FPL meets with all counties and municipalities requesting information on line clearing and underground conversions. This includes working with local governments to establish language in applicable ordinances that encourages citizens to plant the right tree in the right place to avoid interference with overhead facilities, and attending requested meetings and workshops with cities interested in overhead to underground conversions. Discussions have also included special considerations such as using

public rights-of-way and the use of underground switch cabinets. Additionally, FPL meets with local governments to explain its efforts to enhance service reliability and provide information on hardening projects within their jurisdiction.

In addition, FPL meets with local governments that express interest in converting overhead facilities to underground service. Discussions include FPL's GAF tariff, which provides an incentive for applicable overhead to underground conversion projects. FPL also continued to promote overhead-to-underground conversions in 2019. One municipality signed an agreement under FPL's GAF tariff and moved forward with their project. There were also 15 municipal requests for non-binding/order of magnitude estimates for potential overhead-to-underground conversions during 2019.

Does FPL conduct storm response tests or a dry run in order to test and evaluate its storm preparation and response plans?

Yes. In addition to its annual corporate-wide storm dry-run and individual business unit-driven dry-run exercises, FPL takes every opportunity to test its storm preparation and restoration plans to be ready for a potential event. Additionally, depending on the forecasted track of an actual storm, this may include the activation of FPL's storm command center and the mobilization and positioning of employees and equipment for rapid restoration. These activities provide opportunities to evaluate plans, systems and communications in order to be even better prepared for the next event. FPL representatives also take part in city and/or county sponsored drills and exercises upon request and invite key government stakeholders and emergency managers to our annual corporate-wide storm dry run event.

What quantifiable indices (metrics), if any, are the companies using to assess the effectiveness with which they began implementing initiative #8?

ONGOING PROGRAMS

a) Number of city/county liaisons initiated.
EA and Government Account ("GA") Managers routinely interface with city and county government officials to discuss storm-readiness and other issues of concern. The quantity of these interfaces and the unique situational dynamics of each issue make it administratively burdensome and non-productive to capture on an ongoing basis. FPL does keep track of official meetings and the number of EOCs that are contacted, as well as the number that are staffed with company representatives.

b) Number of periodic communications initiated with cities/counties.
EA provides quarterly e-mail communications to city and county governments. FPL also established an online Government Portal website that allows government officials to obtain the latest media releases and information on customer outages, estimated restoration times, FPL crew resources, outage maps and other information. GA Managers also communicate with cities and counties through monthly newsletters that address topics from energy conservation to storm preparation.

c) Number of restoration training and assistance programs conducted. EA, CS and other FPL representatives meet with local governments to discuss critical infrastructure function locations and provide training on subjects such as how to address/report on downed power lines.

d) Number of city/county problem resolution plans.
EA and GA Managers interface with city and county governments routinely to discuss storm readiness and other issues of concern. The quantity of these interfaces and the unique situational dynamics of each storm make it administratively burdensome and nonproductive to capture on an ongoing basis.

STORM PREPARATION

a) Number of communication links and contingency plans established.
FPL is prepared to support all 35 counties including eight satellite EOCs, should these locations be impacted by an emergency situation. FPL is able to report on the number of direct links with EOCs activated during emergency conditions. FPL representatives are also available to meet one-on-one with emergency managers, and city and county government officials as needed.

b) Number of operational contingency plans developed for emergency services.
FPL meets with personnel from all county EOC locations to obtain input on critical infrastructure function locations within their jurisdiction and other facilities designated by the respective EOCs as CIFs. This critical infrastructure information is then factored into FPL's restoration and capacity shortfall plans. In addition, assigned FPL EOC representatives work with the counties to assist with emergency priorities and EA Managers have open communications with counties and cities to address necessary contingencies. Tracking the number of contingency plans is administratively burdensome and non-productive and does not provide meaningful information.

c) Number of public communications plans developed prior to, during and after the storm.
FPL develops communication plans for the media and all news/media releases are shared with local governments. Number of communication plans is not meaningful, but counting the number of releases to local governments can be accomplished.

d) Number of city/county mitigation guidelines prepared and distributed.
See response to b, above.

STORM RESTORATION

a) Number of emergency communication links maintained. FPL is prepared to support all 35 counties including eight satellite EOCs if impacted by an emergency situation. Also, an online Government Portal Website allows government officials to obtain the latest news releases and information, including customer outages, estimated restoration times, and FPL crew resource information.

b) Number of priority emergency services restored. FPL can report on critical infrastructure locations restored on a daily basis and provides this information through its Government Portal website.

c) For each tropical storm, hurricane and other emergency event impacting the utilities service area, what community coordination actions does the utility pursue not otherwise in a) and b), above. In addition to outgoing communications and information provided by FPL EOC representatives, FPL EA Managers are made available to interface with public officials to address their concerns.

ONGOING INITIATIVES

Communications Programs

FPL's EA managers made presentations to educate communities served by FPL on topics of interest including service reliability, energy conservation, storm readiness, RTRP and power generation. These presentations help address the informational needs of local community-based organizations. EA managers provided over 900 community presentations in 2019

Government/Community Communications

FPL's email network to local elected officials continues to be utilized to share breaking news and important updates to local state and federal public officials in a timely and consistent manner.

Government Outreach

EA and GA Managers contact government officials prior to storm season through written correspondence and meetings.

Government Portal Website

FPL's EA organization implements a dedicated Government Portal website which is customized with the types of information that government leaders rely on to help with their recovery efforts. The site contains company-wide and county-specific information that includes:

- New alerts and releases
- Customer outage information and outage maps
- CIF information
- ETR information
- FPL staging site locations and available personnel resources

STORM PREPAREDNESS
INITIATIVE No. 9

Initiative 9 – Collaborative Research on Hurricane Winds & Storm Surge

Report on Collaborative Research for Hurricane Hardening

Provided by

The Public Utility Research Center
University of Florida

To the

Utility Sponsor Steering Committee

Final Report dated February 2020

I. Introduction

The Florida Public Service Commission (FPSC) issued Order No. PSC-06-00351-PAA-EI on April 25, 2006 (Order 06-0351) directing each investor-owned electric utility (IOU) to establish a plan that increases collaborative research to further the development of storm resilient electric utility infrastructure and technologies that reduce storm restoration costs and outages to customers. This order directed IOUs to solicit participation from municipal electric utilities and rural electric cooperatives in addition to available educational and research organizations. As a means of accomplishing this task, the IOUs joined with the municipal electric utilities and rural electric cooperatives in the state (collectively referred to as the Research Collaboration Partners) to form a Steering Committee of representatives from each utility and entered into a Memorandum of Understanding (MOU) with the University of Florida's Public Utility Research Center (PURC). In 2018 the Research Collaboration MOU was renewed for an initial term of two years, effective January 1, 2019, and will be automatically extended for successive two-year terms.

PURC performs the administration function for research collaboration, including financial management, logistics, production and distribution of documents, and preparation of reports. PURC also coordinates and performs research as agreed upon with the Steering Committee by facilitating the exchange of information from the Research Collaboration Partners with individuals conducting research projects and facilitating the progress of each research project. The collaborative research has focused on undergrounding, vegetation management, hurricane-wind speeds at granular levels, and improved materials for distribution facilities.

This report provides an update on the activities of the Steering Committee since the previous report dated February 2019.

II. Undergrounding

The collaborative research on undergrounding has been focused on understanding the existing research on the economics and effects of hardening strategies, including undergrounding, so that informed decisions can be made about undergrounding policies and specific undergrounding projects.

The collaborative has refined the computer model developed by Quanta Technologies and there has been a collective effort to learn more about the function and functionality of the computer code. PURC and the Project Sponsors have worked to fill information gaps for model inputs and significant efforts have been invested in the area of forensics data collection.

In addition, PURC has worked with doctoral and master's candidates in the University of Florida Department of Civil and Coastal Engineering to assess some of the inter-relationships between wind speed and other environmental factors on utility equipment damage. PURC has also been contacted by engineering researchers at the University of Wisconsin and North Carolina State University with an interest in the model, though no additional relationships have been established. In addition to universities, PURC has been in contact with stakeholders in Puerto Rico in light of PURC Director Mark Jamison's appointment to the Southern States Energy Board Blue Ribbon Task Force on the future of Puerto Rico's energy system. The stakeholders, government and task force are concerned with strategies to make Puerto Rico's system more resilient and are interested in the role that the model could play. Finally, PURC has been contacted by California stakeholders interested in applying the principles of the model to the mitigation of the interactions between the electricity grid and the surrounding vegetation, potentially reducing the risk of wildfires. Despite the outside interest, there are no concrete plans to expand the scope of the model at this time. Every researcher that contacts PURC cites the model as the only non-proprietary model of its kind.

III. Wind Data Collection

The Project Sponsors entered into a wind monitoring agreement with WeatherFlow, Inc., in 2007. Under the agreement, Florida Sponsors agreed to provide WeatherFlow with access to their properties and to allow WeatherFlow to install, maintain and operate portions of their wind monitoring network facilities on utility-owned properties under certain conditions in exchange for access to wind monitoring data generated by WeatherFlow's wind monitoring network in Florida. WeatherFlow's Florida wind monitoring network includes 50 permanent wind monitoring stations around the coast of Florida, including one or more stations located on utility-owned property. The wind monitoring agreement expired in early 2012; however, it was renewed in April 2017 and will renew automatically annually on the effective date for an additional one year period, unless terminated by the parties to the agreement.

IV. Public Outreach

We have previously discussed the impact of increasingly severe storms and the increased population and utility infrastructure along the coast on greater interest in storm preparedness.

PURC researchers continue to discuss the collaborative effort in Florida with the engineering departments of the state regulators in New York, New Jersey, and Pennsylvania, and regulators in Jamaica, Grenada, Curacao, St. Lucia, the Bahamas, Samoa, and the Philippines. In 2019, stakeholders in Puerto Rico and California also showed interest in the collaborative's efforts. While all of the regulators and policymakers showed great interest in the genesis of the collaborative effort, and the results of that effort, they have not, at this point, shown further interest in participating in the research effort. In 2019, there continued to be considerable interest in Florida's hardening efforts from the popular media in California, in light of continued wildfire problems in the state and their aftermath.

VI. Conclusion

In response to the FPSC's Order 06-0351, IOUs, municipal electric utilities, and rural electric cooperatives joined together and retained PURC to coordinate research on electric infrastructure hardening. The steering committee has taken steps to extend the research collaboration MOU so that the industry will be in a position to focus its research efforts on undergrounding research, granular wind research and vegetation management when significant storm activity affects the state.

STORM PREPAREDNESS INITIATIVE No. 10

Initiative 10 – Natural Disaster Preparedness and Recovery Plans

FPL's Storm Emergency Plan identifies emergency conditions and the responsibilities and duties of the FPL emergency response organization for natural disasters, such as severe weather and fires. The plan covers the emergency organization, roles and responsibilities and FPL's overall severe storm emergency processes. These processes describe the planning activities, restoration practices, public communications, coordination with government, training, practice exercises and lessons learned evaluation systems. The plan is reviewed and revised annually, as necessary. A brief summary of the FPL plan, "FPL Emergency Plan – Severe Storms Brief", is included in the Appendix of this filing.

2020 STORM SEASON READINESS

2020 Storm Season Readiness

FPL's comprehensive storm plan focuses on readiness, restoration and recovery in order to respond safely and as quickly as possible in the event the electrical infrastructure is damaged by a storm. FPL is well-prepared for the 2020 storm season and continues to train and hone its storm preparedness and response capabilities.

In addition to the initiatives to strengthen its system and improve storm preparedness discussed previously, FPL will complete the following additional storm preparedness activities prior to the start of the 2020 storm season:

- Extensive storm restoration training based on employees' storm roles including nine Incident Management Team Workshops throughout our service area;
- Annual company-wide hurricane dry run in early May;
- Management workshops throughout the storm season to keep focus on key storm restoration policies/processes;
- Plans for and review of mutual assistance agreements to ensure they are adequate and ready;
- Continue to focus on improving outage communications and estimated restoration times to customers;
- Clear vegetation from all feeder circuits serving critical infrastructure functions (e.g. CIF hospitals, 911 centers, police and fire stations, etc.) prior to the peak of hurricane season;
- Continue development and utilization of new technology to be utilized by storm damage assessors to improve damage assessment collection/analysis capabilities, including the use of drones to perform equipment assessments in difficult to access facilities; and
- Participate in industry conferences to share best practices from the previous storm seasons across utility companies.

RELIABILITY

Summary – Reliability

Total FPL System (Distribution and Transmission) – Overall reliability is best gauged by SAIDI, the most relevant and best overall reliability indicator because it encompasses two other standard industry performance metrics for reliability: SAIFI System Average Interruption Frequency Index ("SAIFI") and Customer Average Interruption Duration Index ("CAIDI"). In 2019, FPL continued to provide excellent overall reliability for its customers, achieving a best-ever total FPL T&D system adjusted SAIDI of 51.4 minutes (2018 – 54.8 minutes). Additionally, FPL achieved a best-ever FPL T&D system adjusted Momentary Average Interruption Frequency Index events ("MAIFIe") of 3.8 momentary events (2018 – 4.6 momentary events).

Distribution – FPL's 2019 overall adjusted distribution reliability results were: SAIDI, a best-ever 49.4 minutes (2018 – 53.2); SAIFI, a best-ever 0.82 interruptions per customer (2018 – 0.89 interruptions); CAIDI, 60.3 minutes (2018 – 60.0 minutes) and a best-ever adjusted MAIFIe, 3.2 momentary events (2018 – 4.0 momentary events).

Transmission – In 2019, FPL's Transmission/Substation adjusted reliability results were: SAIDI, 2.0 minutes (2018 – 1.6 minutes); SAIFI, a best-ever 0.13 interruptions per customer (2018 – 0.13 interruptions); and MAIFIe, 0.6 momentary events (2018 – 0.6 momentary events).

Distribution Reliability

GENERAL

1. Discuss overall performance absent adjustments (Form 102).

FPL's overall unadjusted distribution reliability in 2019, as measured by SAIDI, was 60.2 minutes. This unadjusted performance includes approximately 10.9 minutes associated with tornados, named storms/hurricanes, and planned interruptions.

2. Describe the level of detailed reliability data the Company tracks.

FPL tracks the following reliability data associated with each individual interruption: customers affected, minutes interrupted, cause of outage, percentage of customers partially restored, device affected by interruption and location of the device. All of the interruption data is compiled to calculate reliability indices which are tracked throughout the year. The reliability indices that FPL tracks include the following: SAIDI, SAIFI, CAIDI, MAIFI, MAIFIe, Lbar, CEMI-3, CEMI-5, CEMI-8, CEMM-15, CEMM-25 and Customer Momentary Experience ("CME").

3. Describe Company efforts to increase critical review of detailed reliability data.

Daily reports are generated and distributed providing detailed information, such as the previous day's interruptions by device, month-to-date and year-to-date reliability indices. FPL's management utilizes the information in conducting a daily in-depth review of key reliability data to identify lessons learned and areas for improvement. This review also includes an assessment of upcoming weather and potential impacts, operational risks and a final review of the daily operations plan. FPL's management team also conducts monthly reliability reviews of the programs, objectives and actual performance vs. the plan. On an annual basis, FPL reviews its reliability performance and outage causes to direct its reliability programs for continued performance. With the aid of advanced statistical applications, such as Minitab and Six Sigma analysis, FPL performs statistical analyses to identify reliability trends and root causes and measure program benefits.

4. Describe the process used by your company to identify and select the level of detailed reliability data.

FPL's reliability data detail has been developed over the years based on industry practices, internal needs, as well as external requirements (e.g., requirements of regulators).

5. Discuss adjustments: Generation Events **–** None; Transmission Events - See Appendix; Distribution Events - See response to Distribution Reliability Item Nos. 11 & 13; Extreme Weather - See response to Distribution Reliability Item Nos. 7 & 10

6. Discuss adjusted performance.
Distribution - See summary at the beginning of this reliability section as well as the response to Item No. 1 above.

EXTREME WEATHER

7. Include in the discussion, the type of weather event, strength (wind speeds/surge-flood levels), locations affected and source of meteorological information.

Extreme Weather Events	Strength (wind speeds/surge-flood levels)	Landfall Location	Management Regions Affected
Tornado	Not Available	Boca Raton and Central Florida Jan 24	Affected: Boca Raton and Central Florida
Tornado	Not Available	West Dade Jan 27	Affected: West Dade Supported: South Dade
EOC Activation	Not Available	North Florida Apr 19	Affected: North Florida Supported: Brevard, Central Florida, Manasota, Toledo Blade and Treasure Coast
Tornado	Not Available	West Palm Beach May 3	Affected: West Palm Beach Supported: Treasure Coast and Boca Raton
Hurricane Barry	Not Available	While storm did not make landfall in FPL's service territory, FPL management areas were impacted July 11-12	Affected: Naples, Boca Raton, Central Broward, Central Dade, North Broward, North Dade, North Florida, South Broward, South Dade, West Palm Beach, West Dade Supported: Toledo Blade
Tornado	Not Available	West Palm Beach Jul 25	Affected: West Palm Beach Supported: Boca Raton, North Dade, South Dade and West Dade
EOC Activation	Not Available	All FPL management areas were impacted Aug 30 - 31	Affected: Naples, Boca Raton,Brevard, Central Broward, Central Dade, Central Florida, Manasota, North Dade, North Florida, South Broward, South Dade, Toledo Blade, Treasure Coast, West Palm Beach, West Dade, North Broward
Hurricane Dorian	Not Available	While storm did not make landfall in FPL's service territory, all FPL management areas were impacted Sep 1 - 5	Affected: Naples, Boca Raton,Brevard, Central Broward, Central Dade, Central Florida, Manasota, North Dade, North Florida, South Broward, South Dade, Toledo Blade, Treasure Coast, West Palm Beach, West Dade, North Broward
Hurricane Humberto	Not Available	While storm did not make landfall in FPL's service territory, all FPL management areas were impacted Sep 13 - 16	Affected: Naples, Boca Raton,Brevard, Central Broward, Central Dade, Central Florida, Manasota, North Dade, North Florida, South Broward, South Dade, Toledo Blade, Treasure Coast, West Palm Beach, West Dade, North Broward
Tropical Storm Nestor	Not Available	While storm did not make landfall in FPL's service territory, all FPL management areas were impacted Oct 18 - 19	Affected: Naples, Boca Raton,Brevard, Central Broward, Central Dade, Central Florida, Manasota, North Dade, North Florida, South Broward, South Dade, Toledo Blade, Treasure Coast, West Palm Beach, West Dade, North Broward
Tornado	Not Available	Treasure Coast Nov 5	Affected: Treasure Coast
Tornado	Not Available	North Florida and Central Florida Dec 14	Affected: North Florida and Central Florida Supported: Brevard

Data Source: http://www.spc.noaa.gov/climo/reports
http://www.nhc.noaa.gov

8. Describe the Company's efforts to avoid or minimize, in terms of costs incurred and outage duration, any similar events in the future.

As a part of FPL's continuous improvement philosophy, FPL gathers, after each extreme weather event, relevant information to critique its processes and performance. Also, FPL continues to further develop new technology to strengthen its emergency response, for example:

- Improving customer outage information available to field restoration crews by developing mobile applications which combine outage tickets, weather information, electrical network information, customer energy consumption and voltage, restoration crew location, meter status and more – all layered on a map view and available to view on a computer tablet. This makes it easier to diagnose problems accurately to assist with outage analysis and improve interactions with our customers;

- Expanding the use of smart meter information by creating multiple applications including restoration confirmation application, which allows restoration crews to confirm the power status of all smart meters affected by an outage before leaving the area. This has helped FPL identify embedded outages, resolve the problem on the first visit, and reduce repeat calls from customers; and

- Installing submersible equipment to mitigate the impact of significant water intrusion in 12 vaults in the Miami downtown electric network that are located just at or within the FEMA 100-year flood elevation levels.

See also the pole inspections, hardening and storm season readiness sections in this report.

9. If the method of deriving the weather exclusion is different from the method used for 2018, please explain the changes and provide the CMI and CI for 2019 using the prior method.

No changes were made to FPL's exclusion methodology.

10. Provide the 2019 service reliability data for each extreme weather outage event that is excluded from your Company's 2019 Annual Distribution Reliability Report pursuant to Rule 25-6.0455.

The following data is provided in the Appendix:

A) Causation
B) Date
C) CI
D) CMI
E) L-Bar

OTHER DISTRIBUTION ADJUSTMENTS

11. Discuss the causation of each type of distribution event that resulted in customer outages.

Causation	# of Outages	CI	CMI	LBAR
Planned Interruptions	29,891	320,732	23,938,067	94

12. Describe the Company's efforts to avoid or minimize any similar events in the future in terms of the level of costs incurred and outage duration.

FPL continually evaluates the need for planned crew and customer-requested outages by determining if there are alternative work methods that could minimize or prevent such an outage. If an outage is not preventable, FPL works with customers to schedule necessary outages during times which are more convenient for them (e.g., nights and weekends).

13. Provide the 2019 service reliability data for each distribution outage event that is excluded from your Company's 2019 Annual Distribution Reliability Report pursuant to Rule 25-6.0455.

The following data is provided in the Appendix:

A) Causation
B) Date
C) CMI
D) CI
E) L-Bar

2019 ADJUSTED RELIABILITY CAUSES OF OUTAGE EVENTS

14. Five-year patterns/trends in outage causation for each of the top causes of outage events, including the frequency, duration, restoration time, cost incurred to restore service, remediation programs and remediation program costs.

		System Avg. Interruption (SAIDI)					Frequency (SAIFI)					Duration (CAIDI)				
Rank	PSC Cause Group	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
1	Defective Equipment	24.2	23.6	23.8	23.5	21.3	0.40	0.38	0.39	0.36	0.30	60.5	61.5	61.7	64.7	71.3
2	Vegetation	12.8	10.5	9.9	8.2	8.9	0.13	0.09	0.10	0.08	0.08	102.4	113.2	99.4	105.9	106.1
3	Other Weather	6.5	5.6	4.5	5.2	4.1	0.09	0.09	0.06	0.07	0.05	68.7	61.3	70.2	71.7	78.4
4	All Other Causes	2.0	2.6	3.2	3.4	3.4	0.08	0.09	0.10	0.12	0.11	24.4	29.8	30.4	28.6	30.1
5	Animals	3.1	2.5	2.6	2.3	2.6	0.06	0.04	0.04	0.04	0.05	49.2	55.8	59.8	56.7	57.4
6	Unknown	3.1	3.0	3.4	3.1	2.4	0.09	0.09	0.10	0.10	0.10	33.4	33.8	32.1	30.3	23.8
7	Other	2.1	2.1	2.5	2.5	2.3	0.05	0.04	0.04	0.05	0.06	40.0	48.0	64.5	51.4	36.0
8	Vehicle	3.0	3.2	2.9	2.7	2.3	0.05	0.05	0.04	0.03	0.03	58.9	61.4	71.6	79.9	72.8
9	Lightning	2.7	2.8	1.6	2.3	2.0	0.04	0.04	0.02	0.03	0.03	72.3	75.0	62.8	81.5	77.2
	System Total	59.4	55.8	54.3	53.2	49.4	1.00	0.92	0.90	0.89	0.82	59.6	60.7	60.0	60.0	60.3

See remediation programs/budget levels in FPL's response to Distribution Reliability Item No. 16. Costs incurred to restore service by cause are not specifically tracked.

15. The process used to identify and select the actions to improve the performance in each of the top causes of outages.

Annually, FPL evaluates its current reliability remediation programs and verifies the programs' need. In addition, FPL proposes new reliability remediation programs to improve its reliability performance concentrating on the highest cause codes and those cause codes that have shown trends needing attention.

16. 2020 activities and budget levels addressing each of the top causes of service outages (programs > $1.0 Million)

Program	Program Description	2020 Budget ($M)	Impact on which Cause Codes
Distribution Automation/ Smart Grid	Install and maintain Distribution Automation Devices. This Program includes Automated Feeder Switches, Automated Lateral Switches and Fault Current Indicators. These devices will help mitigate the effects of feeder and lateral interruption by clearing temporary faults, decreasing voltage sags, decreasing field visits for replacing blown fuses, isolating problematic areas and decreasing restoration time; making it a more reliable system.	$120.4	All
System Expansion	Provide the necessary feeder capacity to serve all customers during normal and emergency periods, and install the infrastructure necessary to support system contingency.	$115.5	All
Vegetation Mgmt[1]	Integrated program designed to minimize tree and vine related interruptions.	TBD[2]	Vegetation, Unknown
Auto TX Switch (ATS)	Reduce the number of permanent outages caused by temporary faults on overhead transformer equipment	$51.5	Animal, Unknown, Vegetation, Weather
Cable Lateral	Reduce the number of direct buried lateral cable failures and reduce customer interruptions.	$42.4	Equipment Failure
Handhole Inspections / Pad-mounted Transformers	Inspection/Remediation of non-compliant conditions. The purpose of this program is to maintain pad-mount transformer security.	$22.0	Equipment Failure
Feeder Line Covers (FLC)	Install covers at feeder locations that are more susceptible to vegetation-related interruptions.	$13.3	Vegetation, Unknown
Customer Impact	Projects targeted to improve reliability for specific customers or geographic areas	$11.3	Equipment Failure
Reliability-Capital Projects	Capital intensive projects to increase overall reliability	$10.5	All
RA Switch Replacement	This program will proactively replace RA switches in order to enhance system operations and reliability.	$8.9	Equipment Failure
Frequency Feeder Repairs	Target overhead/hybrid feeders with the highest customer interruptions, and conduct thermo and visual assessment to identify what equipment and other findings need to be repaired.	$8.7	All
Submarine Cable	Reduce the number of Submarine feeder cable failures and reduce customer interruptions.	$6.8	Equipment Failure
CEMI Program	Conducts trigger based post outage investigations on feeders meeting the program criteria and conducts thermo and visual assessments to identify what equipment and other findings need to be repaired.	$5.7	All
Feeder Ownership Immediate Response Repairs	Assess overhead/hybrid feeders visually and make repairs to findings that could cause immediate outages	$4.5	All
Vault Inspections and repairs (not including RA Switches)	Inspect vaults and Powell-Esco Switches. Program will mitigate vault interruptions and will help to identify any issues that need to be addressed before an interruption occurs.	$3.3	Equipment Failure
Open Wire Secondary	Identification and removal of overheard open wire secondary lines.	$3.3	Vegetation, Unknown
OCR Replacement	Replace Oil Circuit Reclosers with Electronic Reclosers	$2.8	Equipment Failures
Cable Feeder	Reduce the number of direct buried feeder cable failures and reduce customer interruptions.	$2.7	Equipment Failure
VAR Management (installations and maintenance)	Install, relocate, maintain, and control distribution capacitor banks. This program will help maintain or improve power factor performance, improve system efficiency, reliability, and quality of service voltage to our customers.	$2.1	Remaining Causes
OH Equipment Upgrade	Upgrade specific feeder equipment to newest standard to improve reliability	$1.8	Equipment Failures
Outlier Devices	Identifying and correcting laterals experiencing the highest number of customers interrupted and/or laterals with difficult restoration conditions.	$1.1	All

1. Also referred to as Storm Preparedness Initiative 1.
2. FPL's 2020 plans for distribution vegetation management are currently being finalized and will be included in FPL's Storm Protection Plan filing for 2020-2029 which is to be filed with the FPSC no later than April 6, 2020.

THREE-PERCENT FEEDER LIST

17. Identify whether any feeders appearing on the three-percent list more than once within a consecutive five-year period and any actions implemented to improve feeder performance.

See FPL's three-percent list in the Appendix.

See FPL's responses to Distribution Reliability Question numbers 16 and 18 for actions that FPL has taken to address these feeders.

18. Process used to identify and select the actions to improve the performance of feeders on the three-percent feeder list, if any.

FPL evaluates feeder performance on a daily basis and has addressed feeders on this list through its "Priority Feeder" program and one or more of its other reliability programs.

The objective of FPL's Priority Feeder program is to reduce the number of customers experiencing multiple amounts of interruptions and momentaries by identifying and correcting feeders experiencing the highest number of events and/or customers interrupted. The initiative may strengthen feeders up to and including extreme wind loading standards for additional overall reliability improvement.

19. 2020 activities and budget levels directed at improving feeder performance.

See response to Distribution Reliability Item No. 16.

REGIONAL RELIABILITY INDICES

20. Five-Year patterns/trends in each region's reliability for each index and on any overall basis.

Annual SAIDI performance for the Distribution unit and its regions

Data	Region	2015	2016	2017	2018	2019
SAIDI	Boca Raton (BR)	53.6	51.0	45.1	49.5	42.0
	Brevard (BV)	52.7	52.8	56.1	43.7	44.3
	Central Broward (CB)	64.3	57.7	60.7	59.5	64.6
	Central Dade (CD)	46.6	41.3	41.8	41.7	53.8
	Central Florida (CF)	49.5	49.1	46.2	47.2	40.2
	Manasota (MS)	55.4	52.4	50.2	52.4	34.1
	Naples (NA)	56.8	55.5	63.9	55.1	50.1
	North Broward (NB)	56.9	48.1	37.6	38.9	37.3
	North Dade (ND)	71.1	59.1	69.1	69.5	64.4
	North Florida (NF)	67.6	64.0	64.5	73.0	59.9
	South Broward (SB)	52.0	42.7	42.3	50.9	50.7
	South Dade (SD)	76.2	68.1	63.2	58.7	55.7
	Toledo Blade (TB)	64.8	74.8	77.2	69.7	56.3
	Treasure Coast (TC)	72.4	80.7	65.6	47.2	53.7
	West Palm (WB)	55.2	50.8	45.8	46.1	40.8
	West Dade (WD)	67.8	56.2	53.8	67.2	60.6
	All FPL	59.4	55.8	54.3	53.2	49.4

Annual SAIFI performance for the Distribution unit and its regions

Data	Region	2015	2016	2017	2018	2019
SAIFI	BR	1.08	1.08	0.89	1.00	0.80
	BV	0.96	0.87	1.04	0.87	0.81
	CB	1.14	0.86	1.11	0.90	0.88
	CD	0.78	0.66	0.79	0.77	0.78
	CF	0.90	0.80	0.85	0.84	0.77
	MS	1.00	0.91	0.77	0.73	0.58
	NA	0.91	0.97	0.92	0.89	0.82
	NB	1.03	0.80	0.65	0.66	0.61
	ND	0.87	0.72	0.96	0.94	1.00
	NF	1.08	1.00	1.04	1.25	1.04
	SB	0.88	0.83	0.79	0.90	0.85
	SD	1.08	0.99	0.79	0.83	0.74
	TB	0.98	1.14	1.12	1.01	0.88
	TC	1.05	1.19	1.11	0.81	0.97
	WB	1.01	0.88	0.96	0.97	0.83
	WD	1.24	0.99	0.85	1.03	0.96
	All FPL	1.00	0.92	0.90	0.89	0.82

Annual CAIDI performance for the Distribution unit and its regions

Data	Region	2015	2016	2017	2018	2019
CAIDI	BR	49.7	47.1	50.4	49.4	52.4
	BV	54.8	60.4	53.9	50.2	54.6
	CB	56.6	67.0	54.6	66.1	73.7
	CD	59.6	63.1	53.2	54.5	68.8
	CF	55.3	61.0	54.4	56.1	52.5
	MS	55.2	57.4	65.0	71.9	59.1
	NA	62.2	57.0	69.2	61.8	61.3
	NB	55.4	60.5	58.0	59.2	61.1
	ND	81.9	82.2	71.8	74.2	64.4
	NF	62.8	64.0	62.2	58.2	57.6
	SB	58.9	51.3	53.8	56.3	59.6
	SD	70.8	68.9	80.0	70.7	75.2
	TB	65.8	65.8	69.0	68.8	64.3
	TC	69.2	67.5	59.0	58.7	55.2
	WB	54.8	58.0	47.5	47.7	48.9
	WD	54.7	56.6	63.4	65.2	63.0
	All FPL	59.6	60.7	60.0	60.0	60.3

Annual MAIFIe performance for the Distribution unit and its regions

Data	Region	2015	2016	2017	2018	2019
MAIFIe	BR	7.1	5.4	4.5	4.2	3.7
	BV	7.9	5.2	4.0	3.6	3.1
	CB	9.9	7.4	6.1	4.3	3.3
	CD	7.3	4.9	3.5	3.0	2.8
	CF	6.5	5.1	3.4	3.8	2.8
	MS	5.9	5.2	3.8	3.7	2.4
	NA	7.4	7.1	6.2	4.9	3.4
	NB	6.3	4.6	3.2	3.5	2.5
	ND	8.2	5.6	3.5	3.2	2.8
	NF	8.7	5.8	4.2	3.2	2.8
	SB	6.9	5.3	4.1	4.6	3.5
	SD	7.1	5.8	4.3	3.9	3.4
	TB	8.1	7.7	4.5	5.2	3.4
	TC	8.1	6.4	4.0	3.6	3.2
	WB	7.8	5.6	4.5	4.8	4.2
	WD	7.5	6.2	4.2	4.3	3.7
	All FPL	7.5	5.8	4.3	4.0	3.2

Annual Cust >5 performance for the Distribution unit and its regions

Data	Region	2015	2016	2017	2018	2019
# Cust >5	BR	0.8%	1.4%	0.4%	0.9%	1.0%
	BV	0.3%	0.2%	0.9%	0.3%	0.2%
	CB	0.6%	0.5%	0.7%	0.2%	0.5%
	CD	0.3%	0.5%	0.8%	0.7%	0.1%
	CF	0.3%	0.1%	0.2%	0.8%	0.4%
	MS	0.9%	0.2%	0.3%	0.3%	0.3%
	NA	0.6%	0.4%	0.3%	0.3%	1.0%
	NB	1.0%	1.2%	0.1%	0.5%	0.2%
	ND	1.0%	0.3%	1.2%	0.7%	1.0%
	NF	0.7%	0.4%	0.7%	1.4%	0.7%
	SB	0.8%	0.1%	0.6%	0.2%	0.3%
	SD	0.9%	0.2%	0.7%	0.3%	0.7%
	TB	0.6%	1.6%	1.5%	1.9%	0.7%
	TC	1.0%	2.9%	1.7%	0.5%	1.2%
	WB	1.0%	0.5%	2.0%	0.6%	0.3%
	WD	1.5%	0.6%	0.7%	0.5%	0.6%
	All FPL	0.8%	0.7%	0.8%	0.6%	0.6%

21. The process used to identify and select actions to improve the regional reliability trends.

See FPL's response to Distribution Reliability Item No. 3.

22. Discuss any 2020 projected activities and budget levels directed at improving regional reliability performance.

See FPL's response to Distribution Reliability Item No. 16. Each program listed addresses equipment and devices at the management area level.

OVERHEAD – UNDERGROUND RELIABILITY

23. Describe the five year patterns/trends in reliability performance of underground systems vs. overhead systems.

The majority of FPL's customers are fed from circuits that are a hybrid of both overhead and underground systems. The methodology used to classify a customer as OH is defined as those customers served by a feeder with combined feeder and lateral overhead miles greater than or equal to 95% of the total primary miles. Then, to classify a customer as UG, customers must be served by a feeder with combined feeder and lateral underground miles greater than or equal to 95% of the total primary miles. The balance of customers is classified as Hybrid. According to this methodology, FPL has 130 OH feeders, 558 UG feeders, with the remaining 2,736 feeders classified as hybrid. This methodology was applied for FPL's responses to Distribution Reliability Question Nos. 23 and 26.

Five years' reliability performance of underground, hybrid and overhead systems

Data	Year	Hybrid	OH	UG	ALL
SAIDI	2015	60.0	102.4	21.4	59.4
	2016	57.6	80.4	17.2	55.8
	2017	55.5	89.6	17.7	54.3
	2018	54.2	89.0	21.2	53.2
	2019	49.4	87.4	30.3	49.4
SAIFI	2015	1.03	1.23	0.33	0.99
	2016	0.97	1.01	0.27	0.92
	2017	0.94	1.31	0.26	0.90
	2018	0.92	1.18	0.36	0.89
	2019	0.84	1.07	0.39	0.82
CAIDI	2015	58.1	83.2	64.5	59.7
	2016	59.6	79.9	63.6	60.7
	2017	59.2	68.2	68.3	60.0
	2018	59.2	75.6	59.0	60.0
	2019	58.5	82.0	76.8	60.3
L BAR	2015	162	153	210	162
	2016	175	163	220	175
	2017	194	177	220	193
	2018	200	182	260	199
	2019	178	165	231	178

Historically, FPL's UG system's SAIDI performance has been better than its OH system, primarily driven by a better SAIFI. Also, the CAIDI associated with UG has generally performed better than OH due to FPL's looped UG system, which generally provides more opportunities for sectionalizing.

24. Describe Company efforts to separately track the reliability of overhead and underground systems.

FPL continually monitors each feeder interruption with a designation of either overhead, underground or hybrid system. FPL also utilizes the actual equipment type that fails in order to determine the necessary performance of its overhead and underground systems. For example, FPL has equipment codes that relate specifically to its overhead system (disconnect switches, insulators, jumpers, wire) and underground system (cable, switch cabinets, elbow and terminators).

After storm events, FPL performs the activities described in Initiative 7 of FPL's approved Storm Preparedness Initiatives.

25. Describe the process used by your company to identify and select the actions to promote underground distribution systems.

- **GAF Tariff** – FPL's primary tool to promote overhead to underground conversions is its GAF tariff. The GAF's goal is to lower storm restoration costs to all customers by providing an incentive for qualified government-sponsored conversions. Local governments are in the best position to guarantee the needed 100% customer service lateral conversion participation. Local governments are also best positioned to facilitate the construction through managing permitting, securing locations for the underground facilities, and negotiating with other utility providers. Additionally, in June of 2017 FPL proposed, and in January of 2018 the Commission ultimately approved FPL's revisions to the calculation of an applicant's contribution in aid of construction (CIAC) in the Company's underground distribution conversion tariff. The new formula generally reduces the costs for a governmental entity to undertake an overhead to underground conversion of feeders and should facilitate the ability of more local governments to pursue this course of action.

In 2019, one municipality signed the GAF tariff agreement and moved forward with their project.

Local Community Presentations – FPL conducts numerous presentations with local community groups who are interested in exploring overhead-to-underground conversions.

Local Ordinances – There are local ordinances in effect in multiple counties within FPL's service territory that require the installation of new facilities underground. In addition, several municipalities require the customer to bury existing OH lines on or adjacent to their property when a major renovation is performed.

26. Provide Overhead and Underground Metrics

See FPL's response to Distribution Reliability Item No. 23 for classification criteria.
CEMI-5 is not available by OH and UG.
The miles below include only primary circuits (Feeders and Laterals).

2019 OH:

Number of miles = 5,070
Number of customers = 187,831
Number of Customer Minutes Interrupted (CMI) = 16,409,477
Number of Customers Interruptions (CI) = 200,692
L-Bar = Minutes of Interruption = 1,241,604 = 165
Total Number of Outages 7,534

2019 HYBRID:

Number of miles = 58,711
Number of customers = 4,506,458
Number of Customer Minutes Interrupted (CMI) = 222,398,170
Number of Customers Interruptions (CI) = 3,804,882
L-Bar = Minutes of Interruption = 14,732,485 = 178
Total Number of Outages 82,910

2019 UG:

Number of miles = 4,063
Number of customers = 392,255
Number of Customer Minutes Interrupted (CMI) = 12,291,925
Number of Customers Interruptions (CI) = 155,915
L-Bar = Minutes of Interruption = 354,112= 231
Total Number of Outages 1,535

Data	Year	Hybrid	OH	UG	ALL
Number of Customers	2015	4,249,215	224,145	323,469	4,796,829
	2016	4,314,794	210,217	336,979	4,861,990
	2017	4,341,527	215,252	356,088	4,912,867
	2018	4,416,606	198,599	363,096	4,978,301
	2019	4,512,128	186,725	387,691	5,086,544
CMI	2015	254,851,692	22,942,824	6,923,452	284,717,968
	2016	248,398,325	16,900,540	5,780,105	271,078,970
	2017	240,963,708	19,282,826	6,315,376	266,561,910
	2018	239,453,615	17,681,763	7,707,127	264,842,505
	2019	223,025,211	16,327,740	11,746,621	251,099,572
CI	2015	4,388,329	275,796	107,295	4,771,420
	2016	4,166,770	211,393	90,919	4,469,082
	2017	4,071,005	282,621	92,463	4,446,089
	2018	4,047,356	233,873	130,673	4,411,902
	2019	3,809,434	199,155	152,900	4,161,489
MAIFIe	2015	7.8	10.3	1.0	7.5
	2016	6.1	7.9	0.9	5.8
	2017	4.6	5.1	0.9	4.3
	2018	4.2	5.0	1.0	4.0
	2019	3.4	3.4	0.9	3.2

RELIABILITY RELATED CUSTOMER COMPLAINTS

27. Provide the five-year history for reliability-related* customer complaints.

2015 37
2016 41
2017 40
2018 30
2019 27

* As defined by the FPSC.

28. Describe Company efforts to correlate reliability-related complaints with reliability indices for applicable feeder, lateral and sub region.

FPL addresses reliability complaints on a case-by-case basis. Lessons learned from issues and resolutions identified may be incorporated into our practices, if deemed appropriate. FPL also utilizes certain reliability programs, e.g., Customer Impact and Priority Feeders, to address customer complaints.

29. Describe the process used by your company to identify and select systemic actions to improve reliability due to customer complaints. If no such program exists explain why.

See response to Distribution Reliability Item No. 28

Transmission Reliability

1. Reliability Adjustments Events (Transmission).
See Appendix.

2. Localized Versus System Wide Events.
None.

3. Description of Reliability Programs.
The transmission and substation reliability initiative is a two-fold program. The first part consists of on-going assessments and inspections of the transmission and substation system conditions and the associated mitigation work as required. The second part consists of the following targeted reliability areas:

Animals – Program to prevent and mitigate the effects of animal related events to the transmission and substation system. Animals include (but are not limited to) roosting and prey birds, squirrels, monk parrots, and raccoons.

Equipment – Proactive replacement of both transmission and substation equipment reaching end of life. Items include, but are not limited to, insulators, OHGW, distribution breakers, transmission breakers, switches, and substation regulators.

Lightning – Items include bonding, grounding, and arrester installations.

Foreign Interference – Outreach and awareness safety program to minimize the impact of foreign interference (e.g., cranes, balloons, diggers, sailboats, etc.) into electrical lines

Vegetation Management – FPL performs condition assessments of every transmission right-of-way with a qualified arborist. Performed every six (6) months, these assessments include detailed descriptions based on actual vegetation conditions. As a result of these assessments, the schedules are established to complete the identified work; at that point the work is prioritized and executed.

4. Five-Year Reliability Performance

Transmission/Substation

12 Months ending December 31

	2015	2016	2017	2018	2019
SAIDI	2.0	2.2	2.1	1.6	2.0
SAIFI	0.14	0.20	0.16	0.13	0.13
MAIFI	0.8	0.7	0.6	0.7	0.7
MAIFIe	0.6	0.6	0.6	0.6	0.6

5. Description of Company's Tracking

FPL's Transmission/Substation group investigates all transmission and substation outages in order to identify root cause(s)/develop solutions. Reliability performance is tracked using SAIDI, SAIFI and MAIFI.

6. Method of Program Selections

For program selection, FPL's Transmission/Substation group utilizes historical reliability performance, trends, condition assessments and risk ranking.

ANNUAL DISTRIBUTION RELIABILITY REPORT 2019

SAIDI	**= System Average Interruption Duration Index**		
	= Sum of All Customer Minutes Interrupted (CMI)	251,099,572	49.37
	Total number of Customers Served (C)	5,086,544	
CAIDI	**= Customer Average Interruption Duration Index**		
	= Sum of All Customer Minutes Interrupted (CMI)	251,099,572	60.3
	Total number of Customer Interruptions (CI)	4,161,489	
SAIFI	**= System Average Interruption Frequency Index**		
	= Total number of Customer Interruptions (CI)	4,161,489	0.82
	Total number of Customers Served (C)	5,086,544	
MAIFIe	**= Momentary Average Interruption Event**		
	= Sum of All Customer Momentary Interruption Events (CME)	16,301,131	3.2
	Total number of Customers Served (C)	5,086,544	
L BAR	= Minutes of Interruption (AO)	16,328,201	178
	Total Number of Outages (# of Outages)	91,979	
%CEMI-5	= Sum of CEMI-5 Customers (# Cust>5)	29,165	0.6%
	Total number of Customers Served (C)	5,086,544	

Service Reliability Indices Data								
Utility Name: FPL								Year: 2019
Dsitrict or Service Area	Customer Served (C)	# of Outages	CMI	CI	AO	CME	# Cust >5	MAIFIe Customer Served
Boca Raton	383,429	5,410	16,103,315	307,388	953,349	1,464,716	3,888	397,333
Brevard	316,529	6,842	14,030,296	256,979	1,031,483	959,443	665	314,488
Central Broward	282,135	5,288	18,233,421	247,340	971,691	992,860	1,312	297,690
Central Dade	320,532	4,511	17,247,317	250,807	988,917	898,181	451	318,377
Central Florida	298,186	5,458	11,989,778	228,206	753,600	836,882	1,116	300,369
Manasota	408,944	6,646	13,952,511	236,087	1,038,960	991,839	1,092	416,882
Naples	414,696	5,155	20,755,950	338,560	1,067,213	1,367,303	4,155	399,127
North Broward	323,531	3,883	12,082,076	197,671	709,080	791,158	653	314,838
North Dade	251,793	6,462	16,225,398	252,116	1,192,043	697,505	2,592	246,802
North Florida	171,801	4,208	10,294,061	178,611	615,618	472,853	1,270	171,813
South Broward	344,502	5,283	17,452,273	292,664	1,021,141	1,158,592	1,165	332,878
South Dade	303,306	6,848	16,908,759	224,940	1,639,819	1,014,468	2,183	298,839
Toledo Blade	281,994	6,460	15,879,145	246,898	1,047,818	991,986	1,854	289,571
Treasure Coast	340,658	7,722	18,277,907	330,927	1,270,993	1,088,282	4,145	340,317
West Dade	270,975	4,566	16,431,823	260,857	928,295	1,050,634	1,646	266,961
West Palm	373,533	7,237	15,235,542	311,438	1,098,181	1,524,429	978	349,716
All FPL	5,086,544	91,979	251,099,572	4,161,489	16,328,201	16,301,131	29,165	5,085,820

* For MAIFIe only, FPL utilizes a slightly different customer served count for the Management Areas. Specifically, customer counts are determined by counting the customers on all feeders out of the substations located in each Management Area, regardless of where that feeder runs geographically (i.e., a customer served could be located in another Management Area). This count is different than the customer served count used for SAIDI and SAIFI, which uses the actual count of customers with meters located in each Management Area.

PSC/ECR 102-1(a)
Incorporated by reference in Rule 25-6.0455

Causes of Outage Events – Actual

Utility Name: FPL Year: 2019

Cause (a)	Number of Outage Events (N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Defective Equipment	36,182	198	71.0
Request	30,690	94	73.6
Vegetation	20,701	195	108.5
Unknown	9,048	132	24.7
Other Weather	7,807	192	79.2
Animals	10,441	105	57.9
Other	9,442	175	40.5
All Other Causes	3,605	146	29.8
Lightning	1,765	262	77.3
Vehicle	912	259	72.4
System Total	130,593	159	62.8

PSC/ECR 102-1(b)
Incorporated by reference in Rule 25-6.0455

Causes of Outage Events – Adjusted

Utility Name: FPL Year: 2019

Cause (a)	Number of Outage Events (N) (b)	Average Duration (L-Bar) (c)	Average Restoration Time (CAIDI) (d)
Defective Equipment	34,282	198	71.3
Vegetation	18,123	193	106.1
Unknown	8,593	132	23.8
Other Weather	6,592	190	78.4
Animals	10,046	105	57.4
Other	8,367	171	36.0
All Other Causes	3,449	147	30.1
Lightning	1,644	260	77.2
Vehicle	883	259	72.8
System Total	91,979	178	60.3

PSC/ECR 102-2(a)

THREE PERCENT FEEDER LIST - ACTUAL

FPL Primary Circuit Id. No. or Name (a)	Substation Origin (b)	Location (c)	Year 2019 Number of Customers Residential (d)	Commercial (e)	Industrial (f)	Other (g)	Total (h)	Number of Outage Events (N) (i)	Average Duration (L-Bar) (j)	Average Restoration Time (CAIDI) (k)	Listed Last Year? (l)	No. of Years in the Last 5 (m)
807161	PENNSUCO	Miami-Dade	82	618	2	11	702	12	225	55.0	Y	5
502463	LABELLE	Hendry	1144	216	5	43	1365	10	87	19.0	Y	3
810061	AVOCADO	Miami-Dade	1029	372	4	103	1405	10	42	41.0	Y	3
407562	GLENDALE	Indian River	1241	323	0	20	1564	9	53	30.0	N	1
501064	FRUITVILLE	Sarasota	1776	477	4	9	2257	9	51	10.0	N	1
505963	CARLSTROM	De Soto	265	104	1	17	370	9	242	190.0	N	3
309331	WELLBORN	Suwannee	888	172	3	68	1063	8	67	20.0	N	1
403634	SOUTH BAY	Palm Beach	0	164	1	3	165	8	300	170.0	N	2
707661	CROSSBOW	Broward	689	55	2	12	746	8	2	2.0	Y	4
101464	FLAGLER BEACH	Flagler	3087	288	13	108	3388	7	109	18.0	Y	2
204265	BABCOCK	Brevard	2102	400	10	61	2512	7	33	8.0	N	2
300631	LIVE OAK	Suwannee	986	283	7	42	1276	7	71	25.0	N	2
400832	PAHOKEE	Palm Beach	285	84	19	6	388	7	202	50.0	N	2
406061	SHERMAN	Okeechobee	1203	196	7	36	1406	7	57	20.0	N	1
407664	LOXAHATCHEE	Palm Beach	1674	197	6	12	1877	7	19	14.0	N	1
408865	ABERDEEN	Palm Beach	2548	102	0	9	2650	7	112	37.0	N	2
504967	GOLDEN GATE	Collier	1428	177	23	116	1628	7	58	19.0	Y	2
505465	WINKLER	Lee	1718	719	0	24	2437	7	109	40.0	N	1
108362	GATOR	St Johns	758	214	5	39	977	6	11	7.0	Y	3
300632	LIVE OAK	Suwannee	535	175	1	34	711	6	90	61.0	N	1
307561	HAMPTON	Bradford	1011	235	4	69	1250	6	97	74.0	N	1
308061	MILLS	Nassau	1005	344	9	55	1358	6	53	51.0	N	1
402032	CLEWISTON	Hendry	1211	152	9	57	1372	6	68	47.0	Y	3
404631	PLATT	Martin	2029	331	6	33	2366	6	3	3.0	N	2
404732	HILLSBORO	Palm Beach	1585	38	11	1	1634	6	112	53.0	N	3
405263	ACME	Palm Beach	2767	329	12	6	3108	6	56	21.0	N	1
409963	PINEWOOD	Palm Beach	3707	409	30	11	4146	6	53	15.0	N	2
501235	NAPLES	Collier	1487	252	10	5	1749	6	163	36.0	N	1
700637	VERENA	Broward	1414	274	2	19	1690	6	45	26.0	N	1
704761	STONEBRIDGE	Broward	2584	228	6	16	2818	6	8	6.0	N	1
706366	BASSCREEK	Broward	0	1	0	0	1	6	122	104.0	N	1
801631	PRINCETON	Miami-Dade	627	294	3	38	924	6	141	37.0	N	1
804932	OJUS	Miami-Dade	808	47	5	8	860	6	79	15.0	N	1
810062	AVOCADO	Miami-Dade	615	328	2	73	945	6	44	44.0	N	1
812063	WILLIAMS	Miami-Dade	412	381	4	73	797	6	48	26.0	Y	2
100935	SOUTH DAYTONA	Volusia	1175	129	7	20	1311	5	53	12.0	N	1
102033	BULOW	Volusia	2296	74	5	8	2375	5	26	12.0	Y	2
105762	RIVERTON	St Johns	1369	139	7	13	1515	5	64	50.0	Y	2
105763	RIVERTON	St Johns	1344	190	5	40	1539	5	59	41.0	N	1
106362	REGIS	Flagler	1914	29	2	105	1945	5	13	12.0	N	1
200331	TITUSVILLE	Brevard	695	395	0	28	1090	5	94	29.0	N	1
204262	BABCOCK	Brevard	2711	336	1	43	3048	5	31	21.0	N	1
208863	WINDOVER	Brevard	1949	214	5	30	2168	5	134	25.0	N	1
303162	STARKE	Bradford	729	107	1	69	837	5	242	76.0	N	1
308062	MILLS	Nassau	405	90	5	23	500	5	33	26.0	N	1
400737	BOCA RATON	Palm Beach	2019	106	9	3	2134	5	106	26.0	Y	4
400934	BELLE GLADE	Palm Beach	1387	298	5	56	1690	5	201	34.0	N	2
401132	STUART	Martin	1381	185	2	5	1568	5	40	23.0	N	1
402536	BELVEDERE	Palm Beach	759	190	3	20	952	5	20	22.0	N	1
403432	JENSEN	Martin	569	121	1	2	691	5	126	38.0	N	1
403632	SOUTH BAY	Palm Beach	775	147	3	12	925	5	61	32.0	Y	2
407333	HILLS	Martin	1684	44	4	1	1732	5	4	5.0	N	1
408264	COVE	Martin	3455	177	11	6	3643	5	3	3.0	N	1
408463	ADAMS	St Lucie	171	255	3	11	429	5	143	68.0	Y	2
408564	ALEXANDER	Palm Beach	1275	177	5	46	1457	5	3	2.0	N	3
409633	RAINBERRY	Palm Beach	1915	182	6	4	2103	5	90	70.0	N	1
411561	FELLSMERE	Indian River	1822	405	4	37	2231	5	25	15.0	N	2
413635	BONANZA	Indian River	1172	536	0	30	1708	5	192	63.0	N	1
501833	TICE	Lee	2223	155	49	114	2427	5	26	19.0	N	1
503132	SOLANA	Collier	2354	267	11	14	2632	5	12	10.0	N	1
507064	IMPERIAL	Lee	2842	311	5	5	3158	5	143	52.0	N	1
507363	ORANGETREE	Collier	2784	154	58	143	2996	5	27	21.0	N	1
507561	PARRISH	Manatee	3210	256	27	32	3493	5	80	34.0	N	1
700631	VERENA	Broward	1044	313	2	18	1359	5	91	14.0	N	1
701140	LYONS	Broward	2296	131	7	3	2434	5	6	6.0	N	1
701832	ROCK ISLAND	Broward	2464	144	5	7	2613	5	110	40.0	Y	2
703537	DEERFIELD BEACH	Broward	1802	146	8	10	1956	5	84	35.0	N	1
709261	PROGRESSO	Broward	741	112	2	6	855	5	261	71.0	N	1
800637	LITTLE RIVER	Miami-Dade	2034	251	4	6	2289	5	179	67.0	N	1
802231	GLADEVIEW	Miami-Dade	1323	135	1	11	1459	5	42	15.0	N	1
802237	GLADEVIEW	Miami-Dade	1352	187	0	24	1539	5	151	73.0	N	1
803131	FLORIDA CITY	Miami-Dade	1150	134	0	7	1284	5	181	47.0	N	2
803439	MIAMI SHORES	Miami-Dade	1530	184	4	23	1718	5	27	10.0	N	1
806333	ULETA	Miami-Dade	2432	97	2	10	2531	5	60	31.0	N	1
807164	PENNSUCO	Miami-Dade	1343	350	3	2	1696	5	214	36.0	Y	3
807433	VILLAGE GREEN	Miami-Dade	1393	41	0	8	1434	5	119	34.0	N	1
808534	SEMINOLA	Miami-Dade	473	236	0	7	709	5	2	2.0	N	1
809765	SWEETWATER	Miami-Dade	2634	186	0	18	2820	5	92	52.0	N	1
811561	KOGER	Miami-Dade	0	1034	0	7	1034	5	62	11.0	N	1
812162	BEACON	Miami-Dade	366	651	2	5	1019	5	261	51.0	N	1
100235	ST AUGUSTINE	St Johns	1504	238	7	20	1749	4	20	17.0	N	1
100632	CRESCENT CITY	Putnam	1281	261	4	86	1546	4	168	62.0	N	1
101863	ORANGEDALE	St Johns	3149	108	30	25	3287	4	15	20.0	Y	3
101934	EDGEWATER	Volusia	1163	314	5	17	1482	4	93	37.0	N	1
102131	DELAND	Volusia	256	157	2	11	415	4	68	46.0	N	1
102235	MADISON	Volusia	1938	155	1	24	2094	4	34	13.0	N	1
105061	SCOTTSMOOR	Volusia	2032	257	2	53	2291	4	47	50.0	N	1
108361	GATOR	St Johns	1744	365	25	24	2134	4	49	38.0	N	1
203637	HARRIS	Brevard	1309	220	6	20	1535	4	54	34.0	N	1
204133	SATELLITE	Brevard	1595	104	2	8	1701	4	77	16.0	N	2
205361	GENEVA	Seminole	854	114	8	43	976	4	190	53.0	N	1
206932	BARNA	Brevard	1196	137	0	20	1333	4	85	26.0	N	1
305231	PRICE	Columbia	1113	144	9	53	1266	4	64	24.0	N	1
306133	NASH	Columbia	621	224	3	31	848	4	75	31.0	N	1
307761	ONEIL	Nassau	2954	409	30	71	3393	4	35	23.0	N	1
400436	HILLCREST	Palm Beach	1034	194	4	10	1232	4	127	78.0	N	2
400661	WABASSO	Indian River	1090	71	0	9	1161	4	41	14.0	N	1
401533	FT PIERCE	St Lucie	561	119	1	14	681	4	44	23.0	N	1
402137	TERMINAL	Palm Beach	2583	166	0	42	2749	4	30	11.0	N	1
405864	DELTRAIL	Palm Beach	2283	129	16	4	2428	4	8	6.0	N	1
407163	CRANE	Martin	2481	135	2	7	2618	4	74	36.0	N	3
407332	HILLS	Martin	1288	233	10	10	1531	4	138	49.0	N	1
407335	HILLS	Martin	1354	71	7	3	1432	4	83	31.0	N	1

PSC/ECR 102-2(b)

THREE PERCENT FEEDER LIST - ADJUSTED

FPL Primary Circuit Id. No. or Name (a)	Substation Origin (b)	Location (c)	Year 2019 Number of Customers Residential (d)	Commercial (e)	Industrial (f)	Other (g)	Total (h)	Number of Outage Events (N) (i)	Average Duration (L-Bar) (j)	Average Restoration Time (CAIDI) (k)	Listed Last Year? (l)	No. of Years in the Last 5 (m)
807161	PENNSUCO	Miami-Dade	82	618	2	11	702	11	245	59.4	Y	5
810061	AVOCADO	Miami-Dade	1029	372	4	103	1405	10	42	41.0	Y	3
501064	FRUITVILLE	Sarasota	1776	477	4	9	2257	9	51	10.5	N	1
502463	LABELLE	Hendry	1144	216	5	43	1365	9	96	21.9	Y	2
505963	CARLSTROM	De Soto	265	104	1	17	370	9	242	189.6	Y	5
407562	GLENDALE	Indian River	1241	323	0	20	1564	8	59	31.8	N	1
707661	CROSSBOW	Broward	689	55	2	12	746	8	2	1.9	Y	4
309331	WELLBORN	Suwannee	888	172	3	68	1063	8	67	20.4	N	1
403634	SOUTH BAY	Palm Beach	0	164	1	3	165	8	300	169.5	N	2
408865	ABERDEEN	Palm Beach	2548	102	0	9	2650	7	112	36.7	N	1
406061	SHERMAN	Okeechobee	1203	196	7	36	1406	7	57	20.0	N	1
204265	BABCOCK	Brevard	2102	400	10	61	2512	7	33	7.9	N	1
409963	PINEWOOD	Palm Beach	3707	409	30	11	4146	6	53	15.4	N	2
501235	NAPLES	Collier	1487	252	10	5	1749	6	163	36.3	N	1
404631	PLATT	Martin	2029	331	6	33	2366	6	3	2.7	N	1
101464	FLAGLER BEACH	Flagler	3087	288	13	108	3388	6	110	16.3	Y	2
505465	WINKLER	Lee	1718	719	0	24	2437	6	92	38.4	N	1
704761	STONEBRIDGE	Broward	2584	228	6	16	2818	6	8	5.7	N	1
404732	HILLSBORO	Palm Beach	1585	38	11	1	1634	6	112	53.3	N	1
504967	GOLDEN GATE	Collier	1428	177	23	116	1628	6	31	15.1	Y	2
407664	LOXAHATCHEE	Palm Beach	1674	197	6	12	1877	6	21	14.6	N	2
700637	VERENA	Broward	1414	274	2	19	1690	6	45	25.7	N	2
812063	WILLIAMS	Miami-Dade	412	381	4	73	797	6	48	25.5	N	1
804932	OJUS	Miami-Dade	808	47	5	8	860	6	79	14.8	N	1
801631	PRINCETON	Miami-Dade	627	294	3	38	924	6	141	36.5	N	1
810062	AVOCADO	Miami-Dade	615	328	2	73	945	6	44	43.6	Y	2
108362	GATOR	St Johns	758	214	5	39	977	6	11	7.0	Y	3
300632	LIVE OAK	Suwannee	535	175	1	34	711	6	90	61.2	N	1
400832	PAHOKEE	Palm Beach	285	84	19	6	388	6	190	49.6	N	2
706366	BASSCREEK	Broward	0	1	0	0	1	6	122	104.3	N	1
405263	ACME	Palm Beach	2767	329	12	6	3108	5	43	20.1	N	1
806333	ULETA	Miami-Dade	2432	97	2	10	2531	5	60	30.9	N	1
408264	COVE	Martin	3455	177	11	6	3643	5	3	2.6	N	1
204262	BABCOCK	Brevard	2711	336	1	43	3048	5	31	21.2	N	1
701832	ROCK ISLAND	Broward	2464	144	5	7	2613	5	110	39.8	N	1
701140	LYONS	Broward	2296	131	7	3	2434	5	6	5.6	N	1
413635	BONANZA	Indian River	1172	536	0	30	1708	5	192	62.8	N	1
106362	REGIS	Flagler	1914	29	2	105	1945	5	13	11.5	N	1
807164	PENNSUCO	Miami-Dade	1343	350	3	2	1696	5	214	36.5	Y	3
507064	IMPERIAL	Lee	2842	311	5	5	3158	5	143	52.1	N	1
803131	FLORIDA CITY	Miami-Dade	1150	134	0	7	1284	5	181	47.4	Y	3
507363	ORANGETREE	Collier	2784	154	58	143	2996	5	27	21.5	N	1
703537	DEERFIELD BEACH	Broward	1802	146	8	10	1956	5	84	35.3	N	1
807433	VILLAGE GREEN	Miami-Dade	1393	41	0	8	1434	5	119	34.0	N	1
407333	HILLS	Martin	1684	44	4	1	1732	5	4	4.7	N	1
803439	MIAMI SHORES	Miami-Dade	1530	184	4	23	1718	5	27	10.2	N	1
307561	HAMPTON	Bradford	1011	235	4	69	1250	5	98	69.6	N	1
102033	BULOW	Volusia	2296	74	5	8	2375	5	26	12.1	Y	2
501833	TICE	Lee	2223	155	49	114	2427	5	26	19.3	N	1
200331	TITUSVILLE	Brevard	695	395	0	28	1090	5	94	28.9	N	1
403632	SOUTH BAY	Palm Beach	775	147	3	12	925	5	61	32.5	Y	2
802231	GLADEVIEW	Miami-Dade	1323	135	1	11	1459	5	42	14.9	N	1
811561	KOGER	Miami-Dade	0	1034	0	7	1034	5	62	10.7	N	1
300631	LIVE OAK	Suwannee	986	283	7	42	1276	5	73	3.8	N	1
709261	PROGRESSO	Broward	741	112	2	6	855	5	261	71.5	N	1
403432	JENSEN	Martin	569	121	1	2	691	5	126	38.4	N	1
409633	RAINBERRY	Palm Beach	1915	182	6	4	2103	5	90	70.2	N	1
402032	CLEWISTON	Hendry	1211	152	9	57	1372	5	52	60.6	Y	3
812162	BEACON	Miami-Dade	366	651	2	5	1019	5	261	50.8	N	1
507561	PARRISH	Manatee	3210	256	27	32	3493	5	80	33.7	N	1
808534	SEMINOLA	Miami-Dade	473	236	0	7	709	5	2	2.1	N	1
400934	BELLE GLADE	Palm Beach	1387	298	5	56	1690	5	201	34.4	N	2
408463	ADAMS	St Lucie	171	255	3	11	429	5	143	68.4	Y	2
505664	ROTONDA	Charlotte	3364	283	35	11	3682	4	11	6.2	Y	3
407665	LOXAHATCHEE	Palm Beach	2862	259	7	137	3128	4	11	12.6	N	2
809664	COURT	Miami-Dade	2830	536	0	5	3366	4	5	4.0	N	2
700137	SISTRUNK	Broward	3173	308	6	17	3487	4	65	22.3	N	2
402137	TERMINAL	Palm Beach	2583	166	0	42	2749	4	30	11.1	N	1
808062	FLAGAMI	Miami-Dade	2790	282	1	1	3073	4	79	27.0	N	2
503132	SOLANA	Collier	2354	267	11	14	2632	4	11	7.9	N	1
503131	SOLANA	Collier	1916	126	14	5	2056	4	60	44.8	N	1
704763	STONEBRIDGE	Broward	2304	258	9	15	2571	4	37	16.5	N	2
502066	MURDOCK	Charlotte	2563	53	4	15	2620	4	39	15.4	N	1
506763	VANDERBILT	Collier	2740	205	7	16	2952	4	9	8.1	N	1
502168	BONITA SPRINGS	Lee	2445	250	23	21	2718	4	43	21.7	N	1
101863	ORANGEDALE	St Johns	3149	108	30	25	3287	4	15	19.6	Y	3
701836	ROCK ISLAND	Broward	1845	170	4	4	2019	4	74	47.8	N	1
507163	POLO	Sarasota	2908	231	3	17	3142	4	49	28.1	N	1
505763	AUBURN	Sarasota	3579	202	38	6	3819	4	16	5.7	N	1
413531	VIOLET	Indian River	1590	152	0	22	1742	4	133	59.7	N	1
706362	BASSCREEK	Broward	1624	229	5	4	1858	4	79	50.3	N	1
408963	PLUMOSUS	Palm Beach	2442	716	1	13	3159	4	53	11.7	N	1
501239	NAPLES	Collier	1372	438	6	3	1816	4	21	11.7	N	1
700631	VERENA	Broward	1044	313	2	18	1359	4	8	7.5	N	1
407163	CRANE	Martin	2481	135	2	7	2618	4	74	36.2	N	2
800637	LITTLE RIVER	Miami-Dade	2034	251	4	6	2289	4	173	70.0	N	1
208863	WINDOVER	Brevard	1949	214	5	30	2168	4	153	23.5	N	1
307761	ONEIL	Nassau	2954	409	30	71	3393	4	35	23.2	N	1
204133	SATELLITE	Brevard	1595	104	2	8	1701	4	77	16.4	N	1
700832	BEVERLY	Broward	1335	188	2	16	1525	4	192	42.6	N	1
400737	BOCA RATON	Palm Beach	2019	106	9	3	2134	4	132	37.2	Y	4
808632	BRANDON	Miami-Dade	1884	193	2	19	2079	4	34	9.8	N	1
411562	FELLSMERE	Indian River	3348	145	2	15	3495	4	208	54.0	N	1
805134	LAWRENCE	Miami-Dade	2168	149	0	9	2317	4	152	37.5	N	1
102235	MADISON	Volusia	1938	155	1	24	2094	4	34	12.9	N	1
308061	MILLS	Nassau	1005	344	9	55	1358	4	44	38.1	N	1
700134	SISTRUNK	Broward	1193	146	13	0	1352	4	87	29.1	N	1
801937	DEAUVILLE	Miami-Dade	627	87	2	7	716	4	217	55.9	N	1
804131	GARDEN	Miami-Dade	1191	105	1	21	1297	4	127	46.9	N	1
803437	MIAMI SHORES	Miami-Dade	1288	136	2	21	1426	4	16	11.9	N	1
701043	SAMPLE ROAD	Broward	1568	203	8	11	1779	4	17	15.0	N	1
802631	AIRPORT	Miami-Dade	1439	205	1	16	1645	4	103	28.7	N	1
802038	CUTLER	Miami-Dade	1232	43	0	9	1275	4	44	18.4	N	1

PSC/ECR 102-3 (a)

System Reliability Indices - Actual

Utility Name: FPL

Year: 2019

District or Service Area (a)	CMI	CI	CME	AO	N	Cust Served	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFIe (e)	CEMI5 (f)
Boca Raton	19,848,485	360,575	1,589,551	1,270,536	8,282	383,429	51.8	55.0	0.94	4.0	4,132
Brevard	18,895,629	312,342	1,030,562	1,386,411	10,008	316,529	59.7	60.5	0.99	3.3	821
Central Broward	20,480,130	274,343	1,034,261	1,156,071	6,743	282,135	72.6	74.7	0.97	3.5	1,594
Central Dade	20,749,830	290,595	930,394	1,219,543	6,658	320,532	64.7	71.4	0.91	2.9	603
Central Florida	16,893,031	288,636	929,748	1,098,816	8,908	298,186	56.7	58.5	0.97	3.1	1,456
Manasota	17,906,451	290,250	1,054,620	1,430,004	10,042	408,944	43.8	61.7	0.71	2.5	1,182
Naples	24,050,057	386,901	1,432,237	1,358,869	7,748	414,696	58.0	62.2	0.93	3.6	4,445
North Broward	14,516,076	223,768	837,127	911,159	5,627	323,531	44.9	64.9	0.69	2.7	835
North Dade	18,853,479	280,988	740,570	1,433,862	8,125	251,793	74.9	67.1	1.12	3.0	3,040
North Florida	16,263,688	246,671	528,831	896,326	6,823	171,801	94.7	65.9	1.44	3.1	1,440
South Broward	19,850,837	323,635	1,202,336	1,245,849	7,413	344,502	57.6	61.3	0.94	3.6	1,472
South Dade	19,657,342	250,578	1,085,171	1,879,850	8,600	303,306	64.8	78.4	0.83	3.6	2,260
Toledo Blade	18,281,372	290,423	1,082,259	1,293,805	9,026	281,994	64.8	62.9	1.03	3.7	1,998
Treasure Coast	22,391,318	392,500	1,189,087	1,617,865	10,633	340,658	65.7	57.0	1.15	3.5	1,629
West Dade	18,563,980	290,355	1,116,826	1,141,115	6,095	270,975	68.5	63.9	1.07	3.9	1,954
West Palm	19,115,318	373,417	1,692,202	1,408,049	9,862	373,533	51.2	51.2	1.00	4.7	1,103
All FPL	306,317,023	4,875,977	17,475,782	20,748,130	130,593	5,086,544	60.2	62.8	0.96	3.4	32,662

PSC/ECR 102-3 (b)

System Reliability Indices - Adjusted

Utility Name: FPL

Year: 2019

District or Service Area (a)	CMI	CI	CME	AO	N	Cust Served	SAIDI (b)	CAIDI (c)	SAIFI (d)	MAIFIe (e)	CEMI5 (f)
Boca Raton	16,103,315	307,388	1,464,716	953,349	5,410	383,429	42.0	52.4	0.80	3.7	4,132
Brevard	14,030,296	256,979	959,443	1,031,483	6,842	316,529	44.3	54.6	0.81	3.1	821
Central Broward	18,233,421	247,340	992,860	971,691	5,288	282,135	64.6	73.7	0.88	3.3	1,594
Central Dade	17,247,317	250,807	898,181	988,917	4,511	320,532	53.8	68.8	0.78	2.8	603
Central Florida	11,989,778	228,206	836,882	753,600	5,458	298,186	40.2	52.5	0.77	2.8	1,456
Manasota	13,952,511	236,087	991,839	1,038,960	6,646	408,944	34.1	59.1	0.58	2.4	1,182
Naples	20,755,950	338,560	1,367,303	1,067,213	5,155	414,696	50.1	61.3	0.82	3.4	4,445
North Broward	12,082,076	197,671	791,158	709,080	3,883	323,531	37.3	61.1	0.61	2.5	835
North Dade	16,225,398	252,116	697,505	1,192,043	6,462	251,793	64.4	64.4	1.00	2.8	3,040
North Florida	10,294,061	178,611	472,853	615,618	4,208	171,801	59.9	57.6	1.04	2.8	1,440
South Broward	17,452,273	292,664	1,158,592	1,021,141	5,283	344,502	50.7	59.6	0.85	3.5	1,472
South Dade	16,908,759	224,940	1,014,468	1,639,819	6,848	303,306	55.7	75.2	0.74	3.4	2,260
Toledo Blade	15,879,145	246,898	991,986	1,047,818	6,460	281,994	56.3	64.3	0.88	3.4	1,998
Treasure Coast	18,277,907	330,927	1,088,282	1,270,993	7,722	340,658	53.7	55.2	0.97	3.2	1,629
West Dade	16,431,823	260,857	1,050,634	928,295	4,566	270,975	60.6	63.0	0.96	3.7	1,954
West Palm	15,235,542	311,438	1,524,429	1,098,181	7,237	373,533	40.8	48.9	0.83	4.2	1,103
All FPL	251,099,572	4,161,489	16,301,131	16,328,201	91,979	5,086,544	49.4	60.3	0.82	3.2	32,662