Christopher T. Wright
Senior Attorney – Regulatory
Florida Power & Light Company
700 Universe Blvd
Juno Beach, FL 33408-0420
Phone: (561) 691-7144
E-mail: Christopher.Wright@fpl.com
Florida Authorized House Counsel
Admitted in Pennsylvania

July 13, 2022

VIA ELECTRONIC FILING

Mr. Adam J. Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 20220051-EI
Florida Power & Light Company Revised 2023-2032 Storm Protection Plan

Dear Mr. Teitzman:

Enclosed for filing in the above-referenced docket, please find Florida Power & Light Company's ("FPL") Revised Exhibit MJ-1 – "Revised Florida Power & Light Company 2023-2032 Storm Protection Plan."

On April 11, 2022, filed and served it 2023-2032 Storm Protection Plan, which was attached as Exhibit MJ-1 to the direct testimony of FPL witness Michael Jarro [DN 02358-2022]. On July 11, 2022, FPL formally withdrew the Distribution Winterization Program and Transmission Winterization Program from FPL's 2023-2032 Storm Protection Plan [DN 04669-2022]. The enclosed Revised Exhibit MJ-1 reflects the withdrawal of these programs in their entirety from the Revised FPL 2023-2032 Storm Protection Plan.

For purposes of managing the existing record and ensuring earlier references to Exhibit MJ-1 by FPL and other parties to this docket remain accurate, the pagination and headings in the Revised Exhibit MJ-1 remain identical to the originally filed exhibit. Additionally, to ensure that there is a complete combined copy of FPL's Revised 2023-2032, the enclosed Revised Exhibit MJ-1 also includes the revised Appendix E that was previously filed in this docket on May 6, 2022 [DN 02839-2022]. Finally, during preparation of the Revised Exhibit MJ-1, FPL identified a printer error that resulted in the tab for the Transmission Hardening Program being omitted from Appendix E, which has been corrected in the enclosed Revised Exhibit MJ-1.

If you or your staff have any question regarding this filing, please contact me at (561) 691-7144.

Respectfully submitted,

Christopher T. Wright
Authorized House Counsel No. 1007055

Enclosures
cc: Ken Hoffman
Certificate of Service

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by Electronic Mail to the following parties of record this 13th day of July 2022:

Walter Trierweiler, Esquire Theresa Lee Eng Tan, Esquire Jacob Imig, Esquire Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399 wtrierwe@psc.state.fl.us jimig@psc.state.fl.us ltan@psc.state.fl.us ***For Commission Staff***	Office of Public Counsel c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, FL 32399-1400 Gentry.richard@leg.state.fl.us rehwinkel.charles@leg.state.fl.us morse.stephanie@leg.state.fl.us wessling.mary@leg.state.fl.us christensen.patty@leg.state.fl.us ***For Office of Public Counsel***
J. Jeffrey Wahlen Malcolm M. Means Ausley McMullen Post Office Box 391 Tallahassee, Florida 32302 jwahlen@ausley.com mmeans@ausley.com Ms. Paula K. Brown Regulatory Affairs P. O. Box 111 Tampa FL 33601-0111 regdept@tecoenergy.com ***For Tampa Electric Company***	Dianne M. Triplett Deputy General Counsel Duke Energy Florida, LLC 299 First Avenue North St. Petersburg, FL 33701 Dianne.Triplett@Duke-Energy.com Matthew R. Bernier Robert L. Pickels Stephanie A. Cuello 106 E. College Avenue, Suite 800 Tallahassee FL 32301 FLRegulatoryLegal@duke-energy.com matthew.bernier@duke-energy.com robert.pickels@duke-energy.com stephanie.cuello@duke-energy.com ***For Duke Energy Florida, LLC***
Beth Keating Gunster, Yoakley & Stewart, P.A. 215 South Monroe St., Suite 601 Tallahassee, FL 32301 BKeating@gunster.com Mr. Mike Cassel 208 Wildlight Ave. Yulee FL 32097 (904) 491-4361 mcassel@fpuc.com ***For Florida Public Utilities Company***	James W. Brew/Laura Wynn Baker c/o Stone Law Firm 1025 Thomas Jefferson St., NW, Eighth Floor, West Tov Washington DC 20007 (202) 342-0800 (202) 342-0807 jbrew@smxblaw.com lwb@smxblaw.com ***For PSC Phosphate – White Springs***

Jon C. Moyle, Jr. Karen A. Putnal Moyle Law Firm, P.A. 118 North Gadsden Street Tallahassee, Florida 32301 jmoyle@moylelaw.com kputnal@moylelaw.com mqualls@moylelaw.com ***For Florida Industrial Power Users Group***	Stephanie U. Eaton Florida Bar No.: 165610 SPILMAN THOMAS & BATTLE, PLLC 110 Oakwood Drive, Suite 500 Winston-Salem, NC 27103 Phone: (336) 631-1062 Fax: (336) 725-4476 seaton@spilmanlaw.com Derrick Price Williamson Steven W. Lee SPILMAN THOMAS & BATTLE, PLLC 1100 Bent Creek Boulevard, Suite 101 Mechanicsburg, PA 17050 Phone: (717) 795-2741 Fax: (717) 795-2743 dwilliamson@spilmanlaw.com slee@spilmanlaw.com ***For Walmart Inc.***
George Cavros 120 E. Oakland Park Blvd., Suite 105 Fort Lauderdale FL 33334 george@cavros-law.com ***For Southern Alliance for Clean Energy***	

s/ Christopher T. Wright
Christopher T. Wright
Fla. Auth. House Counsel No. 1007055

Attorney for Florida Power & Light Company

Florida Power & Light Company

Revised
Storm Protection Plan
2023-2032

(Rule 25-6.030, F.A.C.)

Docket No. 20220051-EI

July 13, 2022

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Florida Power & Light Company
2023-2032 Storm Protection Plan

I. Executive Summary

Pursuant to Section 366.96, Florida Statutes ("F.S."), and Rule 25-6.030, Florida Administrative Code ("F.A.C."), Florida Power & Light Company ("FPL") submits its Storm Protection Plan for the ten (10) year period 2023-2032 (hereinafter, the "2023 SPP"). The 2023 SPP is a systematic approach to achieve the legislative objectives codified in Section 366.96, F.S., "to strengthen electric utility infrastructure to withstand extreme weather conditions by promoting the overhead hardening of electrical transmission and distribution facilities, the undergrounding of certain electrical distribution lines, and vegetation management" and "for each electric utility to mitigate restoration costs and outage times to utility customers when developing transmission and distribution storm protection plans." *See* Sections 366.96(1)(c)-(d), F.S.

The 2023 SPP is largely a continuation of the following programs included in the current 2020-2029 Storm Protection Plan (hereinafter, the "2020 SPP") that was previously approved by Florida Public Service Commission ("Commission") Order No. PSC-2020-0293-AS-EI:

- Distribution Inspection Program
- Transmission Inspection Program
- Distribution Feeder Hardening Program
- Distribution Lateral Hardening Program
- Transmission Hardening Program
- Distribution Vegetation Management Program
- Transmission Vegetation Management Program
- Substation Storm Surge/Flood Mitigation Program

The majority of these existing SPP programs have been in place since 2007. As explained below, for certain existing SPP programs, FPL is proposing limited

modifications to further improve these programs and implement best practices where applicable.

As part of the 2023 SPP, FPL is also proposing to implement the following new SPP transmission and distribution ("T&D") hardening programs:

- [WITHDRAWN]
- [WITHDRAWN]
- Transmission Access Enhancement Program

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The new Transmission Access Enhancement Program will help ensure that FPL and its contractors have reasonable access to FPL's transmission facilities for repair and restoration activities following an extreme weather event.

Safe and reliable electric service is essential to the life, health, and safety of the public and has become a critical component of modern life. While no electrical system can be made completely resistant to the impacts of hurricanes and other extreme weather conditions,[1] the programs included in the 2023 SPP will collectively provide increased resiliency and faster restoration to the electric infrastructure that FPL's 5.7 million customers and Florida's economy rely on for their electricity needs.

As required by and in compliance with Rule 25-6.030, F.A.C., the 2023 SPP provides, among other things, a description of each proposed storm protection program, including: (a) how each program will enhance the existing system to reduce restoration costs and outage times; (b) applicable start and completion dates for each program; (c) a cost estimate for each program; (d) a comparison of the costs and benefits for each program; and (e) a description of how each program is prioritized. The 2023 SPP also provides an estimate of the annual jurisdictional revenue requirement for each year of the SPP (2023-

[1] It is important to note that despite the implementation of the SPP programs, outages will still occur when severe weather events impact Florida.

2032) and additional details on each program for the first three years of the SPP (2023-2025), including estimated rate impacts.

For the reasons explained below, FPL submits that implementing the 2023 SPP is necessary and appropriate to achieve the goals and requirements expressed by the Florida Legislature in Section 366.96, F.S., to reduce restoration costs and outage times associated with extreme weather events and improve overall service reliability to customers and the State of Florida by promoting the overhead hardening of electrical transmission and distribution facilities, the undergrounding of certain electrical distribution lines, and vegetation management.

II. The 2023-2032 SPP will Strengthen FPL's Infrastructure to Better Withstand Extreme Weather Conditions and will Reduce Restoration Costs and Outage Times

Pursuant to Rule 25-6.030(3)(a), F.A.C., this section provides an overview of how the programs included in the 2023 SPP will strengthen FPL's electric utility infrastructure to better withstand extreme weather conditions by promoting the overhead hardening of electrical transmission and distribution facilities, the undergrounding of certain electrical distribution lines, and vegetation management. Consistent with Rule 25-6.030(3)(b), F.A.C., this section also provides a summary of how the SPP is expected to further reduce restoration costs and outage times associated with extreme weather conditions.

A. Continuation of Existing SPP Programs

To date, significant progress has been made toward strengthening FPL's infrastructure. Since 2006, FPL has completed multiple system-wide cycles of T&D pole inspections and vegetation management. Within the next few years several significant milestones are also expected to be reached, including replacement of the vast majority of wood transmission structures with steel or concrete structures by year-end 2022 in the former FPL service area and for the vast majority of feeders to be hardened or placed underground by year-end 2025 in the former FPL service area.

FPL also implemented a three-year Storm Secure Underground Program Pilot in 2018 ("SSUP Pilot") that converted certain targeted overhead laterals to underground laterals. This underground pilot was continued through the end of 2022 under the current

Commission-approved 2020 SPP.[2] In addition, FPL's Design Guidelines incorporate and apply extreme wind loading ("EWL") criteria to the design and construction of all new overhead pole lines and major planned work, including pole line extensions, relocations, and certain pole replacements.

As part of the 2023 SPP, FPL will largely continue the existing storm hardening and storm preparedness programs included in the 2020 SPPs approved by Commission Order No. PSC-2020-0293-AS-EI issued on August 28, 2020, with certain modifications and improvements described below. These existing SPP programs have already demonstrated that they have and will continue to provide increased T&D infrastructure resiliency, reduced restoration time, and reduced restoration costs when FPL's system is impacted by severe weather events. In FPL's Third Supplemental Response to Staff's First Data Request No. 29 ("Third Supplemental Amended") in Docket No. 20170215-EI,[3] FPL prepared and submitted an analysis of Hurricanes Matthew and Irma that indicated the restoration construction man-hours ("CMH"), days to restore, and storm restoration costs for these storms would have been significantly higher without FPL's existing storm hardening programs. Below is a summary of the results of FPL's analysis:

Without Hardening	**Hurricane Matthew**	**Hurricane Irma**
Additional CMH (%)	93,000 (36%)	483,000 (40%)
Additional days to restore (%)	2 (50%)	4 (40%)
Additional restoration costs ($millions) (%)	$105 (36%)	$496 (40%)

A copy of FPL's Third Supplemental Amended Response in Docket No. 20170215-EI, including the analysis referenced above, is provided in Appendix A. Based on a 40-year net present value analysis, the savings achieved from storm hardening would equate to $653 million (for a storm occurring once every three years) and $406 million (for a storm

[2] As part of the 2020 SPP settlement, FPL and the pre-consolidated former Gulf Power Company ("Gulf") agreed that their lateral undergrounding programs would remain as pilots through the end of 2022 and committed to file updated programs in 2022 in order to seek recovery of the associated costs in 2023.

[3] The Commission opened Docket No. 20170215-EI to review electric utility preparedness and restoration actions and to identify potential areas where infrastructure damage, outages, and recovery time for customers could be minimized in the future.

occurring once every five years) for a storm similar to Hurricane Matthew and $3.1 billion (for a storm occurring once every three years) and $1.9 billion (for a storm occurring once every five years) for a storm similar to Hurricane Irma. Further details on the benefits of the existing SPP programs are provided throughout the remaining sections of this 2023 SPP.

Although FPL's storm preparedness and hardening programs to date have produced a more storm resilient and reliable T&D electrical grid, continuing the previously approved SPP programs in the 2023 SPP is appropriate and crucial to achieve the objectives of the Florida Legislature in Section 366.96, F.S. Indeed, Florida remains the most hurricane-prone state in the nation and, with the significant coast-line exposure of FPL's system and the fact that the vast majority of FPL's customers live within 20 miles of the coast, a robust storm protection plan is critical to maintaining and improving grid resiliency and storm restoration.

B. [WITHDRAWN]

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III. Description of Service Area and T&D Facilities

Pursuant to Rule 25-6.030(3)(c), F.A.C., this section provides a description of FPL's service area, including areas prioritized for enhancement, if any, and any areas where FPL has determined that enhancement of its existing T&D facilities would not be feasible, reasonable, or practical at this time.

Effective January 1, 2022, the operations, rates, and tariffs of the former Gulf and FPL were consolidated and unified, all former Gulf customers became FPL customers, and Gulf ceased to exist as a separate regulated entity.[8] As a result, FPL's current service area is comprised of the combined former FPL and former Gulf service areas, serving more than 5.7 million customer accounts representing more than half of Florida's population. FPL currently operates a T&D electric grid that contains approximately 86,660 miles of electrical lines, including:

- Approximately 77,400 miles of distribution lines;
- Approximately 9,200 miles of high-voltage transmission lines;
- Approximately 1.4 million distribution poles; and
- Approximately 83,000 transmission structures.

FPL's service area is divided into nineteen (19) distribution management areas. A map depicting FPL's service area and distribution management areas (with the number of customers served within each management area) is provided in Appendix B.

At this time, FPL has not identified any areas of its service area where its SPP programs would not be feasible, reasonable, or practical. While all of FPL's SPP programs are currently system-wide initiatives, annual activities are prioritized based on certain factors such as the last inspection date, last vegetation maintenance date, reliability performance, and efficient resource utilization.[9]

IV. 2023-2032 SPP Programs

Pursuant to Rule 25-6.030(3)(c)(d), F.A.C., this section provides the following for each program included in FPL's SPP: (1) a description of how each program is designed to enhance FPL's existing T&D facilities, including an estimate of the resulting reduction in outage times and restoration costs due to extreme weather conditions; (2) identification of the actual or estimated start and completion dates of the program; (3) a cost estimate,

[8] *See* Commission Order Nos. PSC-2021-0446-S-EI and PSC-2021-446A-S-EI issued in Docket No. 20210015-EI.

[9] The criteria and factors used to select and prioritize projects within each SPP program are described below.

including capital and operating expenses; (4) a comparison of the costs and benefits of the program; and (5) a description of the criteria used to select and prioritize each program.[10]

A. Distribution Inspection Program[11]

1. Description of the Program and Benefits

The Distribution Inspection Program included in the 2023 SPP is a continuation of the existing Distribution Pole Inspection Program previously approved by Commission Order No. PSC-2020-0293-AS-EI. FPL is proposing to expand the previously approved Distribution Inspection Program to the former Gulf service area but is not otherwise proposing any material modifications to the program. Below is an overview of the Distribution Inspection Program and its associated benefits.

a. Overview of the Distribution Inspection Program

In response to the 2004-2005 storm seasons and, in particular, the "large number of poles throughout Florida that required replacement," the Commission required investor-owned utilities ("IOUs") to implement an eight-year pole inspection cycle for all wood distribution poles.[12] FPL's plan was approved in September 2006[13] and modified in January 2007.[14] Subsequently, FPL expanded its distribution pole inspection plan to also include concrete poles. The existing Distribution Inspection Program was approved as part of FPL's 2020 SPP for the period of 2020-2029.

FPL's eight-year pole inspection cycle for all distribution poles targets approximately 1/8 of the system annually (the actual number of poles inspected can vary somewhat from year to year). Annually, FPL performs pole inspections of approximately 1/8 of the

[10] Note, the 2023-2032 program costs shown herein are projected costs estimated as of the time of this filing. Subsequent projected and actual costs could vary by as much as 10% to 15%. The annual projected costs, actual/estimated costs, actuals costs, and true-up of actual costs to be included in FPL's Storm Protection Plan Cost Recovery Clause ("SPPCRC) will all be addressed in subsequent and separate SPPCRC filings pursuant to Rule 25-6.031, F.A.C.

[11] Formerly called the Pole Inspections – Distribution Program.

[12] *See* Order No. PSC-06-0144-PAA-EI.

[13] *See* Order No. PSC-06-0778-PAA-EU.

[14] *See* Order No. PSC-07-0078-EU.

distribution poles throughout its service area, as well as any remediation necessary as a result of such inspections. FPL utilizes Osmose Utilities Services, Inc. ("Osmose"), an industry-leading pole inspection contractor, to perform the system-wide inspection of its distribution poles.

FPL's strength and loading calculations for its distribution poles and pole inspections are based on the National Electrical Safety Code's ("NESC") Grade B construction standard, as provided in Table 261-1 of the NESC. 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 a mobile computer to determine whether the remaining pole strength capacity meets or exceeds NESC requirements. This data is then transferred to FPL's Geographic Information System ("GIS"). Pole locations inspected by Osmose are also 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 suitable for continued service, the poles are designated for replacement.

Wood poles that pass the above-ground visual inspection are then excavated to a depth of 18" (where applicable) and are sounded and bored to determine the internal condition of the pole. Poles encased in concrete or asphalt are not excavated but are sounded and bored to determine their internal condition using a standard industry-accepted inspection process 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. The poles that are not suitable for continued service are designated for replacement or remediation.

Consistent with Order No. PSC-14-0594-PAA-EI, any pole that had less than 80% of full load at the prior eight-year inspection cycle will continue to be exempt from the loading assessment during the next eight-year inspection cycle, and Chromium Copper Arsenate ("CCA") poles will only be excavated if they are older than 28 years. To ensure that these

exceptions to the standard eight-year inspection cycle do not compromise existing safety and storm hardening programs, FPL conducts annual testing on 1% of the exempted poles.

b. Benefits of the Distribution Inspection Program

The Commission has previously found that "efforts to maintain system components can reduce the impact of hurricanes and tropical storms upon utilities' transmission and distribution systems," and noted that an "obvious key component in electric infrastructure is the transmission and distribution poles."[15] The Commission has also previously identified multiple benefits of and reasons for justifying pole inspections cycles for electric utilities, including, but not limited to: the likelihood of increased hurricane activity in the future; the high probability for equipment damage if a pole fails during a storm; the likelihood that failure of one pole often causes other poles to fail; the fact that deteriorated poles are more prone to fail when exposed to high winds; the fact that Florida electric utilities replaced nearly 32,000 poles during the 2004 storm restoration efforts; and the fact that restoration times increase significantly when a large number of poles fail, which limits the electric utilities' ability to respond quickly to widespread outages.[16]

In addition to the benefits discussed above that underlie the creation of the Commission's mandated pole inspection requirements, recent storm events indicate that FPL's Distribution Inspection Program has contributed to the overall improvement in distribution pole performance during storms, resulting in reductions in storm damage to poles, days to restore, and storm restoration costs. The table below compares distribution pole performance for Hurricane Wilma, which occurred in 2005 before FPL implemented its current distribution pole inspection program, and Hurricane Irma, which occurred in 2017 after FPL implemented its current Distribution Inspection Program:

[15] *See* Order No. PSC-06-0144-PAA-E.
[16] *See id*.

	Hurricane Wilma	Hurricane Irma
Hurricane Strength (Category)	3	4
Customer Outages (Millions)	3.2	4.4
Distribution Poles Replaced	>12,400	<2,900[17]
Total Days to Restore	18	10
Average Days to Restore	5.4	2.1

The Commission-approved Distribution Inspection Program has facilitated the replacement and/or strengthening of the distribution system and has directly improved and will continue to improve the overall health and storm resiliency of its distribution pole population.

c. Modifications to Program

FPL is not proposing any material modifications to the program.

2. Actual/Estimated Start and Completion Dates

The 2023 SPP will continue FPL's ongoing Commission-approved Distribution Inspection Program described above. With approximately 1.4 million distribution poles as of year-end 2021, including the distribution poles in the former Gulf service area, FPL plans to inspect approximately 180,000 poles annually during the 2023-2032 SPP period.

3. Cost Estimates

Estimated/actual annual distribution pole inspection costs are a function of the number of inspections estimated or actually completed and the number of poles estimated or actually remediated/replaced as a result of the annual inspections. Although costs to inspect the poles are operating expenses, the vast majority of pole inspection program costs are capital costs resulting from remediation/replacement of poles that fail inspection.

[17] Approximately 99% of distribution poles replaced after Hurricane Irma were non-hardened poles.

The table below provides a comparison of the total estimated distribution pole inspection costs included in the first three years of the 2023 SPP (2023-2025), and the ten-year period of the 2023 SPP (2023-2032):

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$192.9	$64.3
2023-2032	$668.9	$66.9

Further details regarding the SPP estimated distribution pole inspection costs, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section (IV)(A)(3) above, during 2023-2032, the total costs for FPL's Distribution Inspection Program are expected to average approximately $66.9 million per year. Benefits associated with continuing FPL's existing Distribution Inspection Program, discussed in Sections II(A) and IV(A)(1)(b) above, include a more storm resilient pole population that will result in reductions in pole failures and poles needing to be replaced during storms, fewer storm-related outages, and reductions in storm restoration costs.

5. Criteria used to Select and Prioritize the Program

Poles to be inspected annually are selected/prioritized throughout FPL's service area based on the last cycle's inspection dates, to ensure that poles are compliant with FPL's established eight-year cycle. As such, approximately 1/8 of the distribution poles are inspected annually. At this time, FPL has not identified any areas where the existing Distribution Inspection Program would not be feasible, reasonable, or practical.

B. Transmission Inspection Program[18]

1. Description of the Program and Benefits

The Transmission Inspection Program included in the 2023 SPP is a continuation of the existing Transmission Inspection Program previously approved by Commission Order No. PSC-2020-0293-AS-EI. FPL is proposing to expand the previously approved Transmission Inspection Program to the former Gulf service area but is not otherwise proposing any material modifications to the program. Below is an overview of FPL's existing Transmission Inspection Program and the associated benefits.

a. Overview of the Transmission Inspection Program

In 2006, as part of its Storm Preparedness Initiative No. 3, the Commission required electric utilities to develop and implement plans to fully inspect all transmission structures, substations, and all hardware associated with these facilities on a six-year cycle. Consistent therewith, FPL implemented a Commission-approved transmission inspection plan in 2006 and has continued that plan to date. The existing Transmission Inspection Program was approved as part of FPL's 2020 SPP for the period of 2020-2029.

FPL inspects its transmission circuits, substations, and other equipment on a six-year cycle. All of FPL's transmission structures, including substation equipment, are visually inspected each year. FPL performs climbing or bucket truck inspections on all wood transmission structures on a six-year cycle and all steel and concrete structures on a ten-year cycle. Inspections for wood structures include an overall assessment of the condition of the structures, as well as other pole/structure components including the foundation, all attachments, insulators, guys, cross-braces, cross-arms, and bolts. If a wood transmission structure does not pass visual inspection, it is designated for replacement with a concrete or steel transmission structure.

For steel and concrete structures, the visual inspection includes an overall assessment of the structure condition (*e.g.*, cracks, chips, exposed rebar, and rust) as well as other pole/structure components including the foundation, all attachments, insulators, guys,

[18] Formerly called the Structures/Other Inspections – Transmission Program.

cross-braces, cross-arms, and bolts. If a concrete or steel pole/structure fails the inspection, it is designated for repair or replacement.

b. Benefits of the Transmission Inspection Program

As noted in Section IV(A)(1)(b) above, the Commission has found numerous benefits and reasons justifying inspections of electrical utility facilities, including transmission and substation facilities. Importantly, the transmission system is the backbone of the electric grid. While outages associated with distribution facilities (*e.g.*, a transformer, lateral, or feeder) can result in an outage affecting anywhere from a few customers up to several thousands of customers, a transmission-related outage can affect tens of thousands of customers. Additionally, an outage on a transmission facility could cause cascading (a loss of power at one transmission facility can trigger the loss of power on another interconnected transmission facility, which in turn can trigger the loss of power on another interconnected transmission facility, and so on) and result in the loss of service for hundreds of thousands of customers. As such, it is imperative that transmission facilities be properly inspected using appropriate cycles and standards to help ensure they are prepared for extreme weather events.

Further, the performance of FPL's transmission facilities during recent storm events indicates FPL's transmission inspection program has contributed to the overall storm resiliency of the transmission system and provided savings in storm restoration costs. The table below compares the performance of FPL's transmission system for Hurricane Wilma, which occurred in 2005 before FPL implemented its current transmission inspection program, and Hurricane Irma, which occurred in 2017 after FPL implemented its current transmission inspection program:

Transmission Facilities	**Hurricane Wilma**	**Hurricane Irma**	**Improvement**
Line Section Outages	345	215	38%
Substation Outages	241	92	62%
Structures Failed	100	5	95%

As shown above, the impacts on FPL's transmission facilities associated with Hurricane Irma were significantly reduced from those experienced with Hurricane Wilma, even

though Hurricane Irma's winds were stronger, and its path impacted substantially more of FPL's facilities. As reflected in the Commission's reasoning for mandating transmission facility inspections, FPL submits that its systematic Transmission Inspection Program is a key factor for this improved performance.

c. Modifications to Program

FPL is not proposing any material modifications to the program.

2. Actual/Estimated Start and Completion Dates

The 2023 SPP will continue FPL's ongoing Commission-approved Transmission Inspection Program described above, including in the former Gulf service area. FPL plans to inspect an average of approximately 86,500 transmission structures annually during the 2023-2032 SPP period.

3. Cost Estimates

Estimated/actual annual transmission inspection costs are a function of the number of inspections estimated or actually completed and the transmission facilities estimated or actually remediated/replaced as a result of those annual inspections. Although the inspection costs are operating expenses, the vast majority of the transmission inspection program costs are capital costs resulting from remediation/replacement of facilities that fail inspection.

The table below provides a comparison of the total estimated transmission inspection costs included in the first three years of the 2023 SPP (2023-2025), and the ten-year period of the 2023 SPP (2023-2032):

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$199.2	$66.4
2023-2032	$672.4	$67.2

Further details regarding the SPP estimated transmission inspection costs, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section IV(B)(3) above, during 2023-2032, the total costs for FPL's Transmission Inspection Program are expected to average approximately $67.2 million per year. Benefits associated with the Transmission Inspection Program discussed in Sections II(A) and IV(B)(1)(b) above, include avoiding outages that can affect tens of thousands of customers and, in particular, cascading outages where the loss of service can affect hundreds of thousands of customers.

5. Criteria used to Select and Prioritize the Program

As explained above, FPL visually inspects all transmission structures on an annual basis. For the inspection of transmission circuits and substations and all associated hardware, the facilities are selected/prioritized throughout FPL's service area based on the last cycle's inspection dates to ensure that facilities are inspected in compliance with the established six-year inspection cycle. Similarly, for bucket truck or climbing inspections, structures are selected/prioritized throughout FPL's service area based on the last cycle's inspection dates to ensure that structures are inspected in compliance with the established six-year (wood) and ten-year (steel and concrete) cycles. At this time, FPL has not identified any areas where the Transmission Inspection Program would not be feasible, reasonable, or practical.

C. Distribution Feeder Hardening Program[19]

1. Description of the Program and Benefits

The Distribution Feeder Hardening Program included in the 2023 SPP is a continuation of the existing Distribution Feeder Hardening Program previously approved by Commission Order No. PSC-2020-0293-AS-EI. FPL is proposing to expand the previously approved Distribution Feeder Hardening Program to the former Gulf service area, and to implement certain modifications and improvements as further described below. Below is an overview of FPL's existing Distribution Feeder Hardening Program and the associated benefits.

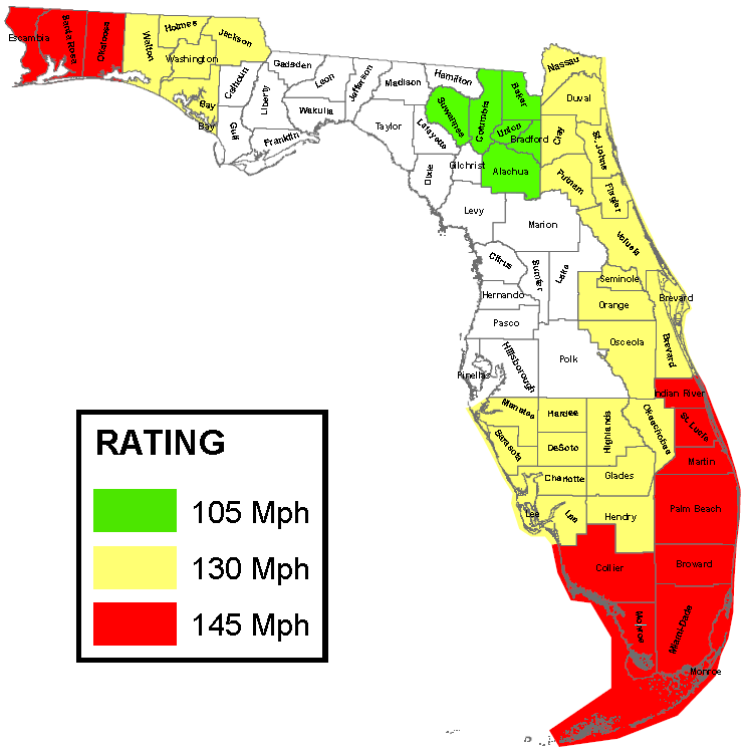
[19] Formerly called the Feeder Hardening (EWL) – Distribution Program.

a. Overview of the Distribution Feeder Hardening Program

The foundation for FPL's Distribution Feeder Hardening Program was the extensive forensic and other analyses that FPL conducted after Hurricane Wilma.[20] These analyses concluded that "wind only" (as opposed to, for example, trees or other flying debris) was the predominant root cause of distribution pole breakage. This data, together with the overall performance of FPL's transmission poles that were already built to the NESC extreme wind loading ("EWL") standards and the performance of hardened feeders during Hurricanes Matthew and Irma, formed the basis for FPL's feeder hardening strategy.

The 2023 SPP will continue FPL's previously approved approach to applying EWL criteria to harden existing distribution feeders and certain critical poles. The NESC extreme wind map for Florida will continue to be applied to FPL's system by dividing the application of EWL into three wind regions, corresponding to expected extreme winds of 105, 130, and 145 mph, as shown below.

FPL Extreme Wind Regions



[20] These analyses were conducted either directly by FPL or with the aid of external resources (*e.g.*, KEMA, Inc.).

By evaluating each of the counties served by FPL, including each county's applicable wind zones, FPL determined that utilizing three extreme wind regions of 105, 130 and 145 mph for its service area was appropriate for the following reasons:

- A smaller number of wind regions generate advantages through the efficiency of work methods, training, engineering, and administrative aspects (*e.g.*, standards development and deployment); and

- Using 105, 130, and 145 mph wind zones is a well-balanced approach that recognizes differences in the EWL requirements in the counties within each region.

The 2023 SPP will also continue to utilize FPL's Design Guidelines and processes that apply EWL criteria to the design and construction of new pole lines and major planned work, including pole line extensions and relocations and certain pole replacements. Depending on the scope of the work that is performed in a particular project, this could result in the EWL hardening of an entire circuit (in the case of large-scale projects) or EWL hardening of one or more poles (in the case of small projects) so that the affected circuit will be in a position to be fully EWL hardened in the future. The Design Guidelines are primarily associated with changes in pole class, pole type, and desired span lengths to be utilized. The Design Guidelines standardize the design and construction of new pole lines and major planned work to ensure that these projects align with FPL's hardening strategy.

FPL's current pole sizing guidelines provide for a minimum installation of: Class 2 wood poles for all new feeder and three-phase lateral work; Class 3 wood pole for two-phase and single-phase lateral work; and Class 3 wood pole for service and secondary work. For critical poles, FPL's current pole sizing guidelines provide for the installation of concrete poles at accessible locations. These guidelines significantly increase the wind ratings (up to nearly 50 percent) from the Design Guidelines in place prior to 2007. FPL's current Distribution Design Guidelines are provided in Appendix D.

To determine how an existing overhead circuit or critical pole will be hardened, a field survey of the circuit facilities is performed. By capturing detailed information at each pole

location (such as pole type, class, span distance, attachments, wire size, and framing) a comprehensive wind-loading analysis can be performed to determine the current wind rating of each pole, and ultimately the circuit itself. This data is then used to identify specific pole locations on the circuit that do not meet the desired wind rating. For all poles that do not meet the applicable EWL, FPL develops recommendations to increase the allowable wind rating of the pole.

FPL plans to continue to utilize its "design toolkit" that focuses on evaluating and using cost-effective hardening options for each location, including:

- Storm Guying – Installing a guy wire in each direction perpendicular to the line, which is a very cost-effective option but is dependent on proper field conditions;
- Equipment Relocation – Moving equipment on a pole to a stronger pole nearby;
- Intermediate Pole – Installing an additional single pole within long span lengths, which reduces the span length and increases the wind rating of both adjacent poles;
- Upgrading Pole Class – Replacing the existing pole with a higher-class pole to increase the pole's wind rating; and;
- Undergrounding Facilities – Evaluated on a case-by-case basis using site-specific factors and conditions.

These options are not mutually exclusive and, when used in combination with sound engineering practices, provide cost-effective methods to harden a circuit. FPL's design recommendations also take into consideration issues such as hardening, mitigation (minimizing damage), and restoration (improving the efficiency of restoration in the event of failure). Since multiple factors can contribute to losing power after a storm, utilizing this multi-faceted approach to pole design helps to reduce the amount of work required to restore power to a damaged circuit.

As part of the 2023 SPP, the Distribution Feeder Hardening Program will incorporate the Distribution Automation initiative from Gulf's 2020 SPP approved in Order No. PSC-2020-0293-AS-EI. This will include, where appropriate, installation of distribution automation devices, automated faulted circuit indicators (FCI), and distribution supervisory control

and data acquisition (DSCADA) to certain feeder(s). These devices protect customers by limiting those affected by temporary faults and sustained outages, expediting location of outage causes, and aiding in the isolation of the problem(s).

b. Benefits of the Distribution Feeder Hardening Program

Distribution feeders are the backbone of the distribution system and are a critical component to providing safe and reliable electric service to FPL's customers. Thus, improving the storm resiliency of distribution feeders logically provides substantial benefits for customers. Therefore, hardening distribution feeders has been and continues to be one of FPL's highest storm hardening priorities.

FPL has hardened all of its Critical Infrastructure Function ("CIF") feeders (*i.e.*, feeders that serve hospitals, 911 centers, police and fire stations, water treatment facilities, and county emergency operation centers) and Community Project feeders (*i.e.*, feeders that serve other key community needs like gas stations, grocery stores, and pharmacies) in the former FPL's service area. Additional feeders were hardened through FPL's Frequency Feeder Initiative, a program that targets feeders experiencing the highest number of interruptions and/or customers interrupted. As part of the 2023 SPP, FPL will continue hardening CIF and Frequency Feeders in the former Gulf service area.

As of year-end 2021, approximately 66% of the consolidated FPL feeders were either hardened or placed underground. FPL also applied EWL to the design and construction of new pole lines and major planned work, including pole line extensions and relocations and certain pole replacements.

As provided in previous FPL Annual Reliability Report filings and three-year Storm Hardening Plan filings (per former Rule 25-6.0342, F.A.C.), hardened feeders perform better than non-hardened feeders. This has been demonstrated in day-to-day reliability performance and during severe storms. For example, when comparing day-to-day reliability performance, hardened feeders have performed 40% better than non-hardened feeders. Also, during Hurricanes Matthew and Irma, hardened feeders performed better than non-hardened feeders.

Additionally, in Docket No. 20170215-EU, the Commission reviewed the electric utilities' storm hardening and storm preparedness programs and found for Hurricane Irma that: (1) outage rates were nearly 20% less for hardened feeders than non-hardened feeders; (2) CMH to restore hardened feeders were 50% less than non-hardened feeders (primarily due to hardened feeders experiencing less damage than non-hardened hardened feeders); and (3) hardened feeders had significantly less pole failures as compared to non-hardened feeders.[21]

c. Modifications to Program

As described in Section IV (C)(1)(a), FPL is incorporating the Distribution Automation initiative from the former Gulf 2020 SPP. Both FPL and former Gulf implemented distribution automation, but only Gulf included a Distribution Automation resiliency initiative as part of its 2020 SPP. Therefore, the FPL Distribution Automation has been and is currently recovered in base rates and the former Gulf Distribution Automation initiatives have been and are currently recovered through the Storm Protection Plan Cost Recovery Clause ("SPPCRC").

2. Actual/Estimated Start and Completion Dates

FPL initiated its feeder hardening initiative in 2006. In its 2020 SPP, FPL initially projected that 100% of its feeders would be hardened or underground by the end of 2024. However, as a result of the merger and unification of former Gulf, FPL proposes to continue the Distribution Feeder Hardening Program beyond 2024 in order to harden or underground feeders located throughout the entire FPL service area, including feeders located in the former Gulf service area.

As of year-end 2022, there are approximately 700 feeders remaining in the former FPL service area and approximately 300 feeders remaining in the former Gulf service area to be hardened or placed underground. Under the 2023 SPP, FPL is targeting to complete

[21] *See Review of Florida's Electric Utility Hurricane Preparedness and Restoration Actions 2018*, Docket No. 20170215-EU (July 24, 2018), *available at* http://www.psc.state.fl.us/library/filings/2018/04847-2018/04847-2018.pdf.

approximately 250 feeder projects annually during 2023-2025 and approximately 50 feeder projects annually during 2026-2030.

3. Cost Estimates

Estimated distribution feeder hardening costs are determined utilizing the length of each feeder, the average historical feeder hardening cost per mile, and updated cost assumptions (*e.g.*, labor and materials). The table below provides a comparison of the total estimated distribution feeder hardening costs included in the first three years of the 2023 SPP (2023-2025), and the total estimated program costs to be incurred during 2023-2031:

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$1,920.3	$640.1
2023-2031	$2,437.1	$270.8

Further details regarding the SPP distribution feeder hardening costs, including estimated annual capital expenditures are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section IV(C)(3) above, during 2023-2031, the total costs for FPL's Distribution Feeder Hardening Program average approximately $270.8 million per year. Benefits associated with the Distribution Feeder Hardening Program discussed in Sections II(A) and IV(C)(1)(b) above, include improved resiliency from extreme weather events as well as improved day-to-day reliability.

5. Criteria used to Select and Prioritize the Program

As explained above, there are approximately 1,000 feeders remaining to be hardened or placed underground within the consolidated FPL service area. FPL attempts to spread its annual projects throughout its service area. In prioritizing the remaining existing feeders to be hardened each year, considerations include the feeder's historical reliability performance, restoration difficulties (*e.g.*, environmentally sensitive areas, islands with no vehicle access, river crossings, and etc.), on-going or upcoming internal/external projects

(*e.g.*, FPL maintenance or system expansion projects, municipal overhead/underground conversion project, or municipal road project) and geographic location. At this time, FPL has not identified any areas where the Distribution Feeder Hardening Program would not be feasible, reasonable, or practical.

D. Distribution Lateral Hardening Program[22]

1. Description of the Program and Benefits

In 2018, FPL implemented a three-year Commission-approved SSUP Pilot. The SSUP Pilot was a program that targeted certain overhead laterals for conversion from overhead to underground. As part of the 2020 SPP Settlement approved by Commission Order No. PSC-2020-0293-AS-EI, the SSUP was expanded and continued as a Distribution Lateral Hardening Program pilot through the end of 2022, and FPL committed to file an update to the Distribution Lateral Hardening Program in 2022 in order to continue to seek recovery of the associated costs in 2023. FPL also committed in the 2020 SPP Settlement to establish protocols for determining when a lateral for a feeder being evaluated for undergrounding on FPL's system may be overhead hardened as opposed to being placed underground. FPL herein proposes to continue the existing Distribution Lateral Hardening Program as a permanent SPP program.

FPL is also proposing to expand the previously approved Distribution Lateral Hardening Program to the former Gulf service area, and to implement certain modifications and improvements to the program as further described below. Below is an overview of FPL's Distribution Lateral Hardening Program and the associated benefits.

a. Overview of the Distribution Lateral Hardening Program

Consistent with the previously approved SSUP Pilot and underground pilot approved in the 2020 SPP, the Distribution Lateral Hardening Program included in the 2023 SPP targets certain overhead laterals that were impacted by recent storms and have a history of vegetation-related outages and other reliability issues for conversion from overhead to underground.

[22] Formerly called the Lateral Hardening (Undergrounding) – Distribution Program.

Through the previously approved lateral underground pilots, FPL has gained valuable information and lessons learned that will further improve the Distribution Lateral Hardening Program. These include:

- Designing and constructing at the feeder level significantly improves the efficiency and timing of construction because all of the work takes place in the same location (feeder) on a set of laterals as opposed to being spread out over multiple individual laterals across the entire service area. These examples of efficiency include:
    - Material, equipment, and labor are more centrally located. This allows both material and labor to be more efficiently dispatched and allocated to a specific project area to complete all the laterals on that feeder as opposed to being relocated to a different region or management area after completing an individual lateral project.
    - Enables engineering to utilize a “master plan” approach to an entire area or neighborhood rather than individual laterals, which optimizes the overall design and increases construction efficiencies.
    - Permitting process is further streamlined by utilizing the feeder level approach, lowering the volume of permits needed and reducing the burden on the local permitting agencies.
- Placing underground power lines in public or other exiting rights-of-way has reduced the number of easement approvals required by customers, which reduces the complexity of the customer outreach process and reduces construction time.
- Utilizing minimally invasive directional boring as opposed to other construction methods, such as open trenching, results in less impacts to customer property and reduces construction time.
- Utilizing Ground Penetrating Radar (GPR) assists construction crews in identifying underground facilities before directional boring, which eliminates down time, mitigates potential damage to other buried facilities, and increases the overall safety of the project.

- Using a virtual augmented reality application in the field allows FPL to better illustrate to customers where the facilities will be installed, as well as promotes timely responses to customer questions and concerns.

- FPL initiated community meetings (*e.g.*, Homeowner Association or city/village) have been successful and are key to customer understanding, addressing concerns, and explaining the benefits of the project. Overall customer feedback has been very positive.

- Where practicable, FPL attempts to relocate existing facilities from the rear of to the front of customers' premises. This helps to improve accessibility to facilities, which reduces the need to enter customer property and further reduces restoration times associated with extreme weather conditions.

FPL is proposing to incorporate these lessons learned from the underground pilots and implement the Distribution Lateral Hardening Program as a permanent program under the 2023 SPP in order to provide the benefits of underground lateral hardening throughout its system, including in the former Gulf service area.

As part of the underground conversion process, FPL is also installing meter base adaptors that allow underground service to be provided to the customer by utilizing the existing meter and meter enclosure. The meter base adaptors minimize the impact on customer-owned equipment and facilities. For example, in certain situations, overhead to underground conversions of electric service can trigger a local electrical code requirement that necessitates a customer upgrade of the home's electric service panel. This can cost the customer thousands of dollars. However, by utilizing a meter base adaptor, overall costs are reduced, and customers can avoid the need and expense to convert their electrical service panels.

Consistent with the 2020 SPP Settlement approved by Commission Order No. PSC-2020-0293-AS-EI, FPL has also established and incorporated new protocols for determining when a lateral may be overhead hardened as opposed to being placed underground. These overhead hardening protocols are further described below in Section IV(D)(5).

Finally, beginning in 2025, FPL proposes to implement an additional selection criterion that will target lateral undergrounding by specific Management Regions. This new selection criterion is further described in Section IV(D)(5) below.

b. Benefits of the Distribution Lateral Hardening Program

Laterals make up the majority of FPL's distribution system. There are 1.9 times as many miles of overhead laterals as there are overhead feeders (approximately 27,000 miles vs. 14,000 miles, respectively). Additionally, while feeders are predominately located in the front of customers' premises, many laterals are located "rear of" or behind customers' premises. This is especially the case in older neighborhoods located throughout FPL's service area. Generally, facilities in the rear of customers' premises take longer to restore than facilities in front of customers' premises because rear-located facilities are more difficult to access and are more likely to be near vegetation. This results in a greater amount of CMH being devoted to laterals during storm restoration.

The basis for the continuation of FPL's existing Distribution Lateral Hardening Program as a permanent SPP program is the performance of the underground facilities as compared to overhead facilities and the extensive damage to the overhead facilities caused by vegetation during Hurricanes Matthew and Irma. This performance was demonstrated by the results of FPL's analysis referenced above in Section IV(A)(1)(b) and contained in the Commission's Review of Florida's Electric Utility Hurricane Preparedness and Restoration Actions in 2018,[23] which is summarized in the table below:

Storm and Facility	Laterals Out	Total Laterals	% Out
Matthew OH	3,473	82,729	4%
Matthew UG	238	101,892	0.2%
Irma OH	20,341	84,574	24%
Irma UG	3,767	103,384	4%

Underground facilities also perform better than overhead facilities on a day-to-day basis.

[23] *See* footnote 3.

For example, based on the reliability performance metrics for overhead and underground facilities provided to the Commission in FPL's Annual Reliability Report filing, the System Average Interruption Duration Index ("SAIDI") for underground facilities is significantly better than hybrid facilities (combination of overhead and underground) or overhead facilities as shown in the table below:

	SAIDI[24]		
Year	**UG**	**OH**	**Hybrid**
2017	17.7	89.6	55.5
2018	21.2	89.0	54.2
2019	31.3	87.4	49.4
2020	20.8	82.7	48.4
2021	23.8	77.0	44.7

FPL experienced no outages to any laterals that were undergrounded as part of the SSUP or SPP pilots during Tropical Storm Eta's double landfall in Florida in 2020, despite outages to more than 420,000 customers throughout FPL's service area. This was the most impactful storm in FPL's service territory since the inception of the Distribution Lateral Hardening program, and the results demonstrate that the program was a significant benefit to the customers served from the more than 300 completed underground lateral projects at that time of the event.

c. Modifications to Program

FPL is proposing to expand the previously approved Distribution Lateral Hardening Program to the former Gulf service area and to incorporate the lessons learned from the SSUP Pilot and the underground pilot approved in the 2020 SPP. Consistent with the 2020 SPP Settlement approved by Commission Order No. PSC-2020-0293-AS-EI, FPL has also established and incorporated protocols for evaluating when a lateral may be overhead hardened as opposed to being placed underground. Additionally, starting in 2025, FPL is proposing to add a new Management Region selection criterion. These modifications are further described below in Section IV(D)(5).

[24] *See* FPL's Annual Reliability Report filed on March 1, 2022 for more details on day-to-day reliability performance - overhead vs. underground.

2. Actual/Estimated Start and Completion Dates

By the end of 2022, FPL expects to have converted a total of approximately 1,000 to 1,300 laterals from overhead to underground. As part of the 2023 SPP, FPL will continue the Distribution Lateral Hardening Program as a permanent SPP program to provide the benefits of underground lateral hardening throughout its system, including in the former Gulf service area. Under this program, FPL estimates that it will complete approximately 600-1,500 lateral projects annually in 2023-2032, which is a modest increase in the projected number of annual lateral projects included in the 2020 SPP. This increase in the estimated annual number of lateral projects is due primarily to the inclusion of the former Gulf service area and the significant number of laterals that remain to be hardened, the strong local support and interest in the program, as well as the addition of the Management Region selection approach in 2025 as further described below in Section IV(D)(5).

3. Cost Estimates

Estimated lateral undergrounding costs are determined utilizing the length of each lateral, the average historical lateral undergrounding cost per mile, and updated cost assumptions (*e.g.*, labor, materials, inflation, etc.). The table below provides a comparison of the total estimated distribution lateral hardening program costs included in the first three years of the 2023 SPP (2023-2025), and the ten-year period of the 2023 SPP (2023-2032):

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$1,910.0	$636.7
2023-2032	$9,390.5	$939.0

Further details regarding the SPP estimated distribution lateral hardening program costs, including estimated annual capital expenditures are provided in Appendix C.

4. Criteria used to Select and Prioritize the Program

FPL will select/prioritize future laterals for the Distribution Lateral Hardening Program based on the existing overall feeder performance methodology previously approved by the Commission in Order No. PSC-2020-0293-AS-EI. Rather than selecting individual "stand-alone" laterals, FPL will apply the Distribution Lateral Hardening Program to all the laterals on a feeder such that when a hardened feeder that has experienced an outage is restored, all associated laterals would also be restored (unless the lateral was damaged), which will help reduce restoration costs and outage times. Additionally, this feeder approach to the Distribution Lateral Hardening Program will maximize the efficiency of crews by completing the hardening work along a single feeder before moving the crews and equipment to another job site.

On average, there are approximately 20-30 overhead laterals on a feeder. Applying the same methodology approved by Commission Order No. PSC-2020-0293-AS-EI, the selection and prioritization of the laterals to be converted will be based on a methodology that considers: (a) all of the overhead laterals on each feeder; (b) outage experience during the recent Hurricanes Matthew, Irma, and Michael; (c) the number of vegetation-related outages experienced over the most recent 10 years; and (d) the total number of lateral and transformer outages experienced over the most recent 10 years. All laterals on the feeders will then be hardened according to the ranking of each feeder. Importantly, continuing this approach to ranking each feeder will ensure that the worst-performing circuits are addressed first, before moving crews to the next ranked feeder.

Consistent with the 2020 SPP Settlement approved by Commission Order No. PSC-2020-0293-AS-EI, FPL has established protocols as part of the Distribution Lateral Hardening Program for evaluating when a lateral may be overhead hardened as opposed to being placed underground. The protocols for consideration are as follows: (a) low or no vegetation-related outages experienced over the most recent 10 years; (b) terrain or conditions observed in the field that make undergrounding technically difficult, such as swamps, wetlands, forests, farms, and areas prone to extreme flooding; (c) no CIF customers served by the lateral; (d) inability to obtain easements/agreements necessary to underground the lateral; (e) space restrictions in areas congested by facilities,

structures, or otherwise in use by property owners and/or third parties; and (f) number of customers served by the lateral. These factors and conditions will be applied to each individual lateral on a feeder to determine if, and when, a lateral should be overhead hardened as opposed to being placed underground. If one or more of these factors are present, FPL will make a determination whether the lateral should be overhead hardened or placed underground based on the conditions at the time.

Starting in 2025, FPL is implementing an additional selection methodology to its current prioritization of laterals based on feeder performance. Under this new methodology, the Distribution Lateral Hardening Program will target and prioritize specific Management Regions throughout the consolidated FPL service area based on areas of highest risk of hurricane impacts, highest concentration of customers, and areas that would require significant transit for out of state crews during an extreme weather restoration event. This Management Region approach to prioritization will capitalize on the lessons learned from the underground pilots by further improving efficiency and timing of lateral hardening projects in areas that present the highest risk of hurricane impacts.

The Distribution Lateral Hardening Program selection and prioritization criteria will be applied on a non-discriminatory basis throughout FPL's service area in order to address the worst performing circuits first based on actual historical experience, including under the new Management Region approach that will be applied beginning in 2025. At this time, FPL has not identified any regions where the Distribution Lateral Hardening Program would not be feasible, reasonable, or practical.

E. Transmission Hardening Program[25]

1. Description of the Program and Benefits

The Transmission Hardening Program included in the 2023 SPP is a continuation of the existing transmission hardening program previously approved by Commission Order No. PSC-2020-0293-AS-EI. FPL is proposing to expand the previously approved Transmission Hardening Program to the former Gulf service area, and to implement

[25] Formerly called the Wood Structure Hardening (Replacing) – Transmission Program.

certain modifications and improvements as further described below. Below is an overview of FPL's existing Transmission Hardening Program and the associated benefits.

a. Overview of the Transmission Hardening Program

While FPL's transmission facilities were affected by the 2004 and 2005 storms, the damage experienced was significantly less than the damage sustained by distribution facilities. A primary reason for this resulted from the fact that transmission structures were, at that time, already constructed to meet EWL consistent with Section 366.04, Florida Statutes, and the National Electrical Safety Code, Rule 250 C.

Based on the forensic data collected from the 2004 and 2005 storms, FPL implemented a Commission-approved transmission storm hardening initiative to replace all wood transmission structures, which accounted for nearly 70 percent of all transmission structures replaced during the 2004-2005 storm seasons, with steel or concrete structures. As part of the 2023 SPP, FPL will continue its initiative to replace all wood transmission structures with steel or concrete structures throughout its service area.

As part of the 2023 SPP, the Transmission Hardening Program will continue the transmission/substation resilience initiative from Gulf's 2020 SPP approved in Order No. PSC-2020-0293-AS-EI. This initiative will be continued in the former Gulf service area to increase resiliency by removing critical single points of failure from the transmission and/or substation systems, which have the potential to impact many customers for extended periods. The transmission/substation resilience initiative focuses on adding additional transmission lines into radially feed substations and additional transformers in single bank transmission substations to improve resiliency during extreme weather conditions. The Transmission Hardening Program will also continue the initiative from Gulf's 2020 SPP approved in Order No. PSC-2020-0293-AS-EI to review substation relay vault construction standards for possible replacement and strengthening to better withstand an extreme weather event.

b. Benefits of the Transmission Hardening Program

While an outage associated with distribution facilities (*e.g.*, a transformer, lateral, or feeder) can impact up to several thousands of customers, a transmission-related outage can result in an outage affecting tens of thousands of customers. Additionally, an outage on a transmission facility could cause cascading and result in the loss of service for hundreds of thousands of customers. As a result, the prevention of transmission-related outages is essential. As discussed earlier, while transmission facilities performed significantly better than distribution facilities during the 2004 and 2005 storms, there were several opportunities for improvement identified, including the replacement of wood transmission structures. As a result of its transmission inspection programs and its replacement of wood transmission structures, FPL's transmission facilities have demonstrated to be more storm resilient.

The table below compares the performance of FPL's transmission system for Hurricane Wilma, which occurred in 2005 before FPL implemented its current transmission hardening program, and Hurricane Irma, which occurred in 2017 after FPL implemented its current transmission hardening program:

	Hurricane Wilma	**Hurricane Irma**
% Line Section Outages	37%	17%
Transmission Structure Failures	100	5 (all non-hardened)
Transmission Substations De-energized	241	92
Days to Restore Substation Outages	5	1

As shown above, the impacts on FPL's transmission facilities associated with Hurricane Irma were significantly reduced from those experienced with Hurricane Wilma, even though Hurricane Irma's winds were stronger and its path impacted substantially more of FPL's facilities.

c. Modifications to Program

As described in Section IV E(1)(a), the 2023 SPP will continue the transmission/substation resiliency initiative from the former Gulf 2020 SPP in the former Gulf service area as approved by the Commission. Because it was part of former Gulf's 2020 SPP, the costs associated with the transmission/substation resiliency work completed in the former Gulf service area have been and will continue to be recovered through the SPPCRC.

As described in Section IV E(1)(a), the 2023 SPP will also continue the initiative from the former Gulf 2020 SPP to review substation relay vaults as part of the Transmission Hardening Program under the 2023 SPP.

2. Actual/Estimated Start and Completion Dates

FPL implemented its transmission hardening program in 2007. As of year-end 2021, 99% of the transmission structures in the former FPL service area, were steel or concrete, with the remaining projected to be replaced by year-end 2022. However, as a result of the merger and unification of FPL and the former Gulf, there are now a total of approximately 4,100 wood transmission structures to be replaced in the former Gulf service area. As part of the 2023 SPP, FPL is currently targeting the replacement of approximately 400-500 wood transmission structures annually with all remaining wood transmission structures targeted to be replaced by year-end 2032.

1. Comparison of Costs and Benefits

As provided in Section IV(D)(3) above, during 2023-2032, total costs for FPL's Distribution Lateral Hardening Program average approximately $939.0 million per year. Benefits associated with the Distribution Lateral Hardening Program discussed in Sections II(A) AND IV(D)(1)(b) above, include improved resiliency from extreme events as well as improved day-to-day reliability.

2. Cost Estimates

Estimated/actual annual transmission hardening costs are a function of the number of structures/facilities to be replaced, actual historical replacement costs, and updated cost

assumptions (*e.g.*, labor and materials). The vast majority of the transmission hardening program costs are capital costs resulting from replacement of the transmission structures/facilities.

The table below provides a comparison of the total estimated transmission hardening costs included in the first three years of the 2023 SPP (2023-2025), and the ten-year period of the 2023 SPP (2023-2032):

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$164.6	$54.9
2023-2032	$504.1	$50.4

Further details regarding the SPP estimated transmission hardening costs, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

3. Comparison of Costs and Benefits

As provided in Section IV(E)(3) above, during 2023-2032, the total costs for FPL's Transmission Hardening Program average approximately $50.4 million per year. Benefits associated with the Transmission Hardening Program are discussed in Sections II(A) and IV(E)(1)(b) above and include improved storm resiliency.

4. Criteria used to Select and Prioritize the Program

The annual prioritization/selection criteria for the wood structures to be replaced includes proximity to high wind areas, system importance, customer counts, and coordination with other storm initiatives (*e.g.*, distribution feeder hardening). Other economic efficiencies, such as opportunities to perform work on multiple transmission line sections within the same transmission corridor, are also considered. At this time, FPL has not identified any areas where the replacement of the remaining wood transmission structures would not be feasible, reasonable, or practical under the Transmission Hardening Program.

F. Distribution Vegetation Management Program[26]

1. Description of the Program and Benefits

The Distribution Vegetation Management Program included in the 2023 SPP is a continuation of the existing Distribution Vegetation Management Program previously approved by Commission Order No. PSC-2020-0293-AS-EI. FPL is proposing to expand the previously approved Distribution Vegetation Management Program to the former Gulf service area, and to implement a limited modification and improvement as further described below. Below is an overview of FPL's existing Distribution Vegetation Management Program and the associated benefits.

a. Overview of the Distribution Vegetation Management Program

Prior to 2006, FPL's distribution vegetation management program consisted of inspecting and maintaining its feeders on a three-year average vegetation maintenance cycle and performing targeted vegetation maintenance on certain feeders more frequently (*e.g.*, targeting vegetation with faster growth rates and palm trees) through its "mid-cycle" program. Lateral vegetation maintenance was prioritized based on reliability performance. Another important component of this program was FPL's "Right Tree Right Place" initiative, which provided information to educate customers on FPL's vegetation management program and practices, safety considerations, and the importance of customers planting trees in the proper location.

After the 2004-2005 storm seasons, the Commission determined that the "vegetation management practices of the investor-owned electric utilities do not provide adequate assurance that tree clearances for overhead distribution facilities are being maintained in a manner that is likely to reduce vegetation related storm damage. We believe that utilities should develop more stringent distribution vegetation management programs."[27] As result, FPL proposed and the Commission approved the continuation of FPL's system-wide three-year average vegetation maintenance cycle for feeders, mid-cycle targeted vegetation maintenance for certain feeders, and its Right Tree Right Place initiative, as

[26] Formerly called the Vegetation Management – Distribution Program.
[27] *See* Order No. PSC-06-0351-PAA-EI.

well as the implementation of a new six-year average vegetation maintenance cycle for laterals.[28] These same initiatives, which have provided storm and day-to-day reliability benefits, remain in place today.

Tree limbs and branches, especially palm fronds, are among the most common causes of power outages and momentary interruptions during both day-to-day operations and storm events. 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 at the time of trim. Once maintenance and trimming has been completed, customers are encouraged to maintain their trees to ensure clearances are maintained for the safety and reliability of service. Work should be performed by a qualified line clearing professional. The program is comprised of multiple initiatives designed to reduce the average time customers are without electricity as a result of vegetation-related interruptions. These include 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's Distribution Vegetation Management Program's practices follow 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 FPL's facilities.

Finally, a very important component of FPL's vegetation program is providing information to customers to educate them on the company's vegetation management program and practices, safety considerations, and the importance of placing trees in the proper location. FPL's "Right Tree, Right Place" initiative is a public education program based on FPL's core belief that providing reliable electric service and sustaining the natural

[28] *See* Order No. PSC-07-0468-FOF-EI.

environment can go hand-in-hand and is a win-win partnership between FPL and its customers.

As part of the 2023 SPP, FPL will use advanced analytics from a variety of sources (such as, but not limited to, satellite imagery, and ground-based LiDAR imaging) to develop predictive analytics that may be used to complement FPL's vegetation maintenance cycles on feeders. The use of advanced predictive analytics has the potential benefit of further reducing vegetation-related outages during extreme weather events.

The 2023 SPP will continue FPL's currently approved distribution vegetation program, which includes the following system-wide vegetation management activities: three-year cycle for feeders; mid-cycle targeted vegetation maintenance for certain feeders; six-year average cycle for laterals; and continued education of customers through its Right Tree, Right Place initiative.

b. Benefits of the Distribution Vegetation Management Program

In Order No. PSC-07-0468-FOF-EI, the Commission confirmed that FPL should continue to implement three-year and six-year average cycles for its feeders and laterals because the cycles complied with the Commission's storm preparedness objectives to increase the level of vegetation maintenance over historical levels, promote system reliability, and reduce storm restoration costs and improve day to day reliability.[29]

Another indication that the current program is providing benefits is that, while forensic analysis indicated vegetation was the overwhelming primary cause for pole and wire failures and a significant cause of outages during Hurricanes Matthew and Irma, the vast majority of damage resulted from uprooted trees, broken trunks, and broken limbs that fell into distribution facilities from outside of right-of-way, *i.e.*, beyond where FPL is currently allowed trim without approval from the property owner.

[29] FPL's proposed three-year and six-year cycles were initially approved in Order No. PSC-06-0781-PAA-EI.

c. Modifications to Program

As part of the 2023 SPP, FPL will use advanced analytics and imageries to complement FPL's vegetation maintenance cycles on feeders as described above in Section IV(F)(1)(a).

2. Actual/Estimated Start and Completion Dates

FPL's ongoing vegetation management plan was originally approved in 2007, was approved as part of the 2020 SPP, and remains in place today. Under the 2023 SPP, FPL plans to inspect and maintain, on average, approximately 16,400 miles annually (including the former Gulf service area).

3. Cost Estimates

The vast majority of vegetation management costs are associated with cycle and mid-cycle maintenance, which is performed by several FPL-approved contractors throughout FPL's system. Other vegetation management costs include costs associated with day-to-day restoration activities (*e.g.*, summer afternoon thunderstorms), customer trim requests, removals, debris cleanup, and support (*e.g.*, arborists, supervision, back-office support). Costs associated with vegetation management are generally operating expenses.

The table below provides a comparison of the total estimated distribution vegetation management costs included in the first three years of the 2023 SPP (2023-2025), and the ten-year period of the 2023 SPP (2023-2032):

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$217.7	$72.6
2023-2032	$766.5	$76.6

Further details regarding the SPP estimated distribution vegetation management costs, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section IV(F)(3) above, during 2023-2032, the total costs for FPL's Distribution Vegetation Management Program average approximately $76.6 million per year. Benefits associated with the Distribution Vegetation Management Program discussed in Sections II(A) and IV(F)(1)(b) above, include increased storm resiliency.

5. Criteria Used to Select and Prioritize the Program

The primary reason for maintaining feeders on a three-year average cycle, as opposed to a six-year average cycle for laterals, is that a feeder outage can affect, on average, approximately 1,000 customers as compared to an outage on a lateral line that can affect, on average, approximately 40 customers. FPL enhances its approved feeder inspection and vegetation maintenance plan through its mid-cycle vegetation maintenance program, which encompasses patrolling and maintaining feeders between planned maintenance cycles to address tree conditions that may cause an interruption prior to the next planned cycle. Mid-cycle work units typically have a maintenance age of 12 to 18 months and usually involve certain fast-growing trees (*e.g.*, palm trees) that should be addressed before the next scheduled cycle vegetation maintenance date.

Additionally, customers often contact FPL with requests to trim trees around distribution lines in their neighborhoods and near their homes. As a result of these discussions with customers and/or a follow-up investigation, FPL either performs the necessary vegetation maintenance or determines that the requested maintenance can be addressed more efficiently by completing it through the normal scheduled cycle.

Vegetation management cycle is prioritized annually to ensure compliance with cycle schedules. At this time, FPL has not identified any areas where the Distribution Vegetation Management Program would not be feasible, reasonable, or practical.

G. Transmission Vegetation Management Program[30]

1. Description of the Program and Benefits

The Transmission Vegetation Management Program included in the 2023 SPP is a continuation of the existing Transmission Vegetation Management Program previously approved by Commission Order No. PSC-2020-0293-AS-EI. FPL is proposing to expand the previously approved Transmission Vegetation Management Program to the former Gulf service area but is not otherwise proposing any material modifications to the program. Below is an overview of FPL's existing Transmission Vegetation Management Program and the associated benefits.

a. Overview of the Transmission Vegetation Management Program

The North American Electric Reliability Corporation's (NERC) vegetation management standards/requirements serve as the basis for FPL's transmission vegetation management program. The reliability objective of these standards/requirements is to prevent vegetation-related outages that could lead to cascading by utilizing effective vegetation maintenance while recognizing that certain outages such as those due to vandalism, human errors, and acts of nature are not preventable. Transmission lines that must conform with these standards/requirements include lines operated at or above 200 kV.

There are approximately 5,380 miles of transmission lines within the consolidated FPL system that are subject to NERC's vegetation management standards/requirements, which represents the majority of FPL's total transmission system. NERC's vegetation management standards/requirements include annual inspection requirements, executing 100% of a utility's annual vegetation work plan, and to prevent any encroachment into established minimum vegetation clearance distances ("MVCD").

[30] Formerly called the Vegetation Management – Transmission Program.

The key elements of FPL's transmission vegetation management program are to inspect the transmission rights-of-way, document vegetation inspection results and findings, prescribe a work plan, and execute the work plan.

FPL conducts ground inspections of all transmission corridors annually for work planning purposes. During these inspections, FPL identifies vegetation capable of approaching the defined Vegetation Action Threshold ("VAT"). VAT is a calculated distance from the transmission line that factors in MVCD, conductor sag/sway potential, and a buffer. The identified vegetation is given a work prescription and then prioritized and organized into batches of work, which collectively become the annual work plan.

For transmission lines that are subject to NERC's vegetation management standards/requirements, FPL also uses a technology called LiDAR. LiDAR is a remote sensing technology that uses light in the form of a pulsed laser to measure ranges (distances) to a target. For vegetation management purposes, LiDAR is used to measure the distance between vegetation and transmission lines. LiDAR patrols are conducted annually for all NERC transmission corridors. Data collected by the LiDAR patrols are then used to develop annual preventative and reactive work plans.

In its 2023 SPP, FPL will continue its current transmission vegetation management plan, which includes visual and aerial inspections of all transmission line corridors, LiDAR inspections of NERC transmission line corridors, developing and executing annual work plans to address identified vegetation conditions, and identifying and addressing priority and hazard tree conditions prior to and during storm season.

b. Benefits of the Transmission Vegetation Management Program

The benefits of the Transmission Vegetation Management Program are self-evident and the consequences of not having a reasonable transmission vegetation management plan can be extreme. As discussed previously, the transmission system is the backbone of the electric grid. While outages associated with distribution facilities (*e.g.*, a transformer, lateral, or feeder) can result in an outage affecting anywhere from a few customers up to several thousands of customers, a transmission related outage can affect tens of thousands of customers. Additionally, an outage on a transmission facility could cause

cascading and result in the loss of service for hundreds of thousands of customers. As such, it is imperative that vegetation impacting transmission facilities be properly maintained using reasonable and appropriate cycles and standards to help ensure they are prepared for storms. For these reasons, it is no surprise that NERC has developed prescriptive vegetation management requirements for transmission facilities to help prevent such damage from occurring.

FPL also notes that while vegetation-related damage and transmission line outages occurred during Hurricanes Matthew and Irma, the vast majority of such damages/outages were caused by vegetation located outside of the right-of-way, *i.e.*, beyond where FPL is currently allowed to trim without approval from the property owner, which further demonstrates that FPL's historical efforts in this area have been beneficial.

c. Modifications to Program

FPL is not proposing any material modifications to the program.

2. Actual/Estimated Start and Completion Dates

FPL's Transmission Vegetation Management Program is an ongoing program, initiated decades ago and approved as part of the 2020 SPP. Under the 2023 SPP, FPL plans to inspect and maintain, on average, approximately 9,350 miles annually (including the former Gulf service area), which includes approximately 5,380 miles for NERC transmission line corridors and 3,970 miles for non-NERC transmission line corridors.

3. Cost Estimates

The vast majority of vegetation management costs are associated with annual inspections and the execution of planned work to address identified conditions, which is performed by several FPL approved contractors throughout FPL's system. Other vegetation management costs include costs associated with day-to-day restoration activities (*e.g.*, summer afternoon thunderstorms), removals, debris cleanup, and support (*e.g.*, arborists, supervision, back-office support). Costs associated with vegetation management are generally operating expenses.

The table below provides a comparison of the total estimated transmission vegetation management costs included in the first three years of the 2023 SPP (2023-2025), and the ten-year period of the 2023 SPP (2023-2032):

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$36.9	$12.3
2023-2032	$143.7	$14.4

Further details regarding the SPP estimated transmission vegetation management costs, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section IV(G)(3) above, during 2023-2032, the total costs for FPL's Transmission Vegetation Management Program average approximately $14.4 million per year. Benefits associated with the Transmission Vegetation Management Program discussed in Sections II(A) and IV(G)(1)(b) above, include increased storm resiliency. The execution of FPL's Transmission Vegetation Management Program is a significant factor in mitigating damage to transmission facilities and avoiding transmission-related outages.

5. Criteria used to Select and Prioritize the Programs

Priority vegetation conditions and hazard tree conditions are completed annually prior to storm season. Additionally, prior to and during the storm season, FPL conducts aerial inspections of transmission corridors to identify hazard trees and any priority vegetation locations. Priority vegetation conditions and hazard tree conditions identified through aerial inspections are addressed as soon as possible. At this time, FPL has not identified any areas where the Transmission Vegetation Management Program would not be feasible, reasonable, or practical.

H. Substation Storm Surge/Flood Mitigation Program

1. Description of the Program and Benefits

The Substation Storm Surge/Flood Mitigation Program included in the 2023 SPP is a continuation of the Substation Storm Surge/Flood Mitigation program previously approved by Commission Order No. PSC-2020-0293-AS-EI. Below is an overview of FPL's existing Substation Storm Surge/Flood Mitigation Program and associated benefits.

a. Overview of the Substation Storm Surge/Flood Mitigation Program

Historically, several FPL distribution and transmission substations have been impacted by storm surges and/or flooding as a result of extreme weather conditions. For example, as a result of flooding caused by Hurricanes Matthew and Irma, FPL's St. Augustine substation was required to be proactively de-energized (*i.e.*, shut down before water reached levels that would cause significant damage to powered substation equipment). Another example is FPL's South Daytona substation that was proactively de-energized during Hurricane Irma as a result of flooding. While proactively de-energizing those substations impacted by storm surge and/or flooding helps reduce damage to substation equipment, FPL is still required to implement both temporary flood mitigation efforts and repairs to substation facilities and equipment that become flooded as a result of extreme weather conditions.

An outage associated with distribution substations can impact up to several thousands of customers, and an outage associated with a transmission substation can result in an outage affecting tens of thousands of customers. Flooding and the need to proactively de-energize substations located in areas susceptible to storm surge and flooding can result in significant customer outages. For example, the flooding and de-energization of St. Augustine and South Daytona during Hurricane Irma resulted in more than 8,000 customer outages. Therefore, the prevention of outages at transmission and distribution substations due to storm surges or flooding is essential.

b. Benefits of the Substation Storm Surge/Flood Mitigation Program

To prevent/mitigate future substation equipment damage and customer outages due to storm surge and flooding, FPL's Substation Storm Surge/Flood Mitigation Program has identified certain substations located in areas throughout FPL's service area that are susceptible to storm surge or flooding during extreme weather events. Specifically, FPL plans to raise the equipment at certain substations above the flood level and construct flood protection walls around other substations to prevent/mitigate future damage due to storm surges and flooding.

c. Modifications to the Substation Storm Surge/Flood Mitigation Program

FPL is not proposing any material modifications to the program.

2. Actual/Estimated Start and Completion Dates

In its 2020 SPP, FPL identified between eight and ten substations in the former FPL service area that would require storm surge/flood mitigation measures, which were initially projected to be completed by 2022. Due to field conditions and permitting delays that were largely beyond FPL's control, FPL projects that the storm surge/mitigation measures will be completed at six of the identified substations by year-end 2022. As part of the 2023 SPP, FPL will continue the Substation Storm Surge/Flood Mitigation Program at the remaining four substations originally identified in the 2020 SPP, which are currently expected to be completed by year-end 2024. FPL will also continue to monitor storm surge and flooding at all its substations and, where appropriate and necessary, identify additional substations that require storm surge/flood mitigation measures in the future.

3. Cost Estimates

The table below provides the 2023-2024 total estimated costs for the Substation Storm Surge/Flood Mitigation program:

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2024	$16.0	$8.0

Further details regarding the estimated costs for the Substation Storm Surge/Flood Mitigation Program, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section IV(H)(3) above, during 2023-2024, the total costs for FPL's Substation Storm Surge/Flood Mitigation Program average approximately $8.0 million per year. Benefits associated with the Substation Storm Surge/Flood Mitigation Program are discussed in Sections II(A) and IV(I)(1)(b) above, include increased resiliency of the electric infrastructure.

5. Criteria used to Select and Prioritize the Programs

At this time, FPL has not identified any additional substations throughout its consolidated service area that currently require storm surge/flood mitigation measures. FPL has installed flood alarms in select substations to monitor the impacts of extreme flooding. If necessary and appropriate, FPL will implement storm surge/flood mitigation measures at select substations based on additional information received from the flood monitors or actual storm surge and/or flooding that occurs during extreme weather events.

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K. Transmission Access Enhancement Program

1. Description of the Program and Benefits

The Transmission Access Enhancement Program is a new program included in FPL's 2023 SPP. The Transmission Access Enhancement Program is designed to ensure that the company has access to its transmission facilities for restoration activities following an extreme weather event. Below is an overview of the program and its associated benefits.

Transmission facilities and equipment operate at high voltages and transmit a large amount of electricity from generation facilities to be distributed across the FPL service area. Transmission equipment and facilities are the backbone of FPL's ability to serve customers reliably throughout the service territory. A transmission-related outage can result in an outage affecting tens of thousands of customers. Additionally, unexpected

loss of a transmission facility may cause a cascading event which may result in loss of service for hundreds of thousands of customers.

FPL's transmission infrastructure traverses various regions of Florida's unique geographic topography, terrain, and hydrology. In parts of FPL's service area, transmission facilities are located in areas that are not readily accessible for repair/restoration following an extreme weather event, such as low-lying areas, areas prone to severe flooding, or areas with saturated soils. When these facilities are impacted during a storm, they frequently can only be accessed for restoration using specialized equipment, such as track, large tire, or floating equipment. Matting may also be required in these areas for stabilizing ground conditions. Such specialized equipment often has limited availability during storm events and is typically a higher cost than traditional equipment.

The Transmission Access Enhancement Program will focus on developing access roads, bridges, and culverts at targeted transmission facilities to ensure they are accessible after an extreme weather event. The Transmission Access Enhancement Program will include creation and restoration of ingress and egress to existing transmission facilities and equipment, will reduce the need and associated costs for specialized equipment, and will help expedite restoration activities.

2. Actual/Estimated Start and Completion Dates

FPL's Transmission Access Enhancement Program is a new program included in the 2023 SPP. The construction schedule for the individual projects in this program will primarily depend on obtaining the permits and approvals necessary to complete the work. For example, projects in low-lying or wetland areas may require permits from various state, county, or federal agencies, which can take several months or more to obtain. Additionally, it is common for such permits to include mitigation requirements or conditions that take additional time to complete and can further delay the project schedule. Subject to obtaining all necessary permits and approvals required to complete the work, the program is currently targeted to begin in 2023 and continue through the ten-year period of 2023-2032. FPL expects to complete approximately 3-7 projects annually; however, the number of projects completed each year will be dependent on receipt of the

necessary permits and approvals, as well as the reasonable and efficient deployment of resources and contractors.

3. Cost Estimates

The table below provides the 2023-2025 (first three years of the 2023 SPP) total estimated Transmission Access Enhancement Program costs and the total estimated Transmission Access Enhancement Program costs to be incurred during 2023-2032:

	Total Program Costs (millions)	**Annual Average Program Costs (millions)**
2023-2025	$19.4	$6.5
2023-2032	$117.4	$11.7

Further details regarding the SPP estimated Transmission Access Enhancement Program costs, including estimated annual capital expenditures and operating expenses, are provided in Appendix C.

4. Comparison of Costs and Benefits

As provided in Section IV(K)(3) above, during 2023-2032, the total costs for FPL's Transmission Access Enhancement Program average approximately $11.7 million per year. Benefits associated with the Transmission Access Enhancement Program are discussed in Sections II(A) and IV(K)(1)(b) above, include reducing restoration time and reducing restoration costs associated with extreme weather conditions for specific hard to access transmission facilities and equipment.

5. Criteria used to Select and Prioritize the Programs

The Transmission Access Enhancement Program will only be applied in select areas where existing transmission lines are not readily accessible for repair/restoration following an extreme weather event due to the topography, terrain, and hydrology. At this time, FPL has not identified any areas where the Transmission Access Enhancement Program would not be feasible, reasonable, or practical.

V. Detailed Information on the First Three Years of the SPP (2023-2025)

A. Detailed Description for the First Year of the SPP (2023)

The following additional project level detail required by Rule 25-6.030(3)(e)(1), F.A.C., for the first year of the 2023 SPP (2023) is provided in Appendix E: (1) the actual or estimated construction start and completion dates; (2) a description of the affected existing facilities, including number and type(s) of customers served, historic service reliability performance during extreme weather conditions, and how this data was used to prioritize the storm protection projects; (3) a cost estimate including capital and operating expenses. A description of the criteria used to select and prioritize the storm protection programs is included in the description of each 2023 SPP program provided in Section IV. FPL's distribution and transmission annual inspection and vegetation management programs do not have project components and, instead, are completed on a cycle-basis. As such, these SPP programs do not lend themselves to identification of specific projects and, therefore, project level detail for these programs is not included in Appendix E.

B. Detailed Description of the Second and Third Years of the 2023 SPP (2024-2025)

Additional details required by Rule 25-6.030(3)(e)(2), F.A.C., for the second and third years of the 2023 SPP (2024-2025), including the estimated number and costs of projects under every program, is provided in Appendix C.

C. Detailed Description of the Vegetation Management Activities for the First Three Years of the 2023 SPP (2023-2025)

The following additional information required by Rule 25-6.030(3)(f), F.A.C., for the first three years of the vegetation management activities under the 2023 SPP (2023-2025) is provided in n Sections IV(F) and IV(G) above and Appendix C: the projected frequency (trim cycle); the projected miles of affected transmission and distribution overhead facilities; the estimated annual labor and equipment costs for both utility and contractor personnel. A description of how the vegetation management activities will reduce outage times and restoration costs due to extreme weather conditions is provided in Sections IV(F) and IV(G) above.

VI. Estimate of Annual Jurisdictional Revenue Requirements for the 2023 SPP

Pursuant to Rule 25-6.030(3)(f), F.A.C., the table below provides the estimated annual jurisdictional revenue requirements for each year of the 2023 SPP.

	Estimated Annual Revenue Requirements (millions)[33]
2023	$415.4
2024	$587.0
2025	$760.6
2026	$909.3
2027	$1,049.3
2028	$1,196.6
2029	$1,338.1
2030	$1,481.6
2031	$1,619.1
2032	$1,748.4

While FPL has provided estimated costs by each program as of the time of this filing and associated total revenue requirements in its 2023 SPP, consistent with the requirements of Rule 25-6.030, F.A.C., subsequent projected and actual program costs submitted for cost recovery through the SPPCRC (per Rule 25-6.031, F.A.C.,) could vary by as much as 10-15%, which would then also impact associated estimated revenue requirements and rate impacts. The projected costs, actual/ estimated costs, actuals costs, and true-up of actual costs to be included in FPL's SPPCRC will all be addressed in subsequent filings in separate SPPCRC dockets pursuant to Rule 25-6.031, F.A.C.

[33] For purposes of estimating the annual revenue requirements, FPL used the 2022 ending balances from the 2022 SPPCRC Projection filing approved by Commission Order No. PSC-2021-0324-FOF-EI issued on August 26, 2021. Further, pursuant to the Stipulation and Settlement Agreement approved by Commission Order No. PSC-2020-0293-AS-EI issued on August 28, 2020, the SPP costs for 2020 were not recovered through the SPPCRC. Therefore, the cumulative revenue requirements shown herein, which are based on the ending balance in the 2022 SPPCRC, do not reflect the 2020 SPP costs.

VII. Estimated Rate Impacts for First Three Years of the 2023 SPP (2023-2025)

Pursuant to Rule 25-6.030(3)(h), F.A.C., the table below provides an estimate of rate impacts for each of the first three years of the 2023 SPP for FPL's typical residential, commercial, and industrial customers.

SPP Estimated Rate Impacts (2023-2025)

Customer Class	2023	2024	2025
Residential (RS-1) ($/kWh)	$0.00431	$0.00604	$0.00771
Commercial (GSD-1) ($/kW)	$0.73	$1.03	$1.33
Industrial (GSLDT-3) ($/kW)	$0.10	$0.14	$0.17

These rate impacts are for all programs included in the 2023 SPP and are based on the total estimated costs as of the time of this filing, which could vary by as much as 10% to 15%, and include costs recovered in the SPPCRC and in base rates. The SPPCRC rates, projected costs, actual/estimated costs, actuals costs, and true-up of actual costs to be included in FPL's SPPCRC will all be addressed in subsequent filings in SPPCRC dockets pursuant to Rule 25-6.031, F.A.C.

Pursuant to Rule 25-6.030(3)(i), F.A.C., FPL has not identified any reasonable implementation alternatives that could mitigate the resulting rate impact for each of the first three years of the SPP. However, all SPP projects will be based on competitive solicitations and other contractor and supplier negotiations to ensure that FPL selects the best qualified contractors and equipment suppliers at the lowest evaluated costs, which will help to mitigate the associated rate impacts of the SPP programs.

VIII. Conclusion

The Florida Legislature has determined that it is in the State's interest to "strengthen electric utility infrastructure to withstand extreme weather conditions by promoting the overhead hardening of distribution and transmission facilities, undergrounding of certain distribution lines, and vegetation management," and for each electric utility to "mitigate restoration costs and outage times to utility customers when developing transmission and distribution storm protection plans." Section 366.96(1), F.S. FPL's 2023 SPP is a systematic approach to achieve these legislative objectives.

As part of the 2023 SPP, FPL will largely continue the existing storm hardening and storm preparedness programs included in the 2020 SPPs approved by Commission Order No. PSC-2020-0293-AS-EI issued on August 28, 2020. As explained above, these existing SPP programs have already demonstrated that they have and will continue to provide increased T&D infrastructure resiliency, reduced restoration time, and reduced restoration costs when FPL's system is impacted by severe weather events.

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The Transmission Access Enhancement Program is the third new program included in FPL's 2023 SPP that will help reduce restoration costs and reduce outage times associated with extreme weather events. As explained in Section IV(K), the program will help ensure that the company has reasonable access to its transmission facilities for restoration activities following an extreme weather event, which further reduce restoration costs and outage time.

APPENDIX A

(FPL's 3rd Supplemental Amended Response to
Staff's 1st Data Request No. 29)

Docket No. 20170215-EU
Staff's First Data Request
Request No. 29 - Third Supplemental Amended

QUESTION:
Please complete the table below summarizing hardened facilities that required repair or replacement as a result of Hurricanes Matthew, Hermine, Irma, Maria, and Nate.

RESPONSE:
FPL does not maintain its accounting records at the level of detail required to provide the requested information as they do not differentiate hardened facilities from non-hardened facilities, nor do they track which assets were repaired. However, FPL does track certain assets, at the total system level, that were requested and replaced during each hurricane as reflected in the tables below. Note, FPL did not track storm repairs/replacements for Hurricanes Maria and Nate as Hurricane Maria did not impact FPL's service territory and Nate had limited impact. Also, Hurricanes Matthew and Irma capital details associated with follow-up work are not yet available by plant account as these costs have not yet been unitized from account 106 to account 101 by plant account.

Hurricane Matthew	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures	N/A	0
Substations	N/A	0
Total	N/A	0
Distribution		
Poles	N/A	656
Substation	N/A	0
Feeder OH	N/A	0
Feeder UG	N/A	0
Feeder Combined	N/A	0
Lateral OH	N/A	N/A
Lateral UG	N/A	N/A
Lateral Combined	N/A	N/A
Total	N/A	N/A
Service		
Service OH	N/A	N/A
Service UG	N/A	N/A
Service Combined	N/A	N/A
Total	N/A	N/A

Hurricane Hermine	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures	N/A	0
Substations	N/A	0
Total	N/A	0
Distribution		
Poles	N/A	19
Substation	N/A	0
Feeder OH	N/A	0
Feeder UG	N/A	0
Feeder Combined	N/A	0
Lateral OH	N/A	N/A
Lateral UG	N/A	N/A
Lateral Combined	N/A	N/A
Total	N/A	N/A
Service		
Service OH	N/A	N/A
Service UG	N/A	N/A
Service Combined	N/A	N/A
Total	N/A	N/A

Hurricane Irma	**Number of Facilities Requiring**	
	Repair	**Replacement**
Transmission		
Structures	N/A	0
Substations	N/A	0
Total	N/A	0
Distribution		
Poles	N/A	3,562
Substation	N/A	0
Feeder OH	N/A	0
Feeder UG	N/A	0
Feeder Combined	N/A	0
Lateral OH	N/A	N/A
Lateral UG	N/A	N/A
Lateral Combined	N/A	N/A
Total	N/A	N/A
Service		
Service OH	N/A	N/A
Service UG	N/A	N/A
Service Combined	N/A	N/A
Total	N/A	N/A

Notes:
For Hurricane Matthew, there is a difference of 248 poles between what is provided in this discovery response for total poles replaced (656 poles) and what is provided in FPL's post-storm forensic review report for Hurricane Matthew (provided in FPL's response to Staff's Second Data Request No. 2 in this same docket) for poles that failed and needed to be replaced to restore service (408 poles). The difference is associated with poles replaced during "follow-up" - i.e., poles that were damaged (e.g., a cracked pole) as a result of the storm and needed to be replaced to restore the pole to its pre-storm condition - but did not fail during the storm and, thus, did not need to be replaced to restore service. As mentioned above in FPL's response to this data request, FPL's accounting records do not differentiate hardened facilities from non-hardened facilities and FPL did not track or maintain forensic information on the 248 distribution poles replaced as a result of follow-up work. As a result, FPL does not have a hardened vs. non-hardened breakdown for the 248 distribution poles replaced during follow-up work.

The distribution pole and transmission structure counts provided above represent the amount of pole/structure replacements FPL has recorded on its books and records associated with Hurricane Irma as of December 31, 2017. These amounts should be considered preliminary at this time as they are subject to change (e.g., the counts do not reflect poles that will be replaced during follow-up work, which has yet to be completed).

N/A – Information is not available at this level of detail in FPL's accounting records.

For substations and feeders, FPL has stated 0 since no entire substation or feeder was replaced. However, these facilities consist of many pieces of equipment (e.g., wire, cable, breakers, transformers, cross arms and arrestors) some of which may have been replaced.

2016/2017 Hurricanes - FPL Restoration/Infrastructure Performance

FPL's infrastructure/restoration performance for Hurricanes Matthew (2016) and Irma (2017) demonstrates that the implementation and execution of its FPSC-approved (1) ten storm preparedness initiatives (which includes vegetation management): (2) pole inspection programs; (3) storm hardening plans; and (4) tariffs to incent municipal overhead to underground conversions have provided great benefits to FPL's customers and to the State of Florida.

During 2016 and 2017, FPL's service territory was threatened with massive Category 4 and 5 storms. The size and scale of these storms impacted FPL's infrastructure throughout its entire service territory (which encompasses 35 counties in the State of Florida). For both Matthew and Irma, FPL's infrastructure storm resiliency and smart grid investments resulted in improved infrastructure resiliency performance and reduced restoration times.

2016/2017 Hurricanes - Restoration Performance

FPL saw significant improvements in overall restoration results. As can be seen in the table below, restoration results for Hurricanes Matthew and Irma show significant improvement vs. Hurricane Wilma. FPL attributes these significant improvements in restoration to the investments made to make its system smarter and more storm-resilient as well as its well-tested restoration processes. This includes FPL's distribution and transmission storm hardening and storm preparedness initiatives, pole inspection programs, smart grid initiatives, vegetation management programs and continuous efforts to improve its restoration processes.

	Wilma 2005	Matthew 2016	Irma 2017
Customer Outages	3.2M	1.2M	4.4M
% Restored / days	50% / 5	99% / 2	50% /1
All restored / days	18	4	10
Avg. to restore / days	5.4	<1	2.1

2016/2017 Hurricanes – Infrastructure Performance

To assess the effectiveness of FPL's infrastructure storm hardening investments, the Company utilizes information collected through post-storm forensic data collection and various systems (e.g., FPL's outage management system) to conduct post-storm infrastructure performance analysis. These efforts and analysis allow FPL to quantify and assess its distribution and transmission infrastructure performance including the performance of: hardened and non-hardened facilities; overhead and underground facilities; and smart grid performance. For distribution, this includes reviewing the storm performance of poles, feeders and laterals. For transmission, this includes reviewing the storm performance of poles/structures, line sections and substations. The data demonstrates that hardened infrastructure performed better than non-hardened infrastructure, underground facilities performed better than overhead facilities and smart grid devices prevented a significant number of outages from occurring.

Distribution/Transmission Poles/ Structures Performance

The performance of FPL's approximately 1.2 million distribution and transmission poles/structures during Hurricanes Matthew and Irma was excellent, as hardened poles and structures performed as expected by minimizing outages and reducing restoration times. The total number of distribution/transmission poles that failed (i.e., had to be repaired/replaced in order to restore service) during Hurricanes Matthew and Irma was a mere fraction of 1% of the 1.2 million pole/structure pole population.

Additionally, hardened distribution and transmission pole performance was significantly better than non-hardened pole performance, as hardened pole failures were either non-existent (e.g., Hurricane Matthew) or significantly less than non-hardened pole failures (e.g., during Hurricane Irma, hardened feeder poles had a 0.02% failure rate, while non-hardened feeder poles had a 0.20% failure rate). Also, total poles replaced (i.e., poles that failed + poles that were replaced during follow-up work) were also a mere fraction of 1% of the total pole population and significantly less than the number of poles replaced during Hurricane Wilma.

FPL notes that for Hurricanes Matthew and Irma, while it did track hardened vs. non-hardened pole performance during restoration, it did not track poles replaced (hardened vs. non-hardened) during follow-up work, since these poles had accomplished their intended purpose of not failing during the storms. Therefore, FPL cannot provide the number of hardened poles replaced during follow up work in Hurricanes Matthew and Irma. Based on the performance of hardened poles that failed during these storms (see table below), it is highly unlikely that there would be a significant number of hardened poles, if any, that needed to be replaced during follow-up work. However, going forward, should the Commission want FPL to track replacement of hardened vs. non-hardened poles during follow-up work, FPL will begin to track this information.

FPL attributes this excellent pole performance to its FPSC-approved distribution and transmission storm hardening plan initiatives (e.g., extreme wind load construction standards for distribution poles and replacing wood transmission poles/structures) and its pole inspection programs.

Distribution Poles 12/31/17
Total Number 1,188,202
Total Hardened 124,518*

* This number is understated as it includes only poles hardened as a result of FPL's approved hardening plan projects, as FPL does not track or maintain the number of hardened poles installed as a result of new construction (e.g., new feeders or laterals) and/or daily work activities (e.g., maintenance, pole line extensions, relocation projects). There are also other existing poles throughout FPL's service territory that would currently meet the NESC's extreme wind loading criteria and therefore qualify as a hardened pole, however, FPL does not currently track or maintain that information.

Distribution Pole Failures*	Hardened	Non-Hardened	Total
Matthew - 2016	0	408	408
Irma - 2017	26	2834	2860

*Broken/Fallen poles that must be repaired/replaced to restore service

Transmission Pole/Structures 12/31/17
Total 66, 685
Concrete 60,694 (91%)
Wood 5,991 (9%)

Transmission Pole Failures*	Hardened	Non-Hardened	Total
Matthew - 2016	0	0	0
Irma - 2017	0	5	5

*Broken/Fallen poles that must be repaired/replaced to restore service

Distribution Feeders/Laterals Performance

As demonstrated below, FPL's hardened feeders performed significantly better than non-hardened feeders and underground feeders/laterals performed significantly better than overhead feeders/laterals. Performance was compared considering feeder and lateral outages that occurred during Hurricanes Matthew and Irma. It is also important to note that during Hurricane Irma, the Construction Man Hours ("CMH") to restore hardened feeders was 50% less than non-hardened feeders, primarily due to hardened feeders experiencing less damage than non-hardened feeders.

It is important to note that the majority of outages for overhead facilities resulted from trees that broke and/or fell into FPL's facilities. Many of these trees were outside of easements or public rights of way where FPL is generally allowed to trim. As a result, no additional amount of

traditional tree trimming would help mitigate this issue. Tree damage was particularly impactful on FPL laterals.

The two tables below provide feeder and lateral outage performance statistics for Hurricanes Matthew and Irma.

	Overhead non-Hardened			Overhead Hardened			Underground			Total		
Matthew	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out
Distribution Feeders	280	2,031	14%	68	721	9%	11	493	2%	359	3,245	13%
Distribution Laterals	3,473	82,729	4%	N.A.	N.A.	N.A.	238	101,892	0.2%	3,711	184,621	2%

Pop = Population; Lateral population includes laterals with multi-stage fusing

IRMA- 2017	Overhead Non-Hardened			Overhead Hardened			Underground			Total		
	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out
Distribution Feeders	1,609	1,958	82%	592	859	69%	85	470	18%	2,286	3,287	70%
Distribution Laterals	20,341	84,574	24%	N.A.	N.A.	N.A.	3,767	103,384	4%	24,108	187,958	13%

Pop = Population; Lateral population includes laterals with multi-stage fusing

FPL notes that, overall, for Hurricane Irma, many more laterals experienced outages compared to feeders, thus laterals required significantly more time to restore (871,000 CMH) compared to feeders (170,000 CMH). FPL continues to promote its Right Tree Right Place initiative and recommends there be changes to state laws and/or local ordinances to restrict the type and location of trees and provide utilities additional trimming rights to address existing tree conditions.[1]

Additionally, FPL notes that day-to-day, hardened feeders perform approximately 40% better than non-hardened feeders.

Transmission Line Sections/Substations Performance

The transmission system's performance was excellent during Hurricanes Matthew and Irma. Equipment and conductor damage was minimal as a result of our investments in transmission hardening and the installation of flood monitoring equipment in those substations located in flood prone areas. Substations that experienced outages were restored in one day. During Hurricanes Matthew and Irma, flood monitoring equipment operated as expected, providing notification which allowed FPL to proactively de-energize three substations (one in Matthew and two in Irma) and prevent potential serious damage from occurring at these substations.

[1] Where municipalities are not actively engaged in ensuring appropriate limitations on planting trees in public rights of way, restoration efforts are impeded and made more costly. In fact, one particular municipality is actively planting "wrong trees in the wrong place," in spite of FPL's direct communications and efforts to encourage its Right Tree Right Place initiative.

The tables below provide substation line section outage performance for Hurricanes Matthew and Irma.

MATTHEW - 2016	Overhead Non-Hardened			Overhead Hardened			Underground			Total		
	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out
Trans. Line Sections	16	350	5%	23*	846	3%	0	49	0%	39	1,245	3%

IRMA - 2017	Overhead Non-Hardened			Overhead Hardened			Underground			Total		
	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out	Out	Pop	% Out
Trans. Line Sections	60	306	20%	142**	884	16%	13***	51	25%	215	1241	17%

* 2 sections were out because substation was proactively de-energized due to flooding
** 4 sections were out because substations were proactively de-energized due to flooding
*** No underground section was damaged or failed causing an outage; however, the sections were out due to line termination equipment in substations.

The table below compares substation outage and restoration performance – Irma vs, Wilma.

Substations	Wilma 2005	Irma 2017
De-energized	241	92
Restored (Days)	5	1

Smart Grid Performance

During Hurricane Matthew and Irma, smart grid devices prevented a significant amount of customer outages, assisted with restoration efforts and reduced restoration time and costs. Specifically, automated feeder switches avoided approximately 664,000 outages during Hurricanes Matthew and Irma. Additionally, FPL's restoration crews are able to "ping" smart meters before leaving an area to ensure that power is, in fact, restored. This prevents restoration crews from leaving an area, thinking all power was restored, only to be called back when the customer informs FPL that they are still without service. FPL is also enhancing an application, first utilized during Hurricanes Matthew and Irma, whereby it will be able to "bulk meter ping" smart meters to confirm whether customers have service.

Automated Feeder Switches	Avoided Customer Outages
Matthew - 2016	118,000
Irma - 2017	546,000

Estimate of Storm Restoration Cost Savings Due to Hardening based on Storm Damage Model Simulation

The attached analysis provides an estimate of transmission and distribution storm restoration savings for Hurricanes Matthew and Irma that resulted from storm hardening completed by FPL prior to the storms' impacts. To calculate these savings, FPL utilized its Storm Damage Model (the same model FPL utilizes to estimate damage when a storm approaches FPL's service territory) to simulate damage that likely would have occurred without hardening and determine the associated required construction man hours (CMH) that would have been required to restore service in the absence of hardening, days to restore in the absence of hardening and associated incremental restoration costs. Additionally, FPL calculated the 40-year net present value of these savings for two scenarios – (1) a similar storm occurs every 3 years; and (2) a similar storm occurs every 5 years.

As indicated on the attached analysis, the 40-year net present values of the savings related to storm hardening are significant. In the absence of hardening the estimated percentage increase in CMHs for Hurricane Matthew and Hurricane Irma restoration would have been significantly higher (36% and 40%, respectively), days to restore would have been increased (50% and 40%, respectively) and restoration costs would have been greater (36% and 40%, respectively).

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Estimate of Storm Restoration Cost Savings Due to Hardening based on Storm Damage Model Simulation

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
	Construction Man-Hours (CMH)				Days to Restore				Storm Restoration Costs (Millions)				40 Yr NPV Savings (2017$)	
Storm	Actual	Modeled System Without Hardening	Additional CMH without Hardening	% Increase without Hardening	Actual	Modeled System Without Hardening	Additional Days to Restore without Hardening	% Increase without Hardening	Actual	Modeled System Without Hardening	Additional Storm Restoration Costs without Hardening	% Increase without Hardening	40 Yr NPV Savings Every 3 Years (2017$)	40 Yr NPV Savings Every 5 Years (2017$)
Matthew	257,000	350,000	93,000	36%	4	6	2	50%	$290	$395	$105	36%	$653	$406
Irma	1,195,000	1,678,000	483,000	40%	10	14	4	40%	$1,226	$1,722	$496	40%	$3,082	$1,915

Notes:

All costs and CMH are Transmission and Distribution only, and exclusive of follow-up work

[1] Calculated based on actual storm restoration requirements
[2] FPL storm damage model simulation results of CMH incurred without hardening
[3] Additional CMH without hardening (Col. 2 - Col. 1)
[4] Percent increase in CMH without hardening (Col. 3/Col. 1)
[5] Actual days to restore service
[6] Storm damage model simulation result of the days to restore service without hardening (assumes same restoration resources as actual)
[7] Additional days to restore without hardening (Col. 6 - Col. 5)
[8] Percent increase in days to restore without hardening (Col. 7/Col. 5)
[9] Actual cost of restoration. Irma costs are preliminary
[10] Storm damage model simulation result of restoration costs without hardening
[11] Additional restoration costs without hardening (Col. 10 - Col. 9)
[12] Percent increase in restoration costs without hardening ((Col. 11/Col. 9)
[13] 40 year net present value savings assuming a similar storm every three years (calculation details attached)
[14] 40 year net present value savings assuming a similar storm every five years (calculation details attached)

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Estimated Storm Restoration Costs Savings due to Hardening ($MM)

	Matthew Savings	
	Every 3 years	Every 5 years
40-Year NPV (2017$)	**$653**	**$406**

Discount Rate = 7.76%

	Matthew Savings			CPI	
Year	Every 3 years	Every 5 years	CPI	Multiplier	Matthew
1	$105	$105	2.1%	1.000	$105
2	$0	$0	2.4%	1.024	$107
3	$0	$0	2.4%	1.049	$110
4	$113	$0	2.6%	1.076	$113
5	$0	$0	2.7%	1.105	$115
6	$0	$118	1.7%	1.124	$118
7	$121	$0	2.5%	1.152	$121
8	$0	$0	2.4%	1.179	$124
9	$0	$0	2.3%	1.206	$127
10	$130	$0	2.2%	1.233	$130
11	$0	$133	2.2%	1.260	$133
12	$0	$0	2.2%	1.288	$136
13	$139	$0	2.2%	1.317	$139
14	$0	$0	2.2%	1.346	$143
15	$0	$0	2.2%	1.375	$146
16	$150	$150	2.1%	1.404	$150
17	$0	$0	2.1%	1.434	$153
18	$0	$0	2.1%	1.464	$157
19	$161	$0	2.1%	1.495	$161
20	$0	$0	2.1%	1.526	$165
21	$0	$169	2.1%	1.558	$169
22	$173	$0	2.1%	1.590	$173
23	$0	$0	2.1%	1.623	$177
24	$0	$0	2.1%	1.656	$181
25	$185	$0	2.1%	1.691	$185
26	$0	$190	2.1%	1.727	$190
27	$0	$0	2.1%	1.763	$194

28	$199	$0	2.1%	1.801	$199
29	$0	$0	2.2%	1.840	$204
30	$0	$0	2.2%	1.880	$209
31	$214	$214	2.1%	1.920	$214
32	$0	$0	2.2%	1.962	$219
33	$0	$0	2.1%	2.004	$224
34	$230	$0	2.1%	2.047	$230
35	$0	$0	2.1%	2.090	$235
36	$0	$241	2.1%	2.135	$241
37	$246	$0	2.1%	2.180	$246
38	$0	$0	2.1%	2.226	$252
39	$0	$0	2.1%	2.274	$258
40	$265	$0	2.1%	2.322	$265
NPV (2017$)	**$653**	**$406**			

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Estimated Storm Restoration Costs Savings due to Hardening ($MM)

	Irma Savings	
	Every 3 years	Every 5 years
40-Year NPV (2017$)	**$3,082**	**$1,915**

Discount Rate = 7.76%

	Matthew Savings			CPI	
Year	Every 3 years	Every 5 years	CPI	Multiplier	Irma
1	$496	$496	2.1%	1.000	$496
2	$0	$0	2.4%	1.024	$507
3	$0	$0	2.4%	1.049	$520
4	$532	$0	2.6%	1.076	$532
5	$0	$0	2.7%	1.105	$545
6	$0	$558	1.7%	1.124	$558
7	$571	$0	2.5%	1.152	$571
8	$0	$0	2.4%	1.179	$585
9	$0	$0	2.3%	1.206	$599
10	$613	$0	2.2%	1.233	$613
11	$0	$628	2.2%	1.260	$628
12	$0	$0	2.2%	1.288	$643
13	$659	$0	2.2%	1.317	$659
14	$0	$0	2.2%	1.346	$674
15	$0	$0	2.2%	1.375	$691
16	$707	$707	2.1%	1.404	$707
17	$0	$0	2.1%	1.434	$724
18	$0	$0	2.1%	1.464	$742
19	$759	$0	2.1%	1.495	$759
20	$0	$0	2.1%	1.526	$778
21	$0	$796	2.1%	1.558	$796
22	$815	$0	2.1%	1.590	$815
23	$0	$0	2.1%	1.623	$835
24	$0	$0	2.1%	1.656	$855
25	$876	$0	2.1%	1.691	$876
26	$0	$897	2.1%	1.727	$897
27	$0	$0	2.1%	1.763	$918

28	$940	$0	2.1%	1.801	$940
29	$0	$0	2.2%	1.840	$963
30	$0	$0	2.2%	1.880	$986
31	$1,009	$1,009	2.1%	1.920	$1,009
32	$0	$0	2.2%	1.962	$1,034
33	$0	$0	2.1%	2.004	$1,058
34	$1,084	$0	2.1%	2.047	$1,084
35	$0	$0	2.1%	2.090	$1,110
36	$0	$1,136	2.1%	2.135	$1,136
37	$1,164	$0	2.1%	2.180	$1,164
38	$0	$0	2.1%	2.226	$1,192
39	$0	$0	2.1%	2.274	$1,220
40	$1,250	$0	2.1%	2.322	$1,250
NPV (2017$)	**$3,082**	**$1,915**			

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FPL
WEIGHTED AVERAGE COST OF CAPITAL

STATE INCOME TAX	5.50%
FEDERAL INCOME T	21.00%
COMPOSITE INCOME TAX RAT	25.35%

MODEL DATE:	1-Jan-18

Debt Cost Based on Blue Chip Corporate Aaa and Bbb Bonds

SOURCE	WEIGHT[1]	COST[2]	/TD COST	AFTER TAX /TD COST	PRE TAX /TD COST
DEBT	40.40%	4.88%	1.97%	1.47%	1.97%
COMMON	59.60%	10.55%	6.29%	6.29%	8.42%
TOTAL	100.00%		8.26%	**7.76%**	10.39%

AFTER-TAX WACC	**7.76%**

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Consumer Prices (1982-84=1.000) All-Urban
(Forecast adjusted to match budget assumptions)

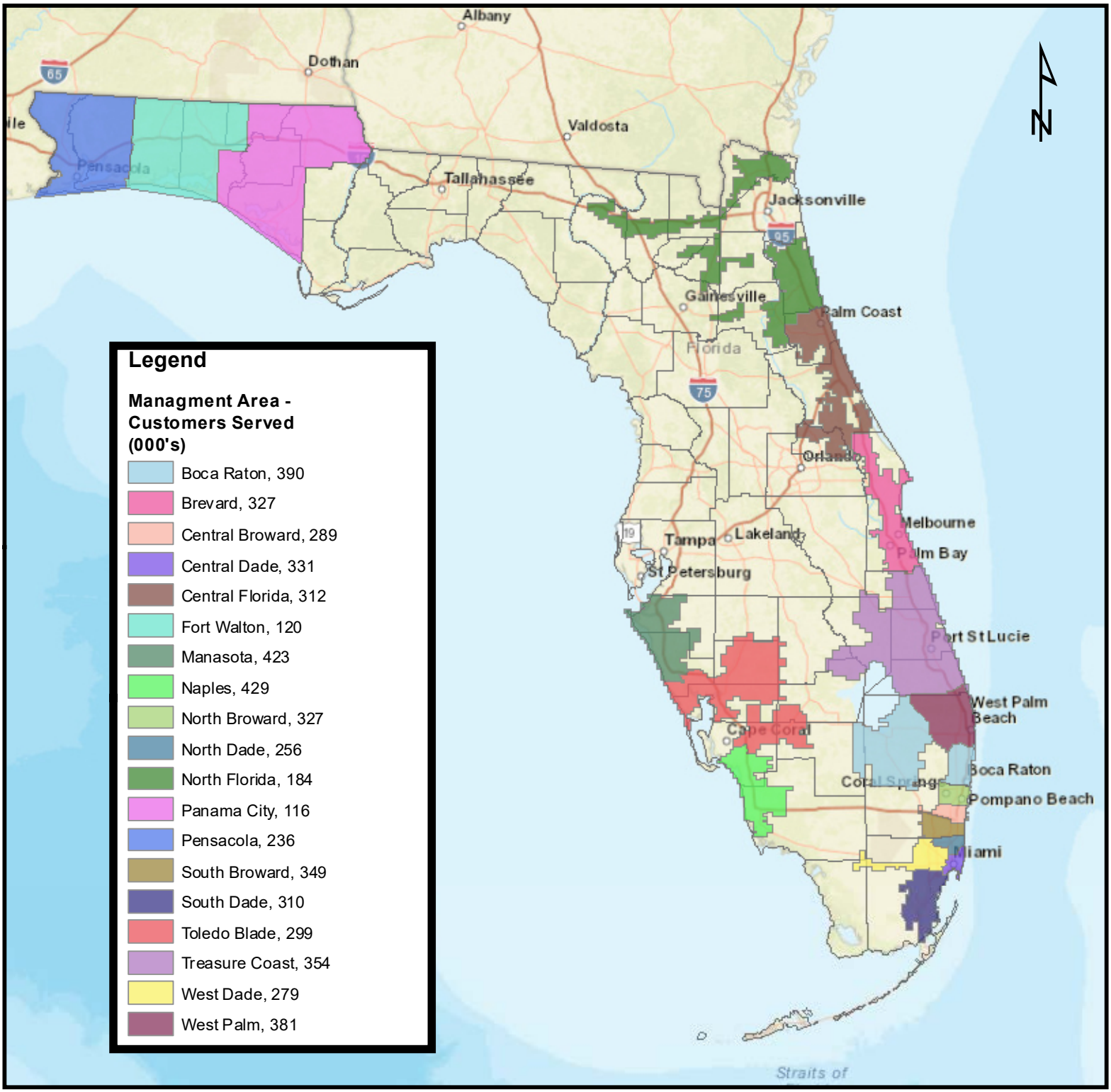
	Index	% Change	Budget Assumptions
2009	2.1454		
2010	2.1806	1.64%	
2011	2.2494	3.16%	
2012	2.2959	2.07%	
2013	2.3296	1.46%	
2014	2.3674	1.62%	
2015	2.3702	0.12%	
2016	2.4001	1.26%	
2017	2.4512	2.13%	
2018	2.5100	2.40%	2.40%
2019	2.5703	2.40%	2.40%
2020	2.6371	2.60%	2.60%
2021	2.7083	2.70%	2.70%
2022	2.7553	1.73%	
2023	2.8231	2.46%	
2024	2.8909	2.40%	
2025	2.9569	2.28%	
2026	3.0228	2.23%	
2027	3.0895	2.21%	
2028	3.1573	2.19%	
2029	3.2270	2.21%	
2030	3.2981	2.20%	
2031	3.3693	2.16%	
2032	3.4411	2.13%	
2033	3.5142	2.12%	
2034	3.5887	2.12%	
2035	3.6642	2.10%	
2036	3.7408	2.09%	
2037	3.8187	2.08%	
2038	3.8972	2.06%	
2039	3.9779	2.07%	
2040	4.0603	2.07%	
2041	4.1449	2.08%	
2042	4.2324	2.11%	
2043	4.3226	2.13%	
2044	4.4153	2.15%	
2045	4.5104	2.15%	
2046	4.6077	2.16%	

2047	4.7067	2.15%
2048	4.8099	2.19%
2049	4.9122	2.13%
2050	5.0167	2.13%
2051	5.1233	2.13%
2052	5.2323	2.13%
2053	5.3435	2.13%
2054	5.4572	2.13%
2055	5.5732	2.13%
2056	5.6917	2.13%
2057	5.8128	2.13%

Actuals thru 2017 from BLS

APPENDIX B

(FPL Management Areas)



Management Areas Customers Served

0 37.5 75 150 225 300 Miles

APPENDIX C

(2023-2032 Estimated SPP Costs and Number of Projects)

2023-2032 FPL SPP Program Costs/Activities

$ in Millions

FPL SPP Programs	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total SPP Costs	Annual Average Cost
Distribution Inspection Program												
Operating Expenses	$ 3.8	$ 3.9	$ 4.0	$ 4.1	$ 4.1	$ 4.1	$ 4.1	$ 4.1	$ 4.0	$ 4.0	**$ 40.1**	$ 4.0
Capital Expenditures	$ 58.9	$ 60.4	$ 61.9	$ 63.5	$ 64.9	$ 64.9	$ 64.3	$ 63.8	$ 63.4	$ 62.8	**$ 628.8**	$ 62.9
Total	$ 62.7	$ 64.3	$ 65.9	$ 67.5	$ 69.0	$ 69.0	$ 68.4	$ 67.9	$ 67.4	$ 66.8	**$ 668.9**	**$ 66.9**
# of Pole Inspections	180,000	180,000	180,000	180,000	180,000	180,000	180,000	160,000	160,000	160,000		
Transmission Inspection Program												
Operating Expenses	$ 1.4	$ 1.4	$ 1.4	$ 1.4	$ 1.5	$ 1.5	$ 1.6	$ 1.6	$ 1.6	$ 1.7	**$ 15.1**	$ 1.5
Capital Expenditures	$ 74.5	$ 61.5	$ 59.0	$ 60.3	$ 62.1	$ 64.0	$ 65.9	$ 67.9	$ 69.9	$ 72.0	**$ 657.2**	$ 65.7
Total	$ 75.9	$ 62.9	$ 60.4	$ 61.8	$ 63.6	$ 65.5	$ 67.5	$ 69.5	$ 71.6	$ 73.7	**$ 672.4**	**$ 67.2**
# of Structure Inspections	84,000	84,500	85,000	85,500	86,000	86,500	87,000	87,500	88,000	88,500		
Distribution Feeder Hardening Program												
Operating Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -
Capital Expenditures	$ 689.0	$ 687.0	$ 544.3	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 16.8		**$ 2,437.1**	$ 270.8
Total	$ 689.0	$ 687.0	$ 544.3	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 16.8	$ -	**$ 2,437.1**	**$ 270.8**
# of Feeders	300-350	250-350	100-200	25-75	25-75	25-75	25-75	25-75				
Distribution Lateral Hardening Program												
Operating Expenses	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	**$ 1.9**	$ 0.2
Capital Expenditures	$ 522.9	$ 628.4	$ 758.2	$ 889.0	$ 1,018.8	$ 1,049.4	$ 1,080.9	$ 1,113.3	$ 1,146.7	$ 1,181.1	**$ 9,388.5**	$ 938.9
Total	$ 523.1	$ 628.6	$ 758.4	$ 889.1	$ 1,019.0	$ 1,049.6	$ 1,081.1	$ 1,113.5	$ 1,146.9	$ 1,181.3	**$ 9,390.5**	**$ 939.0**
# of Laterals	600-800	700-900	800-1,000	900-1,100	1,000-1,500	1,000-1,500	1,000-1,500	1,000-1,500	1,000-1,500	1,000-1,500		
Transmission Hardening Program												
Operating Expenses	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.6	$ 0.7	$ 0.7	$ 0.4	$ 0.2	**$ 5.6**	$ 0.6
Capital Expenditures	$ 55.0	$ 53.9	$ 53.9	$ 53.9	$ 55.5	$ 57.2	$ 58.9	$ 60.7	$ 33.0	$ 16.5	**$ 498.5**	$ 49.9
Total	$ 55.6	$ 54.5	$ 54.5	$ 54.5	$ 56.2	$ 57.8	$ 59.6	$ 61.4	$ 33.4	$ 16.7	**$ 504.1**	**$ 50.4**
# of Structures to be Replaced	500-600	400-500	400-500	400-500	400-500	450-550	450-550	450-550	350-400	150-200		
Distribution Vegetation Management Program												
Operating Expenses	$ 68.2	$ 68.1	$ 69.3	$ 68.9	$ 73.8	$ 78.9	$ 78.4	$ 77.9	$ 77.4	$ 76.9	**$ 738.0**	$ 73.8
Capital Expenditures	$ 4.8	$ 4.7	$ 2.6	$ 2.0	$ 2.0	$ 2.1	$ 2.3	$ 2.5	$ 2.6	$ 2.8	**$ 28.4**	$ 2.8
Total	$ 73.0	$ 72.8	$ 71.9	$ 70.9	$ 75.8	$ 81.1	$ 80.7	$ 80.4	$ 80.1	$ 79.7	$ 766.5	$ 76.6
# of Miles Maintained	16,690	16,600	16,450	16,350	16,350	16,350	16,350	16,350	16,350	16,350		
Transmission Vegetation Management Program												
Operating Expenses	$ 11.8	$ 12.5	$ 12.6	$ 12.8	$ 13.7	$ 14.7	$ 14.7	$ 15.8	$ 17.0	$ 18.2	**$ 143.7**	$ 14.4
Capital Expenditures	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -
Total	$ 11.8	$ 12.5	$ 12.6	$ 12.8	$ 13.7	$ 14.7	$ 14.7	$ 15.8	$ 17.0	$ 18.2	$ 143.7	$ 14.4
# of Miles Maintained	9,350	9,350	9,350	9,350	9,350	9,350	9,350	9,350	9,350	9,350		
Substation Storm Surge/Flood Mitigation Program												
Operating Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -
Capital Expenditures	$ 8.0	$ 8.0									**$ 16.0**	$ 8.0
Total	$ 8.0	$ 8.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 16.0**	**$ 8.0**
# of Substations	2	2										
Transmission Access Enhancement Program												
Operating Expenses	$ -	$ -	$ -	$ 0.2	$ 0.3	$ 0.2	$ 0.2	$ 0.2	$ 0.2	$ 0.2	**$ 1.6**	$ 0.2
Capital Expenditures	$ 0.8	$ 2.8	$ 15.8	$ 16.9	$ 15.6	$ 12.5	$ 16.1	$ 15.3	$ 15.2	$ 4.9	**$ 115.8**	$ 11.6
Total	$ 0.8	$ 2.8	$ 15.8	$ 17.1	$ 15.9	$ 12.7	$ 16.3	$ 15.5	$ 15.4	$ 5.1	**$ 117.4**	**$ 11.7**
# of Access	-	3	5	5	7	3	4	5	6	2		
Total SPP Costs	**$ 1,499.9**	**$ 1,593.4**	**$ 1,583.8**	**$ 1,273.8**	**$ 1,413.1**	**$ 1,450.3**	**$ 1,488.2**	**$ 1,523.9**	**$ 1,448.5**	**$ 1,441.6**	**$ 14,716.6**	**$ 1,505.1**

APPENDIX D

(FPL Distribution Design Guidelines)

Distribution Design Guidelines

The following **guidelines** will be used to standardize the design of FPL's overhead distribution facilities **when practical, feasible, and cost effective**.

General

1. FPL's current practice is to adopt NESC 250C GRADE B Extreme Wind loading (EWL) as the design criteria for: (1) new pole line construction, (2) pole line extensions, (3) pole line relocations, (4) feeder pole replacements on multi-circuit pole lines, (5) installing an intermediate pole, and (6) feeder pole replacements. Reference the Pole Sizing section (pg 7) for the guidelines to determine the necessary pole class and type for all work. Use Pole Foreman to determine pole strength to meet wind loading. Refer to the Distribution Engineering Reference Manual Addendum for reference documentation how to hand calculate pole sizes for specific framing under extreme wind loading conditions.

2. For maintenance, existing non-top-CIF pole lines may be evaluated using NESC combined ice and wind loading with Grade B construction. This represents the loading prior to the adoption of extreme wind loading. If the pole must be replaced, use Pole Foreman to determine appropriate pole strength that will pass wind loading for the wind zone. You can also refer to the Pole Sizing section for the minimum class pole to be installed. Refer to the Distribution Engineering Reference Manual (DERM) Section 4 for calculating pole sizes for specific framing under the NESC combined ice and wind loading conditions. Maintenance activities include replacing like for like items. If you are completing substantial work on a pole, such as installing additional cables, upgrading a transformer, reconductoring or new framing, the pole must meet EWL and the revised pole standards.

3. Every attempt should be made to place new or replacement poles in private easements or as close to the front edge of property (right of way line) as practical.

4. Overhead pole lines should be placed in front lot lines or accessible locations where feasible.

5. When replacing poles, the new pole should be set as close as possible to the existing pole to avoid the creation of a new pole location.

6. Poles are not to be placed in medians.

7. Concrete poles are not to be placed in inaccessible locations or locations that could potentially become inaccessible.

8. Please reference the minimum setting depth charts located in DCS D-3.0.0 which shows the increased setting depths for concrete poles.

9. Every effort should be made not to install poles in sidewalks. If a pole must be placed in a sidewalk, a minimum unobstructed sidewalk width of 36" must be maintained to comply with the American Disabilities Act (ADA) requirements.

10. If concrete poles are required by the governing agency as a requirement of the permit, and if the work is being done solely for FPL purposes (feeder tie, etc.), then the concrete poles are installed with no differential charges. If the concrete poles are required as a condition of the permit, and the work is being done at the request of a customer (and fall outside the Pole Sizing Guidelines) to provide service to the customer or relocation by request of the customer, then the customer is charged a differential cost for the concrete poles.

11. When installing new OH secondary spans, multiplexed cable should be used instead of open wire secondary. When reconductoring or relocating existing pole lines containing open wire secondary, replace the open wire with multiplexed cable whenever possible. The system neutral should not be removed when replacing open wire secondary with multiplexed cable if primary wire is present. It is necessary to maintain a separate system neutral for operational continuity of the system.

12. When designing overhead facilities where secondary and service crossings exist across major roadways, the engineer should take into consideration placing these secondary street crossings underground. Operations Director Approval is required.

13. Whenever extending a feeder, reconductoring a feeder section, or attaching a device to a feeder, always reference the nearest existing disconnect switch number on the construction drawing and show the dimension to the switch. This will aid the Control Centers in updating their switching system and will aid AMG in updating AMS, as well as provide the Production Lead and Distribution Tech information needed for switching and RC Off requests.

14. When an overhead feeder crosses any obstacle to access (i.e. – water bodies such as rivers, canals, swamps; limited access R/W such as interstate highways, turnpikes, and expressways; etc.) disconnect switches should be placed on both sides of the obstacle in order to isolate the crossing in the event of a wiredown situation. See the example in the Crossing Multi-lane Limited Access Highways section (pg 5).

15. Projects that affect or extend feeder conductors should always be coordinated with Distribution Planning to ensure optimization of the distribution grid. Taking into account future feeder plans such as, feeder boundary changes, sectionalizing devices, integration of automation and remotely controlled protection.

As always, good engineering judgment, safety, reliability, and cost effectiveness should be considered. In addition to these guidelines, all distribution facilities shall be engineered to meet the minimum requirements set forth in all applicable standards and codes including but not limited to the National Electrical Safety Code (NESC), Utility Accommodation Guide, and FPL Distribution Construction Standards. Please contact a Distribution Construction Services (DCS) analyst with any questions.

New Construction

1. When installing a new feeder, lateral, or service pole, reference the Pole Sizing section for the guidelines to determine the necessary pole class and type to meet Extreme Wind Loading (EWL) for the wind zone region (105, 130, or 145 MPH).

2. Modified Vertical is the preferred framing for accessible locations. Post-top (single phase) or Cross Arm (multi-phase) is the preferred framing for inaccessible locations.

3. During the design of new pole lines in developed areas, field visits should be conducted to ensure the design would cause minimum impact to the existing property owners.

4. Overhead pole lines should not be built on both sides of a roadway unless agreed to by the customer nor should multi-circuit pole lines be created. When designing main feeder routes all viable options must be reviewed (including alternative routes) and consideration should be given to constructing the line underground. If undergrounding is chosen and it is not the least cost option, approval is required from the Engineering & Technical Services Director and the Operations Director. In addition, prior to proceeding with any pole lines on both sides of a street or any multi-circuit feeder design recommendations, Operations Director approval is required.

5. When there is an existing pole line in the rear easement, every effort should be made not to build a second pole line along the right of way.

6. When installing a pole line within a transmission line, accessible distribution poles can be wood or concrete. Distribution concrete poles should not be installed in inaccessible locations.

7. If concrete distribution poles are installed in a concrete transmission line, there is no additional charge to the customer (the concrete poles are FPL’s choice and not requested by the customer). Coordination between the transmission and distribution design is critical and consideration should be given to a design with all transmission poles versus distribution intermediate poles. This approach will reduce the overall number of poles.

8. When transmission is overbuilding (concrete structures), along an existing distribution corridor, if the distribution wood poles are in good condition, do not replace. Coordination between the transmission and distribution design is critical and consideration should be given to a design with all transmission poles versus distribution intermediate poles. This approach will reduce the overall number of poles.

Existing / Maintenance

1. When installing and/or replacing a feeder, lateral, or service pole on an existing pole line, reference the Pole Sizing section for the guidelines to determine the necessary pole class and type to meet NESC 250C GRADE B Extreme Wind Loading (EWL) for the wind zone region (105, 130, or 145 MPH).

2. When extending pole lines, the existing pole type should be used as a guide for the new pole type. If concrete poles are requested by the customer or are required as a condition of the permit and fall outside the Pole Sizing Guidelines, the customer will pay a differential charge for the concrete poles.

3. When replacing pole(s) and anchor(s) with larger self-supporting concrete poles, caution should be used, as the property owners in the vicinity of the pole will not necessarily perceive this concrete pole as a better choice.

4. When replacing poles on a multi-circuit feeder the replacement pole should be designed for Extreme Wind Loading using Pole Foreman to calculate the wind loading.

Relocations

1. When relocating a pole line, reference the Pole Sizing section for the guidelines to determine the necessary pole class and type to meet Extreme Wind Loading (EWL) for the wind zone region (105, 130, or 145 MPH).

2. When relocating either a concrete or wood pole line for a highway improvement project, the existing pole line ‘type’ should be used as a guide for the pole type replacements. There is no additional charge for concrete poles if the existing poles being relocated are concrete (like for like relocation). If the customer requests an “upgrade” to concrete poles, a differential is charged.

3. Reimbursable relocations will equal the cost to relocate the line built to Extreme Wind Loading (plus removal of old), including indirect cost.

4. Agency relocation projects should be coordinated with Distribution Planning to ensure optimization of the distribution grid and to take into account future feeder plans and potential feeder boundary changes.

Crossing Multi-lane Limited Access Highways

The following guidelines are to be used when an overhead feeder crosses any obstacle to access (i.e. –limited access R/W such as interstate highways, turnpikes, and expressways, etc.). Similar consideration can be given to water bodies such as rivers, canals, swamps.

1. Underground installation is the preferred design for all new crossings (1, 2, 3 phase) of multi-lane limited access highways & hardening of existing crossings; reference Fig 1. Limited Access Highway Crossing Schematic (Preferred). If underground construction is not feasible, reference Fig 2. Limited Access Highway Crossing Schematic (Alternate).

2. Underground crossing for 1 & 2 phases should be designed for potential three phase feeder size cable. Ensure riser poles meet or exceed extreme wind design for the designated region. For further information please contact the CMC Hardening Group.

3. For accessible overhead crossings, use concrete poles (6KIP Spun or greater concrete pole) for the crossing poles and minimum Class 2 wood poles for the intermediate poles. For inaccessible overhead crossings, minimum Class 2 wood poles should be used for the crossing and intermediate poles. All poles installed should meet or exceed EWL for the designated region.

4. Every attempt should be made to install storm guys & back guys for the highway crossing poles. Storm guys are not required on the adjacent poles.

5. Frame the highway crossing pole double deadend (See LOC 2 & 3 Fig 2 below).

6. Install disconnect switches on adjacent poles on both sides of the crossing (or as required by field conditions) to isolate the feeder section for restoration. Switches are to be installed in **accessible** locations that can be reached with readily available aerial equipment. Switches should be installed at ~42 Above Grade (AG), with a maximum pole size of 50’ wood or 55’ concrete. If there is no load between the nearest existing switch and the crossing, an additional switch is not required.

7. Check for uplift on all poles. Refer to DERM Section 4.2.3 Page 4 of 16 & DCS E-4.0.2 and E-4.0.3. Back guys should be installed at the adjacent pole if required for uplift.

8. Ensure to maintain proper clearance above or under all highways as dictated by the owner of the R/W & DCS B-3.0.1.

9. Any conductors crossing the highway that have splices should be replaced with a continuous conductor (NESC 261H2a). See Fig 2 below for additional notes on the use of splices on adjacent spans. One additional set of deadend insulators at the highway crossing pole may be used if this eliminates the need for splices when installing a new pole.

10. Engineers must conduct a pre-design meeting with the Production Lead to ensure the feasibility of the proposed design.

11. As always, use good engineering judgment to produce a quality, cost-effective design.

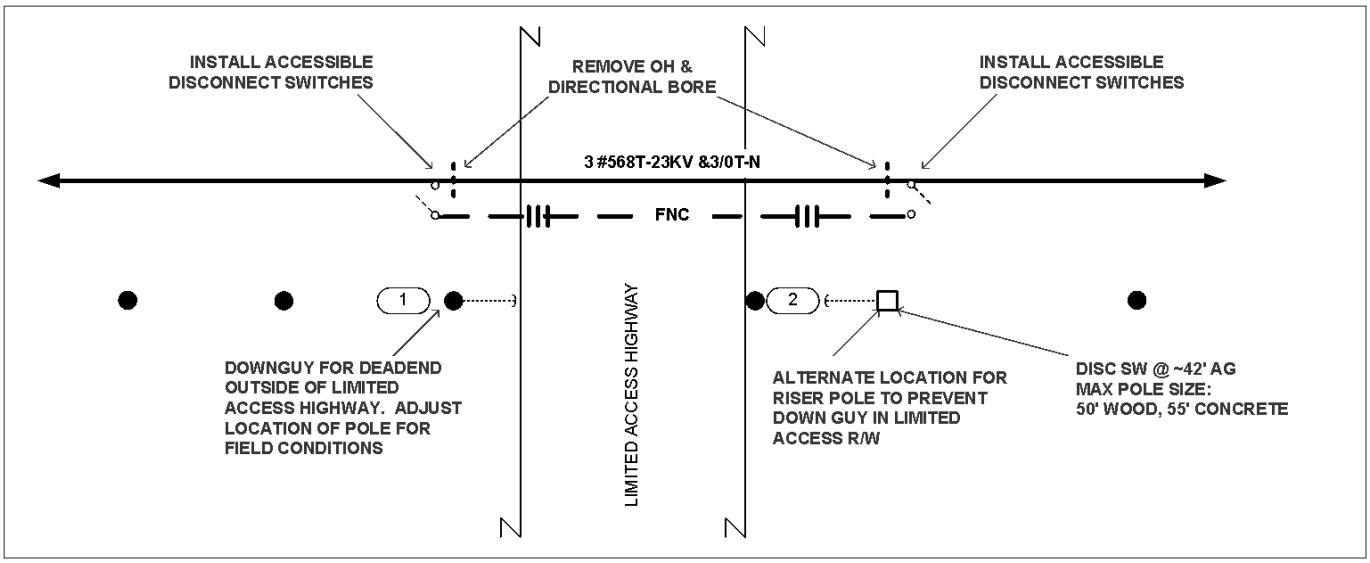


Fig 1. **Limited Access Highway Crossing Schematic (Preferred)**

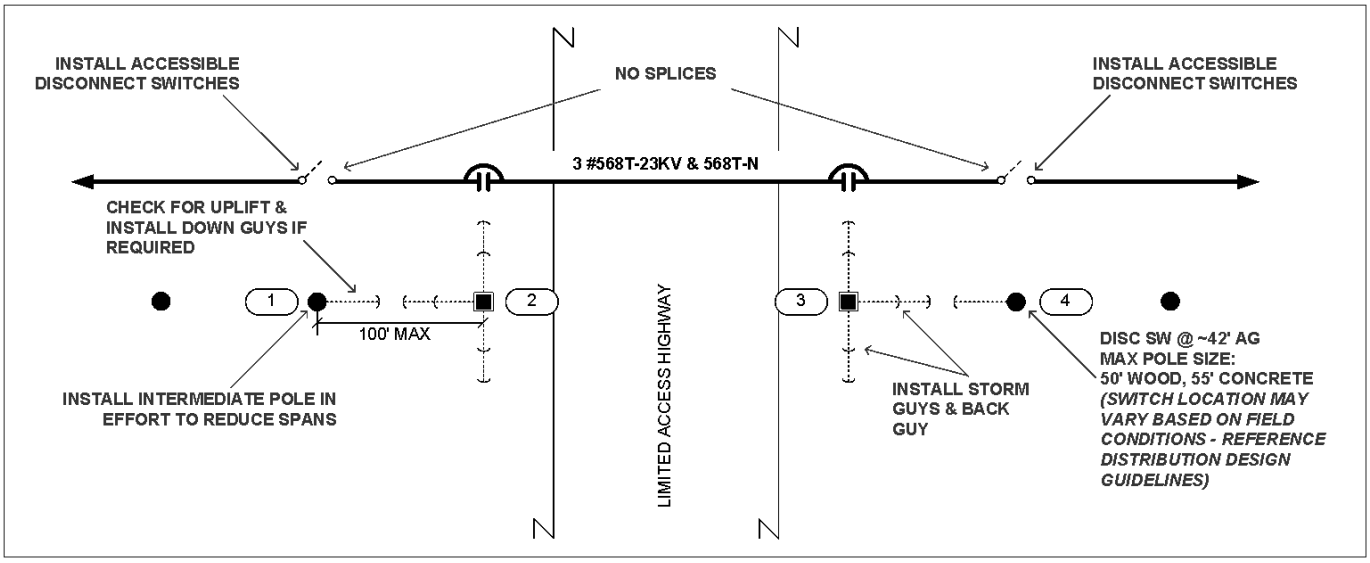


Fig 2. **Limited Access Highway Crossing Schematic (Alternate)**

Pole Sizing

1. FPL current practice is to adopt Extreme Windloading (EWL) as the design criteria for: (1) new pole line construction, (2) pole line extensions, (3) pole line relocations, (4) feeder pole replacements on multi-circuit pole lines, (5) installing intermediate poles, and (6) feeder pole replacements. Reference the Pole Sizing Guidelines (at the end of this section) to determine the necessary pole class and type.

2. For maintenance, existing non-top-CIF pole lines may be evaluated using NESC combined ice and wind loading with Grade B construction. This represents the loading prior to the adoption of extreme wind loading. If the pole must be replaced, use Pole Foreman to determine appropriate pole strength that will pass wind loading for the wind zone. You can also refer to the Pole Sizing Guidelines for the minimum class pole to be installed. Maintenance activities include replacing like for like items. If you are completing substantial work on a pole, such as installing additional cables, upgrading a transformer, reconductoring or new framing, the pole must meet EWL and the revised pole standards.

3. When performing work on an existing pole, and the pole requires change out (e.g., clearance height, location, condition, or the ability to support the planned activity), use the Pole Sizing Guidelines (at the end of this section).

4. Foreign pole owners are required to discuss design requirements with FPL prior to construction. FPL will assist with identifying the targeted poles.

5. Efforts should be made to ensure that span distances do not exceed 250 ft. for wood poles and 350 ft. for concrete poles even if longer spans would meet the Extreme Wind Loading requirements.

6. Concrete poles are preferred in the cases where replacement costs would be extremely high (i.e. duct system riser pole, corner poles with multiple circuits, critical poles, etc). No differential is charged for poles in this case.

Lateral Pole Policy (1 and 2 phase laterals)

1. All existing poles must meet NESC grade “B” as an absolute minimum.
2. If a pole is modified in any way, it must meet NESC 250B Grade “B” at a minimum when completed. If you are completing substantial work on a pole, such as installing additional cables(small communication cables or power service drops can be exempted as long as they do not drop poles below 250B), installing or upgrading a TX, re-conductor or new framing: The pole must meet 250C EWL and the revised class standards.
3. If you become aware of a pole which does not meet NESC 250B Grade B or DCS standards, the pole must be immediately upgraded or modified to meet the NESC & DCS standards.
4. All replacement lateral poles must meet NESC “EWL” and be compliant with FPL Pole Policies.
5. Restoration of lateral poles should comply with the class 2/3 table.

For practical purposes this means…

1. Engineer all poles to the NESC EWL standards and to meet FPL policies.
2. Run Pole Foreman on all designed WR’s and poles suspected of being substandard.
3. If you are completing substantial work on a pole, such as installing additional cables, upgrading a TX, re-conductor or new framing: The pole must meet EWL and the revised class standards.
4. Temporary or time constrained poles may be installed to NESC grade “N” temporary construction. This is relatively complicated, requires sound engineering judgment and should be avoided. If grade NESC grade “N” is applied, a replacement pole engineered to NESC EWL must be designed and installed as soon as practical and not longer than 6 months after NESC grade “N” was installed.

Contact Engineering Standards for situations that still are in question after careful consideration

Critical Pole Definitions & Sizing:

The following list comprises what will be considered critical poles. When installing and/or when doing work that otherwise requires the replacement of an accessible critical pole, use concrete. If the pole is inaccessible, use a minimum Class 2 wood pole, or consider relocating the equipment to an accessible concrete pole.

Critical Pole Identifier			
For new or when replaced use minimum III-H Square/6 KIP Spun Concrete Pole[5] (minimum Class 2 if inaccessible)			
Critical Poles	**DCS Reference**	**Critical Poles**	**DCS Reference**
1st switch out of substation or duct system riser pole	UH-15.0.0 Fig 2 UH-15.3.1	**Automated Feeder Switches (AFS)[2]**	C-9.2.0
Interstate Crossings[1,3]	E-10.0.0 Fig 2	**Aerial Auto Transformers[2]**	I-9.0.0
Poles with multiple primary risers	UH-15.2.0	**3 phase transformer banks 3 – 100 kVA and larger[2]**	I-52.0.2
Multi-circuit poles[4]	Frame as existing	**Capacitor Banks[2,6]**	J-2.0.2 & J-2.0.3
Three-phase reclosers[2] (or Three single-phase reclosers)	C-8.0.0	**Regulators**	I-10.1.1
Primary Meter	K-28.0.0	**Intelliruptors**	C-9.5.0
All references are to the Distribution Construction Standards (DCS).			

For all critical poles run Pole Foreman to calculate the windloading for the specified pole and attachments combination. Additional information can be found in

- **DERM Section 4 - Addendum for Extreme Wind Loading tables 4.2.2-8, 4.2.2-9, or 4.2.2-10.**

1) Every attempt should be made to install storm guys where feasible and practical.
2) Frame in-line per standard to equally distribute weight.
3) Refer to the Crossing Multi-lane Limited Access Highways section for details.
4) Contact CMC Hardening Group before designing new multi-circuit line.
5) To eliminate field drilling, inventory Special Drill Pole & create Pole Boring Detail for all concrete poles on Hardening Jobs.
6) In a predominantly wood pole line, a class 2 minimum pole would be acceptable instead of a concrete pole

Pole Sizing Guidelines:

The following tables should be used as guidelines to help determine pole class and type, when installing and/or replacing a feeder, lateral or service pole.

Feeder or Three Phase Lateral:

Pole Location Description	New Construction, Line Extension, & Pole Line Relocation	Existing Infrastructure [1]	* Installing or Replacing a Critical Pole [2]
Wood	Use minimum Class 2 Wood Pole to meet EWL	Use Class 2 Wood Poles must meet EWL	Use III-H/6 KIP Spun (Accessible) or Class 1 Wood (Inaccessible) must meet EWL
Concrete	Use minimum III-H/6 KIP Spun Concrete Pole to meet EWL	Use III-H Concrete Poles or 6 KIP Spun Concrete must meet EWL	Use III-H/6 KIP Spun Concrete Poles must meet EWL

When designing for EWL run Pole Foreman to calculate the windloading for the specified pole and attachments combination. Additional information can be found in:

- **DERM Section 4 - Addendum for Extreme Wind Loading tables 4.2.2-8, 4.2.2-9, or 4.2.2-10.**

* Wood critical poles require preapproval from the Manager of Design and Applications.

Single or Two Phase Lateral:

Pole Line Description	New Construction, Line Extension, Pole Line Relocation, Pole Replacement, & Intermediate Poles	Existing Infrastructure [1]	Installing or Replacing a Critical Pole[2]
Wood	105/135 mph: Use minimum Class 3 *MUST* meet EWL	105/135 mph: Use minimum Class 3 (250B)	Use 6KIP Spun/III-H (Accessible) or Class 2 Wood (Inaccessible)
	145 mph: Use minimum Class 2 *MUST* meet EWL	145 mph: Use minimum Class 2 (250B)	
Concrete	Use minimum III-G[3] or III-H/6 KIP Spun poles	Use III-G[3] or III-H poles to match existing line (250B)	Use III-H/6 KIP Spun Concrete Poles

Notes: [1] To be used when replacing equipment or installing new equipment on an existing pole.
[2] Reference Critical Pole List on pg.8.
[3] Use of III-G poles should be limited to existing concrete lateral pole lines whose wire size is less than or equal to 1/0A.
[4] Use Pole Foreman to calculate wind loading on all poles.

Basic Span Lengths for selected poles for Extreme Wind Loading:

Facility	Phase(s)	Wire size	Pole size	Recommended Maximum Span Length [4] (FPL with 2 attachments – FPL ONLY)		
				105 MPH	130 MPH	145 MPH
Feeder		3#568 ACAR	Class 2	180' - 230'	125' - 200'	90' - 140'
		3#3/0 AAAC	Class 2	180' - 250'	170' - 250'	120' - 220'
Lateral	3 PH	3#1/0 AAAC	Class 2	180' - 250'	180' - 250'	155' - 250'
	2 PH	2#1/0 AAAC	Class 3	180' - 250'	180' - 250'	125' - 250'
	1 PH	1#1/0 AAAC	Class 3	180' - 250'	180' - 250'	150’ - 250'

[4] The lower number equates to the maximum span for FPL primary and two 1” foreign attachments. The higher number equates to the recommended maximum span for FPL primary only.

Reference the DERM Addendum for EWL tables 4.2.2-8, 4.2.2-9, 4.2.2-10 when adding additional attachment(s) or equipment. As always, good engineering judgment, safety, reliability, and cost effectiveness should be considered.

Service / Secondary / St. Light / Outdoor Light Poles:

When installing or replacing a service or street light poles, a minimum of Class 3 wood pole should be used. Specific calculations may require a higher class pole for large quadruplex wire.

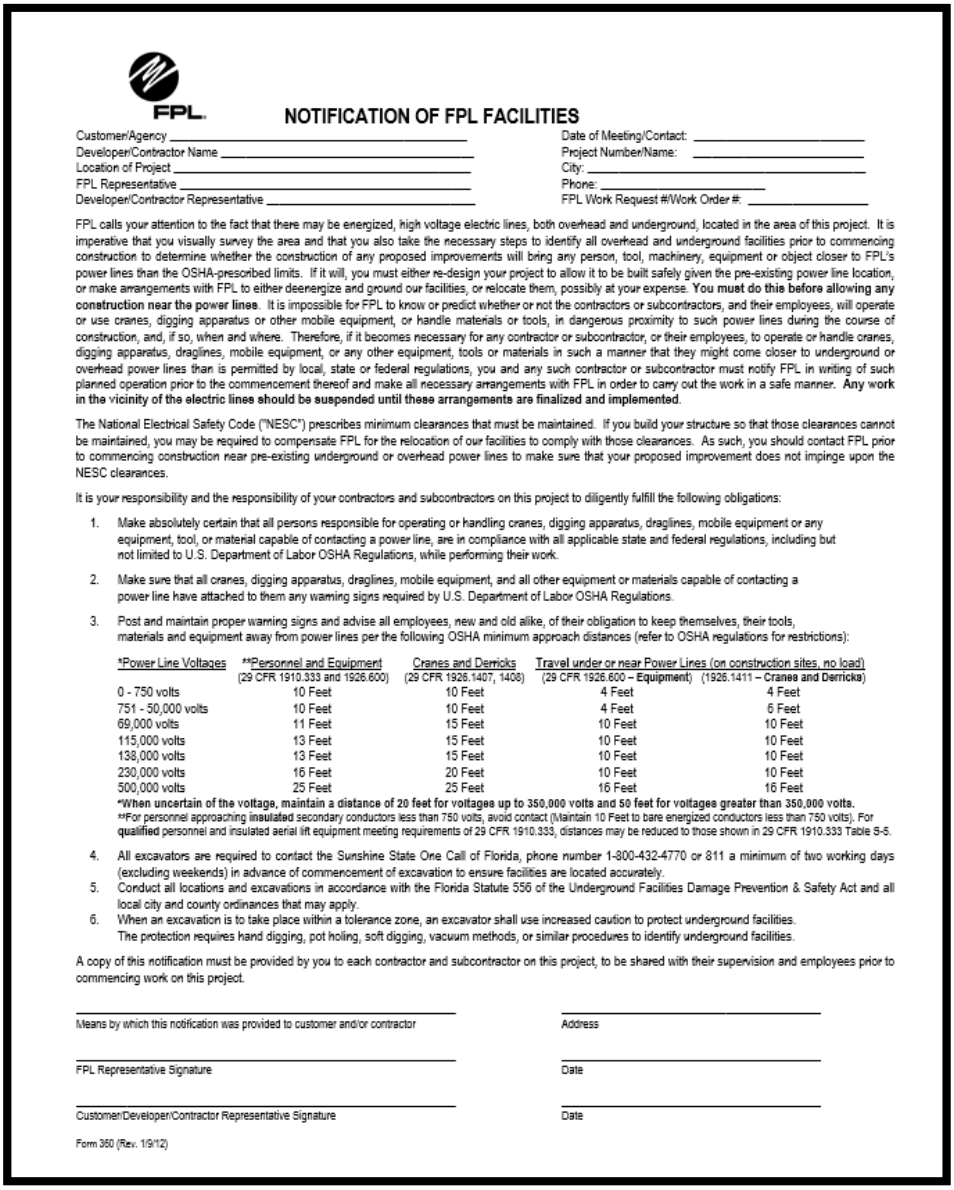
For any questions on pole sizing to meet EWL or running Pole Foreman to calculate windloading, please contact the CMC Hardening Group.

Notification of FPL Facilities

Form 360, Notification of FPL Facilities, is to be used for all construction projects. Please include a copy of this form in negotiations with builders and developers.

This form can be found:

- Distribution Design and Engineering ESN
- The last page of the ESS – Electrical Service Standards Manual
    - Located at www.fpl.com in the Project Portal



FPL

NOTIFICATION OF FPL FACILITIES

Customer/Agency _____ Date of Meeting/Contact: _____
Developer/Contractor Name _____ Project Number/Name: _____
Location of Project _____ City: _____
FPL Representative _____ Phone: _____
Developer/Contractor Representative _____ FPL Work Request #/Work Order #: _____

FPL calls your attention to the fact that there may be energized, high voltage electric lines, both overhead and underground, located in the area of this project. It is imperative that you visually survey the area and that you also take the necessary steps to identify all overhead and underground facilities prior to commencing construction to determine whether the construction of any proposed improvements will bring any person, tool, machinery, equipment or object closer to FPL's power lines than the OSHA-prescribed limits. If it will, you must either re-design your project to allow it to be built safely given the pre-existing power line location, or make arrangements with FPL to either deenergize and ground our facilities, or relocate them, possibly at your expense. **You must do this before allowing any construction near the power lines**. It is impossible for FPL to know or predict whether or not the contractors or subcontractors, and their employees, will operate or use cranes, digging apparatus or other mobile equipment, or handle materials or tools, in dangerous proximity to such power lines during the course of construction, and, if so, when and where. Therefore, if it becomes necessary for any contractor or subcontractor, or their employees, to operate or handle cranes, digging apparatus, draglines, mobile equipment, or any other equipment, tools or materials in such a manner that they might come closer to underground or overhead power lines than is permitted by local, state or federal regulations, you and any such contractor or subcontractor must notify FPL in writing of such planned operation prior to the commencement thereof and make all necessary arrangements with FPL in order to carry out the work in a safe manner. **Any work in the vicinity of the electric lines should be suspended until these arrangements are finalized and implemented.**

The National Electrical Safety Code ("NESC") prescribes minimum clearances that must be maintained. If you build your structure so that those clearances cannot be maintained, you may be required to compensate FPL for the relocation of our facilities to comply with those clearances. As such, you should contact FPL prior to commencing construction near pre-existing underground or overhead power lines to make sure that your proposed improvement does not impinge upon the NESC clearances.

It is your responsibility and the responsibility of your contractors and subcontractors on this project to diligently fulfill the following obligations:

1. Make absolutely certain that all persons responsible for operating or handling cranes, digging apparatus, draglines, mobile equipment or any equipment, tool, or material capable of contacting a power line, are in compliance with all applicable state and federal regulations, including but not limited to U.S. Department of Labor OSHA Regulations, while performing their work.
2. Make sure that all cranes, digging apparatus, draglines, mobile equipment, and all other equipment or materials capable of contacting a power line have attached to them any warning signs required by U.S. Department of Labor OSHA Regulations.
3. Post and maintain proper warning signs and advise all employees, new and old alike, of their obligation to keep themselves, their tools, materials and equipment away from power lines per the following OSHA minimum approach distances (refer to OSHA regulations for restrictions):

*Power Line Voltages	**Personnel and Equipment (29 CFR 1910.333 and 1926.600)	Cranes and Derricks (29 CFR 1926.1407, 1408)	Travel under or near Power Lines (on construction sites, no load) (29 CFR 1926.600 – **Equipment**)	(1926.1411 – **Cranes and Derricks**)
0 - 750 volts	10 Feet	10 Feet	4 Feet	4 Feet
751 - 50,000 volts	10 Feet	10 Feet	4 Feet	6 Feet
69,000 volts	11 Feet	15 Feet	10 Feet	10 Feet
115,000 volts	13 Feet	15 Feet	10 Feet	10 Feet
138,000 volts	13 Feet	15 Feet	10 Feet	10 Feet
230,000 volts	16 Feet	20 Feet	10 Feet	10 Feet
500,000 volts	25 Feet	25 Feet	16 Feet	16 Feet

***When uncertain of the voltage, maintain a distance of 20 feet for voltages up to 350,000 volts and 50 feet for voltages greater than 350,000 volts.**
****For personnel approaching **insulated** secondary conductors less than 750 volts, avoid contact (Maintain 10 Feet to bare energized conductors less than 750 volts). For **qualified** personnel and insulated aerial lift equipment meeting requirements of 29 CFR 1910.333, distances may be reduced to those shown in 29 CFR 1910.333 Table S-5.

4. All excavators are required to contact the Sunshine State One Call of Florida, phone number 1-800-432-4770 or 811 a minimum of two working days (excluding weekends) in advance of commencement of excavation to ensure facilities are located accurately.
5. Conduct all locations and excavations in accordance with the Florida Statute 556 of the Underground Facilities Damage Prevention & Safety Act and all local city and county ordinances that may apply.
6. When an excavation is to take place within a tolerance zone, an excavator shall use increased caution to protect underground facilities. The protection requires hand digging, pot holing, soft digging, vacuum methods, or similar procedures to identify underground facilities.

A copy of this notification must be provided by you to each contractor and subcontractor on this project, to be shared with their supervision and employees prior to commencing work on this project.

_____ _____
Means by which this notification was provided to customer and/or contractor Address

_____ _____
FPL Representative Signature Date

_____ _____
Customer/Developer/Contractor Representative Signature Date

Form 360 (Rev. 1/9/12)

APPENDIX E

(FPL's 2023 Project Level Detail)

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Broward	BASSCREEK	706363	2023	2025	-	1,307	48	1,355	$ 8,287	X
Broward	BASSCREEK	706366	2021	2023	-	-	1	1	$ 2,609,683	X
Broward	BEVERLY	700842	2021	2023	1	1,673	161	1,835	$ 325,115	X
Broward	BEVERLY	700835	2023	2023	-	1,317	156	1,473	$ 1,458,070	X
Broward	BEVERLY	700840	2023	2023	-	1,195	217	1,412	$ 1,845,887	
Broward	BEVERLY	700834	2021	2023	-	605	743	1,348	$ 982,457	
Broward	BEVERLY	700843	2023	2023	4	1,307	35	1,346	$ 1,889,287	X
Broward	BEVERLY	700836	2023	2023	-	1,097	223	1,320	$ 2,525,541	
Broward	BEVERLY	700839	2021	2023	4	746	54	804	$ 1,217,193	X
Broward	BEVERLY	700844	2021	2023	-	1,519	104	1,623	$ 12,000	X
Broward	CHAPEL	706961	2020	2023	4	1,706	252	1,962	$ 3,073,245	X
Broward	COLLINS	707532	2021	2024	5	1,078	394	1,477	$ 2,799,514	X
Broward	COPANS	705636	2021	2023	2	2,260	192	2,454	$ 12,000	
Broward	CRYSTAL	703739	2021	2023	3	1,251	137	1,391	$ 12,000	X
Broward	CULLUM	707132	2021	2023	1	1,362	189	1,552	$ 12,000	X
Broward	CYPRESS CREEK	702140	2023	2025	1	1,794	50	1,845	$ 7,134	
Broward	CYPRESS CREEK	702135	2023	2025	-	-	214	214	$ 13,868	X
Broward	DANIA	701538	2021	2024	1	1,530	194	1,725	$ 1,272,161	X
Broward	DAVIE	702531	2021	2025	1	1,600	127	1,728	$ 945,617	X
Broward	DAVIE	702536	2021	2024	-	968	230	1,198	$ 1,769,145	X
Broward	DAVIE	702533	2021	2023	2	483	123	608	$ 1,579,196	X
Broward	DAVIE	702534	2021	2023	-	1,725	284	2,009	$ 12,000	X
Broward	DAVIE	702535	2021	2023	7	2,341	81	2,429	$ 12,000	X
Broward	DEERFIELD BEACH	703540	2021	2024	6	2,131	113	2,250	$ 664,121	X
Broward	DEERFIELD BEACH	703538	2021	2024	3	1,395	283	1,681	$ 1,964,261	X
Broward	DEERFIELD BEACH	703539	2021	2023	-	-	59	59	$ 966,876	X
Broward	DEERFIELD BEACH	703532	2021	2023	1	1,986	473	2,460	$ 12,000	
Broward	DRIFTWOOD	702034	2021	2024	3	1,568	95	1,666	$ 3,152,468	
Broward	DRIFTWOOD	702036	2021	2023	4	1,429	39	1,472	$ 12,000	
Broward	ELY	702634	2021	2023	2	1,725	312	2,039	$ 12,000	X
Broward	FAIRMONT	700735	2021	2024	4	1,272	206	1,482	$ 3,421,606	X
Broward	FAIRMONT	700733	2021	2024	7	1,012	169	1,188	$ 2,252,817	X
Broward	FAIRMONT	700738	2021	2023	1	1,070	85	1,156	$ 12,000	X
Broward	FAIRMONT	700732	2021	2023	1	1,017	96	1,114	$ 10,000	X
Broward	GOOLSBY	707736	2021	2025	3	226	139	368	$ 393,647	
Broward	GOOLSBY	707731	2021	2023	4	1,512	280	1,796	$ 12,000	
Broward	GOOLSBY	707732	2021	2023	5	1,400	419	1,824	$ 12,000	X
Broward	HALLANDALE	700934	2023	2023	9	2,131	73	2,213	$ 240,846	X
Broward	HALLANDALE	700932	2021	2024	2	2,070	53	2,125	$ 1,666,167	X
Broward	HALLANDALE	700938	2021	2023	3	1,653	355	2,011	$ 12,000	
Broward	HAWKINS	702933	2021	2024	2	1,151	247	1,400	$ 2,594,707	X
Broward	HAWKINS	702934	2021	2023	5	2,204	216	2,425	$ 12,000	X
Broward	HIGHLANDS	703833	2023	2023	2	1,249	33	1,284	$ 1,801,792	X
Broward	HOLY CROSS	701936	2023	2025	8	1,620	249	1,877	$ 14,858	X
Broward	HOLY CROSS	701932	2020	2023	1	515	144	660	$ 12,000	X
Broward	HOLY CROSS	701939	2020	2023	-	2,028	240	2,268	$ 12,000	X
Broward	HUNTINGTON	708161	2021	2023	-	1,532	157	1,689	$ 261,962	X
Broward	HUNTINGTON	708162	2023	2023	2	581	197	780	$ 2,042,439	X
Broward	JACARANDA	705163	2021	2023	7	1,560	216	1,783	$ 12,000	X
Broward	LAKEVIEW	704937	2021	2024	2	1,762	174	1,938	$ 2,102,999	
Broward	LAKEVIEW	704931	2021	2023	3	1,571	180	1,754	$ 12,000	X
Broward	LAKEVIEW	704940	2021	2023	4	2,253	279	2,536	$ 10,000	X
Broward	LYONS	701131	2021	2024	-	2,251	121	2,372	$ 283,253	X
Broward	LYONS	701135	2022	2025	3	1,920	188	2,111	$ 1,352,628	X
Broward	LYONS	701164	2023	2024	-	1,284	76	1,360	$ 813,991	X
Broward	LYONS	701141	2023	2024	1	1,330	27	1,358	$ 2,008,706	X
Broward	MALLARD	704571	2021	2024	1	2,517	120	2,638	$ 12,522	
Broward	MARGATE	702238	2023	2025	-	1,956	186	2,142	$ 1,154,953	
Broward	MARGATE	702262	2023	2023	-	1,624	116	1,740	$ 1,766,298	
Broward	MARGATE	702234	2023	2025	4	1,427	26	1,457	$ 1,155,876	X
Broward	MCARTHUR	702731	2021	2025	4	1,806	211	2,021	$ 1,280,951	X
Broward	MOFFETT	704133	2021	2023	4	1,101	383	1,488	$ 2,072,349	X
Broward	MOFFETT	704136	2023	2023	5	984	39	1,028	$ 1,860,771	X
Broward	MOTOROLA	704062	2021	2024	6	4,700	121	4,827	$ 2,921,100	X
Broward	MOTOROLA	704033	2021	2024	1	665	130	796	$ 279,718	X
Broward	OAKLAND PARK	700443	2023	2023	1	1,831	257	2,089	$ 3,575,314	X
Broward	OAKLAND PARK	700436	2021	2024	8	1,324	109	1,441	$ 2,704,949	X
Broward	OAKLAND PARK	700437	2023	2025	2	983	424	1,409	$ 1,419,608	X
Broward	OAKLAND PARK	700442	2023	2023	1	194	266	461	$ 1,581,644	
Broward	OAKLAND PARK	700431	2021	2023	2	1,677	470	2,149	$ 12,000	X
Broward	PALM AIRE	703634	2023	2025	2	2,511	114	2,627	$ 1,232,986	X

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Broward	PEMBROKE	702437	2020	2023	2	1,852	134	1,988	$ 747,476	X
Broward	PEMBROKE	702431	2023	2023	5	1,294	589	1,888	$ 2,301,725	X
Broward	PERRY	702834	2020	2023	4	2,199	93	2,296	$ 12,000	X
Broward	PERRY	702837	2020	2023	1	1,247	67	1,315	$ 10,000	X
Broward	PINEHURST	700333	2021	2023	12	1,698	326	2,036	$ 10,000	X
Broward	PLANTATION	701636	2023	2025	5	1,904	118	2,027	$ 1,964,191	X
Broward	PLANTATION	701639	2021	2023	3	1,229	435	1,667	$ 2,287,509	
Broward	PLANTATION	701637	2020	2023	5	1,086	219	1,310	$ 1,155,574	X
Broward	PLANTATION	701632	2023	2023	8	1,163	58	1,229	$ 3,464,568	X
Broward	PLANTATION	701634	2021	2024	7	938	70	1,015	$ 1,926,868	X
Broward	PLAYLAND	701234	2021	2024	1	862	151	1,014	$ 684,427	
Broward	PLAYLAND	701232	2021	2024	1	667	212	880	$ 545,063	X
Broward	POMPANO	700539	2021	2023	1	1	204	206	$ 1,358,024	X
Broward	POMPANO	700536	2021	2024	-	-	-	-	$ 1,863,007	X
Broward	POMPANO	700532	2021	2023	3	933	245	1,181	$ 12,000	X
Broward	POMPANO	700531	2021	2023	1	574	136	711	$ 12,000	X
Broward	PORT	701432	2022	2025	8	193	29	230	$ 932,646	X
Broward	RAVENSWOOD	703136	2021	2023	2	3	350	355	$ 12,000	X
Broward	REMSBURG	705867	2020	2023	4	2,044	153	2,201	$ 12,000	X
Broward	REMSBURG	705865	2020	2023	1	1,536	119	1,656	$ 12,000	X
Broward	RESERVATION	703435	2021	2023	5	1,482	588	2,075	$ 783,473	X
Broward	RESERVATION	703432	2021	2024	1	1,803	82	1,886	$ 2,773,792	X
Broward	RESERVATION	703433	2021	2024	1	835	135	971	$ 2,317,926	X
Broward	RESERVATION	703434	2021	2023	-	456	171	627	$ 12,000	
Broward	ROCK ISLAND	701839	2020	2023	6	1,461	515	1,982	$ 1,025,257	X
Broward	ROHAN	703036	2021	2024	4	1,657	189	1,850	$ 3,386,537	X
Broward	ROHAN	703034	2021	2024	1	1,183	47	1,231	$ 1,365,637	X
Broward	ROHAN	703031	2021	2023	2	1,323	80	1,405	$ 12,000	
Broward	SISTRUNK	700141	2021	2023	3	2,162	96	2,261	$ 844,155	X
Broward	SISTRUNK	700143	2021	2023	2	1,649	289	1,940	$ 3,657,691	X
Broward	SISTRUNK	700131	2021	2024	2	501	231	734	$ 1,899,181	X
Broward	SISTRUNK	700132	2019	2023	4	2,066	564	2,634	$ 12,000	X
Broward	STIRLING	701737	2021	2024	1	1,728	206	1,935	$ 1,443,984	X
Broward	STIRLING	701738	2021	2024	1	1,205	17	1,223	$ 725,941	X
Broward	TIMBERLAKE	705236	2021	2024	4	1,885	211	2,100	$ 3,215,014	X
Broward	TIMBERLAKE	705233	2021	2024	-	397	93	490	$ 1,209,442	X
Broward	TRAIN	706532	2021	2024	2	1,037	510	1,549	$ 2,252,250	X
Broward	TWINLAKES	707931	2021	2024	1	124	343	468	$ 2,912,839	X
Broward	TWINLAKES	707932	2021	2023	1	1,184	86	1,271	$ 12,000	X
Broward	VALENCIA	706263	2020	2023	9	2,542	126	2,677	$ 12,000	X
Broward	VERENA	700636	2020	2023	4	1,661	123	1,788	$ 400,000	X
Broward	VERENA	700634	2023	2023	3	1,137	83	1,223	$ 2,291,529	X
Broward	VERENA	700641	2019	2023	2	1,043	161	1,206	$ 550,000	X
Broward	VERENA	700633	2021	2023	4	2,586	391	2,981	$ 12,000	X
Broward	WINDMILL	708061	2021	2023	5	593	90	688	$ 3,313,234	X
Broward	COPANS	705634	2021	2023	3	3,899	148	4,050	$ 2,850	
Broward	COPANS	705637	2021	2023	1	265	583	849	$ 2,850	X
Broward	CYPRESS CREEK	702136	2021	2023	1	-	244	245	$ 2,850	X
Broward	CYPRESS CREEK	702131	2021	2023	2	1,965	180	2,147	$ 2,850	X
Broward	DANIA	701531	2021	2023	5	1,252	267	1,524	$ 2,850	X
Broward	DANIA	701537	2020	2023	5	917	206	1,128	$ 2,850	X
Broward	DAVIE	702532	2021	2025	3	-	64	67	$ 2,850	X
Broward	HOLLYWOOD	700232	2020	2023	-	608	42	650	$ 2,850	X
Broward	HOLLYWOOD	700233	2020	2023	1	597	349	947	$ 2,850	X
Broward	MARGATE	702240	2021	2023	2	2,095	175	2,272	$ 2,850	X
Broward	MARGATE	702233	2020	2023	2	1,361	25	1,388	$ 2,850	X
Broward	MCARTHUR	702738	2020	2023	4	2,040	122	2,166	$ 2,850	
Broward	MCARTHUR	702741	2020	2023	2	2,189	75	2,266	$ 2,850	X
Broward	MOTOROLA	704032	2019	2023	7	3,114	172	3,293	$ 2,850	X
Broward	MOTOROLA	704067	2019	2023	2	1,347	297	1,646	$ 2,850	X
Broward	OAKLAND PARK	700435	2021	2023	1	646	139	786	$ 2,850	X
Broward	ORCHID	709362	2021	2023	8	1,998	147	2,153	$ 2,850	X
Broward	PERRY	702831	2020	2023	4	1,027	181	1,212	$ 2,850	X
Broward	PERRY	702836	2020	2023	1	1,342	76	1,419	$ 2,850	
Broward	PLANTATION	701635	2020	2025	2	1,919	248	2,169	$ 2,850	X
Broward	POMPANO	700533	2021	2023	-	100	428	528	$ 2,850	X
Broward	ROCK ISLAND	701831	2020	2023	2	2,186	163	2,351	$ 2,850	X
Broward	SAMPLE ROAD	701042	2021	2023	4	1,014	97	1,115	$ 2,850	X
Broward	SHERIDAN	707033	2020	2023	1	1,002	119	1,122	$ 2,850	X
Broward	SOUTHSIDE	705532	2020	2023	11	1,160	191	1,362	$ 2,850	
Broward	STIRLING	701734	2021	2023	1	1,232	160	1,393	$ 2,850	X

Appendix E: FPL 2023 Project Level Detail
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Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Broward	STIRLING	701736	2021	2023	3	2,356	75	2,434	$ 2,850	X
Broward	VALENCIA	706261	2019	2023	4	2,246	203	2,453	$ 2,850	X
Broward	WESTINGHOUSE	703935	2020	2023	-	1,478	350	1,828	$ 2,850	X
Dade	SPOONBILL	811163	2021	2024	1	1,839	74	1,914	$ 3,412,500	X
Dade	COUNTRY CLUB	805936	2021	2023	-	1,449	58	1,507	$ 883,500	
Dade	62ND AVE	801733	2021	2024	1	1,235	396	1,632	$ 2,817,872	X
Dade	62ND AVE	801735	2021	2024	3	1,023	70	1,096	$ 2,155,133	X
Dade	62ND AVE	801736	2021	2023	5	998	42	1,045	$ 1,107,299	X
Dade	AIRPORT	802635	2021	2023	-	674	79	753	$ 2,042,011	X
Dade	ANHINGA	811363	2021	2023	2	274	286	562	$ 12,000	X
Dade	ANHINGA	811364	2021	2023	2	2,046	293	2,341	$ 12,000	X
Dade	ARCH CREEK	802837	2021	2025	-	1,562	178	1,740	$ 2,008,423	X
Dade	AVOCADO	810064	2023	2025	1	719	245	965	$ 30,597	X
Dade	BANYAN	814434	2023	2025	-	296	909	1,205	$ 4,686	
Dade	BELL	810834	2023	2025	1	665	109	775	$ 5,608	X
Dade	BIRD	806933	2023	2025	-	340	832	1,172	$ 9,043	X
Dade	BLUE LAGOON	810434	2015	2023	-	2,147	243	2,390	$ 1,999,015	X
Dade	BOULEVARD	808734	2021	2024	2	2,133	93	2,228	$ 2,568,632	X
Dade	BOULEVARD	808732	2021	2023	-	781	114	895	$ 1,266,557	X
Dade	BUENA VISTA	800335	2021	2025	3	1,776	517	2,296	$ 3,933,804	X
Dade	BUENA VISTA	800336	2021	2024	1	1,347	293	1,641	$ 2,111,196	X
Dade	BUENA VISTA	800334	2021	2024	-	188	232	420	$ 3,422,769	
Dade	COCONUT GROVE	800431	2023	2024	5	1,414	78	1,497	$ 3,805,644	X
Dade	COCONUT GROVE	800445	2019	2024	5	1,208	88	1,301	$ 1,239,033	X
Dade	COCONUT GROVE	800448	2021	2023	5	959	123	1,087	$ 1,136,673	X
Dade	COCONUT GROVE	800444	2021	2024	1	625	273	899	$ 1,730,992	X
Dade	CORAL REEF	805831	2021	2024	3	1,117	212	1,332	$ 1,647,415	X
Dade	CORAL REEF	805835	2021	2023	-	1,639	26	1,665	$ 12,000	X
Dade	COUNTRY CLUB	805933	2021	2024	-	1,458	240	1,698	$ 3,315,767	X
Dade	COUNTY LINE	804831	2021	2023	-	2,565	97	2,662	$ 10,000	X
Dade	CUTLER	802035	2023	2025	1	984	87	1,072	$ 9,394	X
Dade	CUTLER	802031	2023	2025	-	646	135	781	$ 5,061	X
Dade	DADE	805438	2020	2025	3	-	764	767	$ 8,269	X
Dade	DADE	805434	2023	2025	-	-	615	615	$ 7,726	X
Dade	DADE	805432	2020	2025	-	167	365	532	$ 10,606	X
Dade	DADE	805435	2023	2025	1	-	183	184	$ 3,290	
Dade	DADELAND	807536	2020	2024	1	634	132	767	$ 6,680	X
Dade	DADELAND	807531	2023	2025	3	534	55	592	$ 9,917	X
Dade	DEAUVILLE	801938	2021	2025	2	1,516	83	1,601	$ 971,151	
Dade	DEAUVILLE	801937	2022	2025	5	630	87	722	$ 1,974,134	X
Dade	EUREKA	811265	2021	2024	2	1,467	40	1,509	$ 2,336,903	X
Dade	FIREHOUSE	813135	2021	2024	2	1,646	176	1,824	$ 2,627,255	
Dade	FIREHOUSE	813139	2021	2024	-	1,415	166	1,581	$ 2,474,814	
Dade	FLAGAMI	808067	2023	2025	-	2,041	55	2,096	$ 2,961	X
Dade	FLAGAMI	808066	2023	2025	-	1,063	244	1,307	$ 6,896	X
Dade	FLAGAMI	808065	2023	2025	-	975	266	1,241	$ 4,952	X
Dade	FLORIDA CITY	803134	2021	2023	-	1,381	62	1,443	$ 10,000	X
Dade	FRONTON	801134	2020	2023	1	1,642	347	1,990	$ 3,117,665	
Dade	FRONTON	801140	2021	2023	6	902	552	1,460	$ 1,932,982	X
Dade	FRONTON	801135	2023	2025	1	518	179	698	$ 7,729	X
Dade	FRONTON	801139	2021	2024	1	471	178	650	$ 2,422,238	
Dade	FRONTON	801131	2023	2025	1	4	216	221	$ 7,326	X
Dade	FRONTON	801132	2023	2025	1	140	47	188	$ 3,269	
Dade	FRONTON	801136	2019	2023	3	1,456	248	1,707	$ 12,000	X
Dade	FULFORD	801431	2021	2023	3	1,779	286	2,068	$ 12,000	X
Dade	FULFORD	801436	2021	2023	3	1,647	61	1,711	$ 10,000	X
Dade	GALLOWAY	805738	2023	2025	1	1,293	292	1,586	$ 5,904	X
Dade	GALLOWAY	805737	2023	2025	1	1,167	104	1,272	$ 8,681	X
Dade	GARDEN	804131	2021	2023	-	1,200	107	1,307	$ 772,161	X
Dade	GARDEN	804137	2023	2025	1	823	10	834	$ 3,240	X
Dade	GARDEN	804141	2023	2025	-	438	387	825	$ 7,608	X
Dade	GARDEN	804132	2023	2025	-	660	84	744	$ 6,763	X
Dade	GARDEN	804138	2020	2025	-	384	359	743	$ 10,641	X
Dade	GLADEVIEW	802237	2022	2025	-	1,313	185	1,498	$ 3,442,572	X
Dade	GLADEVIEW	802240	2023	2024	1	1,190	89	1,280	$ 8,062	X
Dade	GLADEVIEW	802235	2020	2023	2	1,897	140	2,039	$ 12,000	X
Dade	GOULDS	807333	2021	2024	-	1,895	102	1,997	$ 8,564	X
Dade	GOULDS	807336	2023	2025	-	1,720	135	1,855	$ 5,263	X
Dade	GOULDS	807340	2023	2025	-	1,661	83	1,744	$ 1,632	
Dade	GOULDS	807338	2023	2025	1	1,437	87	1,525	$ 5,497	
Dade	GRAPELAND	802931	2021	2024	1	2,057	192	2,250	$ 3,396,318	X

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Dade	GRAPELAND	802936	2021	2025	-	1,755	170	1,925	$ 2,982,864	X
Dade	GRAPELAND	802933	2015	2024	2	1,353	61	1,416	$ 3,704,723	X
Dade	GRAPELAND	802932	2021	2024	-	1,192	201	1,393	$ 2,579,649	X
Dade	GRAPELAND	802934	2021	2024	4	1,173	119	1,296	$ 2,769,110	X
Dade	GRATIGNY	804533	2023	2025	-	2,146	127	2,273	$ 5,245	X
Dade	GRATIGNY	804534	2020	2024	-	1,914	67	1,981	$ 6,209	X
Dade	GRATIGNY	804531	2023	2025	-	1,407	73	1,480	$ 10,937	X
Dade	GRATIGNY	804538	2023	2025	-	1,126	230	1,356	$ 3,425	
Dade	GRATIGNY	804539	2020	2025	-	776	67	843	$ 5,126	X
Dade	HAINLIN	806431	2021	2023	2	906	64	972	$ 2,939,805	X
Dade	HAINLIN	806433	2021	2023	4	710	192	906	$ 4,260,883	X
Dade	HAINLIN	806434	2021	2023	-	1,478	73	1,551	$ 12,000	X
Dade	HAULOVER	804735	2021	2025	3	1,408	28	1,439	$ 1,184	X
Dade	HIALEAH	800741	2023	2025	-	1,679	175	1,854	$ 5,571	X
Dade	HIALEAH	800734	2023	2025	-	866	387	1,253	$ 10,037	X
Dade	HIALEAH	800739	2020	2023	-	2,268	421	2,689	$ 12,000	X
Dade	HOMESTEAD	803233	2021	2023	-	2,448	153	2,601	$ 12,000	X
Dade	HOMESTEAD	803232	2021	2023	-	1,697	137	1,834	$ 12,000	X
Dade	INDUSTRIAL	804631	2023	2025	3	207	154	364	$ 8,827	X
Dade	INDUSTRIAL	804635	2023	2025	-	1	112	113	$ 3,936	X
Dade	INDUSTRIAL	804632	2020	2023	1	548	277	826	$ 12,000	X
Dade	INTERNATIONAL	810263	2023	2025	-	3,407	220	3,627	$ 7,410	X
Dade	INTERNATIONAL	810266	2023	2025	-	1,320	161	1,481	$ 10,334	X
Dade	JACKSON	813532	2021	2023	1	1,150	228	1,379	$ 12,000	
Dade	JASMINE	810566	2021	2023	-	-	45	45	$ 2,175,144	
Dade	KENDALL	804334	2023	2025	8	852	25	885	$ 8,878	X
Dade	KENDALL	804333	2023	2025	3	407	47	457	$ 7,153	X
Dade	KILLIAN	807632	2020	2025	-	1,200	32	1,232	$ 8,668	X
Dade	KILLIAN	807633	2020	2025	2	1,161	23	1,186	$ 8,878	X
Dade	KOGER	811561	2021	2023	-	-	1,053	1,053	$ 3,688,185	X
Dade	LAWRENCE	805136	2019	2023	-	2,196	472	2,668	$ 138,094	X
Dade	LAWRENCE	805134	2014	2023	3	2,171	150	2,324	$ 12,000	X
Dade	LITTLE RIVER	800637	2021	2023	3	2,298	265	2,566	$ 832,584	X
Dade	LITTLE RIVER	800635	2023	2024	1	1,103	381	1,485	$ 4,227,768	X
Dade	LITTLE RIVER	800636	2021	2023	-	1,210	144	1,354	$ 10,000	X
Dade	MARION	802732	2020	2025	-	1,331	229	1,560	$ 4,838	X
Dade	MARKET	803538	2021	2024	1	1,914	603	2,518	$ 4,082,510	X
Dade	MARKET	803532	2022	2025	-	2,198	255	2,453	$ 1,579,847	X
Dade	MARKET	803531	2021	2024	1	629	178	808	$ 3,682,721	
Dade	MASTER	805538	2021	2023	2	1,220	453	1,675	$ 2,326,480	
Dade	MEMORIAL	811831	2020	2025	-	1,524	108	1,632	$ 4,655	X
Dade	MEMORIAL	811832	2021	2023	-	1,143	178	1,321	$ 12,000	X
Dade	MERCHANDISE	807234	2019	2023	-	1,689	235	1,924	$ 12,000	X
Dade	MIAMI BEACH	800248	2021	2025	19	802	47	868	$ 415,534	X
Dade	MIAMI LAKES	807936	2023	2025	1	1,027	159	1,187	$ 9,637	X
Dade	MIAMI LAKES	807937	2023	2025	-	364	281	645	$ 6,574	X
Dade	MIAMI SHORES	803435	2020	2025	-	1,501	111	1,612	$ 8,636	X
Dade	MIAMI SHORES	803431	2023	2025	1	1,381	103	1,485	$ 11,852	X
Dade	MIAMI SHORES	803436	2023	2025	-	1,101	115	1,216	$ 6,959	X
Dade	MILLER	805631	2023	2025	2	1,388	148	1,538	$ 8,461	X
Dade	MILLER	805633	2023	2025	3	985	25	1,013	$ 11,836	X
Dade	MILLER	805634	2023	2025	-	837	97	934	$ 4,901	X
Dade	MITCHELL	809234	2023	2025	3	1,366	28	1,397	$ 4,357	X
Dade	MITCHELL	809232	2020	2024	1	22	572	595	$ 5,757	
Dade	NATOMA	805236	2021	2024	-	1,486	149	1,635	$ 3,666,179	X
Dade	NATOMA	805231	2022	2024	-	353	78	431	$ 1,421,706	X
Dade	NORMANDY BEACH	801039	2021	2024	1	2,003	160	2,164	$ 2,257,896	
Dade	NORMANDY BEACH	801034	2021	2024	7	1,910	195	2,112	$ 3,266,201	X
Dade	NORMANDY BEACH	801036	2021	2024	-	1,607	136	1,743	$ 1,195,422	X
Dade	NORMANDY BEACH	801033	2022	2025	3	1,015	218	1,236	$ 1,544,670	X
Dade	OLYMPIA HEIGHTS	808936	2021	2024	-	1,077	318	1,395	$ 2,018,648	X
Dade	OLYMPIA HEIGHTS	808935	2021	2023	1	1,016	166	1,183	$ 10,000	X
Dade	PERRINE	804239	2021	2023	-	1,779	133	1,912	$ 500,439	X
Dade	PERRINE	804235	2021	2024	1	1,003	306	1,310	$ 2,012,493	X
Dade	PERRINE	804232	2021	2023	-	2,069	222	2,291	$ 10,000	X
Dade	PRINCETON	801631	2023	2023	-	2,015	80	2,095	$ 4,586,506	X
Dade	PRINCETON	801632	2021	2023	-	1,920	54	1,974	$ 12,000	X
Dade	RAILWAY	800832	2021	2025	2	2,314	137	2,453	$ 1,859,697	X
Dade	RED ROAD	806832	2023	2025	-	1,564	75	1,639	$ 4,004	X
Dade	RED ROAD	806835	2020	2025	1	1,290	129	1,420	$ 8,021	X
Dade	RED ROAD	806836	2023	2025	-	1,126	195	1,321	$ 2,755	X

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Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Dade	RED ROAD	806838	2023	2025	1	1,101	169	1,271	$ 9,223	X
Dade	RED ROAD	806837	2023	2025	-	794	109	903	$ 7,084	X
Dade	RED ROAD	806839	2023	2025	1	483	118	602	$ 6,778	
Dade	RIVERSIDE	800539	2021	2023	-	1,172	123	1,295	$ 12,000	X
Dade	RIVERSIDE	800536	2021	2023	1	1,081	196	1,278	$ 12,000	X
Dade	SAGA	809433	2021	2024	1	2,687	115	2,803	$ 2,217,157	X
Dade	SIMPSON	809936	2018	2023	-	1,938	150	2,088	$ 228,599	X
Dade	SNAKE CREEK	808437	2021	2024	-	2,286	79	2,365	$ 1,315,382	X
Dade	SNAKE CREEK	808431	2021	2024	-	1,161	17	1,178	$ 1,829,723	X
Dade	SNAKE CREEK	808433	2021	2023	1	1,699	82	1,782	$ 10,000	X
Dade	SNAPPER CREEK	808837	2023	2025	8	481	31	520	$ 7,823	
Dade	SOUTH MIAMI	802433	2021	2024	5	1,421	59	1,485	$ 993,098	X
Dade	SOUTH MIAMI	802435	2021	2023	6	978	37	1,021	$ 2,342,517	
Dade	SUNILAND	806535	2021	2023	7	703	39	749	$ 12,000	X
Dade	SWEETWATER	809763	2021	2023	-	1,817	231	2,048	$ 3,569,068	X
Dade	TAMIAMI	809136	2021	2024	-	2,529	497	3,026	$ 2,358,570	X
Dade	TAMIAMI	809135	2021	2024	4	1,525	50	1,579	$ 3,683,918	X
Dade	TROPICAL	803032	2021	2025	-	423	322	745	$ 1,381,536	X
Dade	ULETA	806333	2021	2024	-	2,432	96	2,528	$ 2,388,768	X
Dade	ULETA	806339	2021	2024	-	358	603	961	$ 2,980,807	X
Dade	UNIVERSITY	805033	2021	2024	5	1,097	88	1,190	$ 3,717,737	X
Dade	UNIVERSITY	805035	2021	2023	4	771	27	802	$ 1,362,039	X
Dade	VENETIAN	804437	2019	2025	12	1,146	147	1,305	$ 403,409	X
Dade	WHISPERING PINES	808336	2021	2024	-	1,690	47	1,737	$ 2,017,755	X
Dade	WHISPERING PINES	808331	2021	2023	-	1,329	82	1,411	$ 2,174,196	X
Dade	WHISPERING PINES	808335	2021	2023	-	900	32	932	$ 12,000	X
Dade	62ND AVE	801738	2021	2023	-	737	14	751	$ 2,850	X
Dade	ARCH CREEK	802836	2021	2023	7	2,097	233	2,337	$ 2,850	X
Dade	ARCH CREEK	802831	2022	2024	2	811	169	982	$ 2,850	X
Dade	BEACON	812164	2022	2024	1	-	311	312	$ 2,850	X
Dade	BISCAYNE	801839	2021	2023	3	2,038	139	2,180	$ 2,850	X
Dade	BLUE LAGOON	810433	2022	2024	-	1,297	183	1,480	$ 2,850	
Dade	BLUE LAGOON	810432	2020	2023	-	1,082	210	1,292	$ 2,850	X
Dade	BUENA VISTA	800333	2015	2023	4	1,228	145	1,377	$ 2,850	X
Dade	CORAL REEF	805834	2021	2023	-	1,279	30	1,309	$ 2,850	X
Dade	CORAL REEF	805833	2021	2023	-	1,321	27	1,348	$ 2,850	X
Dade	COUNTRY CLUB	805934	2021	2023	-	1,387	31	1,418	$ 2,850	
Dade	COURT	809665	2021	2023	-	1,817	1,216	3,033	$ 2,850	X
Dade	COURT	809661	2021	2023	2	1,967	493	2,462	$ 2,850	X
Dade	CUTLER	802038	2020	2023	1	1,229	43	1,273	$ 2,850	X
Dade	DUMFOUNDLING	809833	2022	2024	1	1,538	244	1,783	$ 2,850	X
Dade	FLORIDA CITY	803137	2021	2023	-	935	167	1,102	$ 2,850	X
Dade	FLORIDA CITY	803131	2020	2023	-	1,163	133	1,296	$ 2,850	X
Dade	FRONTON	801133	2021	2023	1	958	196	1,155	$ 2,850	X
Dade	GOLDEN GLADES	806036	2022	2024	-	71	75	146	$ 2,850	X
Dade	GOLDEN GLADES	806032	2022	2024	-	335	89	424	$ 2,850	
Dade	GOLDEN GLADES	806037	2022	2024	1	961	71	1,033	$ 2,850	X
Dade	GOLDEN GLADES	806038	2022	2024	1	1,507	111	1,619	$ 2,850	X
Dade	GOULDS	807331	2021	2023	2	2,501	188	2,691	$ 2,850	X
Dade	HAINLIN	806436	2021	2023	1	81	130	212	$ 2,850	X
Dade	HIALEAH	800732	2020	2023	1	1,159	75	1,235	$ 2,850	X
Dade	HOMESTEAD	803234	2021	2023	1	-	61	62	$ 2,850	X
Dade	HOMESTEAD	803235	2021	2025	-	158	31	189	$ 2,850	X
Dade	INDUSTRIAL	804636	2020	2023	-	785	266	1,051	$ 2,850	
Dade	IVES	806739	2022	2024	4	666	21	691	$ 2,850	X
Dade	IVES	806732	2022	2024	-	2,184	101	2,285	$ 2,850	X
Dade	IVES	806735	2022	2024	-	2,620	79	2,699	$ 2,850	X
Dade	IVES	806733	2022	2024	2	1,943	195	2,140	$ 2,850	X
Dade	IVES	806731	2022	2024	4	1,385	85	1,474	$ 2,850	X
Dade	IVES	806737	2022	2024	-	576	382	958	$ 2,850	X
Dade	LE JEUNE	804036	2021	2023	1	-	126	127	$ 2,850	X
Dade	MARKET	803540	2021	2026	1	1,166	284	1,451	$ 2,850	X
Dade	MASTER	805533	2022	2024	-	244	79	323	$ 2,850	X
Dade	MASTER	805536	2022	2024	1	-	168	169	$ 2,850	X
Dade	MIAMI SHORES	803440	2021	2023	-	1,531	63	1,594	$ 2,850	X
Dade	MILLER	805636	2020	2023	4	1,777	37	1,818	$ 2,850	X
Dade	MIRAMAR	802135	2021	2023	-	1,699	291	1,990	$ 2,850	X
Dade	OLYMPIA HEIGHTS	808933	2021	2023	-	1,222	110	1,332	$ 2,850	X
Dade	OLYMPIA HEIGHTS	808932	2021	2023	-	1,262	18	1,280	$ 2,850	X
Dade	OPA LOCKA	801234	2021	2023	-	1,371	130	1,501	$ 2,850	X
Dade	PENNSUCO	807161	2021	2023	2	78	658	738	$ 2,850	X

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Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Dade	PENNSUCO	807166	2022	2024	2	-	58	60	$ 2,850	
Dade	PERRINE	804238	2021	2023	-	652	689	1,341	$ 2,850	X
Dade	PERRINE	804234	2021	2025	1	1,432	277	1,710	$ 2,850	X
Dade	PERRINE	804231	2021	2025	-	15	437	452	$ 2,850	X
Dade	RED ROAD	806831	2021	2023	-	849	200	1,049	$ 2,850	X
Dade	RIVERSIDE	800534	2021	2025	1	1,485	68	1,554	$ 2,850	X
Dade	RIVERSIDE	800537	2020	2023	-	1,285	81	1,366	$ 2,850	X
Dade	SEABOARD	803634	2021	2023	1	818	221	1,040	$ 2,850	X
Dade	SEABOARD	803641	2022	2024	-	227	16	243	$ 2,850	X
Dade	SEABOARD	803632	2022	2024	2	708	149	859	$ 2,850	X
Dade	SEABOARD	803638	2022	2024	-	1,602	141	1,743	$ 2,850	X
Dade	SEABOARD	803635	2021	2023	1	-	59	60	$ 2,850	
Dade	SEAGULL	810163	2022	2024	-	1,265	344	1,609	$ 2,850	
Dade	SEAGULL	810164	2022	2024	1	1,333	547	1,881	$ 2,850	X
Dade	SEMINOLA	808531	2022	2024	-	1,405	73	1,478	$ 2,850	X
Dade	SEMINOLA	808533	2022	2024	1	1,021	192	1,214	$ 2,850	X
Dade	SOUTH MIAMI	802437	2020	2023	8	1,065	181	1,254	$ 2,850	X
Dade	SUNILAND	806531	2021	2023	2	786	25	813	$ 2,850	X
Dade	SUNNY ISLES	803932	2022	2025	-	568	101	669	$ 2,850	X
Dade	TAMIAMI	809132	2021	2026	-	1,158	233	1,391	$ 2,850	X
Dade	TROPICAL	803033	2022	2024	-	1,991	186	2,177	$ 2,850	X
Dade	TROPICAL	803035	2022	2024	-	1,402	46	1,448	$ 2,850	X
Dade	TROPICAL	803036	2022	2024	-	1,208	157	1,365	$ 2,850	X
Dade	TROPICAL	803031	2022	2024	-	1,379	136	1,515	$ 2,850	X
Dade	TROPICAL	803038	2022	2024	-	1,504	93	1,597	$ 2,850	X
Dade	TROPICAL	803037	2022	2024	-	898	92	990	$ 2,850	X
Dade	ULETA	806334	2021	2023	1	1,637	34	1,672	$ 2,850	X
Dade	ULETA	806340	2022	2024	-	1,309	139	1,448	$ 2,850	X
Dade	ULETA	806337	2022	2024	1	1,014	207	1,222	$ 2,850	X
Dade	ULETA	806331	2022	2024	-	2,064	160	2,224	$ 2,850	X
Dade	VENETIAN	804441	2022	2025	-	208	110	318	$ 2,850	
Dade	VILLAGE GREEN	807434	2023	2024	1	898	221	1,120	$ 2,850	X
Dade	VILLAGE GREEN	807436	2022	2024	2	347	107	456	$ 2,850	X
Dade	WATKINS	811435	2022	2024	1	-	234	235	$ 2,850	X
Dade	WESTON VILLAGE	807833	2019	2023	3	1,486	221	1,710	$ 2,850	X
Dade	WESTON VILLAGE	807832	2020	2023	1	1,440	247	1,688	$ 2,850	X
Dade	WESTON VILLAGE	807836	2022	2024	-	100	153	253	$ 2,850	X
Dade	WESTON VILLAGE	807831	2022	2024	1	1,456	37	1,494	$ 2,850	X
Dade	WHISPERING PINES	808332	2021	2023	-	1,190	27	1,217	$ 2,850	X
Dade	WILLIAMS	812063	2019	2024	4	422	417	843	$ 2,850	X
East	HAMLET	409863	2021	2025	2	1,797	178	1,977	$ 3,412,500	X
East	TULIP	413933	2021	2023	-	470	62	532	$ 1,125,000	
East	OAKES	406234	2021	2023	1	1,522	221	1,744	$ 760,200	X
East	GERMANTOWN	404836	2020	2023	4	1,181	279	1,464	$ 657,468	X
East	ABERDEEN	408865	2020	2023	-	2,555	102	2,657	$ 12,000	X
East	ACME	405266	2020	2023	1	2,123	460	2,584	$ 1,895,468	X
East	ACME	405261	2023	2025	11	2,358	190	2,559	$ 32,820	X
East	ACME	405263	2020	2023	12	2,783	335	3,130	$ 12,000	X
East	ACREAGE	406766	2020	2023	2	3,009	191	3,202	$ 1,649,214	X
East	ACREAGE	406768	2023	2025	1	2,850	91	2,942	$ 2,363,597	X
East	ACREAGE	406764	2020	2023	5	2,246	119	2,370	$ 2,949,530	X
East	ACREAGE	406763	2021	2023	3	2,187	78	2,268	$ 4,460,100	X
East	ACREAGE	406761	2020	2023	9	1,547	115	1,671	$ 1,603,556	X
East	ACREAGE	406765	2021	2023	1	2,796	232	3,029	$ 12,000	
East	ADAMS	408463	2021	2024	3	173	266	442	$ 5,850,000	X
East	ALEXANDER	408562	2021	2024	8	1,515	260	1,783	$ 5,700,000	X
East	ALEXANDER	408565	2023	2025	3	1,522	61	1,586	$ 27,908	X
East	ALEXANDER	408561	2023	2025	3	308	70	381	$ 51,323	X
East	ALEXANDER	408566	2021	2023	3	1,068	62	1,133	$ 12,000	X
East	ALLAPATTAH	412164	2021	2024	2	117	37	156	$ 1,263,446	X
East	ALLAPATTAH	412161	2020	2023	-	1,517	100	1,617	$ 12,000	X
East	ATLANTIC	403231	2023	2025	5	1,691	82	1,778	$ 1,620,734	X
East	BEELINE	405336	2021	2024	-	1,298	450	1,748	$ 2,066,933	X
East	BEELINE	405340	2020	2023	-	993	231	1,224	$ 12,000	X
East	BELLE GLADE	400933	2021	2023	-	2,036	307	2,343	$ 2,182,442	X
East	BELVEDERE	402537	2023	2025	-	251	590	841	$ 975,636	X
East	BELVEDERE	402536	2021	2023	3	708	187	898	$ 12,000	X
East	BOCA RATON	400736	2020	2023	5	1,038	24	1,067	$ 827,263	X
East	BOCA TEECA	404231	2023	2025	12	1,896	279	2,187	$ 769,439	X
East	BOCA TEECA	404235	2021	2024	-	282	262	544	$ 1,706,985	X
East	BOCA TEECA	404242	2023	2025	2	-	449	451	$ 485,913	

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
East	BONANZA	413632	2023	2025	-	1,739	546	2,285	$ 608,633	
East	BONANZA	413635	2022	2023	-	1,196	537	1,733	$ 2,798,399	
East	BONANZA	413633	2023	2025	-	32	157	189	$ 299,596	
East	BONANZA	413634	2022	2023	-	49	3	52	$ 2,617,948	
East	BONANZA	413631	2023	2025	-	-	30	30	$ 411,288	
East	BONANZA	413636	2021	2023	-	-	15	15	$ 486,338	
East	BOYNTON	400536	2021	2023	2	2,046	195	2,243	$ 1,037,988	
East	BUTTS	405932	2023	2025	6	1,165	159	1,330	$ 964,967	X
East	BUTTS	405933	2023	2025	2	967	61	1,030	$ 450,048	X
East	CALDWELL	408035	2023	2025	12	1,079	509	1,600	$ 1,387,707	X
East	CANAL	414131	2022	2023	-	500	233	733	$ 112,099	
East	CANAL	414134	2021	2023	-	879	338	1,217	$ 496,073	
East	CATCHMENT	409765	2021	2024	3	3,496	352	3,851	$ 3,162,870	X
East	CATCHMENT	409761	2021	2024	2	3,387	178	3,567	$ 2,309,146	
East	CHAMBERS	413832	2020	2023	-	1,333	239	1,572	$ 985,230	
East	CHAMBERS	413833	2021	2024	-	860	82	942	$ 591,962	
East	CHAMBERS	413835	2021	2023	-	557	54	611	$ 667,358	
East	CLINTMOORE	405466	2021	2024	9	1,950	115	2,074	$ 2,853,878	X
East	COBIA	414332	2022	2024	-	1,006	125	1,131	$ 849,504	
East	COBIA	414335	2022	2024	1	691	414	1,106	$ 1,520,164	
East	COBIA	414331	2022	2024	-	875	124	999	$ 581,239	
East	COBIA	414333	2022	2024	-	478	274	752	$ 1,207,189	
East	COVE	408265	2021	2024	1	2,312	100	2,413	$ 2,705,869	X
East	CRANE	407167	2021	2024	5	716	269	990	$ 2,958,332	X
East	DELMAR	406936	2020	2023	2	1,819	45	1,866	$ 12,000	X
East	DELTRAIL	405862	2021	2023	5	3,578	137	3,720	$ 1,151,183	X
East	DELTRAIL	405861	2021	2023	5	3,518	114	3,637	$ 1,160,556	X
East	DELTRAIL	405869	2021	2024	6	2,738	130	2,874	$ 3,486,461	X
East	EDEN	411036	2022	2024	-	1,302	216	1,518	$ 1,207,189	
East	FOUNTAIN	405635	2021	2024	-	2,243	120	2,363	$ 1,520,002	
East	GERMANTOWN	404833	2023	2025	3	2,823	90	2,916	$ 1,101,830	X
East	GERMANTOWN	404831	2021	2024	5	1,579	229	1,813	$ 3,064,835	X
East	GIFFORD	412062	2021	2024	54	2,656	211	2,921	$ 2,488,450	
East	GIFFORD	412063	2021	2024	28	1,892	198	2,118	$ 3,562,663	X
East	GOLF	404135	2020	2023	8	2,000	269	2,277	$ 1,395,359	X
East	GOLF	404137	2023	2025	9	1,718	277	2,004	$ 1,616,945	X
East	GOLF	404138	2023	2025	4	1,430	228	1,662	$ 489,637	
East	GOLF	404131	2019	2023	5	1,704	81	1,790	$ 12,000	
East	GRAMERCY	410532	2021	2023	1	342	231	574	$ 12,000	X
East	GREENACRES	401032	2020	2023	1	2,165	332	2,498	$ 1,343,960	
East	GREENACRES	401031	2021	2024	2	1,715	228	1,945	$ 2,716,903	X
East	GREENACRES	401033	2020	2023	-	1,545	138	1,683	$ 1,229,771	X
East	HILLCREST	400432	2020	2023	-	2,465	178	2,643	$ 1,138,007	X
East	HILLCREST	400431	2021	2024	2	1,441	125	1,568	$ 2,357,896	X
East	HILLS	407332	2021	2023	6	1,282	241	1,529	$ 2,239,637	X
East	HILLS	407335	2021	2023	5	1,408	73	1,486	$ 1,276,827	X
East	HILLSBORO	404735	2021	2023	11	1,780	106	1,897	$ 1,683,275	X
East	HILLSBORO	404733	2021	2024	5	1,084	39	1,128	$ 1,362,699	X
East	HOMELAND	408663	2019	2023	2	2,876	207	3,085	$ 3,076,711	X
East	HOMELAND	408668	2021	2024	52	2,834	192	3,078	$ 3,273,272	X
East	HOMELAND	408666	2021	2023	2	1,841	176	2,019	$ 1,163,512	X
East	HOMELAND	408667	2021	2023	6	1,116	443	1,565	$ 2,265,359	
East	HOMELAND	408665	2021	2025	-	1,481	73	1,554	$ 1,465,820	
East	INDRIO	407464	2020	2023	2	2,149	179	2,330	$ 1,768,708	X
East	JENSEN	403434	2021	2024	2	1,591	219	1,812	$ 1,841,379	X
East	JENSEN	403439	2021	2024	-	1,636	92	1,728	$ 1,396,227	X
East	JUNO BEACH	402638	2020	2023	2	1,623	147	1,772	$ 731,101	X
East	JUNO BEACH	402636	2021	2024	-	1,153	286	1,439	$ 153,006	
East	JUPITER	401834	2023	2025	-	2,065	144	2,209	$ 21,562	X
East	JUPITER	401831	2023	2025	1	1,225	100	1,326	$ 15,216	X
East	JUPITER	401836	2023	2025	-	-	217	217	$ 1,968	X
East	LAKE PARK	403932	2021	2024	-	1,502	407	1,909	$ 2,025,711	X
East	LANTANA	402836	2021	2024	-	1,058	162	1,220	$ 1,986,247	X
East	LINTON	401937	2021	2024	5	1,008	410	1,423	$ 2,671,958	X
East	LINTON	401938	2021	2024	3	788	37	828	$ 1,621,042	X
East	LOXAHATCHEE	407664	2020	2023	5	1,672	202	1,879	$ 12,000	X
East	MILITARY TRAIL	403035	2018	2023	-	1,618	195	1,813	$ 1,281,314	X
East	NORTHWOOD	400336	2021	2024	-	1,345	132	1,477	$ 3,058,885	X
East	NORTHWOOD	400333	2021	2024	-	185	291	476	$ 1,788,763	X
East	NORTON	404531	2021	2024	11	1,409	320	1,740	$ 2,030,040	X
East	OAKES	406233	2021	2024	-	2,243	461	2,704	$ 2,297,335	X

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East	OKEECHOBEE	401635	2019	2023	5	1,501	90	1,596	$ 12,000	X
East	OLYMPIA	401764	2020	2023	13	300	83	396	$ 323,477	X
East	OSBORNE	406534	2020	2023	1	1,016	49	1,066	$ 608,757	X
East	OSBORNE	406533	2019	2023	24	2,016	97	2,137	$ 12,000	X
East	OSLO	402937	2021	2023	-	2,064	160	2,224	$ 2,311,715	X
East	OTTER	412261	2021	2023	1	445	78	524	$ 1,349,463	X
East	PAHOKEE	400832	2020	2023	19	270	88	377	$ 3,053,061	X
East	PLUMOSUS	408965	2023	2025	-	754	96	850	$ 10,460	
East	PORT MAYACA	402763	2021	2024	2	317	236	555	$ 5,016,494	X
East	PORT SEWALL	404936	2020	2023	-	1,539	214	1,753	$ 1,211,072	X
East	PURDY LANE	404434	2019	2023	-	2,359	78	2,437	$ 874,619	X
East	QUANTUM	407935	2021	2023	4	2,315	89	2,408	$ 1,200,932	X
East	QUANTUM	407936	2021	2024	7	1,974	372	2,353	$ 2,506,733	X
East	RIO	407037	2021	2023	1	910	66	977	$ 1,292,713	X
East	ROEBUCK	406337	2020	2023	-	2,933	142	3,075	$ 12,000	X
East	ROSEDALE	410763	2021	2024	2	1,812	157	1,971	$ 2,420,175	X
East	ROSS	408164	2023	2025	1	2,065	52	2,118	$ 17,098	X
East	ROSS	408162	2023	2025	-	1,275	170	1,445	$ 6,568	
East	ROSS	408163	2020	2023	-	2,726	186	2,912	$ 12,000	X
East	ROSS	408168	2020	2023	1	2,365	389	2,755	$ 12,000	X
East	RUNWAY	413731	2022	2024	-	1,341	205	1,546	$ 1,778,970	
East	RUNWAY	413736	2022	2024	1	880	264	1,145	$ 1,789,288	
East	RUNWAY	413738	2022	2024	-	959	107	1,066	$ 730,360	
East	RUNWAY	413737	2021	2023	-	551	107	658	$ 1,836,409	
East	RUNWAY	413732	2021	2024	-	441	176	617	$ 1,981,087	
East	RYDER	410661	2020	2023	-	1,806	335	2,141	$ 2,323,112	
East	SANDALFOOT	405031	2021	2024	3	1,717	77	1,797	$ 1,708,192	X
East	SANDALFOOT	405033	2021	2024	-	741	28	769	$ 2,136,195	X
East	SOUTH BAY	403634	2021	2023	5	-	164	169	$ 263,162	X
East	SQUARE LAKE	407737	2023	2025	-	716	199	915	$ 9,933	X
East	TERMINAL	402133	2021	2023	2	1,287	267	1,556	$ 2,354,539	X
East	TULIP	413932	2021	2024	-	546	187	733	$ 1,984,405	
East	VIOLET	413531	2021	2025	-	1,593	141	1,734	$ 1,093,973	
East	VIOLET	413532	2021	2025	-	1,487	185	1,672	$ 583,695	
East	VIOLET	413537	2021	2025	-	1,305	59	1,364	$ 825,412	
East	VIOLET	413538	2021	2025	-	691	102	793	$ 640,049	
East	VIOLET	413535	2021	2025	-	404	25	429	$ 323,772	
East	WABASSO	400662	2020	2023	19	1,352	297	1,668	$ 2,323,998	X
East	WATTS	412361	2021	2024	-	1,702	100	1,802	$ 1,468,243	
East	WEST PALM BEACH	400133	2023	2025	2	772	367	1,141	$ 7,252	X
East	WEST PALM BEACH	400131	2023	2025	-	472	363	835	$ 11,666	X
East	WEST PALM BEACH	400134	2023	2025	1	432	195	628	$ 5,362	X
East	WESTWARD	404035	2015	2023	7	1,855	302	2,164	$ 1,747,398	X
East	WHITE CITY	401433	2021	2024	-	1,831	117	1,948	$ 3,232,539	X
East	WHITE CITY	401432	2021	2024	2	1,265	155	1,422	$ 2,389,156	X
East	WHITE CITY	401434	2021	2024	5	706	212	923	$ 4,421,114	X
East	ACREAGE	406767	2021	2024	8	2,455	67	2,530	$ 2,850	X
East	ATLANTIC	403239	2019	2023	2	-	23	25	$ 2,850	X
East	BEELINE	405333	2020	2023	2	1,369	389	1,760	$ 2,850	X
East	BELVEDERE	402538	2020	2023	-	1,272	212	1,484	$ 2,850	X
East	BELVEDERE	402539	2020	2023	-	246	208	454	$ 2,850	X
East	BOCA RATON	400734	2020	2023	-	973	271	1,244	$ 2,850	X
East	BOYNTON	400532	2021	2023	2	874	240	1,116	$ 2,850	X
East	CANAL	414132	2021	2023	-	1,643	110	1,753	$ 2,850	
East	CRANE	407161	2021	2023	5	2,779	156	2,940	$ 2,850	X
East	DELMAR	406931	2019	2023	3	1,458	44	1,505	$ 2,850	X
East	EDEN	411033	2021	2024	-	2,537	85	2,622	$ 2,850	
East	GATLIN	410463	2021	2024	-	2,925	248	3,173	$ 2,850	X
East	GERMANTOWN	404832	2020	2024	4	2,429	250	2,683	$ 2,850	X
East	GERMANTOWN	404834	2020	2024	3	1,591	93	1,687	$ 2,850	X
East	GLENDALE	407561	2015	2025	1	207	50	258	$ 2,850	X
East	GLENDALE	407562	2020	2024	-	1,273	330	1,603	$ 2,850	X
East	GOLF	404139	2020	2024	6	2,242	241	2,489	$ 2,850	X
East	GRACEWOOD	414032	2021	2024	1	312	13	326	$ 2,850	
East	GRACEWOOD	414035	2019	2024	-	591	79	670	$ 2,850	
East	GRACEWOOD	414034	2021	2024	-	785	54	839	$ 2,850	
East	IBM	404335	2020	2024	1	228	76	305	$ 2,850	X
East	INDRIO	407463	2021	2024	-	1,316	184	1,500	$ 2,850	X
East	JENSEN	403432	2021	2024	1	569	122	692	$ 2,850	
East	JOG	407231	2023	2026	-	1,240	96	1,336	$ 2,850	X
East	JOG	407232	2023	2026	1	959	78	1,038	$ 2,850	X

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East	JUNO BEACH	402635	2015	2025	7	979	164	1,150	$ 2,850	X
East	JUNO BEACH	402632	2019	2024	1	1,240	277	1,518	$ 2,850	X
East	JUNO BEACH	402637	2021	2024	1	423	104	528	$ 2,850	X
East	JUPITER	401833	2020	2024	2	1,245	79	1,326	$ 2,850	X
East	KIMBERLY	406865	2020	2024	5	1,910	73	1,988	$ 2,850	X
East	KIMBERLY	406862	2020	2024	2	1,550	58	1,610	$ 2,850	X
East	LAKE IDA	409531	2019	2024	3	1,351	268	1,622	$ 2,850	X
East	LANTANA	402839	2020	2024	6	2,466	391	2,863	$ 2,850	X
East	LINTON	401932	2021	2026	3	1,216	270	1,489	$ 2,850	X
East	LINTON	401935	2019	2024	3	1,179	214	1,396	$ 2,850	X
East	LOXAHATCHEE	407662	2019	2024	10	2,509	59	2,578	$ 2,850	X
East	MARYMOUNT	410031	2020	2024	6	1,371	145	1,522	$ 2,850	X
East	MILITARY TRAIL	403032	2020	2024	1	1,317	315	1,633	$ 2,850	
East	MILITARY TRAIL	403031	2020	2024	1	562	109	672	$ 2,850	X
East	MILITARY TRAIL	403036	2023	2026	1	830	32	863	$ 2,850	X
East	MILITARY TRAIL	403033	2023	2026	-	2,620	95	2,715	$ 2,850	
East	MONET	403737	2023	2026	-	229	296	525	$ 2,850	X
East	MONET	403733	2023	2026	2	1,551	320	1,873	$ 2,850	X
East	MONET	403738	2020	2024	-	1,912	91	2,003	$ 2,850	X
East	OAKES	406235	2019	2024	1	2,119	168	2,288	$ 2,850	X
East	OSBORNE	406536	2020	2024	4	1,901	195	2,100	$ 2,850	X
East	PEACOCK	411663	2021	2025	1	2,219	129	2,349	$ 2,850	X
East	PINEWOOD	409961	2021	2024	2	1,392	185	1,579	$ 2,850	X
East	PLUMOSUS	408964	2023	2026	-	2,156	120	2,276	$ 2,850	
East	PORT SEWALL	404937	2020	2025	-	1,152	36	1,188	$ 2,850	X
East	PORT SEWALL	404934	2020	2024	1	205	629	835	$ 2,850	X
East	PRIMAVISTA	405533	2020	2024	-	1,594	98	1,692	$ 2,850	
East	PRIMAVISTA	405531	2020	2024	-	2,356	47	2,403	$ 2,850	X
East	PURDY LANE	404432	2020	2024	-	2,181	163	2,344	$ 2,850	X
East	PURDY LANE	404437	2023	2026	1	2,015	339	2,355	$ 2,850	X
East	PURDY LANE	404436	2023	2026	-	2,262	92	2,354	$ 2,850	X
East	RAINBERRY	409633	2021	2024	3	1,327	160	1,490	$ 2,850	X
East	RIO	407031	2021	2024	1	1,737	282	2,020	$ 2,850	X
East	ROEBUCK	406336	2023	2026	2	1,578	84	1,664	$ 2,850	
East	ROEBUCK	406334	2023	2026	-	1,150	94	1,244	$ 2,850	
East	ROEBUCK	406332	2023	2026	-	2,662	143	2,805	$ 2,850	X
East	ROSS	408165	2020	2024	2	1,800	186	1,988	$ 2,850	X
East	SABAL	408766	2021	2024	-	-	323	323	$ 2,850	
East	SANDALFOOT	405035	2020	2024	5	2,256	81	2,342	$ 2,850	X
East	SANDALFOOT	405034	2020	2024	6	1,002	87	1,095	$ 2,850	X
East	SANDALFOOT	405036	2020	2024	2	2,321	206	2,529	$ 2,850	X
East	SHERMAN	406062	2015	2025	4	3,596	374	3,974	$ 2,850	X
East	SHERMAN	406064	2020	2024	2	553	238	793	$ 2,850	X
East	SPANISH LAKES	412432	2020	2025	2	42	91	135	$ 2,850	X
East	SQUARE LAKE	407734	2020	2024	-	858	62	920	$ 2,850	X
East	WESTWARD	404033	2021	2024	-	1,328	281	1,609	$ 2,850	
East	WESTWARD	404039	2023	2026	-	797	152	949	$ 2,850	X
East	WESTWARD	404036	2023	2026	4	1,340	160	1,504	$ 2,850	X
East	WESTWARD	404031	2023	2026	-	524	267	791	$ 2,850	
North	CELERY	200262	2021	2024	6	1,155	89	1,250	$ 226,416	X
North	CELERY	200261	2021	2024	4	750	102	856	$ 2,440,871	X
North	CITY POINT	201531	2021	2024	2	1,012	88	1,102	$ 3,358,310	X
North	COCOA BEACH	200731	2021	2023	3	1,344	143	1,490	$ 12,000	X
North	COMO	105133	2021	2023	5	1,474	192	1,671	$ 10,000	X
North	CRESCENT CITY	100631	2021	2023	1	411	93	505	$ 12,000	X
North	DELTONA	204064	2021	2023	4	1,521	38	1,563	$ 12,000	X
North	DURBIN	108962	2019	2023	7	2,536	378	2,921	$ 265,930	X
North	EAGLE	102961	2020	2023	1	1,028	67	1,096	$ 275,216	X
North	EDGEWATER	101936	2021	2024	4	1,504	114	1,622	$ 3,067,875	X
North	FLAGLER BEACH	101461	2021	2023	14	2,289	399	2,702	$ 12,000	X
North	FRONTENAC	203034	2021	2024	1	892	37	930	$ 1,728,012	X
North	GARVEY	211061	2021	2023	8	2,855	77	2,940	$ 4,229,371	
North	GRANT	208763	2021	2023	-	2,347	87	2,434	$ 10,000	X
North	HIELD	208164	2020	2023	1	2,373	248	2,622	$ 812,940	X
North	HIELD	208166	2021	2023	7	2,184	317	2,508	$ 1,258,678	X
North	INTERLACHEN	102732	2021	2023	1	1,320	174	1,495	$ 12,000	X
North	MATANZAS	102533	2020	2023	11	2,682	181	2,874	$ 475,526	X
North	MATANZAS	102534	2021	2023	1	82	15	98	$ 399,576	X
North	MILLS	308063	2020	2023	-	477	151	628	$ 410,381	X
North	MILLS	308062	2021	2023	4	425	92	521	$ 12,000	X
North	REGIS	106364	2021	2024	8	3,661	75	3,744	$ 3,176,777	X

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
North	REGIS	106365	2021	2024	3	2,848	160	3,011	$ 1,700,243	X
North	REGIS	106363	2021	2025	8	929	229	1,166	$ 4,720,000	X
North	SANFORD	200134	2021	2023	6	399	187	592	$ 12,000	X
North	SYKES CREEK	201734	2021	2023	1	1,031	191	1,223	$ 12,000	X
North	SYKES CREEK	201733	2021	2023	1	1,741	50	1,792	$ 12,000	X
North	SYKES CREEK	201732	2021	2023	-	1,025	75	1,100	$ 12,000	X
North	TITUSVILLE	200333	2019	2023	1	1,315	278	1,594	$ 1,421,386	X
North	TOMOKA	106061	2021	2023	2	1,401	302	1,705	$ 12,000	X
North	TULSA	208634	2021	2023	-	1,559	54	1,613	$ 12,000	X
North	TULSA	208632	2021	2023	-	1,670	34	1,704	$ 12,000	X
North	TULSA	208631	2021	2023	9	1,579	26	1,614	$ 12,000	X
North	VIERA	209764	2021	2023	12	2,887	238	3,137	$ 10,000	X
North	WINDOVER	208864	2021	2023	-	1,158	58	1,216	$ 12,000	
North	WYOMING	207362	2019	2023	1	3,332	74	3,407	$ 12,000	X
North	APOLLO	210532	2019	2024	3	962	301	1,266	$ 2,850	X
North	AURORA	202533	2020	2024	1	1,442	322	1,765	$ 2,850	X
North	AURORA	202537	2021	2024	1	1,974	73	2,048	$ 2,850	X
North	AURORA	202534	2021	2024	1	1,645	101	1,747	$ 2,850	X
North	BABCOCK	204261	2021	2024	1	2,517	101	2,619	$ 2,850	X
North	BARNA	206932	2021	2024	-	846	125	971	$ 2,850	X
North	CLEARLAKE	202831	2021	2024	3	1,815	202	2,020	$ 2,850	X
North	COLLEGE	204631	2021	2024	1	1,575	111	1,687	$ 2,850	X
North	COLLEGE	204633	2019	2024	3	1,257	209	1,469	$ 2,850	X
North	COLLEGE	204632	2021	2024	2	1,846	174	2,022	$ 2,850	X
North	COQUINA	106661	2020	2024	3	1,158	271	1,432	$ 2,850	X
North	COURTENAY	201934	2019	2024	-	845	51	896	$ 2,850	X
North	COX	207064	2020	2024	2	1,284	100	1,386	$ 2,850	X
North	DAIRY	205536	2022	2024	-	1,010	43	1,053	$ 2,850	
North	DERBY	210131	2019	2024	1	1,808	124	1,933	$ 2,850	X
North	EAU GALLIE	201032	2021	2024	5	1,387	164	1,556	$ 2,850	X
North	EAU GALLIE	201035	2020	2024	2	727	132	861	$ 2,850	X
North	EDGEWATER	101938	2020	2024	8	1,979	167	2,154	$ 2,850	X
North	ELKTON	105831	2020	2024	1	1,338	106	1,445	$ 2,850	X
North	FLAGLER BEACH	101464	2019	2024	21	3,461	294	3,776	$ 2,850	X
North	FOREST GROVE	106863	2020	2024	11	2,151	176	2,338	$ 2,850	X
North	FRONTENAC	203031	2020	2024	2	1,813	196	2,011	$ 2,850	X
North	GATOR	108363	2019	2024	5	1,736	389	2,130	$ 2,850	X
North	GENEVA	205361	2020	2024	7	877	114	998	$ 2,850	X
North	GERONA	106235	2021	2024	-	521	33	554	$ 2,850	
North	GRANDVIEW	201435	2020	2024	23	2,220	103	2,346	$ 2,850	X
North	GRANDVIEW	201431	2021	2024	6	1,298	206	1,510	$ 2,850	X
North	GRANT	208761	2020	2024	10	1,461	111	1,582	$ 2,850	X
North	GRANT	208762	2017	2024	7	1,042	202	1,251	$ 2,850	X
North	HARRIS	203631	2020	2024	3	1,153	89	1,245	$ 2,850	X
North	HARRIS	203637	2020	2024	3	1,427	219	1,649	$ 2,850	X
North	HASTINGS	100332	2020	2024	1	407	132	540	$ 2,850	X
North	HASTINGS	100331	2020	2024	7	685	262	954	$ 2,850	X
North	HIBISCUS	203537	2020	2024	2	529	214	745	$ 2,850	
North	HIBISCUS	203532	2020	2024	3	509	288	800	$ 2,850	X
North	HIBISCUS	203531	2019	2024	2	729	198	929	$ 2,850	X
North	HIELD	208167	2020	2024	5	2,412	51	2,468	$ 2,850	
North	HOLLAND PARK	202632	2019	2024	2	1,190	106	1,298	$ 2,850	X
North	INDIALANTIC	203232	2020	2024	-	1,088	40	1,128	$ 2,850	X
North	INDIAN RIVER	202131	2021	2024	2	1,618	320	1,940	$ 2,850	X
North	LEWIS	102636	2019	2024	3	587	288	878	$ 2,850	X
North	LEWIS	102638	2022	2024	1	846	72	919	$ 2,850	
North	MADISON	102232	2020	2024	1	255	17	273	$ 2,850	X
North	MADISON	102231	2020	2024	2	1,366	210	1,578	$ 2,850	
North	MCDONNELL	203931	2021	2024	3	1,280	53	1,336	$ 2,850	X
North	MCMEEKIN	100532	2020	2025	2	178	18	198	$ 2,850	X
North	MCMEEKIN	100531	2019	2024	1	1,000	99	1,100	$ 2,850	X
North	MELBOURNE	200536	2020	2024	2	1,102	550	1,654	$ 2,850	X
North	MELBOURNE	200533	2021	2024	2	429	192	623	$ 2,850	X
North	MERRITT	205435	2020	2024	1	1,214	147	1,362	$ 2,850	
North	MILLS	308064	2021	2024	2	1,748	200	1,950	$ 2,850	X
North	MIMS	202232	2020	2024	6	1,418	108	1,532	$ 2,850	X
North	MIMS	202233	2020	2024	1	1,098	63	1,162	$ 2,850	X
North	MOULTRIE	104935	2022	2024	1	1,414	134	1,549	$ 2,850	
North	ONEIL	307762	2020	2024	27	1,345	65	1,437	$ 2,850	X
North	ORANGEDALE	101863	2019	2024	1	2,041	72	2,114	$ 2,850	X
North	ORMOND	101133	2021	2024	-	1,118	377	1,495	$ 2,850	X

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Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
North	ORMOND	101134	2020	2024	-	755	44	799	$ 2,850	X
North	ORMOND	101136	2021	2024	2	1,288	186	1,476	$ 2,850	X
North	PACETTI	109961	2022	2024	14	2,634	341	2,989	$ 2,850	
North	PALATKA	100431	2020	2024	3	791	143	937	$ 2,850	X
North	PALATKA	100433	2020	2024	5	1,690	150	1,845	$ 2,850	X
North	PATRICK	201136	2021	2024	-	1,395	75	1,470	$ 2,850	X
North	PORT ORANGE	100836	2021	2024	2	1,063	246	1,311	$ 2,850	X
North	PORT ORANGE	100833	2020	2024	1	1,742	205	1,948	$ 2,850	X
North	PRINGLE	110363	2020	2024	10	2,085	56	2,151	$ 2,850	X
North	REGIS	106361	2020	2024	17	1,528	342	1,887	$ 2,850	X
North	RINEHART	207933	2020	2024	1	363	158	522	$ 2,850	X
North	RINEHART	207937	2021	2024	1	1,258	65	1,324	$ 2,850	
North	ROCKLEDGE	203132	2020	2024	1	806	154	961	$ 2,850	X
North	SANFORD	200133	2020	2024	-	1,342	215	1,557	$ 2,850	X
North	SANFORD	200135	2021	2024	1	15	47	63	$ 2,850	X
North	SARNO	205632	2019	2024	2	981	291	1,274	$ 2,850	X
North	SARNO	205633	2020	2024	-	913	90	1,003	$ 2,850	X
North	ST AUGUSTINE	100236	2020	2024	4	1,096	313	1,413	$ 2,850	X
North	ST JOE	102367	2021	2024	7	2,582	261	2,850	$ 2,850	
North	ST JOE	102363	2021	2024	3	1,664	99	1,766	$ 2,850	X
North	SYKES CREEK	201735	2019	2024	-	1,050	90	1,140	$ 2,850	X
North	SYKES CREEK	201731	2018	2024	2	457	312	771	$ 2,850	X
North	SYLVAN	205931	2020	2024	7	816	70	893	$ 2,850	X
North	TAYLOR	104836	2021	2024	4	1,071	44	1,119	$ 2,850	
North	TAYLOR	104832	2020	2024	1	1,201	173	1,375	$ 2,850	
North	TAYLOR	104834	2021	2024	3	1,269	60	1,332	$ 2,850	
North	TITUSVILLE	200332	2020	2024	1	2,044	85	2,130	$ 2,850	
North	TROPICANA	201233	2020	2024	2	487	177	666	$ 2,850	X
North	TROPICANA	201232	2021	2024	4	1,511	223	1,738	$ 2,850	X
North	WIREMILL	301562	2020	2024	3	330	90	423	$ 2,850	X
North	YORKE	209861	2020	2024	1	615	254	870	$ 2,850	X
North	YULEE	301462	2020	2024	1	810	152	963	$ 2,850	X
North	DERBY	210134	2022	2024	-	2,122	128	2,250	$ 2,850	
North	GERONA	106238	2022	2024	2	829	298	1,129	$ 2,850	
North	KACIE	104734	2022	2024	18	1,450	78	1,546	$ 2,850	
North	KACIE	104735	2022	2024	1	1,339	192	1,532	$ 2,850	
North	ONEIL	307764	2022	2024	17	3,449	159	3,625	$ 2,850	
North	SARNO	205634	2022	2024	7	564	387	958	$ 2,850	
North	YULEE	301465	2022	2024	8	2,272	181	2,461	$ 2,850	
Northwest	CRYSTAL BCH GLF	908982	2023	2024	-	521	27	548	$ 1,530,000	
Northwest	EAST BAY GLF	905592	2023	2025	-	1,374	223	1,597	$ 2,092,500	
Northwest	EAST BAY GLF	905632	2023	2025	1	1,282	114	1,397	$ 2,520,000	
Northwest	LONG BEACH GLF	908522	2021	2023	1	3,025	441	3,467	$ 3,902,500	X
Northwest	LULLWATER GLF	908582	2022	2023	-	2,729	148	2,877	$ 2,565,000	
Northwest	NORTH BAY GLF	908012	2023	2024	3	14	10	27	$ 990,000	X
Northwest	NORTHSIDE GLF	908812	2023	2025	-	2,802	372	3,174	$ 3,172,500	X
Northwest	NORTHSIDE GLF	908852	2023	2025	-	1,355	190	1,545	$ 3,015,000	X
Northwest	OAKFIELD GLF	907922	2020	2023	-	1,982	176	2,158	$ 1,935,000	
Northwest	S CRESTVIEW GLF	909692	2021	2023	-	1,833	530	2,363	$ 3,970,000	
Northwest	S CRESTVIEW GLF	909682	2022	2023	-	1,744	382	2,126	$ 1,755,000	
Northwest	SANDESTIN GLF	908182	2023	2024	-	911	102	1,013	$ 1,080,000	
Northwest	VALPARAISO GLF	909232	2021	2023	2	1,630	306	1,938	$ 630,000	
Northwest	W NINE MILE GLF	915612	2023	2024	-	-	-	-	$ 810,000	
Northwest	AVALON GLF	905782	2022	2027	-	2,818	332	3,150	$ 2,850	
Northwest	BEACH HAVEN GLF	906072	2022	2027	1	2,892	219	3,112	$ 2,850	
Northwest	BEAVER CRK GLF	906732	2022	2024	1	-	-	1	$ 2,850	
Northwest	BLACKJACK GLF	907157	2022	2024	-	-	1	1	$ 2,850	
Northwest	COLDWATER	929531	2022	2025	-	-	-	-	$ 2,850	
Northwest	CRYSTAL BCH GLF	909062	2022	2024	-	922	56	978	$ 2,850	
Northwest	DESTIN GLF	909132	2023	2024	5	2,076	286	2,367	$ 2,850	
Northwest	DEVILLIERS	915722	2022	2024	-	-	-	-	$ 2,850	
Northwest	EXXON GLF	906982	2022	2024	1	-	12	13	$ 2,850	
Northwest	GREENWOOD GLF	908482	2022	2024	-	168	464	632	$ 2,850	X
Northwest	GULF BREEZE GLF	907462	2023	2024	-	863	81	944	$ 2,850	
Northwest	HONEYSUCKLE GLF	907872	2023	2024	1	274	154	429	$ 2,850	
Northwest	LONG BEACH GLF	908542	2022	2024	-	3,383	132	3,515	$ 2,850	X
Northwest	MIRAMAR GLF	909082	2022	2027	-	2,834	183	3,017	$ 2,850	
Northwest	OCEAN CITY GLF	909052	2022	2024	-	1,761	146	1,907	$ 2,850	
Northwest	PARKER GLF	908332	2022	2027	-	2,980	277	3,257	$ 2,850	X
Northwest	PINE BARREN GLF	905412	2022	2024	1	-	1	2	$ 2,850	
Northwest	PINE FOREST GLF	907302	2022	2024	-	-	7	7	$ 2,850	

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Northwest	REDWOOD GLF	908732	2021	2024	-	2,052	181	2,233	$ 2,850	X
Northwest	SCENIC HILL GLF	907822	2023	2024	-	1,787	106	1,893	$ 2,850	
Northwest	SCENIC HILL GLF	907842	2022	2027	1	3,121	476	3,598	$ 2,850	
Northwest	SHIPYARD GLF	908382	2022	2024	6	73	28	107	$ 2,850	X
Northwest	SUNNY HILLS GLF	909592	2022	2029	-	1,033	135	1,168	$ 2,850	X
Northwest	TURNER GLF	905682	2023	2024	-	929	179	1,108	$ 2,850	
Northwest	VERNON GLF	909522	2021	2029	1	1,464	291	1,756	$ 2,850	X
Northwest	W NINE MILE GLF	915652	2022	2024	-	-	2	2	$ 2,850	
Northwest	WEST BAY GLF	908032	2022	2027	-	301	96	397	$ 2,850	X
Northwest	BEAVER CRK GLF	906722	2022	2024	2	-	-	2	$ 2,850	
Northwest	HIGHLAND CTY GLF	908792	2022	2024	1	2,193	467	2,661	$ 2,850	X
Northwest	POWELL LAKE GLF	908142	2022	2024	-	1,437	241	1,678	$ 2,850	X
Northwest	SHIPYARD GLF	908392	2022	2024	1	1,427	152	1,580	$ 2,850	X
West	CASTLE	504661	2020	2025	12	3,307	308	3,627	$ 1,125,000	X
West	ALLIGATOR	503566	2022	2024	17	3,385	195	3,597	$ 2,221,899	X
West	ALLIGATOR	503568	2021	2023	37	2,747	493	3,277	$ 1,312,827	X
West	ALVA	504764	2021	2023	7	2,505	48	2,560	$ 2,412,012	X
West	ALVA	504763	2020	2023	21	2,017	61	2,099	$ 1,218,640	X
West	ANGLER	509862	2023	2025	23	3,987	234	4,244	$ 14,879	
West	ANGLER	509863	2023	2025	14	2,120	429	2,563	$ 12,387	
West	ANGLER	509861	2023	2025	19	1,598	304	1,921	$ 15,131	
West	ARCADIA	501432	2020	2023	9	2,318	275	2,602	$ 835,250	X
West	ARCADIA	501434	2021	2023	3	714	186	903	$ 1,689,874	X
West	AUBURN	505763	2018	2023	2	2,564	166	2,732	$ 210,249	
West	BENEVA	504137	2023	2023	-	1,300	189	1,489	$ 1,332,457	X
West	BONITA SPRINGS	502165	2019	2025	7	2,505	296	2,808	$ 1,008,847	X
West	BONITA SPRINGS	502162	2021	2023	9	2,686	355	3,050	$ 12,000	X
West	BUCKEYE	505864	2022	2023	3	1,671	112	1,786	$ 4,267,115	X
West	CAPRI	504066	2022	2024	26	2,736	216	2,978	$ 2,237,990	X
West	CLARK	500531	2021	2023	2	1,614	109	1,725	$ 1,302,924	X
West	CLARK	500535	2021	2023	1	1,524	153	1,678	$ 987,907	
West	COLONIAL	502632	2021	2023	-	1,706	293	1,999	$ 861,679	X
West	COLONIAL	502634	2021	2023	-	694	501	1,195	$ 353,300	X
West	COLONIAL	502633	2021	2023	-	85	228	313	$ 335,426	X
West	CORKSCREW	507463	2021	2024	33	721	235	989	$ 3,156,533	X
West	CORKSCREW	507464	2021	2024	-	-	17	17	$ 4,126,479	X
West	CORKSCREW	507461	2018	2023	159	5,415	346	5,920	$ 12,000	X
West	DEEPCREEK	506365	2021	2023	4	2,610	150	2,764	$ 2,469,055	X
West	EDISON	503632	2023	2024	-	1,589	204	1,793	$ 7,662	X
West	EDISON	503637	2023	2024	-	940	109	1,049	$ 6,521	X
West	EDISON	503639	2020	2023	-	2,353	176	2,529	$ 12,000	X
West	ENGLEWOOD	500762	2021	2024	3	2,347	263	2,613	$ 1,903,997	X
West	ENGLEWOOD	500764	2021	2023	1	2,239	233	2,473	$ 725,818	X
West	ESTERO	503962	2021	2024	6	3,643	126	3,775	$ 3,197,081	X
West	ESTERO	503969	2021	2024	5	2,684	297	2,986	$ 2,422,951	X
West	FRANKLIN	506463	2021	2023	16	3,557	254	3,827	$ 2,203,391	X
West	FRUITVILLE	501065	2021	2023	18	2,242	212	2,472	$ 12,000	X
West	FT MYERS	501133	2019	2023	-	1,906	184	2,090	$ 173,080	X
West	FT MYERS	501134	2022	2025	-	191	266	457	$ 210,189	X
West	GATEWAY	508462	2020	2023	6	2,163	438	2,607	$ 2,211,016	X
West	GLADIOLUS	507663	2021	2024	-	2,532	145	2,677	$ 3,382,439	X
West	GRANADA	506563	2021	2024	82	2,629	202	2,913	$ 3,363,161	X
West	HERCULES	510161	2021	2023	28	548	87	663	$ 709,617	X
West	HYDE PARK	500433	2021	2024	2	1,464	147	1,613	$ 1,757,947	X
West	HYDE PARK	500431	2021	2024	3	1,375	81	1,459	$ 1,124,038	
West	HYDE PARK	500436	2021	2024	24	1,177	159	1,360	$ 1,046,745	X
West	HYDE PARK	500434	2020	2024	6	940	132	1,078	$ 835,234	X
West	IMPERIAL	507063	2020	2023	26	2,321	378	2,725	$ 4,433,307	X
West	IMPERIAL	507061	2023	2025	-	2,257	426	2,683	$ 9,857	X
West	INTERSTATE	508163	2021	2023	35	3,284	181	3,500	$ 2,369,615	X
West	IXORA	507862	2022	2024	5	1,095	74	1,174	$ 1,296,315	X
West	JETPORT	505066	2023	2025	48	3,369	96	3,513	$ 37,797	
West	KELLY	510662	2023	2025	138	3,467	442	4,047	$ 15,438	
West	KELLY	510663	2023	2025	20	3,499	148	3,667	$ 19,627	
West	LABELLE	502463	2019	2023	8	1,174	226	1,408	$ 1,004,896	X
West	LAURELWOOD	509961	2020	2023	72	1,692	366	2,130	$ 12,000	
West	LIVINGSTON	506664	2021	2023	13	3,723	505	4,241	$ 1,195,042	X
West	LIVINGSTON	506665	2022	2024	5	899	328	1,232	$ 3,700,272	X
West	LIVINGSTON	506666	2020	2023	12	287	1,251	1,550	$ 12,000	X
West	ONECO	502934	2021	2024	4	1,996	178	2,178	$ 2,102,433	
West	ONECO	502931	2021	2024	7	1,612	178	1,797	$ 1,530,821	X

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
West	ONECO	502935	2021	2024	5	1,393	210	1,608	$ 1,728,688	
West	ONECO	502936	2021	2023	-	1,062	125	1,187	$ 1,516,518	X
West	ORANGETREE	507364	2020	2023	63	3,155	139	3,357	$ 2,519,380	X
West	OSPREY	500931	2020	2023	6	1,246	238	1,490	$ 2,226,432	
West	PALMA SOLA	502534	2021	2023	6	1,277	88	1,371	$ 830,394	X
West	PALMA SOLA	502533	2021	2023	6	1,008	25	1,039	$ 1,145,747	X
West	PARRISH	507565	2023	2025	12	1,658	382	2,052	$ 21,237	
West	PAYNE	502836	2022	2025	-	488	191	679	$ 244,288	X
West	PAYNE	502838	2021	2025	1	606	60	667	$ 69,561	X
West	PHILLIPPI	503034	2021	2024	19	1,294	175	1,488	$ 17,764	X
West	PHILLIPPI	503037	2023	2024	8	1,299	48	1,355	$ 13,213	
West	PHILLIPPI	503032	2023	2024	8	737	221	966	$ 7,384	X
West	PINE RIDGE	504365	2022	2024	14	2,327	1,169	3,510	$ 3,107,763	X
West	PINE RIDGE	504369	2023	2024	21	1,149	224	1,394	$ 12,060	X
West	PIRATE	510363	2023	2025	2	806	133	941	$ 9,562	
West	PUNTA GORDA	501535	2021	2023	17	1,201	362	1,580	$ 1,894,515	X
West	RATTLESNAKE	507764	2023	2025	1	3,718	360	4,079	$ 16,005	X
West	ROTONDA	505661	2020	2023	11	2,050	209	2,270	$ 235,156	X
West	SARASOTA	500162	2023	2025	1	3,614	248	3,863	$ 10,729	X
West	SARASOTA	500161	2023	2025	3	3,197	188	3,388	$ 7,434	X
West	SARASOTA	500131	2021	2024	3	1,441	265	1,709	$ 1,622,195	X
West	SARASOTA	500136	2021	2024	1	576	190	767	$ 856,621	X
West	SHADE	506261	2021	2024	2	1,653	525	2,180	$ 2,268,494	X
West	SOLANA	503138	2023	2024	6	866	461	1,333	$ 10,963	X
West	SORRENTO	504832	2023	2024	24	1,836	156	2,016	$ 14,876	X
West	SOUTH VENICE	503431	2023	2024	5	2,335	26	2,366	$ 18,256	X
West	SOUTH VENICE	503432	2023	2024	1	1,438	305	1,744	$ 18,663	
West	SOUTH VENICE	503437	2023	2024	1	1,529	59	1,589	$ 19,570	X
West	SUMMIT	509063	2021	2023	19	3,941	361	4,321	$ 790,637	X
West	SUMMIT	509062	2021	2023	38	3,628	313	3,979	$ 2,913,129	X
West	TERRY	508365	2023	2025	2	2,017	187	2,206	$ 9,663	
West	TICE	501831	2021	2024	-	909	163	1,072	$ 11,772	X
West	VAMO	505562	2021	2023	10	2,134	261	2,405	$ 1,784,263	X
West	VAMO	505563	2021	2023	-	1,135	229	1,364	$ 492,227	X
West	VANDERBILT	506767	2020	2023	9	3,210	472	3,691	$ 1,020,682	X
West	VANDERBILT	506765	2021	2024	18	2,973	237	3,228	$ 3,111,693	X
West	WALKER	506037	2021	2024	2	1,744	77	1,823	$ 1,233,728	X
West	WALKER	506033	2023	2023	1	1,495	65	1,561	$ 1,310,977	X
West	WALKER	506035	2021	2024	2	1,322	17	1,341	$ 1,435,593	X
West	WALKER	506031	2019	2023	3	766	205	974	$ 12,000	X
West	WHITFIELD	500835	2021	2023	2	-	282	284	$ 488,730	
West	ALLIGATOR	503565	2020	2024	20	1,895	34	1,949	$ 2,850	X
West	AUBURN	505762	2020	2024	-	3,173	115	3,288	$ 2,850	X
West	CLARK	500537	2021	2024	2	1,101	181	1,284	$ 2,850	X
West	CLARK	500536	2021	2024	3	87	573	663	$ 2,850	
West	COLONIAL	502638	2021	2024	1	990	267	1,258	$ 2,850	X
West	CORTEZ	500634	2022	2024	4	1,262	219	1,485	$ 2,850	
West	CORTEZ	500636	2022	2024	2	2,040	147	2,189	$ 2,850	X
West	DORR FIELD	504262	2020	2024	3	36	155	194	$ 2,850	X
West	EDISON	503631	2021	2024	4	1,384	60	1,448	$ 2,850	X
West	EDISON	503634	2020	2024	-	1,634	193	1,827	$ 2,850	X
West	EDISON	503635	2020	2024	-	1,923	441	2,364	$ 2,850	X
West	ENGLEWOOD	500761	2020	2024	4	1,462	251	1,717	$ 2,850	X
West	ENGLEWOOD	500766	2020	2024	3	2,255	158	2,416	$ 2,850	X
West	ENGLEWOOD	500768	2020	2024	6	2,017	93	2,116	$ 2,850	X
West	ESTERO	503963	2021	2024	1	1,540	83	1,624	$ 2,850	X
West	FT MYERS	501131	2020	2024	1	707	168	876	$ 2,850	X
West	GOLDEN GATE	504966	2020	2024	3	2,656	249	2,908	$ 2,850	X
West	GOLDEN GATE	504969	2022	2024	4	765	146	915	$ 2,850	X
West	GOLDEN GATE	504964	2023	2024	12	1,477	58	1,547	$ 2,850	X
West	IONA	501766	2022	2024	1	3,753	250	4,004	$ 2,850	X
West	IONA	501764	2020	2024	-	3,458	437	3,895	$ 2,850	X
West	IXORA	507863	2020	2024	14	1,461	240	1,715	$ 2,850	X
West	LIVINGSTON	506661	2021	2024	13	1,804	394	2,211	$ 2,850	X
West	METRO	506161	2020	2024	1	1,257	310	1,568	$ 2,850	X
West	MURDOCK	502065	2021	2024	10	3,518	251	3,779	$ 2,850	X
West	NAPLES	501231	2021	2025	3	192	219	414	$ 2,850	X
West	ONECO	502933	2021	2024	3	1,660	89	1,752	$ 2,850	
West	ONECO	502937	2021	2024	2	1,379	60	1,441	$ 2,850	
West	ORANGETREE	507361	2021	2024	29	2,276	112	2,417	$ 2,850	X
West	ORANGETREE	507363	2022	2025	38	3,337	156	3,531	$ 2,850	X

Appendix E: FPL 2023 Project Level Detail
Distribution Feeder Hardening Program - Capital Expenditures

Region	Substation	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
West	ORTIZ	503861	2021	2024	-	2,235	244	2,479	$ 2,850	X
West	PARRISH	507564	2020	2024	3	2,721	93	2,817	$ 2,850	X
West	PAYNE	502837	2020	2024	2	278	51	331	$ 2,850	X
West	PHILLIPPI	503031	2020	2024	6	1,739	241	1,986	$ 2,850	
West	PHILLIPPI	503035	2020	2024	2	1,090	67	1,159	$ 2,850	
West	PROCTOR	505166	2021	2024	3	1,865	197	2,065	$ 2,850	X
West	SAN CARLOS	507262	2020	2024	1	2,540	601	3,142	$ 2,850	X
West	SHADE	506264	2021	2024	1	1,509	91	1,601	$ 2,850	X
West	SOLANA	503135	2020	2024	8	1,438	77	1,523	$ 2,850	X
West	SORRENTO	504834	2020	2024	4	2,435	98	2,537	$ 2,850	X
West	SOUTH VENICE	503434	2020	2024	1	986	155	1,142	$ 2,850	X
West	TERRY	508361	2022	2025	4	1,603	106	1,713	$ 2,850	X
West	TUTTLE	504535	2021	2025	13	1,380	272	1,665	$ 2,850	X
West	VENICE	500332	2021	2024	4	1,875	218	2,097	$ 10,063	X
Total				**335**					**$ 685,113,075**	

Distribution Automation

Region	Area	Number of Sites	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma / Matthew / Michael Outage
Northwest	Fort Walton	17	2023	2023	N/A	N/A	N/A	N/A	$ 1,000,000	N/A
Northwest	Panama City	15	2023	2023	N/A	N/A	N/A	N/A	$ 900,000	N/A
Northwest	Pensacola	33	2023	2023	N/A	N/A	N/A	N/A	$ 2,000,000	N/A
Total				**65**					**$ 3,900,000**	

Combined Total for 2023									**$689,013,075**	

Notes:
(1) Start date reflects estimated/actual year when initial project costs will begin to accrue (e.g., preliminary engineering/design, site preparations, or customer outreach, if applicable).
(2) Completion year reflects the estimated/actual date when project will be completed.

Appendix E: FPL 2023 Project Level Detail
Distribution Lateral Hardening Program - Capital Expenditures

Region	Substation	Lateral Count	Feeder	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Residential Customers	Commercial Customers	Industrial Customers	Total Customers	2023 Estimated Costs	Irma/Matthew/ Michael Outage
North	SCOTTSMOOR	60	105061	2023	2024	648	55	0	703	$ 3,223,898	X
North	BABCOCK	79	204264	2022	2023	2596	30	0	2626	$ 54,391,024	X
North	HIELD	65	208165	2022	2023	2294	76	2	2372	$ 42,368,597	X
North	GARVEY	10	211061	2022	2023	733	5	0	738	$ 16,529,150	X
North	MILLS	42	308063	2023	2024	205	44	0	249	$ 1,104,773	X
East	GREENACRES	34	401031	2023	2024	667	96	1	764	$ 429,645	X
East	LINTON	24	401931	2023	2024	345	82	1	428	$ 280,624	X
East	LINTON	37	401935	2023	2024	781	66	0	847	$ 587,052	X
East	MILITARY TRAIL	33	403032	2023	2024	644	154	1	799	$ 681,238	X
East	NORTON	42	404531	2023	2024	1158	124	8	1290	$ 510,929	X
East	HILLSBORO	22	404732	2023	2024	438	14	3	455	$ 648,337	X
North	SEBASTIAN	17	405765	2021	2023	951	16	0	967	$ 14,734,557	X
North	TURNPIKE	48	406161	2023	2024	2935	130	0	3065	$ 3,656,272	X
North	TURNPIKE	50	406163	2023	2024	2447	72	0	2519	$ 2,935,375	X
East	ACREAGE	71	406764	2022	2023	1531	51	2	1584	$ 65,183,322	X
East	LOXAHATCHEE	13	407666	2021	2023	100	19	0	119	$ 9,186,609	X
East	ALEXANDER	45	408562	2023	2024	586	88	3	677	$ 3,356,517	X
North	FELLSMERE	25	411562	2021	2023	725	20	1	746	$ 21,427,176	X
West	HYDE PARK	38	500433	2023	2024	929	40	0	969	$ 1,291,951	X
West	MURDOCK	40	502065	2023	2024	1473	70	5	1548	$ 4,571,363	X
West	MURDOCK	56	502067	2023	2024	1763	21	4	1788	$ 3,797,794	X
West	HARBOR	49	503765	2022	2023	1799	47	2	1848	$ 40,611,110	X
West	HARBOR	39	503766	2021	2023	1323	15	1	1339	$ 22,535,866	X
West	PINE RIDGE	10	504368	2023	2024	855	24	4	883	$ 463,341	X
West	GOLDEN GATE	106	504968	2023	2024	1297	37	23	1357	$ 4,305,167	X
West	SAN CARLOS	58	507264	2022	2023	2002	8	1	2011	$ 30,247,220	X
Broward	SISTRUNK	20	700139	2022	2023	1055	98	0	1153	$ 12,582,394	X
Broward	SAMPLE ROAD	28	701037	2023	2024	1063	78	0	1141	$ 693,626	X
Broward	PLANTATION	28	701635	2023	2024	1707	130	0	1837	$ 1,036,049	X
Broward	ROHAN	25	703032	2022	2023	814	76	0	890	$ 12,852,258	X
Broward	ROHAN	36	703035	2023	2024	732	7	1	740	$ 531,594	X
Broward	RESERVATION	37	703431	2023	2024	1106	54	0	1160	$ 711,186	X
Broward	IMAGINATION	28	704262	2023	2024	389	26	3	418	$ 874,815	X
Broward	IMAGINATION	43	704264	2022	2023	627	46	6	679	$ 24,692,526	X
Broward	FASHION	26	704463	2023	2024	1007	48	2	1057	$ 717,572	X
Broward	VALENCIA	29	706262	2023	2024	341	43	2	386	$ 982,570	X
Dade	Coconut Grove	34	800442	2022	2023	826	28	5	859	$ 13,661,849	X
Dade	FULFORD	26	801436	2023	2024	807	12	3	822	$ 581,574	X
Dade	BISCAYNE	25	801833	2022	2023	1382	27	1	1410	$ 19,868,713	X
Dade	CUTLER	27	802037	2023	2024	572	27	5	604	$ 984,517	X
Dade	SOUTH MIAMI	39	802433	2023	2024	1108	36	4	1148	$ 1,047,323	X
Dade	SEABOARD	38	803637	2023	2024	1328	74	1	1403	$ 1,008,171	X
Dade	GOLDEN GLADES	34	806038	2023	2024	1215	40	0	1255	$ 978,807	X
Dade	AVOCADO	59	810061	2023	2024	408	284	2	694	$ 2,732,503	X
Dade	AVOCADO	75	810064	2022	2023	444	127	1	572	$ 39,032,407	X
NorthWest	BAYOU CHICO GLF	46	906582	2023	2024	908	50	0	958	$ 1,141,231	X
NorthWest	SCENIC HILL GLF	80	907582	2022	2023	1212	455	391	2058	$ 34,946,142	X
NorthWest	PARKER GLF	58	908332	2023	2024	1244	119	36	1399	$ 2,215,797	X
Total		**728**								**$ 522,932,529**	

Notes:
(1) Start date reflects estimated/actual year when initial project costs will begin to accrue (e.g., preliminary engineering/design, site preparations, or customer outreach, if applicable).
(2) Completion year reflects the estimated/actual date when project will be completed.

Appendix E: FPL 2023 Project Level Detail
Substation Storm Surge / Flood Mitigation Program - Capital Expenditures

County	Substation	Substation Type	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma/Matthew/ Michael Outage
Indian River	Chambers	Distribution	2020	2023	0	3,746	435	4,181	$ 3,094,000	
Dade	Dumfoundling	Distribution	2022	2024	10	13,681	703	14,394	$ 150,000	
Indian River	Gracewood	Distribution	2020	2023	2	3,342	243	3,587	$ 2,555,000	
St. Johns	Lewis	Distribution	2021	2024	33	9,737	1,365	11,135	$ 2,201,000	X
Total				**2**					**$ 8,000,000**	

Notes:
(1) Start date reflects estimated/actual year when initial project costs will begin to accrue (e.g., preliminary engineering/design, site preparations, or customer outreach, if applicable).
(2) Completion year reflects the estimated/actual date when project will be completed.

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Appendix E: FPL 2023 Project Level Detail
Transmission Access Enhancement Program - Capital Expenditures

Transmission Line Name	Number of Culverts, Bridges and Miles to be Enhanced	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma/Matthew/Michael Outage
DUVAL-SPRINGBANK 230kV [0676] : INSTALL BOX CUVERT BETWEEN STRUCTURES 250i7 and 250i8	1	2023	2025	N/A	N/A	N/A	N/A	$ 100,000	N/A
BUNNELL-VOLUSIA 230kV [0413] : FLAGERLR BEACH-KORONA : INSTALL BOX CULVERT NORTH OF STR A77J2	1	2023	2025	N/A	N/A	N/A	N/A	$ 100,000	N/A
FLORATAM SOLAR-NORRIS 230kV [0209] : PHASE 1 - TRANSMISSION RIGHT OF WAY (~5.5 MILES)	6	2023	2026	N/A	N/A	N/A	N/A	$ 100,000	N/A
GOLF SUBSTATION : BRIDGE CROSSING ENHANCEMENT	1	2023	2025	N/A	N/A	N/A	N/A	$ 100,000	N/A
HOLLYWOOD-LAUDERDALE 138kV [0128] : STIRLING-PLAYLAND - TRANSMISSION RIGHT OF WAY (~4.5 MILES)	5	2023	2026	N/A	N/A	N/A	N/A	$ 100,000	N/A
FARMLIFE-TURKEY POINT #1 230kV [0375] : FARMLIFE-MCGREGOR - TRANSMISSION RIGHT OF WAY (~7.1 MILES)	7	2023	2026	N/A	N/A	N/A	N/A	$ 100,000	N/A
RAVEN-SIANI 161kV : PHASE 1 - TRANSMISSION RIGHT OF WAY (~5 MILES)	5	2023	2026	N/A	N/A	N/A	N/A	$ 100,000	N/A
RAVEN-SIANI 161kV : PHASE 2 - TRANSMISSION RIGHT OF WAY (~5 MILES)	5	2023	2026	N/A	N/A	N/A	N/A	$ 100,000	N/A
Total			**0**					**$ 800,000**	

Notes:

(1) Start date reflects estimated/actual year when initial project costs will begin to accrue (e.g., preliminary engineering/design, site preparations, or customer outreach, if applicable).

(2) Completion year reflects the estimated/actual date when project will be completed.

Appendix E: FPL 2023 Project Level Detail
Transmission Hardening Program - Capital Expenditures

Transmission Line Name	Number of Wooden Structures to be Replaced	Estimated / Actual Start Year[1]	Current Estimated Completion Year[2]	Industrial Customers	Residential Customers	Commercial Customers	Total Customers	2023 Estimated Costs	Irma/Matthew/Michael Outage
BRENTWOOD-SCENIC HILLS 115kV [1624] : BRENTWOOD-SCENIC HILLS	2	2022	2023	N/A	N/A	N/A	0	$ 120,000	
BYRNEVILLE-EXXON 46kV [4610] : BYRNEVILLE-CENTURY #2 - (Phase 1 of 2)	15	2022	2023	N/A	N/A	N/A	0	$ 900,000	
BYRNEVILLE-EXXON 46kV [4610] : BYRNEVILLE-CENTURY #2 - (Phase 2 of 2)	15	2022	2023	N/A	N/A	N/A	0	$ 900,000	
BYRNEVILLE-EXXON 46kV [4610] : CENTURY-EXXON 115 - (Phase 1 of 3)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	
BYRNEVILLE-EXXON 46kV [4610] : CENTURY-EXXON 115 - (Phase 2 of 3)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	
BYRNEVILLE-EXXON 46kV [4610] : CENTURY-EXXON 115 - (Phase 3 of 3)	15	2022	2023	N/A	N/A	N/A	0	$ 900,000	
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 1 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 2 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 3 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 4 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 5 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 6 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 7 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 8 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 9 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 10 of 11)	20	2022	2023	N/A	N/A	N/A	0	$ 1,200,000	X
CALLAWAY-SINAI 115kV [1518] : CALLAWAY-ALTHA (BLOUNTSTOWN TAP) - (Phase 11 of 11)	21	2022	2023	N/A	N/A	N/A	0	$ 1,260,000	X
CRIST 115-MONSANTO #2 115kV [1528] : CRIST 115-BEAVER CREEK	16	2022	2023	N/A	N/A	N/A	3	$ 960,000	
CRIST 115-MONSANTO #2 115kV [1528] : BEAVER CREEK-MONSANTO	10	2022	2023	N/A	N/A	N/A	3	$ 600,000	
CRIST 115-SCENIC HILLS #2 115kV [1524] : CRIST 115-SCENIC HILLS #2	3	2022	2023	N/A	N/A	N/A	0	$ 180,000	
CRIST 115-SOUTH CRESTVIEW #2 115kV [1530] : HOLT TAP-SOUTH CRESTVIEW - (Phase 1 of 4)	18	2022	2023	N/A	N/A	N/A	6799	$ 1,080,000	
CRIST 115-SOUTH CRESTVIEW #2 115kV [1530] : HOLT TAP-SOUTH CRESTVIEW - (Phase 2 of 4)	18	2022	2023	N/A	N/A	N/A	6799	$ 1,080,000	
CRIST 115-SOUTH CRESTVIEW #2 115kV [1530] : HOLT TAP-SOUTH CRESTVIEW - (Phase 3 of 4)	18	2022	2023	N/A	N/A	N/A	6799	$ 1,080,000	
CRIST 115-SOUTH CRESTVIEW #2 115kV [1530] : HOLT TAP-SOUTH CRESTVIEW - (Phase 4 of 4)	18	2022	2023	N/A	N/A	N/A	6799	$ 1,080,000	
GREENWOOD-HIGHLAND CITY TRANSMISSION 115kV [1541] : GREENWOOD-HIGHLAND CITY TRANSMISSION	27	2022	2023	N/A	N/A	N/A	0	$ 1,620,000	X
MIRAMAR-SANTA ROSA #1 115kV [1607] : MIRAMAR-SANTA ROSA BEACH (PS) - (Phase 1 of 3)	17	2022	2023	N/A	N/A	N/A	1	$ 1,020,000	
MIRAMAR-SANTA ROSA #1 115kV [1607] : MIRAMAR-SANTA ROSA BEACH (PS) - (Phase 2 of 3)	17	2022	2023	N/A	N/A	N/A	1	$ 1,020,000	
MIRAMAR-SANTA ROSA #1 115kV [1607] : MIRAMAR-SANTA ROSA BEACH (PS) - (Phase 3 of 3)	17	2022	2023	N/A	N/A	N/A	1	$ 1,020,000	
SINAI-RECOVERY (GPC) 115kV [1561] : SINAI-RECOVERY (GPC) 115KV - (Phase 1 of 3)	17	2022	2023	N/A	N/A	N/A	1	$ 1,020,000	X
SINAI-RECOVERY (GPC) 115kV [1561] : SINAI-RECOVERY (GPC) 115KV - (Phase 2 of 3)	17	2022	2023	N/A	N/A	N/A	1	$ 1,020,000	X
SINAI-RECOVERY (GPC) 115kV [1561] : SINAI-RECOVERY (GPC) 115KV - (Phase 3 of 3)	16	2022	2023	N/A	N/A	N/A	1	$ 960,000	X
SMITH-GREENWOOD 115kV [1567] : SMITH-NORTH BAY	5	2022	2023	N/A	N/A	N/A	10556	$ 300,000	
SMITH-GREENWOOD 115kV [1567] : NORTH BAY-NORTHSIDE	3	2022	2023	N/A	N/A	N/A	10556	$ 180,000	
SMITH-GREENWOOD 115kV [1567] : NORTHSIDE-GREENWOOD	8	2022	2023	N/A	N/A	N/A	10556	$ 480,000	X
TBD: DESIGN, ENGINEERING AND PROCUREMENT FOR 2024 PROJECTS	0	2023	2023	N/A	N/A	N/A	0	$ 1,790,000	
LAGUNA BEACH-LONG BEACH 115kV [1554] : LULLWATER TAP-LULLWATER (TAP) - Loop LULLWATER	2	2023	2023	N/A	N/A	N/A	10437	$ 1,950,000	
CRYSTAL BEACH-DESTIN RADIAL 115kV [1532] : CRYSTAL BEACH-HENDERSON PARK - Loop HENDERSON PARK	0	2023	2024	N/A	N/A	N/A	17621	$ 2,960,000	
WRIGHT-GULF-EAST BAY 115kV [1597] : AFB HURLBURT TAP-AFB HURLBURT (TAP) - Loop AFB HURLBURT	0	2023	2023	N/A	N/A	N/A	20208	$ 4,360,000	
MARIANNA-WEST GRAND RIDGE 115kV [1558] : CHIPOLA-CAVERNS ROAD (TAP) - Loop CAVERNS ROAD	0	2023	2023	N/A	N/A	N/A	0	$ 4,300,000	X
WRIGHT-FREEDOM WAY 115kV [1615] : WRIGHT-FREEDOM WAY - Loop FREEDOM WAY	0	2023	2023	N/A	N/A	N/A	0	$ 4,400,000	
WEWA ROAD-STONE CONTAINER 115kV [1573] : WEWA ROAD-STONE CONTAINER - Loop STONE CONTAINER	0	2023	2023	N/A	N/A	N/A	1	$ 2,060,000	X
Total	**555**							**$ 55,000,000**	

Notes:

(1) Start date reflects estimated/actual year when initial project costs will begin to accrue (e.g., preliminary engineering/design, site preparations, or customer outreach, if applicable).

(2) Completion year reflects the estimated/actual date when project will be completed.