

State of Florida



## Public Service Commission

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**-M-E-M-O-R-A-N-D-U-M-**

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**DATE:** September 26, 2022

**TO:** Office of Commission Clerk (Teitzman)

**FROM:** Division of Engineering (Buys, King, Lewis, Ramos) *TB*  
Office of the General Counsel (Trierweiler, Imig) *AH*

**RE:** Docket No. 20220049-EI – Review of Storm Protection Plan, pursuant to Rule 25-6.030, F.A.C., Florida Public Utilities Company.

**AGENDA:** 10/04/22 – Regular Agenda – Post Hearing Decision - Participation is Limited to Commissioners and Staff

**COMMISSIONERS ASSIGNED:** All Commissioners

**PREHEARING OFFICER:** La Rosa

**CRITICAL DATES:** October 8, 2022 - 180-day Statutory Deadline Per 366.96(5), Florida Statutes.

**SPECIAL INSTRUCTIONS:** Please place Dockets Nos. 20220048-EI, 20220049-EI, 20220050-EI, and 20220051-EI in consecutive order on the Agenda.

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## Case Background

Section 366.96, Florida Statutes (F.S.), requires each investor-owned electric utility (IOU) to file a transmission and distribution storm protection plan (SPP) that covers the immediate 10-year planning period. The plans are required to be filed with the Florida Public Service Commission (FPSC or Commission) at least every three years and must explain the systematic approach the utility will follow to achieve the objectives of reducing restoration costs and outage times associated with extreme weather events and enhancing reliability. No later than 180 days after a utility files a plan, that contains all the elements required by Commission rule, the Commission must determine whether it is in the public interest to approve, approve with modification, or deny the plan. Section 366.96(7), F.S., states that once a utility's SPP has been approved, proceeding with actions to implement the plan shall not constitute or be evidence of imprudence. Further, this section requires the Commission conduct an annual proceeding, referred to as the storm protection plan cost recovery clause (SPPCRC), to determine the utility's prudently incurred SPP costs.

IOUs were required to file their first SPPs by April 10, 2020. On March 17, 2020, Florida Public Utilities Company (FPUC) filed a Motion requesting to defer filing its SPP and refrain from participating in the SPPCRC proceeding due to circumstances affecting the utility as a result of Hurricane Michael. The Motion was granted by Order No. PSC-2020-0097-PCO-EI, issued April 6, 2020, and FPUC continued to operate under its Storm Hardening Plan.

On April 11, 2022, FPUC filed its first proposed SPP for Commission approval which covers the period of 2022-2031 and included eight programs. The majority of these programs are a continuation of its previously approved Storm Hardening Plan and are described in Attachment A. The Office of Public Counsel (OPC) was granted intervention in this docket. An administrative hearing was held on August 2-4, 2022.<sup>1</sup> Post hearing briefs were filed on September 6, 2022. In its brief OPC included a procedural matter which is addressed below.

### Procedural Matter

On pages 27-36 of its post-hearing brief, OPC unilaterally inserted a "post-hearing legal issue" that was not listed in the Prehearing Order.<sup>2</sup> OPC argued in this post-hearing issue that the Commission should reverse a prehearing ruling set forth in Order No. PSC-2022-0292-PCO-EI, where the Prehearing Officer granted motions to strike portions of the prefiled testimony of OPC witness Lane Kollen. In staff's opinion this legal argument does not raise a new substantive issue. The lack of legal relevance of witness Kollen's testimony was addressed in detail by the Prehearing Officer in Order No. PSC-2022-0292-PCO-EI. OPC requested reconsideration of that Order, which was denied by the full Commission. Because the evidentiary concerns relating to the testimony of witness Kollen have twice been addressed on the merits, staff believes it is appropriate to discuss OPC's "post-hearing legal issue" here only as it raises procedural concerns. For the reasons set forth below, staff believes there is no procedural error that that Commission must consider at this time.

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<sup>1</sup> FPUC's docket was consolidate with the SPP dockets for TECO (20220048-EI), DEF (20220050-EI), and FPL (20220051-EI) for hearing purposes only.

<sup>2</sup> Order No. PSC-2022-0291-PHO-EI, issued August 1, 2022.

Docket No. 20220049-EI  
Date: September 26, 2022

“The fundamental requirements of due process are satisfied by reasonable notice and a reasonable opportunity to be heard.” *Florida Public Service Commission v. Triple “A” Enterprises, Inc.*, 387 So. 2d 940, 943 (Fla. 1980). At the administrative hearing held on August 2-4, 2022, in accordance with sections 120.569 and 120.57, F.S., all parties, including OPC, were given full opportunity to present argument on all relevant issues in the case and to conduct cross-examination of all witnesses on the case’s relevant issues both in the case in chief and in the proffered portions of the hearing. (TR 44).

Neither OPC nor any other party to this proceeding was precluded from making any legal arguments regarding rule interpretation by the exclusion of the testimony. The only effect of the Commission’s action in striking the testimony was to exclude expert testimony on the ultimate legal issues, which are the sole province of the tribunal.

Many portions of Witness Kollen’s testimony were not stricken. Those portions were moved into the record as though read, and exhibits LK 1 through LK 3 were admitted into evidence. (TR 824-853). OPC separately proffered the portions of Witness Kollen’s testimony subject to the order granting the motion to strike and the proffered testimony was also moved into the record as though read. (TR 854-886). On August 3, 2022, Witness Kollen provided a summary and was subject to cross-examination on both the testimony that was not stricken and the proffered testimony that had been stricken. Counsel for OPC also made its legal arguments about the rule interpretation at that time. (TR 802-808). Although the Commission ultimately decided to strike the OPC Witness testimony, OPC was provided an opportunity to make its legal argument at the administrative hearing (TR 798-810), and in its motion for reconsideration. OPC made its arguments again in its post-hearing brief.

OPC also argue that a Commission Final Order applying Rule 25-6.030, F.A.C., in a manner not consistent with their argument “could be seen as the agency interpreting its [statutory] mandate without an effective or complete delegation of authority.” (OPC BR 36) The cases cited by OPC in support on this argument all address judicial review of the constitutionality of statutes.<sup>3</sup> As an agency, the Commission has no jurisdiction to declare a statute unconstitutional. Moreover, following the passage of Article V, Section 21, of the Florida Constitution, the Commission’s interpretation of a statute will not be relevant to a court vested with jurisdiction to consider that constitutional question.

For these reasons, staff does not agree with OPC arguments that the actions taken with respect to witness Kollen’s testimony were procedurally infirmed or negatively impacted the fairness of the proceeding.

There are 8 issues addressed below for the Commission to consider.<sup>4</sup> The Commission has jurisdiction in this matter pursuant to Section 366.96, and Chapter 120, F.S.

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<sup>3</sup> Post-Hearing Brief at 23 (citing *Askew v. Cross Key Waterways*, 372 So. 2d 913 (Fla. 1978); *Microtel, Inc. v. Florida Pub. Serv. Comm’n*, 464 So. 2d 1189, 1191 (Fla. 1985); *Microtel, Inc. v. Florida Pub. Serv. Comm’n*, 483 So. 2d 415 (Fla. 1986)).

<sup>4</sup> FPUC’s issues are 1B-6B, 10B, and 11B. Issues 7-9 are FPL only issues.

### Discussion of Issues

**Issue 1B:** Does FPUC’s Storm Protection Plan contain all of the elements required by Rule 25-6.030, Florida Administrative Code?

**Recommendation:** Yes. FPUC met the criteria and intent of the SPP Rule with its filing and the Commission has adequate information in order to satisfy its statutory requirements. (Trierweiler, Imig, Lewis)

#### **Position of the Parties**

**FPUC:** Yes.

**OPC:** No. Rule 25-6.030, F.A.C., establishes the necessary content of the SPP. Based on the failure to provide all the required information in SPP Rule, FPUC should be required to amend their filing and provide the necessary data for each program with opportunity for intervenors to provide review and testimony.

### PARTIES’ ARGUMENTS

#### **FPUC**

FPUC stated that it worked closely with Pike Engineering to develop an SPP that included each component of Rule 25-6.030, F.A.C. FPUC used Rule 25-6.030(3), F.A.C., as a checklist to ensure it met each of the filing requirements.

In sum, FPUC’s chart illustrated its argument that its SPP met each of the components of the rule. (FPUC BR 4-7) FPUC argued that had a comparison of costs to cost savings been contemplated, then “cost savings” would have been used, rather than the broader term “benefits.” (FPUC BR 21)

#### **OPC**

OPC argued that FPUC did not comply with Rule 25-6.030, F.A.C., because OPC found the costs/benefits comparison in FPUC’s SPP to be inadequate. (OPC BR 3) OPC argued that FPUC’s SPP filings are inadequate because the cost comparison did not quantify benefits pursuant to Subsections (c), (d), (e), (i), and (j) of Rule 25-6.030, F.A.C. OPC argues quantitative information, i.e., “a meaningful cost/benefit analysis,” is required under the rule. (OPC BR 1, 3-5, 21) OPC witness Kollen stated the context and juxtaposition of the terms “costs” and “benefits” strongly imply a comparison of dollar costs and dollar benefits, not a comparison of dollar costs and qualitative benefits. (TR 1029)

### ANALYSIS

#### History

The first utility storm hardening programs were filed for Commission approval in 2007 and reviewed by the Commission at least every three years thereafter. In 2019, the Florida Legislature emphasized the importance of storm hardening when it enacted Section 366.96, F.S.,

entitled “Storm Protection Plan Cost Recovery.”<sup>5</sup> Subsection 366.96(3), F.S., requires each IOU to file a transmission and distribution SPP for the Commission’s review and directs the Commission to hold an annual proceeding to determine the IOUs’ prudently incurred costs to implement the plan and allow recovery of those costs through the SPPCRC.

The Commission promulgated two Rules, 25-6.030, F.A.C., Storm Protection Plan, and 25-6.031, F.A.C., Storm Protection Cost Recovery, to implement and administer Section 366.96, F.S. The full text of Section 366.96, F.S., and Rule 25-6.030, F.A.C., are included as Attachment B. This is FPUC’s first SPP filing.

#### Issue

This issue addresses the parties’ arguments concerning the filing requirements pursuant to Rule 25-6.030, F.A.C. Throughout this docket, OPC arguments have centered around whether qualitative or quantitative information is required pursuant to Rule 25-6.030, F.A.C. “Qualitative” information simply means descriptive or narrative information, as opposed to “quantitative” information, which is information that provides numeric (i.e., dollar) amounts.<sup>6</sup> Regardless of how information in a SPP filing is characterized, the Commission will evaluate the information to determine if it meets the requirements of Section 366.96, F.S., and 25-6.030, F.A.C. For the reasons set forth below, staff believes that FPUC’s SPP meets the requirements of Section 366.96, F.S., and 25-6.030, F.A.C.

#### Law

Section 366.96(4), F.S., provides:

In its review of each transmission and distribution storm protection plan filed pursuant to this section, the commission shall consider:

- (a) The extent to which the plan is expected to reduce restoration costs and outage times associated with extreme weather events and enhance reliability, including whether the plan prioritizes areas of lower reliability performance.
- (b) The extent to which storm protection of transmission and distribution infrastructure is feasible, reasonable, or practical in certain areas of the utility’s service territory, including, but not limited to, flood zones and rural areas.
- (c) The estimated costs and benefits to the utility and its customers of making the improvements proposed in the plan.
- (d) The estimated annual rate impact resulting from implementation of the plan during the first 3 years addressed in the plan.

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<sup>5</sup> Subsection 366.96(1), F.S., provides that it is in the state of Florida’s interest to strengthen electric utility infrastructure to withstand extreme weather conditions by promoting the overhead hardening of electrical transmission and distribution facilities and the undergrounding of certain electrical distribution lines and vegetation management, and that it is in the state’s interest for each utility to mitigate restoration costs and outage times to utility customers when developing transmission and distribution storm protection plans.

<sup>6</sup> Neither the terms “qualitative” nor “quantitative” are contained within the SPP statute or SPP Rule. Rather, these are terms that Staff and the parties use to assist with the description of the categories of information that are at issue in this docket.

The Statute further articulates that the Commission must use the public interest standard when considering a SPP. *See* § 366.96(5), stating that the Commission shall determine whether it is in the public interest to approve, modify, or deny the plan. Accordingly, Rule 25-6.030, F.A.C., requires utilities to file certain minimum information in order for the Commission to determine if it is in the public interest to approve, approve with modifications, or deny a utility's storm protection plan. In other words, Rule 25-6.030, F.A.C., is a filing requirement rule, not a standard for the Commission's decision. As such, the rule allows the utilities to have the flexibility to submit and manage their hardening plans while simultaneously requiring a utility file the information necessary for the Commission to make a determination about whether it is in the public interest to approve a plan, approve a plan with modifications, or deny a plan.

Rule 25-6.030(3), F.A.C., Storm Protection Plan, identifies the specific information to be included in each IOU's SPP.<sup>7</sup> Rule 25-6.030(3)(d), F.A.C., requires, in relevant part, a comparison of costs and benefits:

A description of each proposed storm protection program that includes:

1. A description of how each proposed storm protection program is designed to enhance the utility's existing transmission and distribution facilities including an estimate of the resulting reduction in outage times and restoration costs due to extreme weather conditions;
2. If applicable, the actual or estimated start and completion dates of the program;
3. A cost estimate including capital and operating expenses;
4. A comparison of the costs identified in subparagraph (3)(d)3. and the benefits identified in subparagraph (3)(d)1.

Neither Section 366.96, F.S., nor Rule 25-6030, F.A.C., explicitly require a cost-effectiveness evaluation or quantitative cost-benefit analysis.

#### Staff Analysis

Rule 25-6.030(3)(d), F.A.C., requires "...a comparison of the costs identified in subparagraph (3)(d)3. and the benefits identified in 3(d)1." The crux of OPC's argument is those terms must be read together to mandate filings include a traditional cost-effectiveness evaluation or quantitative cost-benefit analysis that shows estimated benefits outweigh costs in a SPP. OPC argued that if no traditional cost-effectiveness evaluation or "quantitative" cost-benefit analysis is contained in the utility's SPP filings, the Commission lacks the information necessary to make a determination that a SPP can be approved in the public interest. In making this argument, however, the OPC makes the case for requirements that are outside the scope of the rule for two reasons.

First, the traditional use of the term, phrase, or concept of "cost-effectiveness evaluation," or "quantitative cost-benefit analysis," as promoted by OPC, is not expressly included in Section 366.96, F.S., nor Rule 25-6.030, F.A.C. An interpretive application of such term, phrase, or concept, as proposed by OPC, at a minimum would result in the imposition of new filing and

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<sup>7</sup> Specific elements of Rule 25-6.030, F.A.C., such as areas for prioritization and rate impacts, are discussed in more detail in Issues 2B through 6B.

analytical requirements that are not contained within the current rule, and therefore would arguably be beyond the scope of the current rule.

Staff believes that the more logical and practicable interpretation of the terms “costs” and “benefits” is found in a plain reading of 366.96, F.S., and Rule 25-6.030, F.A.C. Collectively these provisions require an investor-owned electric utility to provide information that demonstrates their program is likely to mitigate potential outages and reduce restoration time and the subsequent costs, regardless if such information is presented in a qualitative or quantitative format. These provisions also require that the Commission consider the rate impact in order to approve a SPP. The Commission will receive all the cost numbers necessary to make a rate impact determination. Thus, Rule 25-6.030, F.A.C., should be interpreted to allow for both quantitative and qualitative information in the SPPs.

Second, OPC’s argument is flawed given the real world nature of storm hardening. It is not a traditional utility function required for day-to-day service. Rather, creating a SPP is an activity that goes above and beyond the basic “sufficient, adequate, and efficient” standard of service to strengthen existing utility infrastructure to withstand potential extreme weather conditions. This means that storm hardening costs may or may not produce actual financial benefits during a given time, depending on a particular utility’s circumstances, and qualitative information may provide an accurate analysis of the benefits of a SPP.<sup>8</sup>

Qualitative information can be meaningful when it demonstrates:

- How storm projects would impact the largest numbers of customers, such as transmission projects, and utility infrastructure serving critical customers such as hospitals, emergency responders, and water treatment plants.
- Whether a proposed SPP program or activity is something in addition to or above-and-beyond normal utility practices.

This means a particular SPP can effectively demonstrate how it meets the statutory criteria of mitigating outages and reducing restoration costs regardless if it is in a quantitative or qualitative format. Because staff believes the utility should have the option to submit what it deems to be its most accurate data analysis of costs and benefits for the Commission’s consideration, staff believes that Rule 25-6.030, F.A.C., should be interpreted to allow for both quantitative and qualitative information in the SPPs.

However, a determination that a utility met the filing requirements of the SPP Rule, regardless of the type of information provided, does not mean automatic approval of its SPP programs and

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<sup>8</sup> Consider the following example: a utility spends \$10 million to convert wooden poles to concrete poles. Based on the assumption that a Category 3 hurricane would strike the area every three years, the projected benefits are \$15 million over 30 years for a net savings to customers of \$5 million. However, if the utility does not experience extreme weather in these locations for a period of time (as was the case for the period 2005 through 2017) there are no monetized benefits to the general body of customers. The customers may nonetheless be receiving qualitative benefits (the system is better prepared for when extreme weather does occur) that are consistent with the public interest requirements of Section 366.96, F.S.



projects. In other words, meeting the filing requirements of the SPP Rule allows the Commission to go forward with making a determination on approval, denial, or modification of a SPP.

In this case, staff believes the information FPUC provided is sufficient to ascertain a comparison of costs and benefits within its SPP, as well as rate impact of its SPP. FPUC met the filing requirements of Rule 25-6.030, F.A.C., because FPUC provided:

- The estimated costs for each proposed program
- A description of how implementation of the plan will reduce restoration costs
- Outage times and a description of how each program is designed to enhance the facilities

While FPUC's filing did not include dollar amounts for benefits or a cost-effectiveness analysis in the format requested by the Joint Parties (TR 1116; 82), the descriptions it provided were sufficient for a meaningful review of the SPP pursuant to Section 366.96, F.S. For example, as part of the program descriptions, FPUC identified that the program would achieve the desired objectives outlined in the SPP Rule of reducing restoration costs and outage times associated with extreme weather events. (TR 609; TR 619-620) Additionally, FPUC witness Cutshaw argued that based on experience from Hurricane Michael, its proposed SPP programs would harden FPUC's system instead of FPUC facing restoration costs associated with bringing in outside crews and services following an extreme weather event. (TR 627)

### **CONCLUSION**

Staff recommends that FPUC met the filing requirements required by Rule 25-6.030, F.A.C., and that the Commission has adequate information necessary to make a public interest determination pursuant to Section 366.96, F.S.

**Issue 2B:** To what extent is FPUC's Storm Protection Plan expected to reduce restoration costs and outage times associated with extreme weather events and enhance reliability?

**Recommendation:** FPUC utilized historical and scientific data to support its 2022 SPP program evaluation and development. The data was used to target and prioritize system infrastructure for hardening in order to reduce restoration costs and outage times associated with extreme weather events. (Lewis)

**Position of the Parties**

**FPUC:** Implementation of FPUC's SPP will result in a significant reduction in outages, the length of outages, as well as reductions to future restoration costs from severe storms. FPUC's SPP will ultimately result in less damage in a storm event, and therefore cost savings. However, quantifying those savings depends on scope of the storm and timing.

**OPC:** FPUC refused to even try to quantify the costs and benefits of its programs and projects. Thus, the reduction in restoration costs and outage times and enhancement in reliability cannot be determined. Moreover, several programs and projects failed to meet the criteria to reduce restoration costs and outage times.

**PARTIES' ARGUMENTS**

**FPUC**

FPUC's SPP is designed to meet the requirements of the SPP Statute and Rule by reducing outage times and restoration costs in order to improve the overall resiliency of FPUC's system. (FPUC BR 2, 8) As argued by the Company in Issue 1B, FPUC does not believe it is realistic and reasonable to quantify FPUC's reduction in restoration costs and outage times. (FPUC BR 9-10) FPUC provided a qualitative description for each of its SPP programs. (FPUC BR 21) This description provided the issue the program is meant to address and the benefits that could be expected from the program. (FPUC BR 10) The testimony of FPUC's witness Cutshaw emphasized the Company's position that its SPP will reduce storm restoration costs based on lessons learned from Hurricane Michael.

**OPC**

In its brief, OPC argued that FPUC only provided vague language on how its SPP would reduce restoration costs and FPUC did not provide any outage time reduction estimates. (OPC BR 6) Based on the information provided by the Company in its SPP, the extent to which FPUC's SPP will reduce restoration costs and outage times cannot be determined. (OPC BR 8) As argued in Issue 1B, OPC believes the Company is required to quantify this information based on the SPP Rule, and that FPUC is capable of doing so despite its arguments. (OPC BR 7-8)

**ANALYSIS**

Section 366.96(4)(a), F.S., states that when reviewing a utility's transmission and distribution storm protection plan, the Commission shall consider the extent to which the storm protection plan is expected to reduce restoration costs and outage times associated with extreme weather events and enhance reliability. As discussed in Issue 1B, Rule 25-6.030(3)(d)(1), F.A.C., requires a utility to provide a description of how each proposed storm protection program is designed to

enhance the utility's existing transmission and distribution facilities, including an estimate of the resulting reduction in outage times and restoration costs due to extreme weather conditions.

As discussed in the case background, this is FPUC's first SPP filing. In the meantime, FPUC has continued to operate under its current Storm Hardening Plan. FPUC utilized a Risk Resiliency Model that included historical post-storm data, and described the performance of hardened and non-hardened structures within its system. (EXH 12 P 31)

OPC argued that FPUC did not include any monetized estimates of the reduction in restoration costs and outage times and instead provided vague language about reducing restoration costs. For example, FPUC stated the following for several of its programs: "FPUC believes the Overhead Feeder Hardening program will achieve the desired objectives outlined in Rule 25-6.030 of 'reducing restoration costs and outage times associated with extreme weather events and enhancing reliability.'" (OPC BR 6; TR 762) OPC argued that this statement is not adequate for the Commission to make a proper determination and the Company should have provided cost reduction estimates instead. (OPC BR 6) Therefore, FPUC's SPP does not comply with the requirements of Rule 25-6.030, F.A.C., and the Company should have been required to amend its filing with the necessary data for each program.

In rebuttal, witness Cutshaw dismissed OPC's argument that FPUC only provided vague language and also refutes OPC's argument that its SPP does not contain this particular element of the SPP Rule. In addition to the Company's SPP, witness Cutshaw also provided testimony in support of each program and explained the programs provide economic benefit in multiple ways. (FPUC BR 10; TR 1573-1590) For example, the witness explained FPUC's poles are replaced with poles that have higher loading and strength factors, which in turn, will reduce restoration times and costs associated with extreme weather events. (FPUC BR 10; TR 1579) OPC did not specifically dispute the inputs or model utilized by FPUC.

Staff believes FPUC provided the necessary information to meet the requirements of the SPP Statute and Rule related to this issue. It appears FPUC proposed programs may reduce restoration costs and outage times associated with extreme weather events and may enhance reliability.

## **CONCLUSION**

FPUC utilized historical and scientific data to support its 2022 SPP program evaluation and development. The data was used to target and prioritize system infrastructure for hardening in order to reduce restoration costs and outage times associated with extreme weather events.

**Issue 3B:** To what extent does FPUC's Storm Protection Plan prioritize areas of lower reliability performance?

**Recommendation:** FPUC's SPP appears to prioritize areas of lower reliability performance. (Lewis)

### **Position of the Parties**

**FPUC:** FPUC's SPP prioritizes areas of lower reliability. Critical load was categorized, service by circuit was assessed, and an Interruption Cost Estimate calculator was utilized to estimate the cost impact of outages. Weather patterns were also evaluated, as well as the societal impact of an electrical outage to a community.

**OPC:** FPUC did include prioritization of areas of lower reliability performance as an input in its Risk Resiliency Model, but there is no description of what weight it was given.

## **PARTIES' ARGUMENTS**

### **FPUC**

FPUC's Resiliency Risk Model used performance records from its system, during extreme and non-extreme weather conditions, as a key input in the development of its SPP. This information provided insight into the various causes of outages impacting the FPUC system and contributed to the prioritization of projects within key programs such as the Overhead Lateral Hardening Program and Overhead Lateral Undergrounding Program. (FPUC BR 12-15) For these key programs, FPUC focused on prioritizing feeders with the highest risk score and statistically worse performance, while also considering other factors. (FPUC BR 16)

### **OPC**

OPC agreed that FPUC's model used historical reliability performance of its system under extreme and non-extreme weather events and then leveraged the model's recommendations and supplemented it with other (non-disclosed) variables to identify projects for the first three years of the plan. However, there is no description of what weight the model was given for areas of lower reliability performance. Thus, OPC argued it is unclear to what extent areas of lower reliability performance were prioritized over other areas for other reasons. (OPC BR 12-13)

## **ANALYSIS**

Section 366.96(4)(a), F.S., states that when reviewing a utility's transmission and distribution storm protection plan, the Commission shall consider the extent to which the plan is expected to reduce restoration costs and outage times associated with extreme weather events and enhance reliability, including whether the plan prioritizes areas of lower reliability performance. Rule 25-6.030(3)(e)d, F.A.C., requires a description of the criteria used to select and prioritize proposed SPP projects be provided.

FPUC used Pike Engineering's Risk Resiliency Model to assess system risk and determine project prioritization for its SPP programs based on probability, response, and impact. (EXH 12 P 17-18) The model performed an analysis of the Utility's historical reliability performance, both during extreme and non-extreme weather conditions, using quantitative data from available

public sources as well as FPUC specific data. Model inputs included data such as wind probability, flood/storm surge potential, past performance, accessibility, critical load, and interruption cost estimates. (EXH 12 P 18-23) FPUC took into consideration the model's prioritization portfolio along with other factors such as, external influences and resource availability, when determining the prioritization of its SPP. (EXH 12 P 23-24)

OPC did not specifically address this issue in its testimony. Instead, its testimony reviewed the purpose of storm hardening with respect to the SPP Statute and Rule; summarized OPC's proposed reductions; reviewed specific programs contained within FPUC's SPP; and, discussed the generalized adoption of a uniformed decision methodology. (TR 992; TR 756-761)

Staff believes FPUC's SPP prioritizes areas of lower reliability based on its use of the Risk Resiliency Model and resulting criteria descriptions for each program. Thus, staff believes that FPUC demonstrated its prioritization of SPP projects in areas of lower reliability performance.

### **CONCLUSION**

FPUC's SPP appears to prioritize areas of lower reliability performance.

**Issue 4B:** To what extent is FPUC’s Storm Protection Plan regarding transmission and distribution infrastructure feasible, reasonable, or practical in certain areas of the Company’s service territory, including, but not limited to, flood zones and rural areas?

**Recommendation:** With the exceptions discussed in Issue 10B, FPUC’s SPP appears feasible, reasonable, and practical within the Company’s service territory. (Lewis)

**Position of the Parties**

**FPUC:** The Company’s SPP is feasible, reasonable, and practical for all areas and facilities that the Company’s SPP addresses. The Reliability Model used to develop the SPP considers, among other things, geographic location and population; thus, flood zones and rural areas have been considered.

**OPC:** Many of the programs fail the two-prong test: (1) to reduce restoration costs, and (2) to reduce outage times. Moreover, new 138 kV transmission line is not feasible, reasonable, or practical in the area proposed by FPUC.

**PARTIES' ARGUMENTS**

**FPUC**

Based on FPUC’s use of the Resiliency Risk Model, the Company argued that its SPP is feasible, reasonable, and practical for all areas and facilities addressed. (FPUC BR 17) The model’s inputs included data specific to FPUC’s geographic location, customer population, rural areas, and flood zones. This information allowed the Company to assess the resiliency and risks for each of the unique divisions of its system and develop its comprehensive SPP to address any issues. (FPUC BR 17-18)

**OPC**

OPC argued that the statutory language of “feasible, reasonable, or practical” is not a test of whether the SPP is in the public interest, but rather, an assessment of the physical viability of SPP components. In its brief, OPC also argued that efforts to identify excessive spending centered on projects that did not meet the Two-Prong test of reducing outage times and reducing restoration costs and those that were not cost-effective. Additionally, OPC recommended that FPUC’s proposed 138 kV transmission line should be excluded from the Company’s SPP because this project is not feasible, reasonable, or practical for the proposed area. (FPUC BR 13-14)

**ANALYSIS**

Section 366.96(4)(b), F.S., states that when reviewing a utility’s transmission and distribution storm protection plan, the Commission shall consider the extent to which storm protection of transmission and distribution infrastructure is feasible, reasonable, or practical in certain areas of the utility’s service territory, including, but not limited to flood zones and rural area. Rule 25-6.030(3)(c), F.A.C, requires a utility to provide a description of the utility’s service area, including areas prioritized for enhancement and any areas where the utility has determined that enhancement of the utility’s existing transmission and distribution facilities would not be feasible, reasonable, or practical. Integral to this description, the utility must include a general

map, the number of customers served within each area, and its reasoning for prioritizing certain areas for enhanced performance and for designating other areas of the system as not feasible, reasonable, or practical.

As a part of its proposed SPP, FPUC provided a map of its service territory and the number of customers served within each area. (EXH 12 P 10-11) In his testimony, OPC Witness Cutshaw did not identify any areas of FPUC's service territory in which it would not be feasible, reasonable, or practical to execute SPP projects. (TR 603-617) As discussed in Issue 3B, FPUC utilized a Resiliency Risk Model to gain awareness of system vulnerabilities to prioritize and assess overall risk and resiliency for each of the unique divisions within its overall system. (TR 606-607; FPUC BR 17)

In its brief, OPC argued that FPUC's proposed new 138 kV transmission project, which is included in FPUC's Transmission and Substation Resiliency Program, should be excluded from the SPP because this project is not feasible, reasonable, or practical in the area proposed by the Company. (OPC BR 13) OPC witness Mara provided testimony in support of this argument and reiterated that this project was not necessary or prudent, as FPUC's existing double circuit transmission line is already a hardened structure. (TR 774) This Program is discussed in greater detail in Issue 10B.

Staff recommends FPUC has met the requirements of Rule 25-6.030(3)(c), F.A.C., by providing a map of its service area, the number of customers served within each area, and the methodology of prioritizing projects within its programs. Therefore, staff believes FPUC's SPP is reasonable in certain areas of the Company's service territory including, but not limited to, flood zones, and rural areas.

## **CONCLUSION**

With the exceptions discussed in Issue 10B, FPUC's SPP appears feasible, reasonable, and practical within the Company's service territory.

**Issue 5B:** What are the estimated costs and benefits to FPUC and its customers of making the improvements proposed in the Storm Protection Plan?

**Recommendation:** The estimated costs of FPUC's SPP programs are shown in Table 5B-1. The benefits are described in Section 3 of its proposed SPP and are discussed in Issue 2B. (Lewis)

### ***Position of the Parties***

**FPUC:** Over the full 10-year planning horizon, FPUC estimates that implementation of its SPP for the 2022-2031 period will cost \$263.14 million, including O&M, which equates to a revenue requirement of \$147,181,829.<sup>9</sup> All proposed programs and subsequent projects provide an economic benefit in more than one way inclusive of reduced restoration costs from facilities, which will not require repair following extreme weather events and economic benefits to customers whose power availability will either be uninterrupted or be restored more expeditiously because of these initiatives.

**OPC:** The Company refused to even try to quantify the costs and benefits of its programs and projects. Thus, without even the attempt at quantification, the extent the Company's Storm Protection Plan is expected to reduce restoration costs and outage times associated with extreme weather events cannot be determined.

## **PARTIES' ARGUMENTS**

### **FPUC**

FPUC argued that quantifying the costs associated with a particular project is a straightforward mathematical assessment of projected costs of equipment and required resources and manpower in monetary terms. However, quantifying the benefits derived from such projects is a complex, and arguably an impossible task. Some assumptions, such as cost per mile, cannot be fully validated until projects are completed given that the price of materials and labor tend to fluctuate. In addition, the reduced amount of time without service is the same benefit from customer to customer; however, the value of that benefit varies by customer, customer type, location, and length of the outage. FPUC stated that OPC fails to consider these benefits and the cost savings that inure directly to customers from the elimination of outages and reduced restoration times when there is an outage. (FPUC BR 9)

### **OPC**

In its brief, OPC stated that the implementation of the SPP Rule requires an economic analysis in the form of a comparison of dollar benefits to dollar costs. (OPC BR 1) Furthermore, the Rule requires the Utility to provide budgets for the programs and to provide the estimated reduction in restoration costs. OPC asserted that these amounts must be balanced against the benefits to the Utility's customers; as such, these two amounts allow the Commission and stakeholders to understand the benefits of the capital investments for storm hardening relative to the "reasonableness" of the costs. (OPC BR 14-15)

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<sup>9</sup> Hearing Exh. 89, BATES 2103.



**ANALYSIS**

Section 366.96(4)(c), F.S., states that when reviewing a utility’s transmission and distribution storm protection plan, the Commission shall consider the estimated costs and benefits to the utility and its customers of making the improvements proposed in the plan. Rule 25-6.030(3)(d)4., F.A.C., requires a utility to provide a comparison of the estimated program costs, including capital and operating expenses, and the benefits, as identified and discussed in Issue 2B.

For each SPP program, FPUC provided the estimated capital costs and operating expenses for 2022 through 2024, which are summarized in Table 5B-1. The program benefits are described in Section 3 of the proposed SPP and are discussed in Issue 2B

**Table 5B-1  
 FPUC’s 2022-2024 SPP Program Cost**

Program	2022 (millions)	2023 (millions)	2024 (millions)
Overhead Feeder Hardening	\$0.30	\$3.01	\$3.07
Lateral Feeder Hardening	\$0.06	\$0.58	\$1.01
Lateral Undergrounding	\$0.11	\$1.12	\$1.67
Distribution Inspection and Replacement	\$1.22	\$1.52	\$1.62
Transmission System Inspection and Hardening	\$0.62	\$0.62	\$0.62
Transmission & Substation Resiliency	-	-	\$9.35
Transmission & Distribution Vegetation Management	\$9.5	\$11.5	\$14.0
Future Transmission & Distribution Enhancements	-	-	-
<b>Total</b>	<b>\$11.81</b>	<b>\$18.35</b>	<b>\$31.34</b>

Source: (Exhibit 12, Page 16)

OPC witness Mara argued that FPUC did not determine specific benefits in its SPP as required by the Rule and Statute. He further stated that it is impossible for any party to make a judgment on prudence without an estimate of the cost reduction for outages. (TR 761) OPC’s arguments and staff’s analysis on the requirements of a cost-effectiveness analysis are discussed in Issue 1B. Staff believes that FPUC provided the necessary information to meet the requirements of the SPP Rule. As discussed in Issue 2B, FPUC provided a description of the benefits that will be brought about by the programs in its proposed SPP. The Company also listed in its plan the program costs, including capital and operating expenses. Therefore, the estimated costs and description of benefits to FPUC customers, as a result of the proposed programs, were presented by the Company in its SPP.

**CONCLUSION**

The estimated costs of FPUC’s SPP programs are shown in Table 5B-1. The benefits are described in Section 3 of its proposed SPP and are discussed in Issue 2B.

**Issue 6B:** What is the estimated annual rate impact resulting from implementation of FPUC’s Storm Protection Plan during the first 3 years addressed in the plan?

**Recommendation:** The estimated annual rate impact, as provided by FPUC, is projected to increase approximately 130 percent the first three years of its Storm Protection Plan. While staff is not recommending any implementation alternatives to mitigate rates, staff is recommending removal of the Future T&D Enhancements and the Transmission and Substation Resiliency Programs from FPUC’s SPP because these programs do not enhance existing infrastructure. (Lewis)

**Position of the Parties**

**FPUC:** The estimated annual rate impact, inclusive of amounts recovered through base rates, which will be removed for purposes of the cost recovery proceeding in Docket No. 20220010, are:

Estimated Rate Impact per 1,000 KWH residential customer	2023 <sup>10</sup>	2024 <sup>11</sup>	2025
Total SPP Estimate	\$6.36	\$6.36	\$15.21
Typical Commercial bill Increase%	5.32%	5.30%	12.72%
Typical Industrial bill Increase%	2.08%	2.07%	5.06%

**OPC:** The \$6.60, \$6.58, and \$15.21 per 1,000 kWh for residential customers, 5.50%, 5,50%, and 12.72% increase for typical Commercial customers, and 2.15%, 2,20%, and 5.06% increase for typical Industrial customers first three years is too high during this period of high inflation. Alternates need to be implemented to reduce rate impacts.

**PARTIES’ ARGUMENTS**

**FPUC**

FPUC argued that OPC’s testimony is misguided because it necessitates a lesser level of service for customers of smaller utilities and it does not consider investments based on overhead miles and the utility’s service territory. Comparing customer impacts between large and small utilities with similar projects is flawed as larger utilities are able to spread the costs over a larger pool of customers. FPUC testified that it plans to delay certain projects to mitigate customer impacts; but, those projects cannot be postponed indefinitely. Moreover, the projected costs are below the average of the other Florida IOUs when comparing 10-year investment costs in feeder and lateral hardening programs against the total system overhead miles or square miles of service territory. OPC’s comparisons of costs across utilities on a per customer basis does not yield an “apples to apples” comparison. (FPUC BR 22 - 24)

<sup>10</sup> Based on Hearing Exh. 89, BATES 2103.

<sup>11</sup> Id.

**OPC**

OPC argued that the proposed programs and their costs will have significant incremental effects on the present customer rates; noting, FPUC is proposing a 33% increase in revenues to pay for the 2022-2031 SPP programs. The SPP will cost at least \$7,369 per customer in capital costs for the 10-year investment. OPC stated the estimated costs are much greater than the benefits from potential savings for nearly all of the programs and projects. In addition, FPUC did not provide quantifications of the benefits from potential saving in storm damage and restoration costs; since no information was provided, there are \$0 dollars in benefits from potential saving.

OPC stated that the Commission should keep in mind that the impact of the SPP programs is yet another addition to the customer bill in an environment of high inflation. Specifically, OPC pointed out that FPUC’s residential customers are expected to pay for a 2022 under recovery due to natural gas price increases of roughly \$83 dollars per 1,000 kWh. This is in addition to the current midcourse correction residential rate impact of \$14.87. Moreover, FPUC residential customers are still paying for a Hurricane Michael surcharge of \$12.80 per 1,000 kWh through 2025.

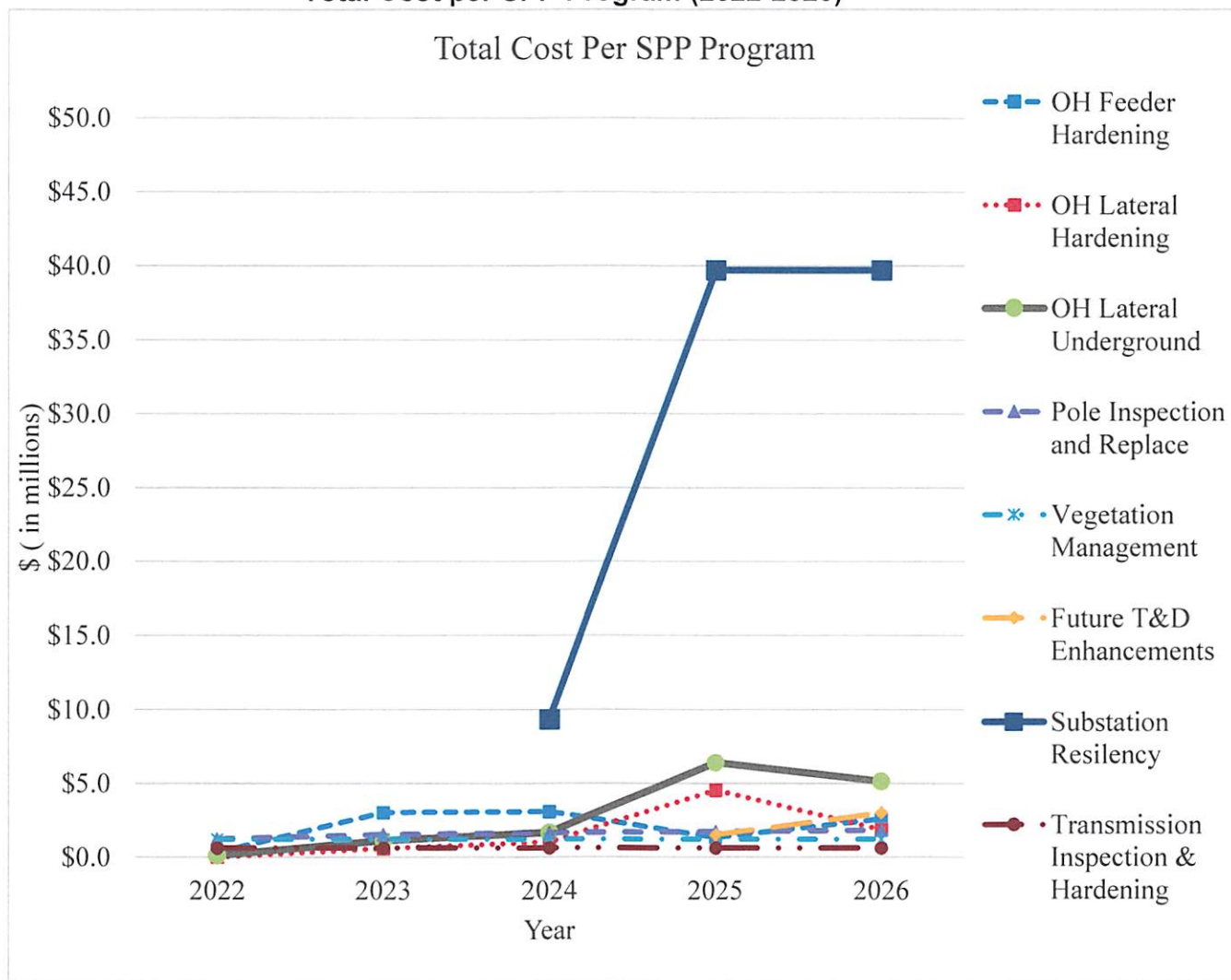
OPC provided alternatives to the proposed implementation of FPUC’s SPP that would mitigate rate impacts. It recommended limitations on the expenditures of the Distribution Overhead Lateral Hardening and Undergrounding Programs and elimination of the Future T&D Enhancements Program and the Transmission & Substation Resiliency Program. These will reduce the cost per customer over the 10-years from at least \$7,369 to \$2,528 in capital cost investment which is still higher than most of the larger utilities in Florida. (OPC BR 18 - 22)

**ANALYSIS**

Section 366.96(4)(d), F.S., states that when reviewing a utility’s transmission and distribution storm protection plan, the Commission shall consider the estimated annual rate impact resulting from implementation of the plan during the first three years addressed in the plan. Rule 25-6.030(3)(h), F.A.C., requires the utilities to provide an estimate of the rate impact for each of the first three years of its SPP for the utility’s typical residential, commercial, and industrial customers. In addition, Rule 6.030(3)(i), F.A.C., requires the utilities to provide a description of any implementation alternatives that could mitigate the resulting rate impact. This issue will address the annual rate impacts for the first three years of the Company’s SPP.

Figure 6B-1 is a graph of FPUC’s estimated SPP program costs for 2022 through 2026. As shown on the graph, except for the Transmission and Substation Resiliency Program, FPUC’s program cost are relatively constant.

**Figure 6B-1  
 Total Cost per SPP Program (2022-2026)**



Sources EXH 12, P 44

Pursuant to Rule 25-6.030(3)(h), F.A.C., FPUC provided the rate impact information for each customer type, which is shown in Table 6B-1. The residential rate impact decreases slightly from 2023 to 2024 and increases by approximately 130 percent by 2025.

**Table 6B-1  
 SPP Estimated Rate Impact (2023-2025)**

Customer Class	2023	2024	2025
Residential (\$/1000kWh)	\$6.60	\$6.58	\$15.21
Typical Commercial bill Increase%	5.50%	5.50%	12.72%
Typical Industrial bill Increase%	2.15%	2.20%	5.06%

EXH 12, P 39

OPC witness Mara proposes a reduction of capital spending by \$159.8 million over the 10-year period. Below, in Table 6B-2, is a summary of his proposed adjustments. (TR 764)

**Table 6B-2  
 Witness Mara's Recommended Program Adjustments**

Program	Total 2022-2031 SPP (millions)	Proposed Reductions (millions)	Net 2023-2032 SPP (millions)	Reason for Reduction
Distribution - OH Lateral Hardening	\$24.7	(\$12.6)	\$12.1	Limit impact to Customers
Distribution – OH Lateral Undergrounding	\$63.3	(\$31.1)	\$32.2	Limit impact to Customers
Future T&D Enhancements	\$30.0	(\$30.0)	-	Does not comply with Rule 25-6.030
Transmission/ Substation Resiliency	\$86.1	(\$86.1)	-	Not prudent

Source: TR 764

As discussed in Issue 10B, staff is recommending that FPUC's Future T&D Enhancements and Transmission & Substation Resiliency Programs be removed from the SPP as these programs do not enhance existing infrastructure. OPC's rate mitigation recommendations for the Distribution Overhead Lateral Hardening Program and the Distribution Overhead Lateral Undergrounding Program are discussed below.

FPUC's 10-year capital budget for its Overhead Lateral Hardening Program is \$24.75 million. OPC's witness Mara recommended reducing the capital budget from \$24.75 million to \$12.1 million for the 10-year period. He stated that his recommendation uses the same budgets proposed by FPUC for the first 3 years (2022 to 2024) and then caps the annual spending for this program to roughly \$1.5 million per year for the years 2025 to 2031. (TR 769-770)

FPUC's 10-year capital budget for its Overhead Lateral Undergrounding Program is \$63.35 million. Witness Mara recommended reducing the capital budget from \$63.35 million to \$32.5 million for the 10-year period. Like his recommendation for the Lateral Hardening Program, he uses the same budgets proposed by FPUC for the first 3 years (2022 to 2024) and then caps the annual spending for this program to roughly \$4.2 million per year for the years 2025 to 2031.

According to the witness, the basis for his recommended reductions to both Programs is two-fold. First, he asserted that FPUC failed to demonstrate that the benefits to its customers outweighs the costs for hardening or undergrounding overhead laterals. While he acknowledged that in Florida hardening poles and undergrounding laterals will reduce outage costs and outage times, the extent of reductions is unknown for both Programs. Second, FPUC's overall 2022-2031 SPP has a very high cost per customer and according to witness Mara, will result in excessive rates for ratepayers who are also experiencing high inflation pressures. As such, FPUC's proposal should be scaled back. (TR 769-772)

On rebuttal, FPUC witness Cutshaw noted that overhead laterals make up a significant part of the FPUC distribution system and include 575 miles of overhead single, two and three-phase circuits in both urban and rural settings. (TR 1583) In fact, the witness stated, laterals on the FPUC system are responsible for approximately 65 percent of the CMI over the analyzed period. He argued that OPC's recommendation to arbitrarily reduce both Programs is contrary to the requirements of the SPP rule to reduce outage times associated with extreme weather events. Witness Cutshaw stated that the overhead laterals were reviewed based upon the Resiliency Risk Model within the SPP to determine which laterals meet the criteria to be included in the early stages of the upgrades and undergrounding. (TR 1584-1585) The witness testified that based on FPUC's proposed plan, assuming both the Overhead Lateral Hardening and Overhead Lateral Undergrounding are approved as submitted, it will take 30 years to accomplish the hardening. However, if the reductions recommended by OPC witness Mara occur, the completion of this work to harden the facilities could be pushed out to approximately 60 years. He continued, "[f]or those customers at the end of the line that is a long delay in achieving the reduced outage times contemplated by the Legislature, particularly given the historical impact of storms in recent years on areas of FPUC's system." (TR 1584-1586)

Staff disagrees with OPC's recommendations to reduce, by approximately half, the capital budgets for FPUC's Distribution Overhead Lateral Hardening Program and its Distribution Overhead Lateral Undergrounding Program. Witness Mara acknowledged that these Programs will reduce outage costs and outage times. His recommendations appear to be based upon his desire to mitigate rates for FPUC's customers. While rate mitigation must be considered by the Commission, there appears to be no basis for the recommended 50 percent reductions. In addition, his recommendations are based upon the total program costs for the 10-year period which is not practical given that the Commission must review a utility's SPP at least every three years as well as conduct annual cost-recovery proceedings. Moreover, the costs for these Programs, and the pace at which FPUC will move forward to implement them, appear reasonable for at least the first three years.

## **CONCLUSION**

The estimated annual rate impact, as provided by FPUC, is projected to increase approximately 130 percent the first three years of its Storm Protection Plan. Staff is not recommending any implementation alternatives to mitigate rates. However, as discussed in Issue 10B, staff is recommending removal of the Future T&D Enhancements and the Transmission and Substation Resiliency Programs from FPUC's SPP because these programs do not enhance existing infrastructure.

**Issue 10B:** Is it in the public interest to approve, approve with modification, or deny FPUC's Storm Protection Plan?

**Recommendation:** Staff recommends FPUC's SPP meets the requirements of Rule 25-6.030, F.A.C., as discussed in Issue 1B. Staff recommends that FPUC's SPP, with the following modifications, is in the public interest and should be approved: (1) remove the Future T&D Enhancement Program; and (2) remove the Transmission & Substation Resiliency Program. FPUC should file an amended SPP within 30 days of the issuance of the final order for administrative approval by Commission staff. (Lewis)

### **Position of the Parties**

**FPUC:** Yes, the Commission should determine that FPUC's SPP meets the statutory objectives, complies with requirements of Rule 25-6.030, F.A.C., and as such, should be approved as being in the public interest.

**OPC:** The SPP should be denied and refiled. Alternatively, modify the SPP to limit the 10-year capital budget for the Overhead Lateral Hardening Program and the Overhead Lateral Undergrounding Program and eliminate the 138 kV transmission line project and 69 kV line project, and the Future Transmission and Distribution Enhancements Program.

## **PARTIES' ARGUMENTS**

### **FPUC**

FPUC witness Cutshaw described how the installation of sectionalizing equipment with the use of Supervisory Control and Data Acquisition (SCADA) reduces the cost of service outages. Smart Grid technologies enable a utility to spend less time patrolling lines in search of damage which reduces manpower hours and cost. As such, time and cost savings associated with implementation of these devices can multiply exponentially. FPUC further stated OPC's argument against FPUC's proposal overlooks the cost savings that reduced outage times can produce from limiting business downtime which results in realized dollar savings for customers when these types of enhancements are implemented. Presently, FPUC does not have Automated Metering Infrastructure (AMI) installed on its system; therefore, the utility relies upon personnel to physically investigate the system in order to determine the location and cause of each service outage. FPUC argued that the procurement of sectionalizing equipment will reduce outage times, and manpower hours needed to locate and repair outages saving customers money and inconvenience. (FPUC BR 11)

FPUC testified that its existing 138 kV line, serving Amelia Island, is aging putting customers on the Island at a significantly greater risk for lengthy and costly outages associated with severe weather events impacting the island. Therefore, the new proposed 138 kV line is necessary for gaining an alternative access point on FPL's system which supplies power to FPUC. The witness acknowledged that the length and location of the proposed new 138 kV transmission line is not optimal. In addition, the plan for the Island includes the hardening of an existing 69 kV line and upgrading the serving substation. This would allow access to existing generation owned by WestRock paper mill; and, potentially would enable FPUC to restore service to a significant portion of Amelia Island within five to six hours after the loss of power due to a severe weather event even if access to FPL's generation becomes damaged or destroyed. (FPUC BR 12)

### **OPC**

OPC recommended that FPUC's Future T&D Enhancement Program be removed from its proposed SPP. Specifically, witness Mara indicated, this program is supposed to be done at some time in the future using some type of distribution automation or smart grid technology that can create a self-healing system; however, since this is a future program, the specific costs and details on full deployment are not yet available. Further, witness Mara testified that this type of distribution automation or smart grid will not reduce restoration costs, even if it reduces and isolates the number of customers affected by an outage. In addition, OPC argued that FPUC failed to include any monetized value for reduction in outage cost or outage times. Therefore, this program does not meet the requirements of the SPP Rule. (OPC BR 11-12)

OPC also recommended that FPUC's Transmission and Substation Resiliency Program be removed from its SPP. OPC argued that the 138 kV transmission line project is not a prudent investment and the 69 kV transmission line project and substation upgrade are investments to access an alternate power source for Amelia Island. These projects should not be considered as storm hardening. (OPC BR 26)

### **ANALYSIS**

Section 366.96(5), F.S., states that the Commission shall determine, no later than 180 days after a utility files its plan, "whether it is in the public interest to approve, approve with modification, or deny the plan." Unlike the Storm Hardening Plans, Section 366.96(7), F.S., states that once a storm protection plan is approved, a utility's "actions to implement the plan shall not constitute or be evidence of imprudence." As discussed in Issue 1B, staff recommends that FPUC's filing satisfies the requirements of Rule 25-6.030, F.A.C., and provides the Commission with adequate information in order to satisfy its statutory requirements.

As previously discussed, this is the Company's first SPP filing and covers the period of 2022-2031. FPUC's SPP includes the following programs:

- Distribution Overhead (OH) Feeder Hardening
- Distribution OH Lateral Hardening
- Distribution OH Lateral Underground
- Distribution Pole Inspection & Replacement
- Transmission & Distribution (T&D) Vegetation Management
- Future T&D Enhancements
- Transmission/Substation Resiliency
- Transmission Inspection and Hardening

OPC witness Mara recommended modifications to four of FPUC's SPP programs. The programs are: Distribution - OH Lateral Hardening; Distribution - OH Lateral Undergrounding; Future T&D Enhancements; and Transmission/Substation Resiliency. Witness Mara's recommendations are summarized in Table 10B-1. (TR 764) Staff previously addressed OPC's specific recommended rate mitigation adjustments for Distribution - OH Lateral Hardening and Distribution - OH Lateral Undergrounding in Issue 6B and addresses the Future T&D Enhancements and Transmission/Substation Resiliency Programs in this issue.



**Table 10B-1  
 Witness Mara’s Recommended Program Adjustments**

Program	Total 2022-2031 SPP (millions)	Proposed Reductions (millions)	Net 2023-2032 SPP (millions)	Reason for Reduction
Distribution - OH Feeder Hardening	\$17.1	-	\$17.1	
Distribution - OH Lateral Hardening	\$24.7	(\$12.6)	\$12.1	Limit impact to Customers
Distribution – OH Lateral Undergrounding	\$63.3	(\$31.1)	\$32.2	Limit impact to Customers
Distribution - Pole Inspection & Replace	\$12.6	-	\$12.6	
T & D - Vegetation Management	-	-	-	
Future T&D Enhancements	\$30.0	(\$30.0)	-	Does not comply with Rule 25-6.030
Transmission/ Substation Resiliency	\$86.1	(\$86.1)	-	Not prudent
Transmission - Inspection and Hardening	\$7.1	-	\$7.1	
SPP Program Management	\$2.2	-	\$2.2	

Source: TR 764

**T&D Enhancement Program**

FPUC’s future T&D Enhancement Program is designed to allow FPUC to explore the possible benefits of investing in distribution automation systems for future SPP program iterations and subsequent implementation. This includes distribution automation or "smart grid" type devices, which use technology to detect a fault in the system, automatically isolate the faulted section, and reroute power to restore undamaged areas of the grid. FPUC witness Cutshaw testified that the Utility is now studying options and future plans to develop and put into place a SCADA system for both its NE and NW divisions; however, FPUC does not know what equipment it wishes to deploy. (EXH 12, P 14; TR 1616 – 1617) The estimated Program costs are \$30 million over the 10-year interval; but expenditures do not begin until after 2024.

OPC witness Mara argued against the inclusion of the Future T&D Enhancement Program for two reasons. First, the Program is ill-defined and lacks detail. To illustrate this point he noted, the Program will, at some time in the future, include some kind of distribution automation or smart grid technology; a SCADA will be part of this system, but since this is a “future” program, no specific costs or details on full deployment was provided. (TR 778-779) Second, witness Mara argued that that smart grid additions may reduce outage times but do not reduce outage costs. (TR 759) As an example, he noted that the repair costs to remove a tree off a line and perhaps replace a pole are the same whether a fuse is on the lateral or not. (TR 779) Since outage costs will not be reduced, the witness asserted this Program fails to meet the criteria in Rule 25-6.030, F.A.C., and should not be included in FPUC’s SPP.

FPUC witness Cutshaw refuted OPC’s arguments and testified that there are many factors that drive costs during power restoration activities, both during extreme and non-extreme weather events. He noted that witness Mara agreed the devices FPUC may deploy may reduce outage

times. However, witness Cutshaw noted that contrary to witness Mara's testimony, these devices also reduce outage costs. (TR 1580) These cost reductions may occur because less time is spent patrolling lines in search of damage or mobilizing and demobilizing resources between grid isolation points. Moreover, witness Cutshaw asserted that when there are thousands of outages present, as there typically are during extreme weather events, these savings quickly multiply. Additionally, witness Mara failed to account for cost savings on the customer's side resulting from eliminated or accelerated restoration times. (TR 1580)

Staff agrees with OPC witness Mara that this program is not fully developed and more importantly, does not meet the objective of storm protection or hardening. Deploying distribution data gathering systems, such as SCADA, is a common utility practice to ensure reliable day-to-day service. Rule 25-6.030, F.A.C., defines a storm protection program as a collection of projects that "enhance the utility's existing infrastructure for the purpose of reducing restoration costs and reducing outage times...." (Emphasis added) Utility storm protection or hardening is a discretionary activity that goes above and beyond the basic standard of service to strengthen a utility's existing infrastructure to withstand the potential for extreme weather. While certain automation systems may help identify and facilitate restoration efforts, staff does not recommend that the underlying data gathering system is hardening of existing facilities. Therefore, staff recommends that FPUC's T&D Enhancement Program should not be characterized as storm protection pursuant to Rule 25-6.030, F.A.C.

### **Transmission & Substation Resiliency Program**

FPUC's Transmission & Substation Resiliency Program consists of the construction of a new 138 kV transmission line, the construction of a new substation, and the upgrade of a 69 kV transmission line to improve electrical resiliency and redundancy to Amelia Island. FPUC stated that these projects are necessary to facilitate restoration during extreme weather events and ensure the continued reliability of service to its NE Division. (EXH 12, P 34)

FPUC witness Cutshaw explained that Amelia Island is currently served by a FPUC-owned, dual-circuit 138 kV transmission line that extends from an off-island interconnection point with the FPL transmission system across the Amelia River. The witness testified that Amelia Island could experience extended outages due to some inaccessible areas of its existing transmission system if subjected to storm damage. FPUC proposed to construct the new 138 kV line along a separate route from a separate FPL substation, consisting of approximately 10.75 miles of cable (2.03 miles subaqueous). (EXH 12, P 34) FPUC witness Cutshaw recognized that while the construction of a redundant 138 kV line would improve electrical resiliency, the proposed placement of the new line is not optimal because the NE Division is a barrier island, which limits the number of areas where interconnections with other sources are available. (TR 613)

As part of this Program, FPUC also proposed to upgrade a 4.5 mile segment of an existing 69 kV line and construct a new substation interconnection to the WestRock paper mill on Amelia Island. Witness Cutshaw argued that while these projects would improve resiliency against extreme weather they would also allow FPUC to leverage the paper mill's cogeneration capacity in times of need. The WestRock Paper Mill produces electricity using steam turbines driven by boilers fed by coal and natural gas. Witness Cutshaw stated that upgrading the transmission line and interconnecting a new substation would allow the mill to be an alternate source of power to the Island in the event the Island was cut off from service from FPL. (TR 776) The estimated

costs for the Transmission/Substation Resiliency Program are \$88.7 million dollars over the 10-year interval, but no costs are incurred until 2024 with a proposed expenditure of \$9.35 million dollars. (EXH 12, P 16, 44)

OPC witness Mara asserted the Transmission and Substation Resiliency Program should not be included in FPUC's SPP. He argued that the proposed new 138 kV transmission line is not necessary or prudent. He explains that the existing double circuit transmission line is a hardened structure, built on concrete poles, with a few lattice steel towers at the river crossing. While FPUC states the location of this transmission system makes access to it very challenging, witness Mara pointed out it is adjacent to a four-lane highway providing better access than to most transmission lines in Florida. The witness added that research by the Florida PSC found that very few non-wood poles failed during hurricanes. Thus, he maintained, by employing the good maintenance practices described in the 2022-2031 SPP, the existing dual-circuit line would be hardened against extreme wind speeds of 120 mph with Grade B strength factors. (TR 774)

OPC witness Mara next testified that the upgrades to the 69 kV line and new substation are not storm hardening; but rather, it is an investment to access an alternate power source. He asserted that the capacity increase for interconnection of a co-generation plant needs to be analyzed from a power supply cost perspective and not based on storm hardening, especially since there are no guarantees that the plant will be operational when most needed by the FPUC to serve its customers. (TR 778) Thus, he argued, FPUC has not demonstrated that this project is necessary to reduce outage times and restoration costs and should be evaluated as a normal business operation project.

Utility storm protection or hardening is a discretionary activity that goes above and beyond the basic standard of service to strengthen a utility's existing infrastructure to withstand the potential for extreme weather. As such, staff agrees with OPC witness Mara that the Transmission and Substation Resiliency Program should be removed from FPUC's SPP. Rule 25-6.030(1)(a), F.A.C., defines a storm protection program as a collection of projects that "enhance the utility's existing infrastructure." (Emphasis added) Looping substations is a common utility practice to ensure reliable service and the new 138 kV transmission line involves the construction of new redundant infrastructure, rather than the enhancement or hardening of existing facilities. While staff agrees that such activity may enhance a utility's transmission system, it does not strengthen existing transmission facilities. Therefore, staff recommends that a new redundant infrastructure project, such as looping substations, should not be characterized as storm protection pursuant to Rule 25-6.030(1)(a), F.A.C. In addition, as asserted by OPC witness Mara, the upgrades to the 69 kV line and new substation are not storm hardening; but rather, it is an investment to access an alternate power source. The owner of a qualifying facility is required to pay all costs associated with interconnection to a utility. Rule 25-17.087(9), F.A.C., states:

[T]he qualifying facility is required to bear all costs associated with the change-out, upgrading or addition of protective devices, transformers, lines, services, meters, switches, and associated equipment and devices beyond that which would be required to provide normal service to the qualifying facility if the qualifying facility were a non-generating customer. These costs shall be paid by the qualifying facility to the utility for all material and labor that is required.

Therefore, staff recommends that the projects included in FPUC's Transmission and Substation Resiliency Program should not be characterized as storm protection activities.

In summary, staff recommends FPUC remove the Future T&D Enhancement Program and the Transmission & Substation Resiliency Program from its proposed SPP. With these two modifications, staff recommends that FPUC's proposed SPP is in the public interest. FPUC should file an amended SPP within 30 days of the issuance of the final order for administrative approval by Commission staff.

### **CONCLUSION**

Staff recommends FPUC's SPP meets the requirements of Rule 25-6.030, F.A.C., as discussed in Issue 1B. Staff recommends that FPUC's SPP, with the following modifications, is in the public interest and should be approved: (1) remove the Future T&D Enhancement Program, and (2) remove the Transmission & Substation Resiliency Program. FPUC should file an amended SPP within 30 days of the issuance of the final order for administrative approval by Commission staff.

**Issue 11B:** Should this docket be closed?

**Recommendation:** No. As discussed in Issue 10B, FPUC should file an amended SPP within 30 days of the issuance of the final order for administrative approval by Commission staff. Therefore, the docket should remain open for staff's verification that the amended SPP has been filed and complies with the Commission's order. Once these actions are complete, this docket should be closed administratively. (Trierweiler, Imig)

**Position of the Parties**

**FPUC:** Yes.

**OPC:** The Docket should remain open for FPUC to amend their filing and provide the necessary data for each program as required by Rule 25-6.030, F.A.C., with an opportunity for intervenors to provide review and testimony.

**PARTIES' ARGUMENTS**

**FPUC**

No post-hearing position or argument was provided in its brief.

**OPC**

No post-hearing position or argument was provided in its brief.

**CONCLUSION**

As discussed in Issue 10B, FPUC should file an amended SPP within 30 days of the issuance of the final order for administrative approval by Commission staff. Therefore, the docket should remain open for staff's verification that the amended SPP has been filed and complies with the Commission's order. Once these actions are complete, this docket should be closed administratively.

## **Florida Public Utilities Corporation Proposed 2022 – 2031 Storm Protection Plan Programs**

### **Distribution Overhead Feeder Hardening**

This program will upgrade backbone overhead lines to extreme winds requirements outlined in the NESC. The backbone of a feeder resembles the major arteries of the distribution circuit that services a particular community. When a fault occurs on a backbone of the feeder, upwards of 2,500 customers can be immediately impacted.

### **Distribution Overhead Lateral Hardening**

Upgrading existing overhead facilities along key lateral lines off the feeder to withstand extreme wind requirements outlined in the NESC. Laterals are separately protected sections of the feeder providing service to upwards of 200 to 300 customers.

### **Distribution Overhead Lateral Undergrounding**

This program's focus is to address undergrounding existing overhead laterals or the relocation and undergrounding of these overhead electric facilities, many of which are located in heavily vegetated areas, environmentally sensitive areas, or in areas where upgrading the overhead construction to NESC extreme wind standards is not practical or consistent with industry design standards.

### **Distribution Pole Inspection and Replacement**

While continuing to follow the eight year wood pole inspection program currently in place, poles will be replaced as needed following their cyclical inspection. Replacement poles will comply with NESC standards.

### **Future System Enhancement**

FPUC's existing Supervisory Control and Data Acquisition (SCADA) system does not have the capability to initiate commands for the remote control of grid devices. This SPP program proposes to conduct analysis of possible benefits of investing in distribution automation systems for future SPP program iterations and subsequent implementation. These investments may include substation equipment, software systems, and distribution equipment/devices.

### **T & D Vegetation Management**

Vegetation management is currently conducted on a three-year cycle for all main feeders and a six-year cycle on all laterals but FPUC is proposing to convert to a 4-year, cyclical, circuit-based vegetation management plan. Each circuit will have its own designated cycle and be prioritized based on customer count, critical infrastructure, and vegetation-related customer interruptions.

**Transmission & Substation Resiliency**

This program includes the construction of an additional 138 KV transmission line, the upgrade of one 69 KV transmission line, and the construction of one substation to improve the electrical redundancy and resiliency to Amelia Island. FPUC proposes a redundant transmission line to ensure continued reliability of service to the Northeast Division. Additionally, this program proposes to upgrade an existing 69 KV transmission line from an existing paper mill.

**Transmission System Inspection and Hardening**

Transmission facilities (six-year cycle) and substation equipment (annual cycle) will be inspected consistent with their respective inspection cycles. This program also includes the inspection and full replacement of 69kV wood poles with concrete poles that are compliant with NESC code requirements.

**366.96 Storm protection plan cost recovery.—**

- (1) The Legislature finds that:
  - (a) During extreme weather conditions, high winds can cause vegetation and debris to blow into and damage electrical transmission and distribution facilities, resulting in power outages.
  - (b) A majority of the power outages that occur during extreme weather conditions in the state are caused by vegetation blown by the wind.
  - (c) It is in the state's interest 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.
  - (d) Protecting and strengthening transmission and distribution electric utility infrastructure from extreme weather conditions can effectively reduce restoration costs and outage times to customers and improve overall service reliability for customers.
  - (e) It is in the state's interest for each utility to mitigate restoration costs and outage times to utility customers when developing transmission and distribution storm protection plans.
  - (f) All customers benefit from the reduced costs of storm restoration.
- (2) As used in this section, the term:
  - (a) "Public utility" or "utility" has the same meaning as set forth in s. 366.02(8), except that it does not include a gas utility.
  - (b) "Transmission and distribution storm protection plan" or "plan" means a plan for the overhead hardening and increased resilience of electric transmission and distribution facilities, undergrounding of electric distribution facilities, and vegetation management.
  - (c) "Transmission and distribution storm protection plan costs" means the reasonable and prudent costs to implement an approved transmission and distribution storm protection plan.
  - (d) "Vegetation management" means the actions a public utility takes to prevent or curtail vegetation from interfering with public utility infrastructure. The term includes, but is not limited to, the mowing of vegetation, application of herbicides, tree trimming, and removal of trees or brush near and around electric transmission and distribution facilities.
- (3) Each public utility shall file, pursuant to commission rule, a transmission and distribution storm protection plan that covers the immediate 10-year planning period. Each plan must explain the systematic approach the utility will follow to achieve the objectives of reducing restoration costs and outage times associated with extreme weather events and enhancing reliability. The commission shall adopt rules to specify the elements that must be included in a utility's filing for review of transmission and distribution storm protection plans.
- (4) In its review of each transmission and distribution storm protection plan filed pursuant to this section, the commission shall consider:
  - (a) The extent to which the plan is expected to reduce restoration costs and outage times associated with extreme weather events and enhance reliability, including whether the plan prioritizes areas of lower reliability performance.
  - (b) The extent to which storm protection of transmission and distribution infrastructure is feasible, reasonable, or practical in certain areas of the utility's service territory, including, but not limited to, flood zones and rural areas.



(c) The estimated costs and benefits to the utility and its customers of making the improvements proposed in the plan.

(d) The estimated annual rate impact resulting from implementation of the plan during the first 3 years addressed in the plan.

(5) No later than 180 days after a utility files a transmission and distribution storm protection plan that contains all of the elements required by commission rule, the commission shall determine whether it is in the public interest to approve, approve with modification, or deny the plan.

(6) At least every 3 years after approval of a utility's transmission and distribution storm protection plan, the utility must file for commission review an updated transmission and distribution storm protection plan that addresses each element specified by commission rule. The commission shall approve, modify, or deny each updated plan pursuant to the criteria used to review the initial plan.

(7) After a utility's transmission and distribution storm protection plan has been approved, proceeding with actions to implement the plan shall not constitute or be evidence of imprudence. The commission shall conduct an annual proceeding to determine the utility's prudently incurred transmission and distribution storm protection plan costs and allow the utility to recover such costs through a charge separate and apart from its base rates, to be referred to as the storm protection plan cost recovery clause. If the commission determines that costs were prudently incurred, those costs will not be subject to disallowance or further prudence review except for fraud, perjury, or intentional withholding of key information by the public utility.

(8) The annual transmission and distribution storm protection plan costs may not include costs recovered through the public utility's base rates and must be allocated to customer classes pursuant to the rate design most recently approved by the commission.

(9) If a capital expenditure is recoverable as a transmission and distribution storm protection plan cost, the public utility may recover the annual depreciation on the cost, calculated at the public utility's current approved depreciation rates, and a return on the undepreciated balance of the costs calculated at the public utility's weighted average cost of capital using the last approved return on equity.

(10) Beginning December 1 of the year after the first full year of implementation of a transmission and distribution storm protection plan and annually thereafter, the commission shall submit to the Governor, the President of the Senate, and the Speaker of the House of Representatives a report on the status of utilities' storm protection activities. The report shall include, but is not limited to, identification of all storm protection activities completed or planned for completion, the actual costs and rate impacts associated with completed activities as compared to the estimated costs and rate impacts for those activities, and the estimated costs and rate impacts associated with activities planned for completion.

(11) The commission shall adopt rules to implement and administer this section and shall propose a rule for adoption as soon as practicable after the effective date of this act, but not later than October 31, 2019.

**History.**—s. 1, ch. 2019-158; s. 30, ch. 2022-4.

**25-6.030 Storm Protection Plan.**

(1) Application and Scope. Each utility as defined in Section 366.96(2)(a), F.S., must file a petition with the Commission for approval of a Transmission and Distribution Storm Protection Plan (Storm Protection Plan) that covers the utility's immediate 10-year planning period. Each utility must file, for Commission approval, an updated Storm Protection Plan at least every 3 years.

(2) For the purpose of this rule, the following definitions apply:

(a) "Storm protection program" – a category, type, or group of related storm protection projects that are undertaken to enhance the utility's existing infrastructure for the purpose of reducing restoration costs and reducing outage times associated with extreme weather conditions therefore improving overall service reliability.

(b) "Storm protection project" – a specific activity within a storm protection program designed for the enhancement of an identified portion or area of existing electric transmission or distribution facilities for the purpose of reducing restoration costs and reducing outage times associated with extreme weather conditions therefore improving overall service reliability.

(c) "Transmission and distribution facilities" – all utility owned poles and fixtures, towers and fixtures, overhead conductors and devices, substations and related facilities, land and land rights, roads and trails, underground conduits, and underground conductors.

(3) Contents of the Storm Protection Plan. For each Storm Protection Plan, the following information must be provided:

(a) A description of how implementation of the proposed Storm Protection Plan will 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.

(b) A description of how implementation of the proposed Storm Protection Plan will reduce restoration costs and outage times associated with extreme weather conditions therefore improving overall service reliability.

(c) A description of the utility's service area, including areas prioritized for enhancement and any areas where the utility has determined that enhancement of the utility's existing transmission and distribution facilities would not be feasible, reasonable, or practical. Such description must include a general map, number of customers served within each area, and the utility's reasoning for prioritizing certain areas for enhanced performance and for designating other areas of the system as not feasible, reasonable, or practical.

(d) A description of each proposed storm protection program that includes:

1. A description of how each proposed storm protection program is designed to enhance the utility's existing transmission and distribution facilities including an estimate of the resulting reduction in outage times and restoration costs due to extreme weather conditions;

2. If applicable, the actual or estimated start and completion dates of the program;

3. A cost estimate including capital and operating expenses;

4. A comparison of the costs identified in subparagraph (3)(d)3. and the benefits identified in subparagraph (3)(d)1.; and

5. A description of the criteria used to select and prioritize proposed storm protection programs.

(e) For the first three years in a utility's Storm Protection Plan, the utility must provide the following information:

1. For the first year of the plan, a description of each proposed storm protection project that includes:

- a. The actual or estimated construction start and completion dates;
- b. 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 proposed storm protection project;
- c. A cost estimate including capital and operating expenses; and
- d. A description of the criteria used to select and prioritize proposed storm protection projects.

2. For the second and third years of the plan, project related information in sufficient detail, such as estimated number and costs of projects under every specific program, to allow the development of preliminary estimates of rate impacts as required by paragraph (3)(h) of this rule.

(f) For each of the first three years in a utility's Storm Protection Plan, the utility must provide a description of its proposed vegetation management activities including:

1. The projected frequency (trim cycle);
  2. The projected miles of affected transmission and distribution overhead facilities;
  3. The estimated annual labor and equipment costs for both utility and contractor personnel;
- and
4. A description of how the vegetation management activity will reduce outage times and restoration costs due to extreme weather conditions.

(g) An estimate of the annual jurisdictional revenue requirements for each year of the Storm Protection Plan.

(h) An estimate of rate impacts for each of the first three years of the Storm Protection Plan for the utility's typical residential, commercial, and industrial customers.

(i) A description of any implementation alternatives that could mitigate the resulting rate impact for each of the first three years of the proposed Storm Protection Plan.

(j) Any other factors the utility requests the Commission to consider.

(4) By June 1, each utility must submit to the Commission Clerk an annual status report on the utility's Storm Protection Plan programs and projects. The annual status report shall include:

- (a) Identification of all Storm Protection Plan programs and projects completed in the prior calendar year or planned for completion;
- (b) Actual costs and rate impacts associated with completed activities under the Storm Protection Plan as compared to the estimated costs and rate impacts for those activities; and
- (c) Estimated costs and rate impacts associated with programs planned for completion during the next calendar year.

*Rulemaking Authority 366.96 FS. Law Implemented 366.96 FS. History—New 2-18-20.*