



August 2, 2022

**VIA: ELECTRONIC FILING**

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

In re: Review of Storm Protection Plan pursuant to Rule 26-6.030, F.A.C.  
Tampa Electric Company; Docket No. 20220048-EI

Dear Mr. Teitzman:

Tampa Electric Company (“Tampa Electric” or “the company”) hereby submits this errata sheet to update the rebuttal testimonies of David A. Pickles, David L. Plusquellic, and Richard J. Latta filed by Tampa Electric Company in this docket on June 21, 2022. *See* DN-04170-2022. Tampa Electric is filing this letter and attachments as a courtesy to the Commission and the parties, and to promote efficiency at the final hearing scheduled to begin August 2, 2022.

The changes specified below are necessary to delete the portions of Tampa Electric’s rebuttal testimonies that respond to portions of the testimony of Office of Public Counsel witness Lane Kollen that were stricken by the Commission in Order No. PSC-2022-0292-PCO-EI, issued August 1, 2022.

	<b>Page and Line References</b>	<b>Change</b>
Rebuttal Testimony of David A. Pickles	3:14-5:19	Strike
	7:3-11	Strike
	7:13-8:4	Strike
	8:6-9:10	Strike
	9:12-10:23	Strike
	10:25-11:21	Strike
Rebuttal Testimony of David L. Plusquellic	3:20-4:15	Strike
	4:17-5:11	Strike
Rebuttal Testimony of Richard J. Latta	All	Strike

Also enclosed for filing as “Attachment 1” to this letter are strikethrough versions of the rebuttal testimonies of witnesses Pickles and Plusquellic that reflect the above-referenced corrections. Enclosed as “Attachment 2” to this letter are “clean” versions of these testimonies wherein the above-referenced pages and lines are redacted but left blank in place so the remaining page and line references remain the same as the testimonies as originally filed. Mr. Latta’s rebuttal testimony is entirely responsive to portions of Mr. Kollen’s testimony that was struck, so the company is not submitting a strikethrough or redacted version of his rebuttal testimony. Subject to further action by the Commission or parties related to Order No. PSC-2022-0292-PCO-EI, Tampa Electric intends to offer the “clean” versions of the rebuttal testimony of witnesses Pickles and Plusquellic in Attachment 2 at the appropriate time in the hearing.

Tampa Electric expressly reserves the right to offer the original rebuttal testimony of witnesses Pickles, Plusquellic, and Latta as filed on June 21, 2022, in their entirety, pending further action by the Commission or parties related to Order No. PSC-2022-0292-PCO-EI.

Thank you for your assistance in connection with this matter and please do not hesitate to contact me with any questions.

Sincerely,



Malcolm N. Means

cc: All parties of record (with attachments)

## Attachment “1”



**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 20220048-EI**

**TAMPA ELECTRIC'S  
2022-2031  
STORM PROTECTION PLAN**

**REBUTTAL TESTIMONY**

**OF**

**DAVID A. PICKLES**

**FILED: June 21, 2022**

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

DAVID A. PICKLES

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INTRODUCTION

Q. Please state your name, address, occupation and employer.

A. My name is David A. Pickles. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "the company") as Vice President of Electric Delivery and Asset Management for Electric Delivery/Energy Supply.

Q. Are you the same David A. Pickles who filed direct testimony in this proceeding?

A. Yes, I am.

1     **Q.**    What is the purpose of your rebuttal testimony in this  
2            proceeding?

3

4     **A.**    The purpose of my rebuttal testimony is to address the  
5            deficiencies and misconceptions in the direct testimony  
6            of Lane Kollen and Kevin J. Mara, both of whom are  
7            testifying on behalf of the Office of Public Counsel.

8

9     **Q.**    Do you have any general comments regarding the overall  
10           direct testimony of Lane Kollen and Kevin J. Mara?

11

12    **A.**    Yes.    The Office of Public Counsel's witnesses generally  
13            make three recommendations to the Commission.  First, they  
14            suggest that the Commission should develop guidelines of  
15            general applicability for all four investor-owned utility  
16            Storm Protection Plans ("SPPs").  Second, they advocate for  
17            the use of a traditional utility cost-benefit analysis in  
18            evaluating SPP Programs and Projects.  Third, they propose  
19            exclusion of some of Tampa Electric's SPP programs and  
20            budget reductions for other programs.  As I explain in my  
21            testimony, the Commission should reject each of these  
22            proposals as inconsistent with Section 366.96 of the  
23            Florida Statutes (the "SPP Statute") and because these  
24            proposals lack a reasoned basis in the record for this  
25            docket.

1 I am confident that the company is managing the SPP program  
2 in compliance with the statute and is committed to storm  
3 hardening the system. These investments are made in full  
4 support of reducing restoration costs and outage times  
5 during extreme weather events. Mr. Kollen and Mr. Mara  
6 essentially urge the adoption of arbitrary reductions that  
7 lack any legitimate basis or foundation, and that appear to  
8 be based on a desire simply to slow down the pace of  
9 investments, which will further delay realization of  
10 benefits from those future investments.

11  
12 **REBUTTAL TO DIRECT TESTIMONY OF LANE KOLLEN:**

13  
14 ~~Q. You previously stated that Mr. Kollen recommends guidelines~~  
15 ~~of general applicability for the Commission's review of~~  
16 ~~utility SPPs. Can you explain what this means?~~

17  
18 ~~A. On page 7 of his testimony, Mr. Kollen argues that the~~  
19 ~~Commission should develop "threshold decision criteria for~~  
20 ~~the selection, ranking, and magnitude of the SPP programs~~  
21 ~~and projects." On page 21, he suggests that these should be~~  
22 ~~"specific decision criteria for the selection, ranking, and~~  
23 ~~magnitude of the utilities' SPP programs and projects."~~

24  
25 ~~Q. Do you agree with this proposal?~~

1 ~~A~~ I do not, for three reasons

2  
3 First, although I am not a lawyer, I do not read the SPP  
4 Statute as requiring the Commission to adopt "specific  
5 decision criteria." Rather, the SPP Statute directs the  
6 utilities to submit plans and directs the Commission to  
7 evaluate them. The Commission opened four separate  
8 dockets - one for each investor-owned utility - for this  
9 purpose. The SPP Statute does include factors that the  
10 Commission must consider in evaluating plans, but none of  
11 these factors includes "threshold decision criteria" of  
12 the type suggested by Mr. Kollen. For example, the SPP  
13 Statute directs the Commission to consider the "estimated  
14 costs and benefits" of the SPP but does not require the  
15 Commission to adopt a universally applicable threshold  
16 ratio for costs and benefits.

17  
18 Second, each of the utilities is unique, so it is unlikely  
19 that a one-size-fits-all approach would be appropriate.  
20 Tampa Electric's electrical system is different than the  
21 systems for Florida Power and Light and Duke Energy  
22 Florida. The company has different costs, different  
23 proportions of urban and rural areas, differing coast  
24 lines, differing areas with and without vegetation, and  
25 many other attributes including electrical systems that



1 contain different equipment. Common criteria would place  
2 favoritism on some customers and even the utility, and  
3 what works for one utility may be very problematic for  
4 another.

5  
6 Third, although it may be useful to develop guidelines of  
7 general applicability at some point, we are still in the  
8 first three years of the life of the SPP Statute and,  
9 from Tampa Electric's perspective, we do not have enough  
10 experience implementing a SPP to adopt such guidelines.  
11 For instance, the company has proposed several  
12 improvements to the Distribution Lateral Undergrounding  
13 Program in the 2022 SPP based on the company's experience  
14 with implementing that program over the last two years.

15  
16 For these reasons, Tampa Electric urges the Commission to  
17 evaluate the company's 2022 SPP based on the evidence in  
18 the record, the unique characteristics and circumstances  
19 of its system, and the SPP Statute.

20  
21 **Q.** In addition to his proposal for universal specific  
22 decision criteria, Mr. Kollen critiques the company's  
23 benefits assessment on page 15 by alleging that it does  
24 not include cost-benefit analysis as a "threshold  
25 decision criterion" and asserts that the company's

1 analysis results in "excessive dollar benefits." He also  
2 presents his own cost-benefit analysis on page 7 of his  
3 testimony. Do you have any issues with his critiques and  
4 his own cost-benefit assessment?

5  
6 **A.** Yes, I have several issues. First, his assessment on  
7 page 7 ignores the second benefit stream required by the  
8 statute, the decrease in customer outages. His assessment  
9 only reflects the decrease in storm restoration costs.  
10 Major events impact Tampa Electric's customers in terms  
11 of the high cost to restore the system and significant  
12 personal impact from being without electrical service for  
13 extended periods of time. The statute is rightly customer  
14 centric in the benefits requirements. Tampa Electric's  
15 SPP takes both of these benefit streams into consideration  
16 and ensures each program and project is aligned to the  
17 statute's customer centric approach.

18  
19 Second, on page 15 of his testimony, he incorrectly  
20 asserts that Tampa Electric did not use a cost benefit  
21 analysis to screen projects. Projects were prioritized  
22 based on the highest resiliency benefit cost ratio, where  
23 resilience benefits are the sum of the avoided restoration  
24 costs and monetized avoided customer outages. Witness De  
25 Stigter describes this approach on pages 11-12 of his

1 direct testimony.

2  
3 Q. Does Mr. Kollen suggest adoption of a specific cost-benefit  
4 ratio?

5  
6 A. Yes, Mr. Kollen suggests that the Commission should screen  
7 any project with a cost-benefit ratio of less than 100  
8 percent. On page 17, he suggests that this ratio should be  
9 calculated with benefits defined as avoided restoration  
10 costs and avoided O&M costs and cost defined as the sum of  
11 annual revenue requirements for the program or project.

12  
13 Q. What is Mr. Kollen's basis for this proposed cost-benefit  
14 screen?

15  
16 A. On page 21, Mr. Kollen asserts that a specific cost-benefit  
17 screening criterion is necessary because SPP programs and  
18 projects are "discretionary."

19  
20 Q. Do you agree with this characterization of the SPP  
21 activities as discretionary?

22  
23 A. No, I do not. The SPP Statute makes it clear that  
24 completion of storm protection activities is mandatory.  
25 First, it states that each public utility "shall file" a

1 SPP. Next, it states that this SPP "must explain the  
2 systematic approach the utility will follow to achieve  
3 the objectives of reducing restoration costs and outage  
4 times associated with extreme weather."

5  
6 **Q.** Do you agree with the proposed 100 percent cost-benefit  
7 ratio screen for SPP programs and projects?

8  
9 **A.** No. I generally agree with Mr. Kollen's principles that  
10 benefits should outweigh costs in investment decision  
11 making, however, restricting that to only a financial  
12 metric is not sound in all circumstances. Since SPP  
13 activities are mandatory, I think Mr. Kollen and Mr. Mara  
14 should look beyond a traditional, financial cost-benefit  
15 analysis.

16  
17 Although I am not a lawyer, my reading of the SPP Statute  
18 leads me to believe that the Florida Legislature  
19 understood that outages associated with extreme weather  
20 have an economic impact on the State of Florida and  
21 electric customers that does not show up in a comparison  
22 of project costs with avoided restoration costs. For  
23 instance, Tampa Electric considered the safety of  
24 employees and the general public, the duty to serve, and  
25 other factors on top of the financial cost when evaluating

1 the benefits of investment. For the SPP, the duty to  
2 serve benefit stream was quantified based on the avoided  
3 outages from storms. While not overtly quantified, it  
4 should be noted that decreasing storm outage impact will  
5 also decrease safety risk as fewer crews are exposed to  
6 dangerous circumstances during storm events. Restricting  
7 a benefits assessment for storm protection purposes to  
8 only a financial evaluation will drive outcomes that are  
9 contrary to the best interest of Tampa Electric's  
10 customers and contrary to the intent of the SPP Statute.

11

12 **R.** On Page 9 line 15, Mr. Kollen states that "the utilities  
13 did not, with limited exceptions, explicitly exclude the  
14 costs presently recovered in base rates or expressly  
15 account for any avoided cost saving", do you agree with  
16 his assessment?

17

18 **A.** No, Mr Kollen is incorrect. In Tampa Electric's initial  
19 2020-2029 SPP and in the company's initial SPPCRC  
20 projection filing, the Commission approved the company's  
21 2020 Stipulation and Settlement which required the  
22 company to reduce the amount of costs charged to the  
23 SPPCRC in 2020 by \$10.4 Million and to make a reduction  
24 to base rates at the beginning of 2021 in the amount of  
25 \$15.0 Million to shift cost recovery for some existing

1 storm hardening activities to the SPPCRC going forward  
2 and to avoid any type of double recovery. Both of these  
3 adjustments were transparently made. In addition, since  
4 that time the company has completed a rate case in which  
5 all SPPCRC costs were removed as required from base rates,  
6 again to ensure there would be no chance of double  
7 recovery.

8  
9 Mr. Kollen also alleges that the company would retain the  
10 benefit of any costs avoided by SPP projects. This is  
11 inaccurate. One of the main benefits of the SPP will be  
12 a reduction in storm restoration costs. Restoration costs  
13 during extreme weather events, such as named hurricanes,  
14 are not included in base rates. These costs are charged  
15 against Tampa Electric's storm reserve. The  
16 replenishment of the company's storm reserve occurs in a  
17 separate proceeding in which the costs are reviewed and  
18 approved by the Commission. In this separate proceeding,  
19 the company would request a surcharge be placed on  
20 electric bills to recover the storm costs from all  
21 customers, so any reduction in outages and restoration  
22 costs provided by the company's SPP would benefit all  
23 customers.

24  
25 Q- On Page 14, Mr. Kollen states that utilities should

1 exclude programs and projects that "are within the scope  
2 of their existing base rate programs and base rate  
3 recoveries" from their SPPs. Do you agree?

4  
5 **A.** No, I do not. Mr. Kollen's statement clearly contradicts  
6 the Statute and the Commission's obligations requiring  
7 Tampa Electric and the other utilities to file SPPs. In  
8 fact, his statement would essentially eliminate any SPP  
9 from being developed as the majority of the activities  
10 that Tampa Electric performs, at one time or another in  
11 its history were recovered in base rates. Furthermore,  
12 some of the activities included in the company's SPP are  
13 recovered through base rates. This is because the SPP  
14 Statute requires the SPP to include the company's  
15 comprehensive, "systematic approach" to storm hardening  
16 and does not require the company to exclude activities  
17 included in base rates from the SPP. As explained above,  
18 the costs of these activities included in base rates are  
19 excluded from the SPPCRC to avoid double recovery. In  
20 addition, his statements are not supported by any rigorous  
21 analysis or basis in the record of this proceeding.

22  
23 **REBUTTAL TO DIRECT TESTIMONY OF KEVIN J. MARA:**

24 **Q.** On Page 6, line 19, Mr. Mara states that there are two  
25 criteria that must be central in each SPP program and

1 project: (1) Reduce restoration costs, and (2) Reduce  
2 outage times. Do you agree with this statement?

3

4 **A.** Yes, I do. All of Tampa Electric's proposed SPP programs  
5 and projects are designed to reduce restoration costs and  
6 to reduce outage times.

7

8 **Q.** On Page 7, line 4, Mr. Mara states that any program can  
9 claim to reduce outage costs and outage time; however, the  
10 program must be cost-effective for customers to benefit.  
11 To summarize, the Rule require a two-prong test for  
12 consideration of a program; reduction in outage costs and  
13 reduction in outage time. Do you agree with this assessment  
14 and summary?

15

16 **A.** As I stated before, I do agree that each SPP program and  
17 project should reduce restoration costs and reduce outage  
18 times. I do not, however, believe the distinction has  
19 been made that these two benefits from each SPP program  
20 and project fall into a strict two prong test. I also  
21 disagree with what I believe is Mr. Mara's perspective of  
22 what is cost-effective. In short, I believe Mr. Kollen  
23 and Mr. Mara view cost-effectiveness solely in terms of  
24 whether the program pays for itself in terms of avoided  
25 restoration costs. As I explained above, the SPP Statute



1 is clearly taking a much larger view of the benefits to  
2 the State as a whole.

3  
4 **Q.** On Page 13, Mr. Mara proposes to cut \$570 million from  
5 Tampa Electric's Distribution Lateral Undergrounding  
6 Program. Do you agree with Mr. Mara's proposed limits to  
7 this program?

8  
9 **A.** No, I do not. Mr. Mara's limits are arbitrary and should  
10 be rejected. On page 26, Mr. Mara explains that his  
11 proposed cuts to the lateral undergrounding program are  
12 based only on his judgment that the proposed cut "better  
13 balances the rate impact of the spending with the  
14 benefits." The arbitrary nature of this reduction can be  
15 seen in several ways. First, he does not identify  
16 specific lateral undergrounding projects that he believes  
17 should be excluded from the plan. Second, he does not  
18 identify specific facts that reflect unique attributes of  
19 the Tampa Electric system that would justify the cuts to  
20 this program. Third, Mr. Mara fails to recognize that  
21 while the company has filed a plan covering 10 years, the  
22 Commission will have an opportunity to revisit the  
23 company's plan in three years when the company submits a  
24 revised plan for review. To propose sweeping 10-year  
25 reductions when the statute contemplates a three-year

1 review seems arbitrary to me.

2

3 **Q.** Also on page 13, Mr. Mara recommends cutting \$217 million  
4 from the Distribution Overhead Feeder Hardening Program. Do  
5 you agree with this proposed cut?

6

7 **A.** No, I do not. On page 21, Mr. Mara explains that he would  
8 limit investment in the feeder strengthening component of  
9 this program to the budget presented in the company's  
10 2020-2029 SPP. He does not offer any reasoning or  
11 justification based on the company's current SPP or the  
12 record in this docket to support this cut. In my opinion  
13 it is completely arbitrary.

14

15 Mr. Mara also proposes elimination of the automation  
16 component of this Program. I agree with and support the  
17 response to this proposal in the Rebuttal Testimony of  
18 David L. Plusquellic.

19

20 **Q.** On page 13 of his testimony, Mr. Mara proposes to exclude  
21 the Substation and Transmission Access Programs entirely  
22 on the grounds that they do not comply with Rule 25-6.030.  
23 Do you agree with these cuts?

24

25 **A.** No, I do not. I agree with the points made by David L.

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Plusquellic in his Rebuttal Testimony on this topic.

**Q.** Does this conclude your rebuttal testimony?

**A.** Yes.



BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20220048-EI

**TAMPA ELECTRIC'S  
2022-2031  
STORM PROTECTION PLAN**

REBUTTAL TESTIMONY

OF

DAVID L. PLUSQUELLIC

FILED: June 21, 2022

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

DAVID L. PLUSQUELLIC

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REBUTTAL TO DIRECT TESTIMONY OF LANE KOLLEN.....3

REBUTTAL TO DIRECT TESTIMONY OF KEVIN J. MARA.....5

**INTRODUCTION:**

**Q.** Please state your name, address, occupation, and employer.

**A.** My name is David L. Plusquellic. I am employed by Tampa Electric Company ("Tampa Electric" or "company") as Director Storm Protection and Support Services. My business address is 820 South 78th Street, Tampa, FL 33619.

**Q.** Are you the same David L. Plusquellic who filed direct testimony in this proceeding?

**A.** Yes, I am.

1 Q. What is the purpose of your rebuttal testimony in this  
2 proceeding?

3

4 A. The purpose of my rebuttal testimony is to address the  
5 deficiencies and misconceptions in the direct testimony  
6 of Lane Kollen and Kevin J. Mara, both of whom are  
7 testifying on behalf of the Office of Public Counsel.

8

9 Q. Do you have any general comments regarding the overall  
10 direct testimony of Lane Kollen and Kevin J. Mara?

11

12 A. Yes. Both witnesses are critical of the processes utilized  
13 by the Commission and the company and recommend  
14 modifications to the company's proposed 2022-2031 Storm  
15 Protection Plan ("SPP"). This criticism principally goes  
16 unsupported, and I do not support any modifications to the  
17 company's SPP as filed.

18

19 In addition, Mr. Mara proposes elimination of Tampa  
20 Electric's Substation Program, Transmission Access  
21 Enhancement Program, and the automation and software  
22 components of the Overhead Feeder Hardening Program on the  
23 grounds that they will not reduce both restoration costs  
24 and outage times. He also proposes seemingly arbitrary  
25 reductions in the proposed capital investment for the

1 Distribution Lateral Undergrounding Program. As I explain  
2 below, Mr. Mara's proposed cuts are based on  
3 misunderstandings of Tampa Electric's programs and, if  
4 approved, would deprive our customers of storm resiliency  
5 benefits.

6  
7 The company's proposed SPP was prepared as a customer-  
8 focused program using rigorous analytical tools and  
9 engineering and operational judgment. It strikes a  
10 reasonable balance between the costs of the Plan, the  
11 restoration cost and outage benefits anticipated from the  
12 Plan, the impact of the Plan on customers' bills and the  
13 intangible benefits to Florida and its citizens associated  
14 with mitigating the impact of extreme weather to our  
15 electric grid. I will address the points raised by OPC's  
16 witnesses and encourage the Commission to approve the  
17 company's SPP as originally proposed.

18  
19 **REBUTTAL TO THE DIRECT TESTIMONY OF LANE KOLLEN**

20 **Q.** On page 26 of his testimony, Mr. Kollen states that Tampa  
21 Electric's SPP warehouse and SPP materials and supplies  
22 "should not be included in any company's SPP." Do you  
23 agree with this critique?

24  
25 **A.** No. At the proposed investment levels, the company's SPP

1 group anticipates issuing \$30-\$40 million of materials on  
2 an annual basis. None of the company's existing storage  
3 locations has enough space to accommodate this volume of  
4 materials. Spreading this volume of SPP materials between  
5 multiple locations was impractical from a logistics and  
6 operations standpoint. A single and separate physical  
7 location promotes efficient and cost-effective  
8 operations. Disallowing this standalone, dedicated  
9 warehouse would likely result in a net cost increase to  
10 customers, because the company would need to identify  
11 multiple additional company locations and/or a new site  
12 to be included for cost recovery in base rates. The  
13 company believes that the cost of transporting materials  
14 between multiple locations would be more expensive than  
15 this more efficient, standalone site.

16  
17 **Q.** Mr. Kollen argues on pages 10 and 23 of his testimony  
18 that the Commission should require a credit for avoided  
19 O&M expenses due to the SPP to plant investments and SPP  
20 O&M expenses. Do you agree?

21  
22 **A.** The Commission should not adopt Mr. Kollen's proposal to  
23 credit the SPP clause to reflect the impact SPP  
24 expenditures may have on base rates. Although there may  
25 be some savings in the future, the company does not have



1 enough experience with the SPP or the data needed to  
2 prepare a reasonable estimate and any effort to do so now  
3 would be speculative. Tampa Electric and certain parties  
4 are operating under a base rate settlement agreement that  
5 extends until the end of 2024. A mechanism like the one  
6 proposed by Mr. Kollen potentially could have been  
7 negotiated into the settlement, but it was not. In any  
8 event, the Commission will have full authority to assess  
9 the level of O&M expenses recoverable through base rates  
10 when the company files its next general request for base  
11 rate relief.

12  
13 **REBUTTAL TO DIRECT TESTIMONY OF KEVIN J. MARA:**

14 **Q.** On page 6 of his testimony, Mr. Mara offers an  
15 interpretation of Rule 25-6.030 (the "SPP Rule") under  
16 which a proposed program must reduce both restoration  
17 costs and outage times to be eligible for inclusion in a  
18 company's SPP. Do you agree with this proposed two-prong  
19 test?

20  
21 **A.** No. Although I am not an attorney, I do not read Section  
22 366.96 (the "SPP Statute") or the SPP Rule as setting out  
23 this strict two-prong test and I think the Commission  
24 should decline to adopt it. Reducing restoration costs  
25 and outage times benefit customers, so either type of

1 benefit should be sufficient to justify a SPP project.  
2 Even if the Commission does adopt this test, however, the  
3 company's proposed SPP programs would all pass this test  
4 since they are all expected to provide both restoration  
5 cost reductions and outage time reductions. The company  
6 provided these reductions as listed in the table on bates  
7 stamped page 103 of the company's proposed 2022-2031 SPP.  
8

9 **Q.** On page 8 of his testimony, Mr. Mara uses sectionalizing  
10 equipment and replacement of bridges on transmission  
11 access roads as examples of projects that would fail his  
12 two-pronged test. Do you agree that these types of  
13 projects fail Mr. Mara's test?  
14

15 **A.** No. First, the company demonstrated both restoration cost  
16 and outage time reductions for all of its proposed SPP  
17 programs in the table on bates stamped page 103 of the  
18 company's 2022-2031 SPP. Second, the company's  
19 automation and sectionalizing program will result in both  
20 reduced restoration times and restoration costs, as I will  
21 explain further below in my rebuttal testimony. Third,  
22 Mr. Mara misunderstands the access enhancement program  
23 proposed by the company. The company is not replacing  
24 bridges "like for like" as stated by witness Mara. As  
25 explained on bates stamped page 81 of the company's 2022-

1 2031 SPP, the company is replacing old bridges that were  
2 rated/sized for smaller vehicles with higher rated and  
3 bigger bridges that can support the movement of the more  
4 current larger trucks and heavy equipment. In addition,  
5 the company is installing new bridges for additional  
6 access points and more permanent rock roads. The bigger  
7 bridges and more permanent roads will withstand nature  
8 for a much longer duration than the company's current  
9 practices or bridges and access points, so the company's  
10 access enhancement program is in effect "hardening" or  
11 "strengthening" as contemplated in the SPP statute.

12  
13 **Q.** On page 9 of his testimony, Mr. Mara asserts that the  
14 company is attempting to include "aging infrastructure"  
15 programs in Tampa Electric's 2022-2031 SPP. He considers  
16 deployment of automation equipment, reclosers, trip  
17 savers, vegetation contact detection software, locational  
18 awareness software, access roads, and access bridges to  
19 be aging infrastructure programs. Do you concur?

20  
21 **A.** Not at all. These are new programs or significant  
22 expansions of existing programs, and all provide  
23 significant storm protection benefits for customers. As  
24 OPC's witness Mr. Kollen concedes on page 11 of his  
25 testimony, it is appropriate for the company to include

1 "new programs and projects or the expansion of existing  
2 programs and projects that are not within the scope of  
3 its existing base rate programs and cost recoveries in  
4 the normal course of business". All of the programs that  
5 witness Mara proposes to cut meet one or both of those  
6 criteria.

7  
8 **Q.** On page 10 of his testimony, Mr. Mara states that Tampa  
9 Electric has increased the company's planned capital  
10 expenditures by \$109 million (or 7 percent) over the new  
11 10-year period when compared to the company's first Plan.  
12 Is this an accurate characterization?

13  
14 **A.** On the surface the math is correct, but it fails to  
15 recognize that the first year of the Plan (2020) was both  
16 a partial year (April to December) and it was the first  
17 year of the Distribution Lateral Undergrounding Program,  
18 which was still ramping up. It also fails to acknowledge  
19 that despite unprecedented inflation in both material and  
20 labor, the company is projecting essentially flat  
21 spending over 10 years. The company anticipates continued  
22 efficiency in the execution of the programs and has  
23 incorporated that into the 10-year Plan by not escalating  
24 costs annually to account for anything more than normal  
25 inflation.

1   **Q.**   On page 12 of his testimony, Mr. Mara states: "In my  
2           opinion, the only practical limit to the magnitude of the  
3           SPP budgets was the limitation of resources in terms of  
4           engineers and construction personnel realistically  
5           available to complete the annual goals of the program."  
6           Do you agree with this statement?

7  
8   **A.**   No.   While Mr. Mara is correct that the company did  
9           consider the ability to obtain and retain labor resources  
10          in determining the investment levels that were possible  
11          for each program. That was just one of many variables  
12          that were included in the discussion on the program and  
13          total Plan investment levels. In addition to labor market  
14          constraints, the company was also acutely aware of the  
15          potential rate impacts of various investment levels. With  
16          potential rate impacts in mind, 1898 & Co. ran multiple  
17          scenarios to determine the point at which additional  
18          levels of investment, and their associated rate impacts,  
19          do not result in materially greater benefits. The company  
20          then evaluated scenarios for each program that resulted  
21          in total investment levels within the ranges identified  
22          by the budget optimization analysis. While the exact  
23          rate impact was not known at the outset of the budgeting  
24          process, the company was aware of estimated rate impacts  
25          throughout the entirety of the planning process. The

1 company's proposed SPP strikes a reasonable balance  
2 between storm protection and customer bill impacts. In  
3 fact, according to page 6 of Mr. Kollen's testimony, Tampa  
4 Electric's proposed Plan has the lowest ten-year  
5 investment per customer of the plans being considered by  
6 the Commission.

7  
8 **Q.** On page 12 of his testimony, Mr. Mara argues that 1898's  
9 budget optimization analysis "ignored the rate impact to  
10 customers" associated with its proposed SPP investments.  
11 Do you agree with this statement?

12  
13 **A.** No. This statement is misleading. As Mr. Mara appears to  
14 concede, the purpose of 1898's budget optimization  
15 analysis was to quantify the expected restoration cost  
16 and outage time reduction benefits associated with  
17 various levels of investment and to determine the point  
18 at which additional levels of investment do not result in  
19 materially greater restoration cost and outage time  
20 benefits. The company was acutely aware of the potential  
21 rate impacts throughout the planning process even though  
22 rate impacts were considered separately. It also  
23 recognized that reducing outage time provides intangible  
24 benefits to customers that are often difficult to quantify  
25 in a financial model. Once the proposed budget level was

1 set, the company calculated the actual rate impact of the  
2 Plan to determine whether those rate impacts were  
3 reasonable as compared to the expected benefits. The  
4 company believes that the rate impacts are reasonable  
5 given the benefits anticipated from the proposed Plan.  
6

7 **Q.** On pages 13 and 14 of his testimony, Mr. Mara asserts  
8 that the company should reduce its proposed investment  
9 level in part because the company did not prioritize the  
10 equipment "that is the most vulnerable to extreme  
11 storms...in the early stages of the program..." Do you agree  
12 with this statement?  
13

14 **A.** No, this statement is inaccurate. Projects were  
15 prioritized based on the highest resiliency benefit cost  
16 ratio, where resilience benefits are the sum of the  
17 avoided restoration costs and monetized avoided customer  
18 outages. Tampa Electric witness Jason De Stigter  
19 describes this approach on pages 11-12 of his direct  
20 testimony. It should be noted that the company prepared  
21 the business justification in alignment with the statute,  
22 or in terms of decrease in restoration costs in dollars  
23 and decrease in customer outages in customer minutes  
24 interrupted ("CMI"). For the purpose of prioritization  
25 and establishing levels of total investment, the company

1 monetized the CMI to calculate the resiliency benefit in  
2 dollars to produce a benefit cost ratio.

3

4 **Q.** On page 14 of his testimony, Mr. Mara recommends cutting  
5 the company's proposed spending level in half. Do you  
6 agree with this analysis and this proposal?

7

8 **A.** No, first the analysis basis is inappropriate. The  
9 benefits assessment for the company's proposed 2022-2031  
10 SPP is in alignment with the statute since it calculates  
11 the benefits in terms of decrease in restoration costs  
12 and customer outages. As described in the Plan, for the  
13 purpose of project prioritization and establishing the  
14 overall investment level the customer outages were  
15 monetized. Mr. Mara uses the budget optimization  
16 assessment as the overall benefits for the Plan which is  
17 inappropriate and not aligned with the statute. Second,  
18 Mr. Mara's analysis and approach isn't wholly customer  
19 centric over the arc of time. The company's Plan  
20 prioritizes the most beneficial investment early in the  
21 period but takes a long-term view to harden the system  
22 for as many customers as possible. Mr. Mara's approach  
23 would limit the number of customers that could be hardened  
24 leaving many customers exposed to major events over the  
25 next 50 years.



1     **Q.**    On page 16 of his testimony, Mr. Mara compares Tampa  
2            Electric's historical storm restoration costs of \$111  
3            million over the last five years with what he refers to  
4            as the "annual avoided restoration costs for the 10-year  
5            SPP ranges from \$380-\$531 million."  Is this comparison  
6            accurate?

7  
8     **A.**    No.  Mr. Mara incorrectly asserts that the \$380-\$531  
9            million figure is the projected annual avoided costs.  
10           What he is actually comparing is the company's total  
11           restoration costs over the last five years with the  
12           projected 50-year restoration cost savings resulting from  
13           the Plan, which is a mismatched comparison.  This is  
14           depicted in Figure 7-1 on bates stamped page 204 of the  
15           company's 2022-2031 SPP.  As Mr. Mara admits, the  
16           company's projection estimates restoration costs of \$963-  
17           \$1,313 million over the next 50 years, which would average  
18           out to about \$19.26-\$26.26 million per year.  A more  
19           reasonable comparison would be the company's actual  
20           restoration costs of \$111 million over the last five years  
21           with the company's projected average restoration costs  
22           over five years of \$96.3-\$131.3 million.  This comparison  
23           shows that the company's projected amounts are reasonable  
24           compared to its historical amounts.

25

1     **Substation Hardening Program**

2     **Q.**    On pages 18-19 of his testimony, Mr. Mara asserts that  
3            the company should have designed all its substations  
4            constructed or upgraded after 1973 to meet Standard ASCE-  
5            24-14 Flood Resistant Design and Construction and that  
6            any substation that is not designed to meet those  
7            standards were imprudently designed and should be  
8            excluded from the SPP. Does Tampa Electric design its  
9            substations to meet this standard?

10  
11    **A.**    Tampa Electric designs all assets to meet or exceed  
12            standards that are in place at the time. Tampa Electric's  
13            substations would have been designed to the standard in  
14            effect at the time they were constructed. When equipment  
15            is replaced or upgraded at a substation, the company  
16            brings it up to the current standard at the time when the  
17            investment is made. The company does not upgrade the  
18            remainder of the substation at that time to keep control  
19            of costs. Furthermore, the referenced flooding standard  
20            was not developed to address storm surge. One of the  
21            purposes of the Substation Hardening program is to  
22            mitigate potential outages caused by storm surge. Tampa  
23            Electric evaluated storm surge potential using the Sea,  
24            Land, and Overland Surges from Hurricanes ("SLOSH") Model  
25            and determined that the substations included in this

1 program have risk over and above the flooding risk that  
2 the company must design to under ASCE-24-14. Substations  
3 are vital components of the company's distribution  
4 system, so protecting the ones that are subject to storm  
5 surge risk should be included in the company's SPP.  
6

7 **Q.** Do you agree with Mr. Mara's proposed change to this  
8 program on pages 19-20 which would exclude any substation  
9 with an alternate feed that would allow load to be  
10 transferred to an alternative substation?  
11

12 **A.** No. I do not. The nine substations included in this  
13 program were selected in part because they serve critical  
14 load. The Hookers Point, South Gibsonton, and Jackson  
15 Road substations tie various components of the  
16 transmission system together. Loss of one of these  
17 substations could also trigger the loss of interconnected  
18 transmission lines. Several of the other substations  
19 selected serve critical loads such as downtown Tampa,  
20 Tampa International Airport, MacDill Air Force Base, Big  
21 Bend Generating Station, and the Port of Tampa.  
22 Continuity of service to this critical load is even more  
23 important in extreme weather. Mr. Mara's proposal would  
24 do nothing to address the risk of a loss of service to  
25 critical facilities if that load could not be switched to

1 another substation. Tampa Electric's proposal addresses  
2 this by hardening the primary source of power to these  
3 critical interconnection points and critical facilities.  
4

5 **Distribution Overhead Feeder Hardening**

6 **Q.** What is Mr. Mara's recommendation for the Tampa Electric's  
7 Distribution Overhead Feeder Hardening Program?  
8

9 **A.** Mr. Mara has separate recommendations for the feeder  
10 strengthening, automation, and software components of  
11 this Program. All three recommendations should be  
12 rejected.  
13

14 **Q.** What are his recommendations for the feeder strengthening  
15 component of the program?  
16

17 **A.** Mr. Mara concedes on page 21 of his testimony that the  
18 strengthening component, or building to Grade B with  
19 extreme wind loading, will reduce restoration costs and  
20 outage times. He nevertheless then goes on to recommend  
21 reducing the planned spending for this program to the  
22 2020-2029 SPP level of \$10 million per year.  
23

24 **Q.** Do you agree with this recommendation for the feeder  
25 strengthening component of the Program?

1 **A.** No. First, the investment level proposed by Mr. Mara is  
2 arbitrary and appears to be based solely on his personal  
3 judgment. He has not identified specific projects to be  
4 delayed or justified why delaying them would be consistent  
5 with the policy goals in the SPP statute.

6  
7 Second, reducing the investment levels of this or any  
8 program will only delay the realization of the benefits  
9 anticipated from the company's SPP. For the company's  
10 SPP to have the greatest impact for all customers by  
11 reducing restoration costs and outage times, a  
12 significant portion of the company's system needs to be  
13 protected. Limiting the company's proposed spending on  
14 this program might still allow all customers to benefit  
15 from some restoration cost reductions but would also allow  
16 a much smaller number of customers to benefit from reduced  
17 outage times. The company has sufficiently demonstrated  
18 the benefits of the proposed programs and the investment  
19 levels proposed in all Plan filings to date.

20  
21 **Q.** Do you agree with Mr. Mara's recommendation on page 21 of  
22 his testimony to exclude all sectionalizing and switching  
23 projects from the SPP and his assertion that these  
24 projects will not reduce restoration costs and outage  
25 times?

1     **A.**   No. I disagree with this assertion for several reasons.  
2           First, the company has sufficiently demonstrated that  
3           this component of the program will prevent outages for  
4           customers. This analysis is contained on bates stamped  
5           pages 195-197 of the 1898 report. In addition to  
6           preventing outages altogether, these technologies will  
7           enable faster identification and isolation of outages.  
8           This reduces the amount of patrolling necessary to  
9           identify damage thereby reducing restoration time and  
10          customer outages. Faster identification and restoration  
11          of damage will allow the company to release foreign crews  
12          faster, which also means lower overall restoration costs.  
13  
14          Second, Mr. Mara assumes on page 23 that adjacent feeders  
15          will not be available for transfer in an extreme weather  
16          event due to catastrophic damage and that the company has  
17          accordingly overstated the outage reductions by 50-60  
18          percent but presents no analysis or data to support his  
19          position. Mr. Mara's unsupported assumption should not  
20          be given more weight than the significant analysis and  
21          modelling the company performed to support this program.  
22  
23          Finally, Mr. Mara concedes on page 22 that the  
24          sectionalizing and automation equipment will "be very  
25          effective in reducing outage times" outside of extreme

1 weather. Tampa Electric did not attempt to quantify these  
2 benefits in the SPP but does agree that these benefits  
3 are further support for the company's proposed 2022-2031  
4 SPP. Inclusion of these benefits in the analysis would  
5 demonstrate even greater benefits for customers from this  
6 investment.

7  
8 **Q.** Do you agree with Mr. Mara's recommendation to exclude  
9 the three software programs from the SPP on the grounds  
10 that they will have a "very limited impact on reduction  
11 in outage times or restoration costs"?

12  
13 **A.** No. Mr. Mara appears to discount the value and  
14 application of the information that will be collected from  
15 the installation of the software programs. The Vegetation  
16 Contact Detection application will identify potential  
17 problem vegetation and allow the company to remove it  
18 before a storm creates an outage. The Locational  
19 Awareness application, used in conjunction with other  
20 applications, will allow the company to identify and  
21 replace "at risk" equipment. These features will allow  
22 the company to proactively mitigate restoration costs and  
23 outage times. The Locational Awareness and Storm Mode  
24 applications will allow the company to identify embedded  
25 outages, or outages downstream of the last protection

1 device on a lateral. These embedded outages are very  
2 hard to identify during a storm event and often go  
3 unreported for hours or even days depending on the  
4 severity of the storm and restoration efforts. These two  
5 applications will also increase the accuracy of the  
6 company's Geographic Information System model and ensure  
7 the company's Automated Distribution Management System  
8 operates more effectively and with more accurate data.

9  
10 **Distribution Lateral Undergrounding**

11 **Q.** Does Mr. Mara dispute that that Tampa Electric's  
12 Distribution Lateral Undergrounding Program will reduce  
13 restoration costs and outage times?

14  
15 **A.** No. On page 24 of his testimony, Mr. Mara concedes that  
16 the program will reduce outage times and restoration  
17 costs.

18  
19 **Q.** If he does not dispute the benefits of the Distribution  
20 Lateral Undergrounding Program, then what is Mr. Mara's  
21 critique of that program?

22  
23 **A.** Mr. Mara recommends that the Program should be capped at  
24 an investment level of \$50 million per year. This  
25 reduction appears to be based on his opinion, listed on



1 pages 25-26, that this lower level of spending "better  
2 balances the rate impact of the spending with the  
3 benefits."

4  
5 **Q.** Do you agree with Mr. Mara's recommendation?  
6

7 **A.** No. Mr. Mara does not point to any data in the record  
8 that would support this judgment. His proposed reduction  
9 has no reasoned basis, does not identify specific projects  
10 to be denied or delayed, and is arbitrary.  
11

12 Furthermore, to meaningfully reduce the risk of lateral  
13 outages, the company must invest in this program at or  
14 above the proposed funding levels. The company was both  
15 thoughtful and analytical in determining the proposed  
16 funding levels for each program. All customers will  
17 benefit from a dollar of avoided restoration costs, so  
18 reducing the investment in this program will delay this  
19 benefit of the program. Reducing investment levels will  
20 also delay the additional benefit of reduced outage times  
21 for some customers since fewer laterals will be  
22 undergrounded.  
23

24 **Q.** On page 12 of his testimony, Mr. Mara states that Tampa  
25 Electric determined annual funding levels based on a

1 "constrained labor market." In addition to the evaluation  
2 of the labor market, what other factors did the company  
3 consider when establishing funding levels for the lateral  
4 underground program?

5  
6 **A.** While Mr. Mara correctly states that Tampa Electric  
7 considered a constrained labor market, Mr. Mara's  
8 statement oversimplifies the work that was done to attempt  
9 to identify the investment levels proposed by the company  
10 for lateral undergrounding. As is customary when trying  
11 to determine appropriate funding levels, the company  
12 started with a wide range of potential outcomes. These  
13 outcomes were considered for both the proposed total Plan  
14 investment levels as well as for the investment levels of  
15 each program. That process started with known variables  
16 (e.g., the number of overhead distribution lateral miles  
17 in the company's service area) and reasonable assumptions  
18 (e.g., estimated rate impact at each investment level).  
19 While total Plan level ranges were identified using the  
20 company's Budget Optimization Tool, investment ranges  
21 were identified for each program, including the lateral  
22 underground program. In determining the appropriate  
23 range of investment levels for this program, the company  
24 considered things like the estimated proportion of the  
25 system that would likely need to be converted to make an

1 impact; the speed of those conversions; the ability to  
2 execute and manage; the availability of resources; and  
3 the willingness of contractor partners to commit to and  
4 invest in Tampa Electric. The final proposed investment  
5 levels call for reaching approximately 100 miles per year  
6 of conversions, which the company believes is reasonable.  
7

8 As I have previously testified, one of the factors  
9 considered was the willingness of contractor partners to  
10 commit to Tampa Electric's undergrounding program in the  
11 years ahead. The company's proposed level of investment  
12 provides sufficient work for 400-500 new jobs added to  
13 the Tampa Electric service area, which is sizeable enough  
14 for contractor partners to make a long-term commitment to  
15 the work. Based on this investment level, nearly all of  
16 the company's partners have made commitments to the area  
17 by entering into multi-year leases for both office space  
18 and operations yards.  
19

20 Furthermore, none of these economic benefits have been  
21 included in the company's cost-benefit analysis. If  
22 investment levels for this program in particular are  
23 reduced, the company and the Tampa Electric service  
24 territory would lose these additional economic benefits.  
25 There would also be risk that one or more of our

1 contractor partners would pull out altogether in favor of  
2 other programs in the southeast or large new programs  
3 that have been announced in other parts of the country.  
4

5 **Q.** What is Tampa Electric's practice for establishing an  
6 inventory of designed and permitted undergrounding  
7 projects, and what is Mr. Mara's concern with that  
8 practice?  
9

10 **A.** The company's Plan calls for reaching a steady state  
11 operation of designing projects sufficiently ahead of  
12 projected construction start in order to accommodate  
13 design delays, delays in securing land rights, the  
14 application and receipt of permits, materials and other  
15 activities that can cause delays in construction starts.  
16 One of the lessons the company learned from the  
17 implementation of the 2020-2029 SPP was that having an  
18 inventory of projects ready to go helps mitigate these  
19 delays and promotes a more efficient overall deployment  
20 of materials held in inventory and contract labor. At a  
21 steady state of operation, the company will have adequate  
22 resources to design 75-100 miles of projects in a calendar  
23 year while simultaneously constructing the same amount  
24 annually.  
25

1 Mr. Mara's concern is that the completed and approved  
2 designs will become outdated and will require re-design  
3 after the project and recovery of the initial design costs  
4 is approved. The reality is that it is common practice to  
5 design projects with an appropriate lag between design  
6 and construction starts. The company is confident the time  
7 between design and construction is appropriate, aligned  
8 with industry standards and will not cause unnecessary or  
9 imprudent costs from design changes.

10  
11 **Transmission Access Enhancement Program**

12 **Q.** Mr. Mara suggests that Tampa Electric could use  
13 specialized equipment as an alternative to the company's  
14 Transmission Access Enhancement Program. Did you  
15 consider this alternative?

16  
17 **A.** No. Tampa Electric owns some specialized equipment such  
18 as track vehicles and large tire vehicles. The company  
19 did not formally evaluate the use of specialized equipment  
20 as an alternative to the Transmission Access Program  
21 because this equipment does not resolve all access issues.

22  
23 **Q.** On page 28 of his testimony, Mr. Mara asserts that  
24 maintenance of existing roads and bridges will not reduce  
25 restoration costs or outage times in extreme weather. Do

1           you agree with this assertion?

2

3       **A.**   No.   The company has provided the value of reduced  
4           restoration cost and outage time values for all programs  
5           in the table on bates stamped page 103 of the company's  
6           proposed 2022-2031 SPP.   Mr. Mara misunderstands the  
7           access enhancement program proposed by the company.   The  
8           company is not replacing bridges "like for like" as stated  
9           by Mr. Mara. All road projects included in this program  
10          involve construction of new roads at points where a  
11          permanent road did not exist before. All bridge projects  
12          included in this program involve construction of new  
13          bridges or upgraded bridges.   The company is replacing  
14          old bridges rated/sized for smaller vehicles with higher  
15          rated and bigger bridges that can support the movement of  
16          current larger trucks and heavy equipment.   In addition,  
17          the company is installing new bridges for additional  
18          access points and more permanent rock roads.   The bigger  
19          bridges and the new permanent roads will withstand nature  
20          for a much longer duration than current bridges and access  
21          points, so they are in effect being "protected,"  
22          "hardened," and or "strengthened" as contemplated in the  
23          SPP statute.

24

25       **Q.**   Does this conclude your rebuttal testimony?

1     **A.**    Yes.

2

3

4

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## Attachment “2”





**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 20220048-EI**

**TAMPA ELECTRIC'S  
2022-2031  
STORM PROTECTION PLAN**

**REBUTTAL TESTIMONY**

**OF**

**DAVID A. PICKLES**

**FILED: June 21, 2022**

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

DAVID A. PICKLES

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INTRODUCTION

**Q.** Please state your name, address, occupation and employer.

**A.** My name is David A. Pickles. My business address is 702 North Franklin Street, Tampa, Florida 33602. I am employed by Tampa Electric Company ("Tampa Electric" or "the company") as Vice President of Electric Delivery and Asset Management for Electric Delivery/Energy Supply.

**Q.** Are you the same David A. Pickles who filed direct testimony in this proceeding?

**A.** Yes, I am.

1 Q. What is the purpose of your rebuttal testimony in this  
2 proceeding?

3

4 A. The purpose of my rebuttal testimony is to address the  
5 deficiencies and misconceptions in the direct testimony  
6 of Lane Kollen and Kevin J. Mara, both of whom are  
7 testifying on behalf of the Office of Public Counsel.

8

9 Q. Do you have any general comments regarding the overall  
10 direct testimony of Lane Kollen and Kevin J. Mara?

11

12 A. Yes. The Office of Public Counsel's witnesses generally  
13 make three recommendations to the Commission. First, they  
14 suggest that the Commission should develop guidelines of  
15 general applicability for all four investor-owned utility  
16 Storm Protection Plans ("SPPs"). Second, they advocate for  
17 the use of a traditional utility cost-benefit analysis in  
18 evaluating SPP Programs and Projects. Third, they propose  
19 exclusion of some of Tampa Electric's SPP programs and  
20 budget reductions for other programs. As I explain in my  
21 testimony, the Commission should reject each of these  
22 proposals as inconsistent with Section 366.96 of the  
23 Florida Statutes (the "SPP Statute") and because these  
24 proposals lack a reasoned basis in the record for this  
25 docket.

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I am confident that the company is managing the SPP program in compliance with the statute and is committed to storm hardening the system. These investments are made in full support of reducing restoration costs and outage times during extreme weather events. Mr. Kollen and Mr. Mara essentially urge the adoption of arbitrary reductions that lack any legitimate basis or foundation, and that appear to be based on a desire simply to slow down the pace of investments, which will further delay realization of benefits from those future investments.

**REBUTTAL TO DIRECT TESTIMONY OF LANE KOLLEN:**

**Q.** [REDACTED]

**A.** [REDACTED]

**Q.** [REDACTED]

1 A.

[Redacted]

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[Redacted]

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[REDACTED]

Q. In addition to his proposal for universal specific decision criteria, Mr. Kollen critiques the company's benefits assessment on page 15 by alleging that it does not include cost-benefit analysis as a "threshold decision criterion" and asserts that the company's

1 analysis results in "excessive dollar benefits." He also  
2 presents his own cost-benefit analysis on page 7 of his  
3 testimony. Do you have any issues with his critiques and  
4 his own cost-benefit assessment?

5  
6 **A.** Yes, I have several issues. First, his assessment on  
7 page 7 ignores the second benefit stream required by the  
8 statute, the decrease in customer outages. His assessment  
9 only reflects the decrease in storm restoration costs.  
10 Major events impact Tampa Electric's customers in terms  
11 of the high cost to restore the system and significant  
12 personal impact from being without electrical service for  
13 extended periods of time. The statute is rightly customer  
14 centric in the benefits requirements. Tampa Electric's  
15 SPP takes both of these benefit streams into consideration  
16 and ensures each program and project is aligned to the  
17 statute's customer centric approach.

18  
19 Second, on page 15 of his testimony, he incorrectly  
20 asserts that Tampa Electric did not use a cost benefit  
21 analysis to screen projects. Projects were prioritized  
22 based on the highest resiliency benefit cost ratio, where  
23 resilience benefits are the sum of the avoided restoration  
24 costs and monetized avoided customer outages. Witness De  
25 Stigter describes this approach on pages 11-12 of his

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direct testimony.

**Q.** [Redacted]

**A.** [Redacted]

**Q.** [Redacted]

**A.** [Redacted]

**Q.** [Redacted]

**A.** [Redacted]



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**Q.**

**A.**

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**A.**

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**A.**

[REDACTED]

**REBUTTAL TO DIRECT TESTIMONY OF KEVIN J. MARA:**

**Q.** On Page 6, line 19, Mr. Mara states that there are two criteria that must be central in each SPP program and

1 project: (1) Reduce restoration costs, and (2) Reduce  
2 outage times. Do you agree with this statement?

3

4 **A.** Yes, I do. All of Tampa Electric's proposed SPP programs  
5 and projects are designed to reduce restoration costs and  
6 to reduce outage times.

7

8 **Q.** On Page 7, line 4, Mr. Mara states that any program can  
9 claim to reduce outage costs and outage time; however, the  
10 program must be cost-effective for customers to benefit.  
11 To summarize, the Rule require a two-prong test for  
12 consideration of a program; reduction in outage costs and  
13 reduction in outage time. Do you agree with this assessment  
14 and summary?

15

16 **A.** As I stated before, I do agree that each SPP program and  
17 project should reduce restoration costs and reduce outage  
18 times. I do not, however, believe the distinction has  
19 been made that these two benefits from each SPP program  
20 and project fall into a strict two prong test. I also  
21 disagree with what I believe is Mr. Mara's perspective of  
22 what is cost-effective. In short, I believe Mr. Kollen  
23 and Mr. Mara view cost-effectiveness solely in terms of  
24 whether the program pays for itself in terms of avoided  
25 restoration costs. As I explained above, the SPP Statute

1 is clearly taking a much larger view of the benefits to  
2 the State as a whole.

3  
4 **Q.** On Page 13, Mr. Mara proposes to cut \$570 million from  
5 Tampa Electric's Distribution Lateral Undergrounding  
6 Program. Do you agree with Mr. Mara's proposed limits to  
7 this program?

8  
9 **A.** No, I do not. Mr. Mara's limits are arbitrary and should  
10 be rejected. On page 26, Mr. Mara explains that his  
11 proposed cuts to the lateral undergrounding program are  
12 based only on his judgment that the proposed cut "better  
13 balances the rate impact of the spending with the  
14 benefits." The arbitrary nature of this reduction can be  
15 seen in several ways. First, he does not identify  
16 specific lateral undergrounding projects that he believes  
17 should be excluded from the plan. Second, he does not  
18 identify specific facts that reflect unique attributes of  
19 the Tampa Electric system that would justify the cuts to  
20 this program. Third, Mr. Mara fails to recognize that  
21 while the company has filed a plan covering 10 years, the  
22 Commission will have an opportunity to revisit the  
23 company's plan in three years when the company submits a  
24 revised plan for review. To propose sweeping 10-year  
25 reductions when the statute contemplates a three-year

1 review seems arbitrary to me.

2

3 **Q.** Also on page 13, Mr. Mara recommends cutting \$217 million  
4 from the Distribution Overhead Feeder Hardening Program. Do  
5 you agree with this proposed cut?

6

7 **A.** No, I do not. On page 21, Mr. Mara explains that he would  
8 limit investment in the feeder strengthening component of  
9 this program to the budget presented in the company's  
10 2020-2029 SPP. He does not offer any reasoning or  
11 justification based on the company's current SPP or the  
12 record in this docket to support this cut. In my opinion  
13 it is completely arbitrary.

14

15 Mr. Mara also proposes elimination of the automation  
16 component of this Program. I agree with and support the  
17 response to this proposal in the Rebuttal Testimony of  
18 David L. Plusquellic.

19

20 **Q.** On page 13 of his testimony, Mr. Mara proposes to exclude  
21 the Substation and Transmission Access Programs entirely  
22 on the grounds that they do not comply with Rule 25-6.030.  
23 Do you agree with these cuts?

24

25 **A.** No, I do not. I agree with the points made by David L.

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Plusquellic in his Rebuttal Testimony on this topic.

**Q.** Does this conclude your rebuttal testimony?

**A.** Yes.





BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20220048-EI

TAMPA ELECTRIC'S  
2022-2031  
STORM PROTECTION PLAN

REBUTTAL TESTIMONY

OF

DAVID L. PLUSQUELLIC

FILED: June 21, 2022

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

DAVID L. PLUSQUELLIC

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INTRODUCTION:

**Q.** Please state your name, address, occupation, and employer.

**A.** My name is David L. Plusquellic. I am employed by Tampa Electric Company ("Tampa Electric" or "company") as Director Storm Protection and Support Services. My business address is 820 South 78th Street, Tampa, FL 33619.

**Q.** Are you the same David L. Plusquellic who filed direct testimony in this proceeding?

**A.** Yes, I am.

1 Q. What is the purpose of your rebuttal testimony in this  
2 proceeding?

3

4 A. The purpose of my rebuttal testimony is to address the  
5 deficiencies and misconceptions in the direct testimony  
6 of Lane Kollen and Kevin J. Mara, both of whom are  
7 testifying on behalf of the Office of Public Counsel.

8

9 Q. Do you have any general comments regarding the overall  
10 direct testimony of Lane Kollen and Kevin J. Mara?

11

12 A. Yes. Both witnesses are critical of the processes utilized  
13 by the Commission and the company and recommend  
14 modifications to the company's proposed 2022-2031 Storm  
15 Protection Plan ("SPP"). This criticism principally goes  
16 unsupported, and I do not support any modifications to the  
17 company's SPP as filed.

18

19 In addition, Mr. Mara proposes elimination of Tampa  
20 Electric's Substation Program, Transmission Access  
21 Enhancement Program, and the automation and software  
22 components of the Overhead Feeder Hardening Program on the  
23 grounds that they will not reduce both restoration costs  
24 and outage times. He also proposes seemingly arbitrary  
25 reductions in the proposed capital investment for the

1 Distribution Lateral Undergrounding Program. As I explain  
2 below, Mr. Mara's proposed cuts are based on  
3 misunderstandings of Tampa Electric's programs and, if  
4 approved, would deprive our customers of storm resiliency  
5 benefits.

6  
7 The company's proposed SPP was prepared as a customer-  
8 focused program using rigorous analytical tools and  
9 engineering and operational judgment. It strikes a  
10 reasonable balance between the costs of the Plan, the  
11 restoration cost and outage benefits anticipated from the  
12 Plan, the impact of the Plan on customers' bills and the  
13 intangible benefits to Florida and its citizens associated  
14 with mitigating the impact of extreme weather to our  
15 electric grid. I will address the points raised by OPC's  
16 witnesses and encourage the Commission to approve the  
17 company's SPP as originally proposed.

18  
19 **REBUTTAL TO THE DIRECT TESTIMONY OF LANE KOLLEN**

20 **Q.** [REDACTED]  
21 [REDACTED]  
22 [REDACTED]  
23 [REDACTED]

24  
25 **A.** [REDACTED]

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**Q.**

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[REDACTED]

**REBUTTAL TO DIRECT TESTIMONY OF KEVIN J. MARA:**

**Q.** On page 6 of his testimony, Mr. Mara offers an interpretation of Rule 25-6.030 (the "SPP Rule") under which a proposed program must reduce both restoration costs and outage times to be eligible for inclusion in a company's SPP. Do you agree with this proposed two-prong test?

**A.** No. Although I am not an attorney, I do not read Section 366.96 (the "SPP Statute") or the SPP Rule as setting out this strict two-prong test and I think the Commission should decline to adopt it. Reducing restoration costs and outage times benefit customers, so either type of

1 benefit should be sufficient to justify a SPP project.  
2 Even if the Commission does adopt this test, however, the  
3 company's proposed SPP programs would all pass this test  
4 since they are all expected to provide both restoration  
5 cost reductions and outage time reductions. The company  
6 provided these reductions as listed in the table on bates  
7 stamped page 103 of the company's proposed 2022-2031 SPP.  
8

9 **Q.** On page 8 of his testimony, Mr. Mara uses sectionalizing  
10 equipment and replacement of bridges on transmission  
11 access roads as examples of projects that would fail his  
12 two-pronged test. Do you agree that these types of  
13 projects fail Mr. Mara's test?  
14

15 **A.** No. First, the company demonstrated both restoration cost  
16 and outage time reductions for all of its proposed SPP  
17 programs in the table on bates stamped page 103 of the  
18 company's 2022-2031 SPP. Second, the company's  
19 automation and sectionalizing program will result in both  
20 reduced restoration times and restoration costs, as I will  
21 explain further below in my rebuttal testimony. Third,  
22 Mr. Mara misunderstands the access enhancement program  
23 proposed by the company. The company is not replacing  
24 bridges "like for like" as stated by witness Mara. As  
25 explained on bates stamped page 81 of the company's 2022-

1 2031 SPP, the company is replacing old bridges that were  
2 rated/sized for smaller vehicles with higher rated and  
3 bigger bridges that can support the movement of the more  
4 current larger trucks and heavy equipment. In addition,  
5 the company is installing new bridges for additional  
6 access points and more permanent rock roads. The bigger  
7 bridges and more permanent roads will withstand nature  
8 for a much longer duration than the company's current  
9 practices or bridges and access points, so the company's  
10 access enhancement program is in effect "hardening" or  
11 "strengthening" as contemplated in the SPP statute.  
12

13 **Q.** On page 9 of his testimony, Mr. Mara asserts that the  
14 company is attempting to include "aging infrastructure"  
15 programs in Tampa Electric's 2022-2031 SPP. He considers  
16 deployment of automation equipment, reclosers, trip  
17 savers, vegetation contact detection software, locational  
18 awareness software, access roads, and access bridges to  
19 be aging infrastructure programs. Do you concur?  
20

21 **A.** Not at all. These are new programs or significant  
22 expansions of existing programs, and all provide  
23 significant storm protection benefits for customers. As  
24 OPC's witness Mr. Kollen concedes on page 11 of his  
25 testimony, it is appropriate for the company to include



1 "new programs and projects or the expansion of existing  
2 programs and projects that are not within the scope of  
3 its existing base rate programs and cost recoveries in  
4 the normal course of business". All of the programs that  
5 witness Mara proposes to cut meet one or both of those  
6 criteria.

7  
8 **Q.** On page 10 of his testimony, Mr. Mara states that Tampa  
9 Electric has increased the company's planned capital  
10 expenditures by \$109 million (or 7 percent) over the new  
11 10-year period when compared to the company's first Plan.  
12 Is this an accurate characterization?

13  
14 **A.** On the surface the math is correct, but it fails to  
15 recognize that the first year of the Plan (2020) was both  
16 a partial year (April to December) and it was the first  
17 year of the Distribution Lateral Undergrounding Program,  
18 which was still ramping up. It also fails to acknowledge  
19 that despite unprecedented inflation in both material and  
20 labor, the company is projecting essentially flat  
21 spending over 10 years. The company anticipates continued  
22 efficiency in the execution of the programs and has  
23 incorporated that into the 10-year Plan by not escalating  
24 costs annually to account for anything more than normal  
25 inflation.

1   **Q.**   On page 12 of his testimony, Mr. Mara states: "In my  
2           opinion, the only practical limit to the magnitude of the  
3           SPP budgets was the limitation of resources in terms of  
4           engineers and construction personnel realistically  
5           available to complete the annual goals of the program."  
6           Do you agree with this statement?

7  
8   **A.**   No.   While Mr. Mara is correct that the company did  
9           consider the ability to obtain and retain labor resources  
10          in determining the investment levels that were possible  
11          for each program. That was just one of many variables  
12          that were included in the discussion on the program and  
13          total Plan investment levels. In addition to labor market  
14          constraints, the company was also acutely aware of the  
15          potential rate impacts of various investment levels. With  
16          potential rate impacts in mind, 1898 & Co. ran multiple  
17          scenarios to determine the point at which additional  
18          levels of investment, and their associated rate impacts,  
19          do not result in materially greater benefits. The company  
20          then evaluated scenarios for each program that resulted  
21          in total investment levels within the ranges identified  
22          by the budget optimization analysis. While the exact  
23          rate impact was not known at the outset of the budgeting  
24          process, the company was aware of estimated rate impacts  
25          throughout the entirety of the planning process. The

1 company's proposed SPP strikes a reasonable balance  
2 between storm protection and customer bill impacts. In  
3 fact, according to page 6 of Mr. Kollen's testimony, Tampa  
4 Electric's proposed Plan has the lowest ten-year  
5 investment per customer of the plans being considered by  
6 the Commission.

7  
8 **Q.** On page 12 of his testimony, Mr. Mara argues that 1898's  
9 budget optimization analysis "ignored the rate impact to  
10 customers" associated with its proposed SPP investments.  
11 Do you agree with this statement?

12  
13 **A.** No. This statement is misleading. As Mr. Mara appears to  
14 concede, the purpose of 1898's budget optimization  
15 analysis was to quantify the expected restoration cost  
16 and outage time reduction benefits associated with  
17 various levels of investment and to determine the point  
18 at which additional levels of investment do not result in  
19 materially greater restoration cost and outage time  
20 benefits. The company was acutely aware of the potential  
21 rate impacts throughout the planning process even though  
22 rate impacts were considered separately. It also  
23 recognized that reducing outage time provides intangible  
24 benefits to customers that are often difficult to quantify  
25 in a financial model. Once the proposed budget level was

1 set, the company calculated the actual rate impact of the  
2 Plan to determine whether those rate impacts were  
3 reasonable as compared to the expected benefits. The  
4 company believes that the rate impacts are reasonable  
5 given the benefits anticipated from the proposed Plan.  
6

7 **Q.** On pages 13 and 14 of his testimony, Mr. Mara asserts  
8 that the company should reduce its proposed investment  
9 level in part because the company did not prioritize the  
10 equipment "that is the most vulnerable to extreme  
11 storms...in the early stages of the program..." Do you agree  
12 with this statement?  
13

14 **A.** No, this statement is inaccurate. Projects were  
15 prioritized based on the highest resiliency benefit cost  
16 ratio, where resilience benefits are the sum of the  
17 avoided restoration costs and monetized avoided customer  
18 outages. Tampa Electric witness Jason De Stigter  
19 describes this approach on pages 11-12 of his direct  
20 testimony. It should be noted that the company prepared  
21 the business justification in alignment with the statute,  
22 or in terms of decrease in restoration costs in dollars  
23 and decrease in customer outages in customer minutes  
24 interrupted ("CMI"). For the purpose of prioritization  
25 and establishing levels of total investment, the company

1 monetized the CMI to calculate the resiliency benefit in  
2 dollars to produce a benefit cost ratio.

3

4 **Q.** On page 14 of his testimony, Mr. Mara recommends cutting  
5 the company's proposed spending level in half. Do you  
6 agree with this analysis and this proposal?

7

8 **A.** No, first the analysis basis is inappropriate. The  
9 benefits assessment for the company's proposed 2022-2031  
10 SPP is in alignment with the statute since it calculates  
11 the benefits in terms of decrease in restoration costs  
12 and customer outages. As described in the Plan, for the  
13 purpose of project prioritization and establishing the  
14 overall investment level the customer outages were  
15 monetized. Mr. Mara uses the budget optimization  
16 assessment as the overall benefits for the Plan which is  
17 inappropriate and not aligned with the statute. Second,  
18 Mr. Mara's analysis and approach isn't wholly customer  
19 centric over the arc of time. The company's Plan  
20 prioritizes the most beneficial investment early in the  
21 period but takes a long-term view to harden the system  
22 for as many customers as possible. Mr. Mara's approach  
23 would limit the number of customers that could be hardened  
24 leaving many customers exposed to major events over the  
25 next 50 years.

1     **Q.**    On page 16 of his testimony, Mr. Mara compares Tampa  
2            Electric's historical storm restoration costs of \$111  
3            million over the last five years with what he refers to  
4            as the "annual avoided restoration costs for the 10-year  
5            SPP ranges from \$380-\$531 million."  Is this comparison  
6            accurate?

7  
8     **A.**    No.  Mr. Mara incorrectly asserts that the \$380-\$531  
9            million figure is the projected annual avoided costs.  
10           What he is actually comparing is the company's total  
11           restoration costs over the last five years with the  
12           projected 50-year restoration cost savings resulting from  
13           the Plan, which is a mismatched comparison.  This is  
14           depicted in Figure 7-1 on bates stamped page 204 of the  
15           company's 2022-2031 SPP.  As Mr. Mara admits, the  
16           company's projection estimates restoration costs of \$963-  
17           \$1,313 million over the next 50 years, which would average  
18           out to about \$19.26-\$26.26 million per year.  A more  
19           reasonable comparison would be the company's actual  
20           restoration costs of \$111 million over the last five years  
21           with the company's projected average restoration costs  
22           over five years of \$96.3-\$131.3 million.  This comparison  
23           shows that the company's projected amounts are reasonable  
24           compared to its historical amounts.

25

1     **Substation Hardening Program**

2     **Q.**    On pages 18-19 of his testimony, Mr. Mara asserts that  
3            the company should have designed all its substations  
4            constructed or upgraded after 1973 to meet Standard ASCE-  
5            24-14 Flood Resistant Design and Construction and that  
6            any substation that is not designed to meet those  
7            standards were imprudently designed and should be  
8            excluded from the SPP. Does Tampa Electric design its  
9            substations to meet this standard?

10  
11    **A.**    Tampa Electric designs all assets to meet or exceed  
12            standards that are in place at the time. Tampa Electric's  
13            substations would have been designed to the standard in  
14            effect at the time they were constructed. When equipment  
15            is replaced or upgraded at a substation, the company  
16            brings it up to the current standard at the time when the  
17            investment is made. The company does not upgrade the  
18            remainder of the substation at that time to keep control  
19            of costs. Furthermore, the referenced flooding standard  
20            was not developed to address storm surge. One of the  
21            purposes of the Substation Hardening program is to  
22            mitigate potential outages caused by storm surge. Tampa  
23            Electric evaluated storm surge potential using the Sea,  
24            Land, and Overland Surges from Hurricanes ("SLOSH") Model  
25            and determined that the substations included in this

1 program have risk over and above the flooding risk that  
2 the company must design to under ASCE-24-14. Substations  
3 are vital components of the company's distribution  
4 system, so protecting the ones that are subject to storm  
5 surge risk should be included in the company's SPP.  
6

7 **Q.** Do you agree with Mr. Mara's proposed change to this  
8 program on pages 19-20 which would exclude any substation  
9 with an alternate feed that would allow load to be  
10 transferred to an alternative substation?  
11

12 **A.** No. I do not. The nine substations included in this  
13 program were selected in part because they serve critical  
14 load. The Hookers Point, South Gibsonton, and Jackson  
15 Road substations tie various components of the  
16 transmission system together. Loss of one of these  
17 substations could also trigger the loss of interconnected  
18 transmission lines. Several of the other substations  
19 selected serve critical loads such as downtown Tampa,  
20 Tampa International Airport, MacDill Air Force Base, Big  
21 Bend Generating Station, and the Port of Tampa.  
22 Continuity of service to this critical load is even more  
23 important in extreme weather. Mr. Mara's proposal would  
24 do nothing to address the risk of a loss of service to  
25 critical facilities if that load could not be switched to



1 another substation. Tampa Electric's proposal addresses  
2 this by hardening the primary source of power to these  
3 critical interconnection points and critical facilities.  
4

5 **Distribution Overhead Feeder Hardening**

6 **Q.** What is Mr. Mara's recommendation for the Tampa Electric's  
7 Distribution Overhead Feeder Hardening Program?  
8

9 **A.** Mr. Mara has separate recommendations for the feeder  
10 strengthening, automation, and software components of  
11 this Program. All three recommendations should be  
12 rejected.  
13

14 **Q.** What are his recommendations for the feeder strengthening  
15 component of the program?  
16

17 **A.** Mr. Mara concedes on page 21 of his testimony that the  
18 strengthening component, or building to Grade B with  
19 extreme wind loading, will reduce restoration costs and  
20 outage times. He nevertheless then goes on to recommend  
21 reducing the planned spending for this program to the  
22 2020-2029 SPP level of \$10 million per year.  
23

24 **Q.** Do you agree with this recommendation for the feeder  
25 strengthening component of the Program?

1 **A.** No. First, the investment level proposed by Mr. Mara is  
2 arbitrary and appears to be based solely on his personal  
3 judgment. He has not identified specific projects to be  
4 delayed or justified why delaying them would be consistent  
5 with the policy goals in the SPP statute.

6  
7 Second, reducing the investment levels of this or any  
8 program will only delay the realization of the benefits  
9 anticipated from the company's SPP. For the company's  
10 SPP to have the greatest impact for all customers by  
11 reducing restoration costs and outage times, a  
12 significant portion of the company's system needs to be  
13 protected. Limiting the company's proposed spending on  
14 this program might still allow all customers to benefit  
15 from some restoration cost reductions but would also allow  
16 a much smaller number of customers to benefit from reduced  
17 outage times. The company has sufficiently demonstrated  
18 the benefits of the proposed programs and the investment  
19 levels proposed in all Plan filings to date.

20  
21 **Q.** Do you agree with Mr. Mara's recommendation on page 21 of  
22 his testimony to exclude all sectionalizing and switching  
23 projects from the SPP and his assertion that these  
24 projects will not reduce restoration costs and outage  
25 times?

1     **A.**   No. I disagree with this assertion for several reasons.  
2           First, the company has sufficiently demonstrated that  
3           this component of the program will prevent outages for  
4           customers. This analysis is contained on bates stamped  
5           pages 195-197 of the 1898 report. In addition to  
6           preventing outages altogether, these technologies will  
7           enable faster identification and isolation of outages.  
8           This reduces the amount of patrolling necessary to  
9           identify damage thereby reducing restoration time and  
10          customer outages. Faster identification and restoration  
11          of damage will allow the company to release foreign crews  
12          faster, which also means lower overall restoration costs.  
13  
14          Second, Mr. Mara assumes on page 23 that adjacent feeders  
15          will not be available for transfer in an extreme weather  
16          event due to catastrophic damage and that the company has  
17          accordingly overstated the outage reductions by 50-60  
18          percent but presents no analysis or data to support his  
19          position. Mr. Mara's unsupported assumption should not  
20          be given more weight than the significant analysis and  
21          modelling the company performed to support this program.  
22  
23          Finally, Mr. Mara concedes on page 22 that the  
24          sectionalizing and automation equipment will "be very  
25          effective in reducing outage times" outside of extreme

1 weather. Tampa Electric did not attempt to quantify these  
2 benefits in the SPP but does agree that these benefits  
3 are further support for the company's proposed 2022-2031  
4 SPP. Inclusion of these benefits in the analysis would  
5 demonstrate even greater benefits for customers from this  
6 investment.

7  
8 **Q.** Do you agree with Mr. Mara's recommendation to exclude  
9 the three software programs from the SPP on the grounds  
10 that they will have a "very limited impact on reduction  
11 in outage times or restoration costs"?

12  
13 **A.** No. Mr. Mara appears to discount the value and  
14 application of the information that will be collected from  
15 the installation of the software programs. The Vegetation  
16 Contact Detection application will identify potential  
17 problem vegetation and allow the company to remove it  
18 before a storm creates an outage. The Locational  
19 Awareness application, used in conjunction with other  
20 applications, will allow the company to identify and  
21 replace "at risk" equipment. These features will allow  
22 the company to proactively mitigate restoration costs and  
23 outage times. The Locational Awareness and Storm Mode  
24 applications will allow the company to identify embedded  
25 outages, or outages downstream of the last protection

1 device on a lateral. These embedded outages are very  
2 hard to identify during a storm event and often go  
3 unreported for hours or even days depending on the  
4 severity of the storm and restoration efforts. These two  
5 applications will also increase the accuracy of the  
6 company's Geographic Information System model and ensure  
7 the company's Automated Distribution Management System  
8 operates more effectively and with more accurate data.

9  
10 **Distribution Lateral Undergrounding**

11 **Q.** Does Mr. Mara dispute that that Tampa Electric's  
12 Distribution Lateral Undergrounding Program will reduce  
13 restoration costs and outage times?

14  
15 **A.** No. On page 24 of his testimony, Mr. Mara concedes that  
16 the program will reduce outage times and restoration  
17 costs.

18  
19 **Q.** If he does not dispute the benefits of the Distribution  
20 Lateral Undergrounding Program, then what is Mr. Mara's  
21 critique of that program?

22  
23 **A.** Mr. Mara recommends that the Program should be capped at  
24 an investment level of \$50 million per year. This  
25 reduction appears to be based on his opinion, listed on

1 pages 25-26, that this lower level of spending "better  
2 balances the rate impact of the spending with the  
3 benefits."

4  
5 **Q.** Do you agree with Mr. Mara's recommendation?  
6

7 **A.** No. Mr. Mara does not point to any data in the record  
8 that would support this judgment. His proposed reduction  
9 has no reasoned basis, does not identify specific projects  
10 to be denied or delayed, and is arbitrary.  
11

12 Furthermore, to meaningfully reduce the risk of lateral  
13 outages, the company must invest in this program at or  
14 above the proposed funding levels. The company was both  
15 thoughtful and analytical in determining the proposed  
16 funding levels for each program. All customers will  
17 benefit from a dollar of avoided restoration costs, so  
18 reducing the investment in this program will delay this  
19 benefit of the program. Reducing investment levels will  
20 also delay the additional benefit of reduced outage times  
21 for some customers since fewer laterals will be  
22 undergrounded.  
23

24 **Q.** On page 12 of his testimony, Mr. Mara states that Tampa  
25 Electric determined annual funding levels based on a

1 "constrained labor market." In addition to the evaluation  
2 of the labor market, what other factors did the company  
3 consider when establishing funding levels for the lateral  
4 underground program?

5  
6 **A.** While Mr. Mara correctly states that Tampa Electric  
7 considered a constrained labor market, Mr. Mara's  
8 statement oversimplifies the work that was done to attempt  
9 to identify the investment levels proposed by the company  
10 for lateral undergrounding. As is customary when trying  
11 to determine appropriate funding levels, the company  
12 started with a wide range of potential outcomes. These  
13 outcomes were considered for both the proposed total Plan  
14 investment levels as well as for the investment levels of  
15 each program. That process started with known variables  
16 (e.g., the number of overhead distribution lateral miles  
17 in the company's service area) and reasonable assumptions  
18 (e.g., estimated rate impact at each investment level).  
19 While total Plan level ranges were identified using the  
20 company's Budget Optimization Tool, investment ranges  
21 were identified for each program, including the lateral  
22 underground program. In determining the appropriate  
23 range of investment levels for this program, the company  
24 considered things like the estimated proportion of the  
25 system that would likely need to be converted to make an

1 impact; the speed of those conversions; the ability to  
2 execute and manage; the availability of resources; and  
3 the willingness of contractor partners to commit to and  
4 invest in Tampa Electric. The final proposed investment  
5 levels call for reaching approximately 100 miles per year  
6 of conversions, which the company believes is reasonable.  
7

8 As I have previously testified, one of the factors  
9 considered was the willingness of contractor partners to  
10 commit to Tampa Electric's undergrounding program in the  
11 years ahead. The company's proposed level of investment  
12 provides sufficient work for 400-500 new jobs added to  
13 the Tampa Electric service area, which is sizeable enough  
14 for contractor partners to make a long-term commitment to  
15 the work. Based on this investment level, nearly all of  
16 the company's partners have made commitments to the area  
17 by entering into multi-year leases for both office space  
18 and operations yards.  
19

20 Furthermore, none of these economic benefits have been  
21 included in the company's cost-benefit analysis. If  
22 investment levels for this program in particular are  
23 reduced, the company and the Tampa Electric service  
24 territory would lose these additional economic benefits.  
25 There would also be risk that one or more of our



1 contractor partners would pull out altogether in favor of  
2 other programs in the southeast or large new programs  
3 that have been announced in other parts of the country.  
4

5 **Q.** What is Tampa Electric's practice for establishing an  
6 inventory of designed and permitted undergrounding  
7 projects, and what is Mr. Mara's concern with that  
8 practice?  
9

10 **A.** The company's Plan calls for reaching a steady state  
11 operation of designing projects sufficiently ahead of  
12 projected construction start in order to accommodate  
13 design delays, delays in securing land rights, the  
14 application and receipt of permits, materials and other  
15 activities that can cause delays in construction starts.  
16 One of the lessons the company learned from the  
17 implementation of the 2020-2029 SPP was that having an  
18 inventory of projects ready to go helps mitigate these  
19 delays and promotes a more efficient overall deployment  
20 of materials held in inventory and contract labor. At a  
21 steady state of operation, the company will have adequate  
22 resources to design 75-100 miles of projects in a calendar  
23 year while simultaneously constructing the same amount  
24 annually.  
25

1 Mr. Mara's concern is that the completed and approved  
2 designs will become outdated and will require re-design  
3 after the project and recovery of the initial design costs  
4 is approved. The reality is that it is common practice to  
5 design projects with an appropriate lag between design  
6 and construction starts. The company is confident the time  
7 between design and construction is appropriate, aligned  
8 with industry standards and will not cause unnecessary or  
9 imprudent costs from design changes.

10  
11 **Transmission Access Enhancement Program**

12 **Q.** Mr. Mara suggests that Tampa Electric could use  
13 specialized equipment as an alternative to the company's  
14 Transmission Access Enhancement Program. Did you  
15 consider this alternative?

16  
17 **A.** No. Tampa Electric owns some specialized equipment such  
18 as track vehicles and large tire vehicles. The company  
19 did not formally evaluate the use of specialized equipment  
20 as an alternative to the Transmission Access Program  
21 because this equipment does not resolve all access issues.

22  
23 **Q.** On page 28 of his testimony, Mr. Mara asserts that  
24 maintenance of existing roads and bridges will not reduce  
25 restoration costs or outage times in extreme weather. Do

1           you agree with this assertion?

2

3       **A.**   No.   The company has provided the value of reduced  
4           restoration cost and outage time values for all programs  
5           in the table on bates stamped page 103 of the company's  
6           proposed 2022-2031 SPP.   Mr. Mara misunderstands the  
7           access enhancement program proposed by the company.   The  
8           company is not replacing bridges "like for like" as stated  
9           by Mr. Mara. All road projects included in this program  
10          involve construction of new roads at points where a  
11          permanent road did not exist before. All bridge projects  
12          included in this program involve construction of new  
13          bridges or upgraded bridges.   The company is replacing  
14          old bridges rated/sized for smaller vehicles with higher  
15          rated and bigger bridges that can support the movement of  
16          current larger trucks and heavy equipment.   In addition,  
17          the company is installing new bridges for additional  
18          access points and more permanent rock roads.   The bigger  
19          bridges and the new permanent roads will withstand nature  
20          for a much longer duration than current bridges and access  
21          points, so they are in effect being "protected,"  
22          "hardened," and or "strengthened" as contemplated in the  
23          SPP statute.

24

25       **Q.**   Does this conclude your rebuttal testimony?

1    **A.**    Yes.

2

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